
Management Audit of Information Technology Within the Office of Hawaiian Affairs

A Report to the
Governor
and the
Legislature of
the State of
Hawai'i

Report No. 09-08
June 2009



THE AUDITOR
STATE OF HAWAII

Office of the Auditor

The missions of the Office of the Auditor are assigned by the Hawai'i State Constitution (Article VII, Section 10). The primary mission is to conduct post audits of the transactions, accounts, programs, and performance of public agencies. A supplemental mission is to conduct such other investigations and prepare such additional reports as may be directed by the Legislature.

Under its assigned missions, the office conducts the following types of examinations:

1. Financial audits attest to the fairness of the financial statements of agencies. They examine the adequacy of the financial records and accounting and internal controls, and they determine the legality and propriety of expenditures.
2. Management audits, which are also referred to as performance audits, examine the effectiveness of programs or the efficiency of agencies or both. These audits are also called program audits, when they focus on whether programs are attaining the objectives and results expected of them, and operations audits, when they examine how well agencies are organized and managed and how efficiently they acquire and utilize resources.
3. Sunset evaluations evaluate new professional and occupational licensing programs to determine whether the programs should be terminated, continued, or modified. These evaluations are conducted in accordance with criteria established by statute.
4. Sunrise analyses are similar to sunset evaluations, but they apply to proposed rather than existing regulatory programs. Before a new professional and occupational licensing program can be enacted, the statutes require that the measure be analyzed by the Office of the Auditor as to its probable effects.
5. Health insurance analyses examine bills that propose to mandate certain health insurance benefits. Such bills cannot be enacted unless they are referred to the Office of the Auditor for an assessment of the social and financial impact of the proposed measure.
6. Analyses of proposed special funds and existing trust and revolving funds determine if proposals to establish these funds are existing funds meet legislative criteria.
7. Procurement compliance audits and other procurement-related monitoring assist the Legislature in overseeing government procurement practices.
8. Fiscal accountability reports analyze expenditures by the state Department of Education in various areas.
9. Special studies respond to requests from both houses of the Legislature. The studies usually address specific problems for which the Legislature is seeking solutions.

Hawai'i's laws provide the Auditor with broad powers to examine all books, records, files, papers, and documents and all financial affairs of every agency. The Auditor also has the authority to summon persons to produce records and to question persons under oath. However, the Office of the Auditor exercises no control function, and its authority is limited to reviewing, evaluating, and reporting on its findings and recommendations to the Legislature and the Governor.



THE AUDITOR

STATE OF HAWAII

Kekuanao'a Building

465 S. King Street, Room 500

Honolulu, Hawai'i 96813

OVERVIEW

Management Audit of Information Technology Within the Office of Hawaiian Affairs

Report No. 09-08, June 2009

Summary

The State Auditor conducted this audit of the Office of Hawaiian Affairs (OHA) pursuant to Section 10-14.55, Hawai'i Revised Statutes, which requires the Auditor to conduct an audit of OHA at least once every four years. While this is our sixth audit of OHA, it is the first to focus exclusively on OHA's information technology.

We engaged Secure Technology Hawaii, Inc., as our consultant to help us review the management of OHA's information systems. As evaluation criteria, we used material developed by the IT Governance Institute, a widely accepted standards-setting organization for managing information technology.

In 2005, our previous audit determined that OHA was grappling with the effects of poorly planned and ill-defined reorganization efforts. In this audit we found a much more stable and functional organization that is focused on its strategic mission. Our interviews with trustees found that the working atmosphere at the agency had improved dramatically, particularly at the board level. Along with this improved atmosphere, the board has improved its governance structures and processes. Board members have been removed from the operational aspects of management and no longer micromanage the efforts of the staff. However, we found that these improvements were not consistently reflected in the management of OHA's information systems. While improvements have been made in that area, critical elements of sound information technology governance are still missing.

The Office of Hawaiian Affairs does not fully recognize the need for information systems to be managed at a strategic level. Although the agency is currently in the process of updating its strategic plan, OHA has not applied the same strategic approach to its information systems. We discovered that while OHA recognizes the value of information systems to its day-to-day operations, its focus is primarily on solving immediate needs with insufficient consideration for long range strategic issues such as coordination of IT systems throughout the organization and IT risk management. For example, in contracting out its Kau Inoa ethnic registration program, OHA did not consider the risks involved in lodging custody of personal information in an external entity.

We attribute OHA's day-to-day focus to the prevailing belief among the trustees and the administrator that IT is a "tactical" operational issue to be administered by the agency's staff. Hence, although OHA's administrator sees the value of information systems and has supported the use of technology throughout the organization, he has not fully recognized that the complex nature, critical importance, and increasing risk associated with IT requires the dedicated attention of a Chief Information Officer (CIO) to provide strategic direction for information systems at OHA.



Our audit found major IT components dispersed throughout OHA without focused oversight and coordination. We found at least nine major information systems and assets, managed by nine separate stakeholders. Such a diverse and widespread use of information systems reinforces the need for a strong centralized IT authority to provide focused leadership. Without such guidance, OHA faces an increased risk of wasted time and resources as well as the inability to react quickly and effectively to information requirements posed by the changing needs of the organization.

OHA faces an increasing list of challenges that will require the board and staff to make sound decisions based on secure, accurate, and accessible information. The need for dedicated focused leadership of the agency's information systems is critical for OHA to coordinate its disparate IT resources around a cohesive future-oriented strategy that addresses the immediate needs of the organization and provides the flexibility to meet future challenges and opportunities.

Recommendations and Response

We recommend that OHA create the position of a Chief Information Officer (CIO) to assume the overall governance duties over its information systems. It is also recommended that the agency form an IT steering committee to support the CIO in formulating an IT strategic plan. Finally our report recommends that the agency implement an IT strategic plan as part of the overall strategic planning process it is currently going through.

OHA responded that the trustees are generally satisfied with the report findings and support our recommendations. The agency has identified recent improvements to resolve some of our findings. We commend OHA management for taking this initiative. Other issues highlighted underscore OHA's need for a CIO. As OHA works towards completing its new strategic plan, it anticipates implementing our three recommendations within this process.

Marion M. Higa
State Auditor
State of Hawai'i

Office of the Auditor
465 South King Street, Room 500
Honolulu, Hawai'i 96813
(808) 587-0800
FAX (808) 587-0830

Management Audit of Information Technology Within the Office of Hawaiian Affairs

A Report to the
Governor
and the
Legislature of
the State of
Hawai'i

Conducted by

The Auditor
State of Hawai'i
and
Secure Technology
Hawaii, Inc.

Submitted by

THE AUDITOR
STATE OF HAWAI'I

Report No. 09-08
June 2009

Foreword

We conducted this audit pursuant to Section 10-14.55, Hawai‘i Revised Statutes, which requires the Auditor to conduct an audit of the Office of Hawaiian Affairs (OHA) at least once every four years. We engaged Secure Technology Hawaii, Inc., as our consultant to review the management of OHA’s information systems. We are also engaged in a separate audit of OHA’s investment program under the same statute and will report on that audit under its own cover.

