



# BUSINESS AND IT/IRM TRANSFORMATION PLAN

## EXECUTIVE SUMMARY

# EXECUTIVE SUMMARY

“We want a government that delivers the services people need – anywhere, anytime.”

- Governor Neil Abercrombie

In his comprehensive vision for the state, A New Day for Hawai'i, Governor Neil Abercrombie called for a new way forward, committing to three waves of change for Hawai'i: Growing a Sustainable Economy; Investing in People; and Transforming Government. Achieving these changes requires modernizing the state's antiquated technology infrastructure and systems. It also requires streamlining business operations so that state employees can optimize their work, and residents and businesses can readily access the services and information they seek.

In recognition of the pivotal role that technology and innovation hold in Hawai'i's transformation, Act 200, 2010 Session Laws of Hawai'i formally established a full-time Chief Information Officer (CIO) position. In July, 2011, the state's first CIO was hired followed by staff for the new Office of Information Management and Technology (OIMT). Since that time, OIMT, in consultation with state agencies, and after a thorough review of national best practices and lessons learned, developed the Business and Information Technology/Information Resource Management Transformation Plan (Transformation Plan) to guide the work of the state toward achieving the New Day vision. This Transformation Plan, when implemented, will:

- Operationalize the New Day vision into an actionable, measurable plan;
- Unify the diverse departmental approaches into one cohesive, statewide, long-range vision and framework;
- Improve productivity and career growth opportunities for the state's workforce;
- Help state agencies focus on their core competencies by eliminating the duplication of common procedures;

- Provide real value to the people of Hawai'i in their interactions with state government;
- Demonstrate willingness and capability of the executive branch of state government to better serve Hawai'i's residents, thereby enhancing the trust of state legislators, the congressional delegation, and federal agencies; and
- Realize the promise of Hawai'i to deliver world-class excellence with aloha.

## WHY DO WE NEED A TRANSFORMATION?

The State of Hawai'i faces a critical turning point. After years without investing in technology, we are heading for a cliff. Current systems were designed at a time when the personal computer was a new invention. Not only have these systems outlived their usefulness and lifecycles, we can expect major failures in the near future. Systems do not provide the level of security necessary to prevent breaches, guarantee privacy or recover from natural or man-made disasters. Departments lack the information needed to make smart decisions about how to better serve residents. Addressing these problems requires an investment, but ignoring them faces far higher costs. The cost of maintaining the current systems grows every year.

Compared to the business processes and information technology/information resource management (IT/IRM) capabilities of other states, Hawai'i lags by 20-30 years. Current systems lack interoperability, reliability, security, privacy, and maintainability, preventing the state from solving current challenges and leveraging future opportunities. A baseline assessment completed in September, 2011 found that the state has experienced seven major problems driven by three root causes:

**Table 1: Problems and Causes in Today's Legacy Environment**

| Problems   | Causes   |
|--|--|
| <ol style="list-style-type: none"> <li>1. Inefficient manual interfaces</li> <li>2. Minimal enterprise integration and sharing</li> <li>3. Narrowly-focused federally funded solutions</li> <li>4. Limited use of IT/IRM to enable mission service delivery</li> <li>5. Aging legacy systems conditions (20-30 years old)</li> <li>6. Proliferation of any and every type of IT/IRM product and service – no standards</li> <li>7. Little business process coordination or information sharing across departments and programs, and major weaknesses in disaster recovery and continuity of operation</li> </ol> | <ol style="list-style-type: none"> <li>1. No coordinating authority for managing IT/IRM across the state</li> <li>2. Lack of cross-cutting business process re-engineering</li> <li>3. Deep cuts in resources and budget reductions in the state over the past decade</li> </ol> |

## WHAT IS THE SCALE OF THE CHALLENGE?

The executive branch of state government, an \$11 billion business enterprise with 18 departments and 41,000+ employees, is fraught with information silos, inefficient processes, and fragmented policies. This means slower delivery of services, cumbersome procedures, and taxpayer dollars that could be better spent elsewhere.