We wish to express our appreciation for the cooperation and assistance extended to us by the trustees, administrator, and staff of OHA whom we contacted and interviewed in the course of this audit.

Marion M. Higa
State Auditor

Table of Contents

Chapter 1 Introduction

Background.....	1
Objectives of the Audit	7
Scope and Methodology	7

Chapter 2 OHA’s Focus on Information Technology Must Move From Tactical to Strategic

Summary of Findings	11
OHA’s Board and Management Team Need To Fully Recognize the Critical Strategic Importance of Electronic Information and Information Systems	12
OHA’s Information Systems Are Dispersed Throughout the Agency Without Focused Oversight and Coordination	21
Conclusion	26
Recommendations.....	26

Response of the Affected Agency 31

List of Appendixes

Appendix A	Glossary	29
------------	----------------	----

List of Exhibits

Exhibit 1.1	Office of Hawaiian Affairs Organizational Structure	4
Exhibit 1.2	Responsibility and Support Structure for OHA’s Major IT Components and Systems.....	6
Exhibit 1.3	Governance Components of COBIT.....	8
Exhibit 2.1	Roles and Responsibilities of a CIO for IT Governance	17
Exhibit 2.2	Roles and Responsibilities of an IT Steering Committee for IT Governance.....	25

Chapter 1

Introduction

We conducted this audit of the Office of Hawaiian Affairs (OHA) pursuant to Section 10-14.55, Hawai‘i Revised Statutes, which requires the Auditor to conduct an audit of the agency at least once every four years. We engaged Secure Technology Hawaii, Inc. as our consultant to review the management of OHA’s information systems. We are also engaged in a separate audit of OHA’s investment program under the same statute and will report on that audit under its own cover.

Because the field of information technology (IT) uses many terms and acronyms that are specific to this area, we have included a glossary of terms in Appendix A.

Background

The 1978 Constitutional Convention proposed the establishment of an office of Hawaiian affairs whose purpose would include the betterment of conditions of all Hawaiians. Article XII, Section 5 of the State’s Constitution established the Office of Hawaiian Affairs, and in 1979 the Legislature passed Act 196 (Session Laws of Hawai‘i 1979), now codified as Chapter 10, Hawai‘i Revised Statutes (HRS), to implement this constitutional amendment.

Section 10-3, HRS, defines OHA’s purpose, in part, as the betterment of the conditions of native Hawaiians and Hawaiians. *Native Hawaiian* includes any descendant of at least one-half part of the races inhabiting the Hawaiian Islands previous to 1778, as defined by the Hawaiian Homes Commission Act of 1920, as amended. *Hawaiian* is defined as any descendent of the aboriginal peoples inhabiting the Hawaiian Islands in 1778.

Section 10-3, HRS, also designates OHA as the principal public agency in Hawai‘i responsible for the performance, development, and coordination of programs and activities relating to native Hawaiians and Hawaiians, excluding the administration of the Hawaiian Homes Commission Act. OHA is also required to assess the policies and practices of other agencies that impact native Hawaiians and Hawaiians; conduct advocacy efforts for native Hawaiians and Hawaiians; apply for, receive, and disburse grants and donations from all sources for native Hawaiian and Hawaiian programs and services; and serve as a receptacle for reparations.

The first of our office's mandated quadrennial audit reports was submitted to the governor and Legislature in February 1997, followed by subsequent audits in 2001 and 2005. Prior to this, two other audits of OHA were conducted in 1990 and 1993, pursuant to other legislative directives. The year 2009 marks the sixth audit our office will conduct of the agency; however, it will be the first to focus exclusively on OHA's information technology.

History of the Office of Hawaiian Affairs

Hawai'i was granted statehood in 1959 through the Admissions Act. The act returned to the new state 1.2 million acres of lands formerly ceded to the United States, provided that the State hold these lands in public trust for two beneficiary classes: native Hawaiians and the general public. Section 5(f) of the Admissions Act limited the use of these lands and any proceeds from their sale or disposition to the following five purposes: 1) the support of public schools and other public educational institution; 2) the betterment of the conditions of native Hawaiians; 3) the development of farm and home ownership on as widespread a basis as possible; 4) the making of public improvements; and 5) the provision of lands for public use.

To fulfill its obligation to native Hawaiians and the general public, the State's past practice was to generally direct proceeds of the ceded lands to the Department of Education. Proceeds from the ceded lands were not specifically earmarked for the betterment of native Hawaiians. During the 1978 Constitutional Convention, the Committee on Hawaiian Affairs proposed several amendments that addressed the needs of Hawaiians separately from those of the general public. Convention delegates also proposed amending the State's constitution to establish an office of hawaiian affairs to act as trustee to the ceded lands giving it legal powers to manage and administer the proceeds of land sales and other income sources for native Hawaiians and Hawaiians. Hawai'i's voters ratified this proposal in the subsequent November elections and the Hawai'i State Constitution was amended to include Article XII, Section 5, which established the Office of Hawaiian Affairs. In 1979 the Legislature passed Act 196, which is codified as Chapter 10, HRS, that reflects this constitutional amendment.

Organizational structure

Hawai'i's constitution requires that OHA be governed by a board of at least nine trustees who are chosen by the State's electorate. Trustees serve staggered four-year terms and there is no limit on the number of terms a trustee may serve. O'ahu, Kaua'i, Maui, Moloka'i, and Hawai'i each must have at least one representative on the board.

Initially, the board was to be comprised of Hawaiians who were elected by Hawaiians. However, in February 2000, the U.S. Supreme Court

held that OHA's electoral qualification based on ancestry was a violation of the U.S. Constitution's Fifteenth Amendment. As a result of this decision, the entire state electorate is now eligible to vote for trustee candidates.

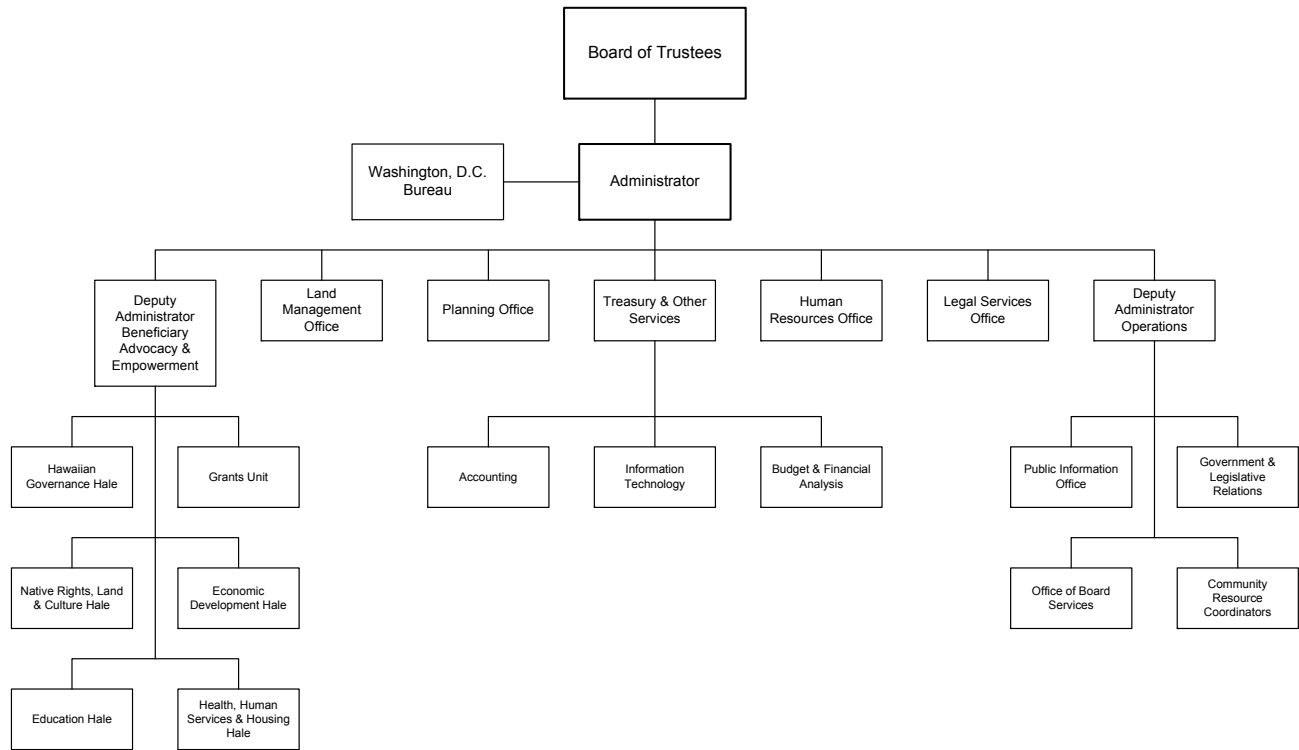
In 2002, the Court of Appeals of the Ninth Circuit also invalidated the limitation of eligibility to be a candidate for OHA trustee to Hawaiians only. Thus, at present, both Hawaiians and non-Hawaiians may qualify as candidates for the office of OHA trustee.

The Board of Trustees is responsible for setting OHA policy and managing the agency's trust. By law the trustees must appoint an administrator who serves as the agency's principal executive and is responsible for the overall management of the administrative functions of OHA. The Office of the Administrator executes board policies, implements OHA's goals and objectives, and manages agency operations. The office also works with other agencies, both government and private, that serve Hawaiians. The administrator reports to the board on fiscal matters and the status of projects and programs, including the implementation of OHA's functional and strategic plans and processes.

OHA employs 152 full-time staff, 19 of whom work as board of trustee staff and 133 as administrative staff. OHA's personnel are spread throughout the agency's administrative office in Honolulu, community offices in Kona, Hilo, Kahului, Kaunakakai, Lāna'i City, and Lihū'e, and a bureau in Washington, D.C.

The agency is organized into two main branches under the Office of the Administrator: 1) the Operations Branch and 2) the Beneficiary Advocacy and Empowerment (BAE) Branch. Each branch is headed by a deputy administrator. The Operations Branch consists of four support services divisions tasked with managing OHA's various internal operations: Community Resource Coordinators; Government Relations and Legislative Affairs; the Office of Board Services; and the Public Information Office. The BAE Branch guides the agency's five program divisions or *hale* (which is the Hawaiian word for "house") which consist of: Economic Development; Education; Hawaiian Governance; Health, Human Services and Housing; and Native Rights, Land and Culture. The BAE Branch also oversees the Grants Unit. In addition, six divisions report directly to the administrator: the Washington, D.C. Bureau, the Land Management Office; the Planning Office; the Human Resources Office; the Legal Services Office; and Treasury and Other Services. Exhibit 1.1 displays OHA's organization structure as of March 2009.

**Exhibit 1.1
Office of Hawaiian Affairs Organizational Structure**



Source: Office of Hawaiian Affairs

Information Technology within OHA

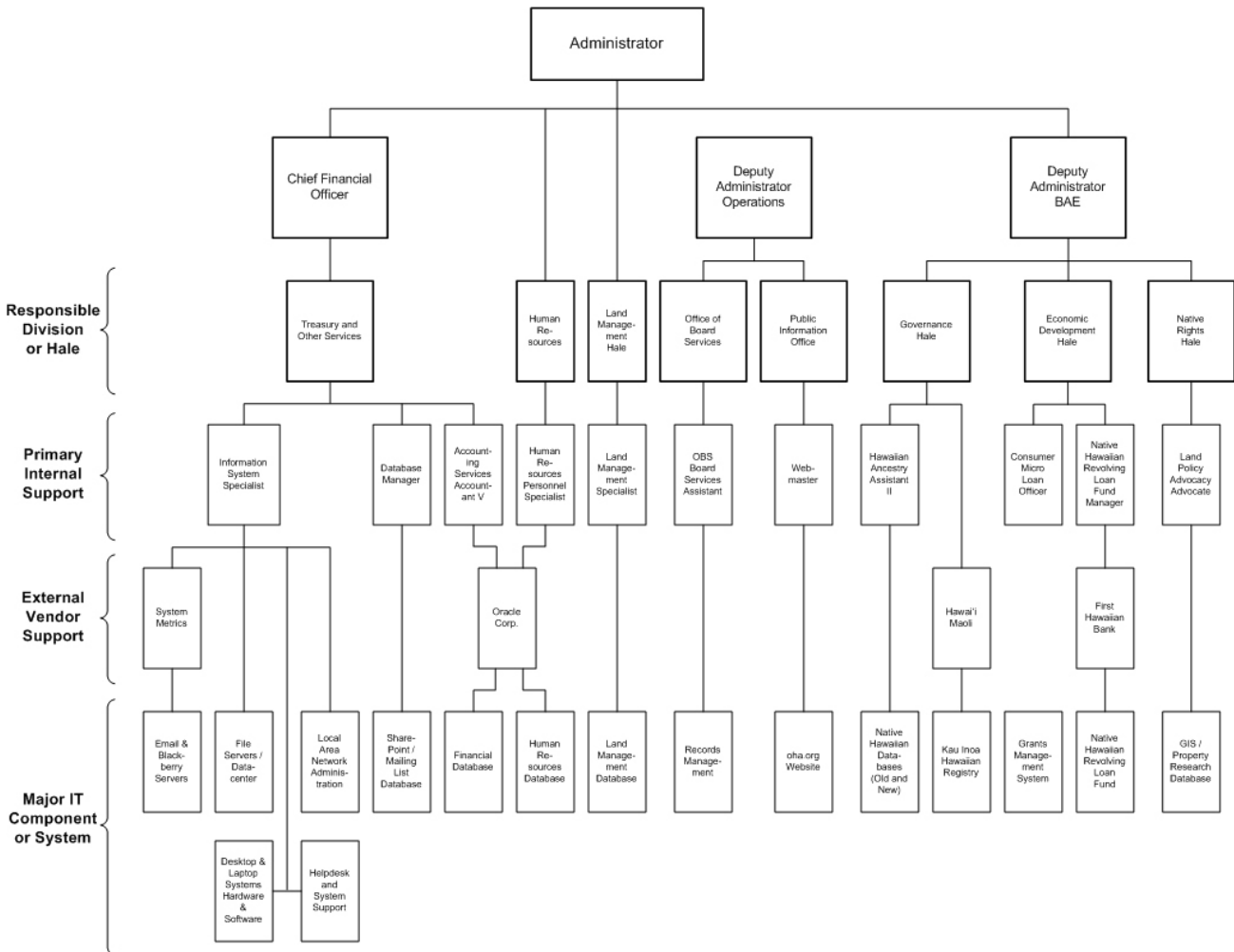
Information technology is utilized throughout the Office of Hawaiian Affairs and is supported by a group of three full-time IT professionals, including the IT manager. A database manager (DBM) administers OHA’s document management system and contact database. Both the IT manager and DBM report directly to OHA’s chief financial officer (CFO). The CFO, in turn, reports to the administrator. Together the IT group, DBM, and CFO work within the Treasury and Other Services (TOS) Division, which is responsible for managing OHA’s statewide computer information network. This network includes 20 servers within the agency’s onsite datacenter that provide file, print, and database services, data backup capabilities, SharePoint document management, and other network services. In addition, there are approximately 170 workstations and laptop computers located throughout the organization. For cost-saving and efficiency reasons, email and support for the organization’s firewalls have been outsourced to an external vendor.