Of the \$11 billion spent in the executive branch, IT/IRM accounts for a mere 1.4% (\$157 million), well below the 3-5% recommended industry best practice, and far below the average 10% IT/IRM resource levels in federal government. The State of Hawai'i lacks a central IT department. With its 746 IT employees currently dispersed across multiple state agencies, state government is missing many of the systems and processes required to optimally function in the 21st century.

**Table 2: State of Hawai'i Business and IT/IRM Environment**

| State of Hawai'i | Business Environment  | IT/IRM Environment   | Notes  |
|------------------|---|--|--|
| Budget           | <ul style="list-style-type: none"> <li>• \$11 billion</li> </ul>  | <ul style="list-style-type: none"> <li>• \$157 million</li> </ul>  | <ul style="list-style-type: none"> <li>• 1.4% (versus best practice of 3-5% of total budget)</li> </ul>                      |
| Organization     | <ul style="list-style-type: none"> <li>• 18 departments, 108 attached agencies and 168 boards and commissions</li> <li>• 41,000+ employees</li> </ul> | <ul style="list-style-type: none"> <li>• Each department has dedicated IT/IRM staff; same for some</li> <li>• 746 employees</li> </ul> | <ul style="list-style-type: none"> <li>• 1.8% (versus best practice of 3-5% of total agencies attached personnel)</li> </ul> |

There is a new sense of urgency – and an unprecedented opportunity – to bring the state's business and IT/IRM practices up to the highest standards.

## WHAT BENEFITS CAN BE EXPECTED FROM THE TRANSFORMATION?

The transformation will have far reaching benefits for everyone in the state, including:

### For the Community

- Improved delivery of services and programs (e.g. going “online” versus “waiting in line”)
- A more transparent and responsive government
- Increased, secure, and timely access to information and data

### For State Employees

- Streamlined workflow processes that allow more focus on serving customers
- Access to a wider range of new technologies to better support departmental missions, programs, and services
- Improved career growth opportunities

### For Departments

- Efficiently aligned services
- Reduced costs and unnecessary redundancies
- Increased reliability and security
- Improved outcomes and accountability

## WHAT ARE THE GUIDING PRINCIPLES OF THE TRANSFORMATION PLAN?

Achieving large-scale transformation requires a set of principles that guide the process. These guiding principles will influence the success of the state’s transformation:

- Transformation activities will focus on the *optimum use of resources*.
- Actions/activities will be defined in a *collaborative manner*.
- Change will *actively involve individuals who are the closest to the business processes* and will be positive for both state employees and service recipients.
- Planning and execution will be *centrally managed* to ensure efficient deployment of resources throughout the transformation.
- Transformation solutions will be *sustainable beyond leadership changes*.

## WHAT ARE THE KEY STRATEGIES OF THE TRANSFORMATION PLAN?

Seven key strategies help the state achieve the goals set forth in the Transformation Plan:

- 1.** Re-engineer business processes first with business needs driving technology solutions. In accordance with best practices and lessons learned from industry and government, business processes will be re-engineered first and wherever possible, with the use of commercial off-the-shelf (COTS) technology that enables maximum configuration and minimum customization. The state’s business needs will drive the technology solutions.
- 2.** Standardize shared services, consolidate IT/IRM infrastructure, and simplify services across the enterprise so that IT/IRM functions like a “utility.” The transformation effort calls for the CIO to centralize common or shared services and consolidate the IT/IRM infrastructure across the enterprise so that services are available and reliable as they would be with a utility such as water or electricity. This will prevent duplication of effort across departments, reduce complexity, improve reliability, and augment service levels by allowing department staff to focus on their mission applications while IT/IRM professionals can focus on their areas of expertise. Security, privacy, and accessibility standards will be “built-in” to deliver solutions to users on any device – anywhere, anytime, for any purpose.
- 3.** Implement a phased, but agile, multi-year approach with wins along the way. Business and infrastructure improvements will be realized through a sequenced process that begins with foundational elements and builds upon them for tackling larger systems and enterprise-wide solutions. Agile program management and “systems development life-cycle” methodology will help to deliver “wins” or milestones in six-month increments in a deliberate, structured and methodical manner.
- 4.** Demonstrate tangible progress throughout the transformation. The Transformation Plan will outline the responsibilities and accountabilities of program and project teams. Governance, metrics, and expected outcomes will display progress regularly throughout the implementation. Programs and services will be closely tracked and managed to service-level agreements by service managers with a customer focus (measured by satisfaction indices). Through quantifiable and ongoing evaluation, state government will assess the success of its transformation process, continually improve its delivery of programs and services, and respond to the evolving needs of its constituents.
- 5.** Transform organizational culture by empowering and rewarding employees to change. Organizational change management (OCM) will be a crucial component of the transformation initiative. Employees will be empowered

and rewarded to “own” and continuously improve the business and IT/IRM environment. OCM key messages will be communicated throughout the transformation to mitigate the fear of failure and reduce risk aversion to trying new solutions.

6. Open state government through improved transparency, collaboration, participation, and innovation. Increasing transparency and opening government are key strategies of the transformation effort. Programs such as the Open Data Initiative, which encourages citizen engagement in solving problems, will allow the state to provide information to residents and businesses and motivate community members to participate in government projects. The state will leverage new technologies to make government information more accessible and will make full use of mobile computing, social media, web portals, and other widely accepted online tools that improve the experience for constituents.

7. Provide a one-stop, Hawai'i resident-focused web portal through “my.hawaii.gov.” The my.hawaii.gov portal allows residents to access the services and information they want from state government on any device, anywhere, anytime – securely and reliably. Residents can efficiently work online but always have the option to interact with state government employees in-person, as well.

## WHAT DRIVES THE TRANSFORMATION ACTIVITIES?

To put the New Day vision into action, the State of Hawai'i Strategic Plan and a Strategic Planning Framework were developed, detailing the mission requirements of the various state agencies. The Strategic Planning Framework provides a two-tiered structure for aligning the state's mission, goals, and objectives with the Transformation Plan (see Figure 1).



Figure 1: Transformation Framework

OIMT's charge is to architect, invest, and implement services and solutions that achieve the objectives in the Strategic Planning Framework. The Transformation Plan outlines a multi-year (12), multi-phased (7) implementation and includes four major components: Governance, Business and IT/IRM

Strategic Plan, Enterprise Architecture, and Business Process Re-engineering (BPR) and IT/IRM Projects. The four components are described below. For more information regarding any of the components, refer to the full Transformation Plan.

**Table 3: Business and IT/IRM Transformation Plan Components**

| Component                        | Definition   | Key Contents/Attributes  |
|----------------------------------|--|--|
| Governance                       | Establishes the processes, policies, and methodologies that guide the management and oversight of the state's IT/IRM investments, acquisitions, and projects (including system development, BPR, and infrastructure improvements).   | <ul style="list-style-type: none"> <li>• Organization</li> <li>• Policies</li> <li>• Processes and methodologies</li> <li>• Governance boards</li> <li>• Dashboards</li> </ul>   |
| Business & IT/IRM Strategic Plan | Documents the mission, vision, goals, objectives, and performance measures of the transformation effort, as well as specific prioritized projects and initiatives that will be launched over the 12 years.   | <ul style="list-style-type: none"> <li>• Link to state's Strategic Planning Framework</li> <li>• 1 mission; 1 vision; 7 goals; 65 objectives; and 65 performance measures with clear line of sight and linkages across entire landscape</li> </ul> |
| Enterprise Architecture (EA)     | Blueprint for change. Provides framework for the design and development of IT/IRM systems, applications, business information and processes to best support the goals and missions of the various departments' lines of business. Details the transition from the current environment to a future vision, specifying the sequence in which projects should be implemented. | <ul style="list-style-type: none"> <li>• As-Is (baseline)</li> <li>• To-Be (future)</li> <li>• Transition and Sequencing Plan (bridge the gap)</li> <li>• Business, information and technology inter-relationships</li> </ul>                      |
| BPR & IT/IRM Projects            | Overview of the BPR and IT/IRM projects that have been completed, are currently being implemented, and/or are planned.   | <ul style="list-style-type: none"> <li>• BPR Projects</li> <li>• IT/IRM Projects</li> </ul>  |