Although TOS is responsible for maintaining OHA's information network, there are also a number of other implementations of information technology throughout the organization that fall under different divisions and *hale*. For example, the webpage, oha.org, is maintained and administered by the Public Information Office (PIO). Records management is overseen by the Office of Board Services (OBS). The Oracle financial and human resources systems are administered by separate groups with primary technical support provided by an external Oracle vendor. Similarly, the Hawaiian Governance *Hale* oversees the grant to Hawai'i Maoli, a non-profit 501(c)(3) entity of the Association of Hawaiian Civic Clubs that serves as the official repository for the Kau Inoa Native Hawaiian Registration Program. Hawai'i Maoli operates the Kau Inoa Hawaiian registry web site and database. Since the authority structure within OHA is such that each division or *hale* reports to the office of the administrator, the person ultimately in charge of OHA's information technology is the administrator himself. Exhibit 1.2 shows OHA's major IT components and systems and the organizational structure that supports them.

Between 2005 and 2008, OHA's average yearly expenditure on IT was \$387,275. This accounts for about 1.05 percent of OHA's total operating budget. The majority of these expenditures were spent on hardware and software. Labor costs related to IT are not accounted for in the \$387,275 amount.

Information is one of the primary assets of the Office of Hawaiian Affairs. In order to fulfill its mission to better the conditions of Hawaiians, OHA must be able to effectively gather, collate, and analyze information and then use it to formulate policies that support the programs and activities to best meet the needs of its beneficiaries. Meeting its fiduciary responsibility to the trust requires timely and accurate information to enable sound, informed decision making. In addition, organizing and mobilizing 400,000 Hawaiians dispersed throughout the United States around OHA's vision and mission requires the effective communication of the right information to the right people at the right time. Not only is the effective use of information critical to the success of OHA's primary goals, but the security and confidentiality of that information is of utmost importance in order to protect its beneficiaries and the reputation of the organization. Undoubtedly, information systems, being the vehicle by which information is used, communicated, and protected, is crucial to OHA's success and must be strategically managed if this organization is to successfully chart its way through the new waters of the twenty-first century.

Exhibit 1.2
Responsibility and Support Structure for OHA’s Major IT Components and Systems



Source: Office of the Auditor based on information provided by the Office of Hawaiian Affairs.

Previous Audits

Our most recent audit of the Office of Hawaiian Affairs conducted in 2005, Report No. 05-03, *Audit of the Office of Hawaiian Affairs*, found that OHA was lacking a comprehensive master plan for bettering the conditions of Hawaiians. In addition, management deficiencies were found, highlighted by the lack of basic policies and procedures to guide its staff and to give direction on action planning and budgeting. Questionable expenditures related to the use of petty cash, protocol allocations, and trustee allowances resulted in a recommendation to revise and bring more clarity to OHA’s Administrative Financial Manual of Guides. Recommendations were also made to provide tighter

oversight of loans made from the Native Hawaiian Revolving Loan fund. Finally, several technical recommendations were made to improve OHA's investment policy statement and investment process. Many of the same findings were echoed in our reports from previous years as well as in audits conducted by independent auditors contracted by OHA.

Objectives of the Audit

1. Assess the adequacy of OHA's management of information technology with respect to the following issues:
 - a. The strategic alignment of IT with OHA's mission and objectives, including the consideration of risk;
 - b. The extent to which OHA derived maximum value from its expenditures for information technology;
 - c. The appropriateness of OHA's organizational and decision-making structure to meet the challenges posed by information technology on its human capital and material resources;
 - d. The application of information technology to OHA's high-cost, high-risk, or high-impact programs.
2. Make recommendations as appropriate

Scope and Methodology

Our audit focused on the Office of Hawaiian Affairs' management of its information technology between FY1997-98 and the present.

We reviewed both trustee-level and management-level controls. Trustee-level controls included areas such as effective information management, overall security principles, governance policies and procedures, performance and compliance metrics, and ongoing support of IT. Management controls include areas such as identification of risks and the organization's risk appetite, the risk assessment process, management's attention to critical issues, monitoring of critical processes, and the communication between management and the trustees.

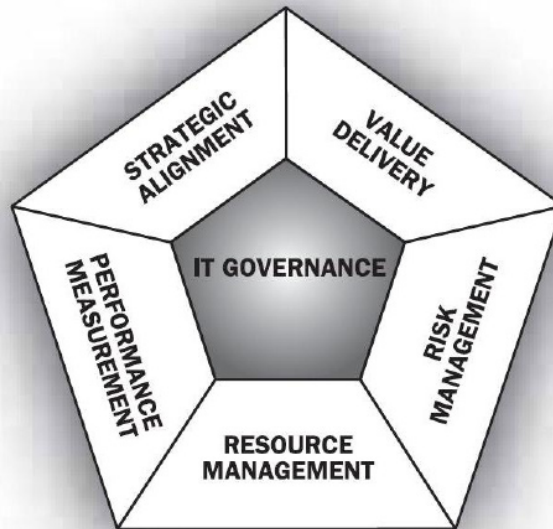
We reviewed pertinent state and federal laws and rules, policies and procedures, meeting minutes, program plans and operation manuals. We interviewed each trustee, the administrator, deputy administrators and select staff.

As the focus of this audit was primarily on the management of IT within OHA, we did not audit application-specific technical controls such as application-specific access and security controls or program change controls.

We procured the services of a technical consultant, Secure Technology Hawaii, Inc., to conduct interviews and to review documentation, reports, and other information detailing OHA's management of its information systems.

As evaluation criteria, we utilized two documents developed by the IT Governance Institute: 1) *Control Objectives for Information and related Technology (COBIT)*, and 2) *Board Briefing on IT Governance*, which is based on COBIT. COBIT, an international and widely accepted set of best practices for IT management, provides managers and IT users with a set of generally accepted measures, indicators, processes and best practices to assist in maximizing the benefits derived through the use of information technology. Organizations can use COBIT to develop appropriate IT governance and controls; we used the concepts and ideas relevant to a government setting. Exhibit 1.3 illustrates the governance components of COBIT.

Exhibit 1.3
Governance Components of COBIT



Source: COBIT 4.1, IT Governance Institute, 2007

In addressing IT governance, the major focus areas of COBIT are strategic alignment, value delivery, risk management, resource management, and performance measurement. The purpose of each of these components is described below:

Strategic Alignment ensures the linkage of the organization itself and the IT plans. Major activities include defining, maintaining, and validating the IT value proposition as well as aligning the IT operations with the organization's general operations.

Value Delivery ensures that IT delivers the promised benefits consistent with the strategy, while concentrating on optimizing costs and proving the value of IT.

Risk Management ensures leaders are aware of the risks, have a clear understanding of the organization's appetite for risk, compliance requirements, and the required transparency about the significant risks to the organization. It also ensures that risk management is a management responsibility that is embedded into the organization.

Resource Management ensures the optimal investment in, with proper management of, critical IT resources. Critical IT resources include hardware, system software, applications software, information, infrastructure and people.

Performance Measurement ensures that organizations track and monitor strategy implementation, project completion, resource usage, process performance, and service delivery. An example of a performance measurement in IT is the balanced scorecard that translates strategy into action plans to achieve measurable goals beyond conventional accounting methods.

Our audit was performed from March 11, 2009 through April 2, 2009 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the study to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our investigation objectives.

This page is intentionally left blank.

Chapter 2

OHA's Focus on Information Technology Must Move From Tactical to Strategic

In our audit of the Office of Hawaiian Affairs' information technology (IT) resources, we found an organization that recognizes the value of properly functioning information systems to its day-to-day operations. We noted several successful technology infrastructure efforts implemented over the last few years that are evidence of this recognition. However, these efforts—whether successful or not—were predicated on decision-making that is primarily concerned with solving immediate needs with insufficient considerations for coordination throughout the organization, future growth, and possible risks. As a result, OHA must improve its information systems' organizational structure, documented policies, procedures, and plans. OHA must provide the necessary staff to give proper guidance to and oversight of its information technology functions.

The Office of Hawaiian Affairs is a unique entity in Hawai'i state government; it is both a government agency and an autonomous trust. Unlike other island trusts with specific missions, such as Kamehameha Schools' focus on education and the Queen Emma Foundation's concentration on improving health, OHA has a much broader, comprehensive mandate: to provide the opportunity for a better life and future for all Hawaiians. In addition, its constituents—native Hawaiians and Hawaiians—are dispersed not only throughout the islands but across the nation and the globe. According to the U.S. Census 2000 data, there are approximately 400,000 native Hawaiians throughout the nation with over 239,000 living in the State of Hawai'i.

The Office of Hawaiian Affairs' mission and scope are vast, and with the possible passage of an act that would establish a process for native Hawaiians to gain federal recognition, those responsibilities and the necessity for effective, efficient, and safe exchange of information will increase exponentially. Therefore, it is critical that OHA improve its IT procedures and practices and adopt, implement, and maintain information systems that reflect and enhance its twenty-first-century mission.

Summary of Findings

1. OHA's board and management team need to fully recognize the critical, strategic importance of electronic information and information systems.

2. OHA's information systems are dispersed throughout the agency without focused oversight and coordination.

OHA's Board and Management Team Need To Fully Recognize the Critical Strategic Importance of Electronic Information and Information Systems

In 2005, our previous audit determined that OHA was grappling with the effects of poorly planned and ill-defined reorganization efforts. In this audit we found a much more stable and functional organization that is focused on its strategic mission. However, we discovered that while OHA has made recent operational improvements in some areas of information systems management, the board and OHA administration do not fully recognize the need for information systems to be managed at a strategic level. The challenges that the trust faces in managing, protecting, and utilizing information will likely increase as OHA continues to serve its beneficiaries in a rapidly changing world. The IT Governance Institute (ITGI) states in its *Board Briefing on IT Governance* that "the use of IT has the potential to be the major driver of economic wealth in the 21st century" and that "leveraging IT successfully...has become a universal business competency." OHA in particular must be able to leverage all of its information assets in an efficient manner and quickly and properly address the strategic issues of information protection, enterprise information management, changing technology, and changing requirements of the organization.

Governance structures within OHA have improved

In the past, board members often waged political battles to the detriment of the organization and its beneficiaries. Prior audits recognized the high levels of micromanagement practiced by the OHA board and lack of focus on the priorities of good governance of the trust. We found during this audit that within the last decade, the contentiousness that clouded the atmosphere within OHA's boardroom has progressively cleared. The tone of governance at the top reflects a higher level of awareness of the role of the trustees in setting policy and performing oversight of OHA to better serve the needs of the Hawaiian people.

Board members' professional and legal background have improved OHA's governance priorities

Our interviews with OHA trustees found that the background and attitude of OHA board members play a significant role in the improvements of overall governance at OHA. Most of the OHA trustees we interviewed professed a unified governance philosophy, which is for the board to set strategic policy but to leave the management of staff to the OHA administrator. We found that in many cases, this was due in no small part to the backgrounds of the board members, some of whom are former judges and businesspeople and who bring that experience to the OHA boardroom.

We found that most of the trustees believed that the OHA board must operate in a more civil and cohesive manner in order to serve best the needs of the beneficiaries of the trust. Most OHA board members expressed the belief that the working atmosphere at OHA had in fact improved dramatically, particularly at the board level, and comments about a more collegial environment were common. One trustee specifically mentioned the need to “heal the old wounds” so that the organization could move forward with its mission to help Hawaiians.

Along with this improved atmosphere, the board now operates under improving governance structures and streamlined processes. We found that a Board of Trustees Executive Policy Manual gives direction on how the board interacts with the rest of the organization. We were told by more than one trustee that board members have been removed from the operational aspects of management and that they no longer micromanage the efforts of the staff. The administrator also affirmed that in the past OHA suffered from a problem of micromanagement but that now there is more delegation of responsibilities. We found that there is an established policy, acknowledged to us by staff, in which the board through its chairperson communicates the policy decisions of the board to the administrator, who then directs the OHA staff to implement those decisions. One trustee, who has been on the board for the past nine years, mentioned that trustees can no longer initiate actions “on a whim” and that the rules ensuring trustees cannot micromanage OHA staff are a positive step towards ensuring good governance practices even when the current trustees leave office and are replaced.