## HOW WILL THE TRANSFORMATION PLAN BE IMPLEMENTED?

A successful transformation requires re-aligning all activities to provide the services that residents care about. It also requires re-engineering the core processes that are invisible to the public but upon which the services resident care about are built. The Transformation Plan categorizes state services

into lines of business (LOBs) that can be divided into two categories:

- External-facing: those that serve the public such as education, disaster management, and transportation; and
- Internal-facing: those that support service delivery, such as procurement, human resource management, and inventory control.

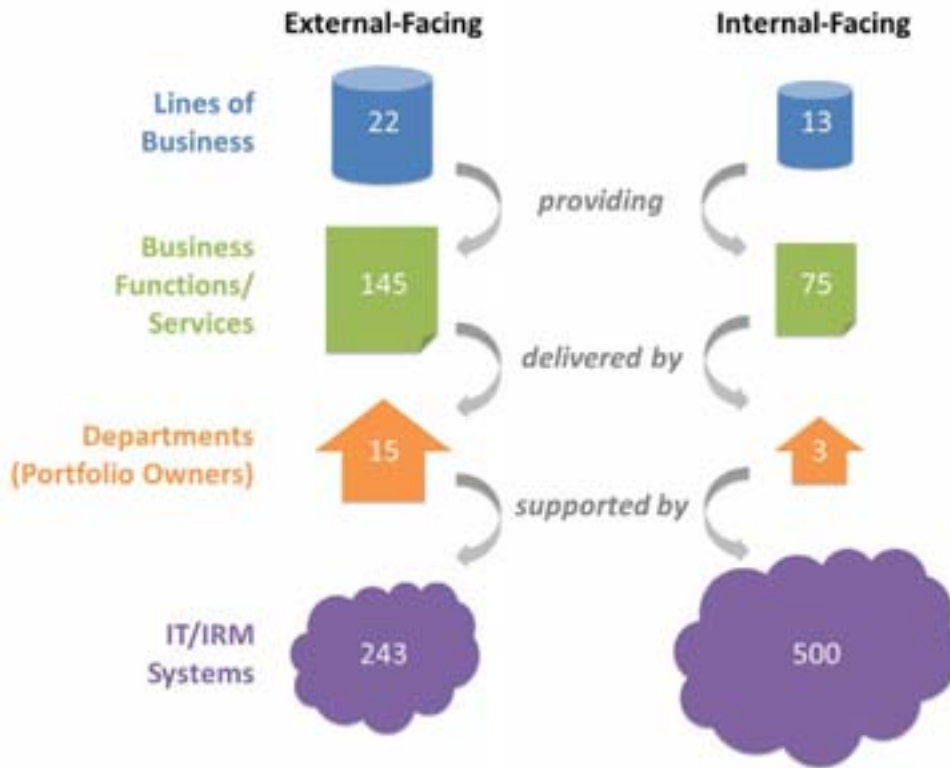


Figure 2: Legacy Business & IT/IRM Environment (External and Internal-Facing Services)

In the past, departments have spent more resources on internal operations (thereby duplicating some efforts on the IT/IRM infrastructure). In the future, the emphasis will shift to providing online business services to residents and addressing the external LOBs. The CIO will work with department directors—“owners” of each LOB—to ensure that BPR and business transformation takes place with responsibility and accountability.