Stability of administrator position allows for better management of OHA

One of the significant changes in OHA's governance has been the stability of the administrator position. In the past, newly elected trustees often lobbied to replace the OHA administrator with someone they preferred, which often meant OHA had a new administrator every other year. This adversely affected the long-term stability of the OHA staff and hindered their ability to improve their governance structures. The current administrator has been in his role since August of 2001.

Organizationally, the administrator reports to the board of trustees and is responsible for implementing the policies approved by the board. He also acts as the primary decision maker for all operational activities of OHA's staff. In this role the administrator is the focal point of the entire organization. Consistency and stability in this position over the past seven years has contributed to the overall improvements in OHA's governance structures. However, we found that these improvements were not consistently reflected in the management of OHA's information systems. While some improvements have been made in that area, critical elements of sound information technology governance are still missing.

While OHA has initiated a strategic planning process for the organization as a whole, that effort has not included its information systems

The Office of Hawaiian Affairs is currently in the process of updating its strategic plan. Interviews with the trustees, the administrator and various staff reveal significant effort being put into the development and implementation of the new plan. A key element of the strategic planning process has been the input from the beneficiaries and the translation of this information into focused priorities. The planning process also recognizes the need to incorporate implementation strategies that will enable the organization to more effectively and efficiently achieve its mission and goals. Although an analysis of the strategic plan was outside the scope of our audit, we recognized the significant time and effort being put into the process. Unfortunately, we found that OHA has not applied the same strategic approach to the management and planning of its information systems, a practice that has become essential for organizations in both the private and public sectors.

As an example of strategic IT planning and execution, in 1996, the General Electric Company (GE) hired a new chief information officer, tasked with directing the company's significant technological resources. Previous technology officers had worked under the company's finance manager, but the company's new CIO's office was to be located next to the CEO's, alongside the CFO's and the human resource manager's.

In explaining the reasoning behind this reorganization, Jack Welch, GE's chairman and CEO at the time, wrote in a letter to company shareholders that:

Information technology is clearly an important business opportunity in itself, but equally important is the role it is playing in the success of every business in the Company. It is making the huge transition from 'function' it was in the 1980s – with its own language, rituals and priesthood – to the indispensable competitive tool, the central nervous system of virtually every operation in the Company.

Welch's observation of IT's transition from 1980s' "function" to 1990s' "central nervous system" was made at the time when the Internet and the World Wide Web were still in their infancy. Since then, the interconnectivity and interactivity of Web-delivered content among other technological developments have transformed the functions of businesses, government agencies, and everyday life. In turn, both the private and public sectors have since implemented policies and procedures that are reflective of IT's critical and strategic importance to organizations of all sizes. However, the acknowledgment of information technology's importance to an organization's continual growth and development is hardly a universally accepted concept. We found this to be true at OHA.

We also found that the trustees have removed themselves from the decision-making and oversight responsibility of OHA's information systems. Many of the issues of information management and information technology are complex, and the trustees were generally uninformed about the nature of information systems at OHA and have delegated virtually all of OHA's information systems planning and policy making to the administrator. We attribute this to the prevailing belief that IT is primarily a technological matter, and therefore an area that is administered by the technicians. However, IT also includes a wide range of strategically relevant areas such as information protection and security, strategic information management, risk analysis, and information systems policy. These are complex issues upon which the trustees lack expertise. However, similar situations occur with many of OHA's important strategic planning processes and decision-making. When complex legal, environmental, and financial issues confront OHA, the board relies on its administrator and staff to educate and bring on experts, as needed, to assist with the decision-making process. This same educational process should also occur for information systems issues.

The board's lack of technical expertise and detailed knowledge of information systems is not uncommon. However, the board must begin to recognize that information and its uninterrupted flow are critical to OHA's ability to communicate with, respond to, represent the interests of, and manage the programs for the beneficiaries of the trust. Information systems are an essential strategic resource that must be overseen and managed accordingly. The lack of background in technology should not deter the OHA trustees from being aware of the risks and benefits of IT to assist them in providing input about how the trust's information assets are used, processed, maintained, and published. To an appropriate degree, the board should be educated on the strategic and policy issues relevant to making good decisions governing information systems.

According to the ITGI's *Board Briefing on IT Governance*, a chief information officer (CIO) would have the responsibility to not only educate OHA's leadership on information systems' dependencies, costs, risks, and capabilities, but would also inform the board and administrator on how the IT budget is linked to OHA's strategic aims and objectives. The CIO would also have the important role of managing the board's expectations of what IT can and cannot deliver. Good management of information systems begins with good information. A CIO dedicated to educating OHA's leadership on the strategic value of information systems is critical to ensuring that the agency's technology investment is aligned with its mission and providing optimal value.

The administrator recognizes the value of IT but has not yet fully grasped its strategic importance

We found that the OHA administrator is receptive to and perceives the value of using information systems and technology to improve the efficiency and capability of OHA to serve the needs of its beneficiaries. For example, he has championed the use of technology and information systems to improve the ability of the organization to increase operational efficiency. The administrator was an early adopter of the SharePoint document and resource management system at OHA, which enables data sharing and project collaboration throughout the organization. He was also involved with the deployment of the Community Consultation Network's use of video conferencing technology. In addition, the administrator recommended technological tools such as the SMART Board used during OHA board meetings. Staff also praised the administrator for his openness to adopt technology when there was a specific benefit to OHA's operations.

We also determined that some recognition of the strategic importance of information is beginning at OHA. The administrator has agreed to the creation of a centrally managed contact database for OHA. To consolidate the scattered contact information that exists in various departments, the administrator reassigned a staff member to the role of database manager (DBM), whose responsibility is to create a central database for OHA's contact information. This database will be used for coordination and communication purposes by the entire trust, as opposed to having compartmentalized contact information useable only by a specific division of OHA. In our opinion, this was a good example of a strategic approach to the management of information systems. Consolidating OHA's contact database took considerable time and effort, including the reassignment of personnel. However, considering the risk of having several disparate contact databases and recognizing the value of OHA's future ability to communicate effectively with the thousands of beneficiaries living throughout the country, the administrator made the right decision.

We commend OHA's willingness to utilize technology and its openness to change its operational structure to address deficiencies in how it manages its information systems and resources. However, this general desire to improve efficiency and leverage technology needs to extend beyond this one example. We encourage the administrator and the board to continue to evolve their operational structure to support information systems that 1) are properly aligned with the organization's objectives; 2) provide appropriate value to the organization; 3) assess and manage risk; 4) use resources effectively and efficiently; and 5) monitor performance metrics to ensure goals are being met. These five essential ingredients of sound IT governance identified by the ITGI, will ensure that OHA has the proper framework to provide oversight to its information systems and ensure that it is delivering on its full potential.

The complex nature and strategic importance of information systems demands the attention of people dedicated to managing information technology projects, overseeing information assets and staff, and providing strategic direction for information systems at OHA. However, the need for a dedicated CIO or director of information systems to manage these systems has not been appreciated by the administrator or the board to this point, resulting in a low priority for the creation of such positions. It must be pointed out that the role of a CIO is essential to an organization of OHA's size and complexity. According to the ITGI, the CIO would be responsible for 1) driving the IT strategy such that it aligns information systems with OHA's mission; 2) clarifying the value of IT to OHA's leadership; 3) assessing, mitigating and communicating the risks associated with IT; 4) providing IT infrastructure at optimal costs and ensuring the availability of IT resources to meet strategic objectives; and 5) implementing performance measures linked to IT strategies.

Exhibit 2.1 associates seventeen recommendations for the roles and responsibilities of a CIO to the five components of sound IT governance, as recommended by the ITGI.

Exhibit 2.1
Roles and Responsibilities of a CIO for IT Governance

Strategic Alignment	Value Delivery	IT Resource Management	Risk Management	Performance Management
Drive IT strategy development and execute against it, ensuring measurable value is delivered on time and budget, currently and in the future Implement IT standards and policies Educate executives on dependence on IT, IT-related costs, technology issues, and insights, and IT capabilities	Clarify and demonstrate the value of IT Proactively seek ways to increase IT value contribution Link IT budgets to strategic aims and objectives Manage business and executive expectations relative to IT Establish strong IT project management disciplines	Provide IT infrastructure that facilitates creation and sharing of business information at optimal costs Ensure the availability of suitable IT resource, skills, and infrastructure to meet the strategic objectives Ensure that roles critical for driving maximum value from IT are appropriately defined and staffed Standardize architectures and technology	Assess risks, mitigate efficiently, and make risks transparent to the stakeholders Implement an IT control framework Ensure that roles critical for managing IT risks are appropriately defined and staffed	Ensure the day-to-day management and verification of IT processes and controls Implement an IT balanced scorecard with few but precise performance measures directly and demonstrably linked to the strategy

Source: *Board Briefing on IT Governance*, IT Governance Institute, 2003

OHA has made tactical improvements to its technology infrastructure

In spite of the board and administrator not fully understanding OHA's information systems' "big picture," the agency has demonstrated a general awareness of the tactical importance of using technology to solve specific problems or improve its processes.

Our audit found that the current IT manager is competent in supporting the computer systems and network at OHA. The current CFO is working to improve the information systems policies governing the organization, and the administrator is a strong advocate of the use of technology to improve processes. Although the efforts of these individuals have not always been well-coordinated, they reflect a willingness to use technology and information systems to improve OHA's ability to serve the needs of the beneficiaries of the trust.

OHA has recently begun using video conferencing technology as an outreach tool to collaborate with beneficiaries via OHA's Community Consultation Network (CCN). A significant percentage of Hawaiians live on the Neighbor Islands and the U.S. mainland, and video conference technology allows OHA to communicate with them inexpensively and more frequently. This is consistent with one of the strategic goals of OHA to actively involve the Hawaiian community in building support for Hawaiian nationhood.

Our audit also found that within the last 18 months OHA has outsourced complex systems such as the wide area network (WAN), the network firewall, and the trust's email system to an external vendor who possesses the requisite skill and experience to manage such systems in an efficient manner. Based on information provided by the OHA IT manager, the WAN was not functioning properly when he first came to work at OHA. Outsourcing the configuration and management of the WAN resulted in higher performance and reliability. In addition, the IT manager recommended that the firewall, which protects OHA from outside electronic attack, be supported by the same vendor, a move that provides OHA with more consistent levels of security and support for its network protection.

Similarly, he found an email system plagued by instability and unsolicited email (spam). Recognizing that OHA could not afford to hire a full-time email administrator, the IT manager consulted with the CFO and outsourced the support of the email system, which resulted in a noticeable improvement in the uptime of the system as well as in its anti-spam filtering.

Tactically, outsourcing OHA's email support was a wise decision, considering both the pressing need to improve this critical communication tool, as well as the limited resources that were available. It is unclear, however, whether the strategic implications of outsourcing

its email system were considered when making this decision. Had a CIO been in place to analyze the situation not only from a tactical perspective, but also from a strategic one that included a risk analysis of placing the organization's critical communication tool in the hands of an outside vendor, it is possible that a different decision may have been reached. In making this point we are not disagreeing with the decision to outsource the email system. We do not possess the detailed information to make such a judgment. Rather, we are using this as an example to draw the distinction between a strategic versus a tactical approach to managing information systems.

When a strategic approach is taken to design and deploy information systems, the current and future resource and functional requirements of the entire organization are considered. This type of analysis also examines risk, giving decision makers an assessment of the levels of exposure. A strategic analysis also looks for efficiencies of scale to maximize value and seeks to ensure interoperability across the entire organization.

By comparison, when a tactical approach is taken, information systems are often designed as a reactionary response to satisfy the immediate needs of the moment. Oftentimes, IT solutions address only a portion of the organization or perhaps even just a few vocal users who urgently press their agenda without understanding the broader implications to the entire organization. In such cases, issues such as proper risk assessment and interoperability are often overlooked. Later, if that system is required to satisfy higher strategic requirements, the results can be inefficiency, lack of compatibility, and inability to meet the organization's strategic objectives.

We found an example of this decision-making and policy void in the handling of OHA's data backup system. Soon after the IT manager started working at OHA, he discovered that the organization's data backup process was inadequate. Good IT practice dictates that backup tapes are stored at an off-site location to mitigate against disaster striking the primary location. Realizing that the security of OHA's data rested with him, and understanding that a revamping of OHA's data backup and disaster recovery plan would take an extended amount of time, the IT manager with the approval of the CFO began making copies of the backup tapes and storing them in a locked safe at his home. In light of the circumstances and limitations, from a tactical perspective, the IT manager's resourcefulness should be commended. However, from a strategic perspective, the ramifications and risks associated with this makeshift process, especially if left unchanged, are obvious even to the lay person. It should be noted that an updated data backup and disaster recovery plans are currently being researched and implemented at OHA.

Without strategic guidance from a CIO, who understands both the technical aspects and business requirements of OHA's information systems, the trust will continue to play catch-up, reacting to its technology needs instead of anticipating, planning for, and growing with them. For an agency such as OHA, which has demonstrated a willingness to use technology to grow, this is a risk it can no longer afford to take. The risks associated with this approach must be understood and acknowledged by OHA if it is to properly address and mitigate them.

OHA's tactical approach to information systems initiatives may result in increased risks

Although a tactical approach towards information systems management appears to have addressed OHA's immediate technology needs, it can also lead to increased risk to the organization. In at least one case—the Kau Inoa Native Hawaiian Registration Program—such an approach has potentially exposed OHA to significant risks.

The Kau Inoa Native Hawaiian Registry is a database of Hawaiians who are willing to participate in the process of building a native Hawaiian governing body. Registration with Hawai'i Maoli, which administers the Kau Inoa Native Hawaiian Registry website and database independent of OHA, requires providing sensitive information such as first, middle, last, and maiden names; home and mailing addresses; phone number, email address, gender, and date and location of birth. The process also allows for the scanning and emailing of the registrant's birth certificate as one method to verify Hawaiian ancestry.