The Transition and Sequencing Plan (T&S Plan), a key element of the Enterprise Architecture component of the Transformation Plan, bridges the gap between the current (“As-Is”) and the

future (“To-Be”) state by outlining ongoing and planned investments and projects, and setting a strategic sequence for their implementation. Implementation of the T&S Plan will morph today’s chaotic, paper-based and inefficient business and IT/IRM environment to a future environment that is efficient, integrated, digital, web-based, and mobile-accessible.

The T&S Plan simplifies and unifies the business and IT/IRM environment by replacing, integrating and/or retiring systems over the course of 12 years (see Figure 3).

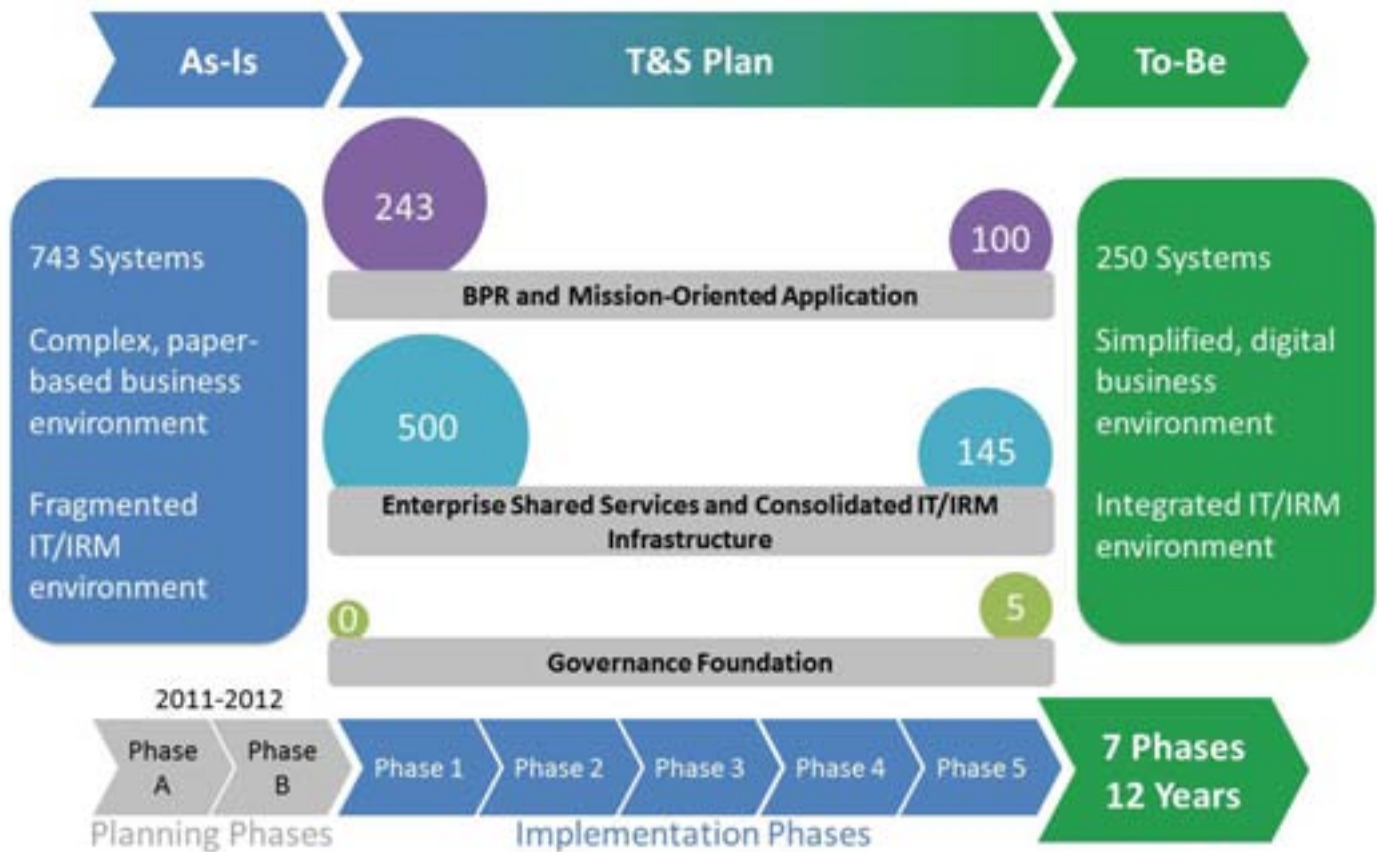


Figure 3: Implementation Framework

The T&S Plan highlights three categories of activities that help achieve the transformation:

- 1. BPR and Mission-Oriented Application Projects** – These activities intend to modernize the external-facing, mission-related applications that directly benefit the public through the business process re-engineering of LOBs. For example, a tax modernization project will expand the overall use of electronic tax filing, electronic payments, improved analytics, and improved case management processing to streamline and decrease cycle times for Hawai'i's residents. The long-term intention is to go from the current 243 disparate IT/IRM systems to approximately 100 integrated applications (i.e. a 60% improvement in efficiency).
- 2. Enterprise Shared Services and Consolidated IT/IRM Infrastructure Projects** – These projects will start to address internal-facing, shared support services, data management services, infrastructure and systems on an enterprise-wide basis as the technology foundation for future work. While the BPR and mission-oriented applications directly impact the public, it is essential to address these underlying systems that provide the critical foundation needed for the external-facing services to operate. An example is the consolidation of IT/IRM infrastructure for five Shared Services Centers

(SSCs) across the islands, enabling them to provide high availability, redundancy, fault tolerance, data backup and replication, disaster recovery, and always-on services. Connections between SSCs will be provided with dedicated high-speed fiber optic lines; service providers and state wireless connections will act as redundant and backup links, respectively. The long-term intention is to go from 500 disparate systems to 145 integrated systems (i.e. a 70% improvement in efficiency).

- 3. Governance Foundation Projects** – The transformation initiative will require establishing a strong governance foundation throughout the organization, to include policies, processes, performance measures, program management, and organizational change management. These 5 new initiatives are necessary for managing needs not currently being addressed.

Each initiative in the T&S Plan is assigned a comprehensive schedule and a governance framework for ensuring that programs remain on track. The initial projects scheduled to launch in the first implementation phase will provide the foundation for those business initiatives that directly benefit residents.



## WHAT WILL THE TRANSFORMATION SOLUTION LOOK LIKE?

The enterprise transformation will bring faster, easier, and more dependable access to government information across every department and line of business. “Business” transformation will better support the 35 LOBs and 220 business functions and services through integrated BPR and mission applications with improved information sharing. “IT/IRM” transformation will consolidate the infrastructure and unify shared services to simplify operations and improve customer service. “Governance” transformation will provide better overall transparency and accountability.

For state employees, this means having the right information to do their jobs – allowing for better decisions and improved delivery of services. For residents, it means having the

information to live a quality life – data about school outcomes, healthcare, taxes, and other information that matters. Access to this information will be available at any time, from any device, and from any location with an Internet connection. Gone will be the days where we worry about natural disasters flooding state data centers and taking down government services and systems. Shared services and infrastructure will work behind-the-scenes like a well-managed utility. Instead of frequent outages, systems and websites will be available with 99.99% uptime. Information that needs to be protected will be protected, according to all applicable privacy and security laws. Instead of visiting ten websites or waiting in long lines to get the needed information, residents will be able to access all of it through a single website (my.hawaii.gov) with a single sign-on. Simply stated, “Authorized users will have access to the right information, for any mission, anywhere, any time, on any device, securely and reliably through one portal.”



Figure 4: Transformation Vision

## HOW LONG WILL IT TAKE AND HOW MUCH WILL IT COST?

The Transformation Plan lays out a methodical strategy for carrying out seven carefully sequenced phases over 12 years. The first two phases—completed over two years—involve organization and planning and are currently in process. The next five phases are each planned over two years and correspond to the biennium budget cycle (i.e.  $5 \times 2 = 10$  years).

Implementing the projects and programs outlined in the Transformation Plan will require an average additional investment of approximately 1% of the state’s annual budget over the next 10 years. It is important to note that best practices recommend allocation of 3 to 5% of annual budgets to support

information technology (source: Gartner). The State of Hawai‘i has suffered major cuts in budget and human resources and has been under-funding the IT/IRM environment at 1.4% of budget (see Figure 5).

The investment necessary for Hawai‘i’s transformation to be successful is significant, but the long-term cost of not investing is much higher. Having not seriously invested in technology for more than 30 years, the state is considerably behind in its ability to provide efficient services, ensure information reliability and security, and prepare for disaster recovery. Furthermore, the cost of maintaining the legacy systems grows every year. The long-term cost of servicing the current technology infrastructure will be much greater than the cost of investing in new technology platforms that can adapt to future needs. New, off-the-shelf technology is easier and less expensive to service.

### IT Spend as a % of Total State Budget (includes FTE, DME, and O&M)

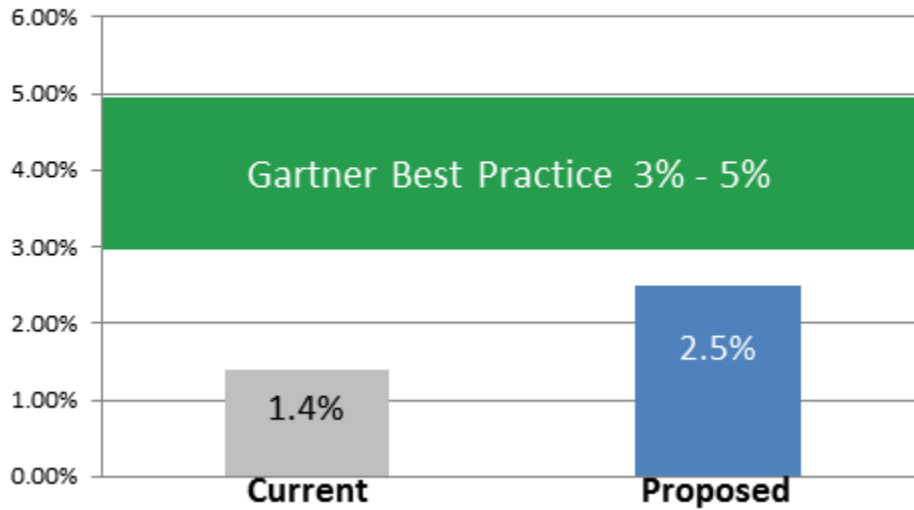


Figure 5: Proposed Investment

## CONCLUSION

This first-ever state Business and Information Technology/ Information Resource Management Transformation Plan offers a clear vision for moving Hawai'i into the 21st century. It recognizes the role of technology and information management in delivering government services by partnering with state agencies to enable them to serve their missions well. The plan has been created with a disciplined approach to gathering data, a thorough study of lessons learned and industry best practices, an unwavering commitment to accountability, and a spirit of collaboration that is at the heart of transformation planning and implementation.

The need for change is clear. The Transformation Plan guides the state toward a future when the public will engage with an open and transparent Hawai'i government; when state employees, residents, and businesses have convenient, secure access to reliable information; when government services are streamlined, integrated, and delivered in ways that meet the expectations of the public; and when Hawai'i's business needs are closely aligned with the state's technology capabilities. By embracing the use of technology and improving business processes and systems to better deliver its programs and services to businesses, residents, and even visitors, Hawai'i will have realized the New Day vision.