When the Kau Inoa Native Hawaiian Registration Program was formulated, OHA's Grants Unit initiated the project and oversight of the effort was given to the Hawaiian Governance *Hale*. This was done because the Hawaiian Governance *Hale* was better equipped to understand and manage the Hawaiian registry program. However, this process of involving staff skilled in a particular area of the project did not extend to involving IT personnel to review the program, the grant application, or the contract for services. In addition, we could find no evidence that an information systems or security risk analysis was conducted for this program, which should have been completed for any activity involving the collection of sensitive or private information. Although there is no evidence that the information collected is being mishandled, we did find that the lack of risk analysis contributed to weak contractual requirements for the security of the system. For example, currently, there is no provision in the contract that mandates regular audits and security checks of the database. The absence of such requirements does not mean the system is vulnerable. However, without regular audits and checks, it is impossible to know whether proper security procedures are being followed and if the system is protected from the latest software vulnerabilities.

Although Hawai'i Maoli is a separate organization from OHA, the consequences of a Kau Inoa database breach would directly impact OHA. This sentiment was confirmed by OHA's chairperson who acknowledged that if the database were compromised, ultimately, the trustees would be responsible. Because OHA personnel do not have control of the Kau Inoa registry, contractual oversight is OHA's only means of ensuring the security of the database. Weak contractual requirements place OHA at higher risk. Once again, we note that a CIO providing oversight to OHA's information systems would understand the possible source and likelihood of risks to the Kau Inoa data and would initiate the appropriate response. Also the CIO would be responsible to communicate an assessment of the level of risk to the administrator and board, information critical to their strategic decision-making process. Even if the likelihood of the database being compromised is low, such a breach would have serious consequences, damaging OHA's reputation and its ability to represent Hawaiians effectively. As the ITGI states in its *Board Briefing on IT Governance*, "Often the most damaging IT risks are those that are not well understood."

OHA's Information Systems Are Dispersed Throughout the Agency Without Focused Oversight and Coordination

Major IT components and systems can be found throughout OHA's various divisions and *hale*. These include computer and network devices, databases of information, and critical applications pertaining to OHA's finances, human resources, and grants management. Although subject matter experts within each division provide primary support for these systems, focused coordination of the overall organization's information systems is missing. We found marked improvements in OHA's enterprise governance with positive changes also occurring within its management of information systems. However, without a strong centralized information systems authority to provide focused coordination, OHA faces an increased risk of wasted time and resources as well as the inability to react quickly and effectively to information requirements posed by the changing needs of the organization.

OHA's mission critical applications are distributed throughout the organization without proper coordination

We found that information systems within OHA are scattered throughout the various divisions and *hale* with the authority over and responsibility for different information systems divided among different stakeholders. OHA's IT department focuses primarily on the technology infrastructure, while staff members in other divisions work independently on mission-critical information systems. Hence, consistent coordination among the different divisions when deploying and maintaining these critical applications does not exist.

Our audit found at least nine major information systems and assets at OHA, managed by nine separate stakeholders:

1. The information technology group, led by the IT manager, administers the core infrastructure which includes the computers and the local area network. They also oversee an outside vendor who supports OHA's email, inter-island network, and firewall.
2. The database manager administers OHA's SharePoint document management and collaboration system, as well as its centralized contact database system.
3. The human resources and accounting staff each work with an outside Oracle consultant to support the Oracle enterprise applications. The Oracle consultant provides all of the technical support for the system.
4. The Land Management *Hale* oversees the land management database.
5. The Office of Board Services is responsible for OHA's records management, including electronic records.
6. The Public Information Office is responsible for the oha.org website as well as the Macintosh systems used to produce web and other media content.
7. The Governance *Hale* works with an outside organization called Hawai'i Maoli to administer the Kau Inoa Native Hawaiian Registration Program. The Governance *Hale* also administrates a Native Hawaiian database on its own.
8. The Economic Development *Hale* oversees the grants management system as well as the Native Hawaiian Revolving Loan fund.
9. The Native Rights *Hale* supports the GIS property research database.

The broad nature of OHA's mission is evident in its diverse and widespread use of information systems. Exhibit 1.2 in Chapter 1 shows the many ways OHA utilizes technology. As can be seen in this exhibit, the proliferation of IT throughout the agency emphasizes the need for focused coordination to ensure that the various systems are compatible, that resources are planned for and economized, and that they are aligned with OHA's strategic goals. We found that the IT group focuses primarily on supporting the underlying infrastructure and not on the various *hale's* unique applications and systems. As such, overarching direction of all of the agency's information systems is missing.

**Information
technology manager
lacks organizational
authority**

We found OHA's information technology manager to be a technically capable individual who understands the requirements of his position and has played an integral role in assisting the CFO in implementing improvements to the agency's computer systems. However, we concluded the IT manager lacks the organizational position and authority to participate in cross-divisional meetings or participate fully in strategic planning sessions. The IT manager does not have authority over information assets and resources that are not within his direct control, and because he does not participate in cross-divisional meetings, he lacks the strategic awareness of OHA's enterprise requirements.

Although the IT manager has sufficient technical background to serve as a capable strategic representative of information systems to the trust, he has not served in a strategic- or high-level managerial capacity, and there exists no baseline to evaluate his possible performance in this area. According to the ITGI's *Board Briefing on IT Governance*, a CIO must possess the ability to link IT budgets to strategic aims and objectives, manage business and executive expectations relative to IT, and establish strong IT project management disciplines. Whether the IT manager's technical abilities are complemented by skills in these areas is unknown. However, it is clear that in the current organizational structure, the IT manager does not have the proper authority or voice to provide overarching direction to the organization's information systems.

**Chief financial officer
and administrator lack
technical expertise and
time to devote to IT**

As compared to the IT manager, the CFO is in a better organizational position to oversee information systems throughout OHA. The CFO directs the Treasury and Other Services (TOS) Division and oversees the IT manager. As mentioned previously, the CFO and IT manager have coordinated their efforts on making several improvements to OHA's computer systems. The CFO also meets with the other division and *hale* chiefs and is able to determine their information systems requirements. Using information from these meetings and in conjunction with the IT manager, the CFO can initiate and implement improvements to OHA's computer systems. Similarly, the administrator, who oversees both the CFO as well as all of the division and *hale* chiefs, is in the primary position to help coordinate how information systems are implemented within the organization. In fact, as mentioned previously, the administrator is a strong supporter of technology and has initiated and championed information system projects to be implemented by his staff.

However, both the CFO and the administrator lack the time and technical expertise to simultaneously oversee OHA's existing information systems as well as to strategically guide future information systems development at OHA. In addition, the time required to address the ever-increasing security risks of information systems, as well as to evaluate new technologies in order to take full advantage of the power of information

systems is substantial. These issues require a full-time dedication of time and attention as well as careful coordination of efforts among the various divisions of OHA. It is this lack of focused and coordinated leadership of OHA's information systems that must be addressed in order for OHA to manage and protect its valuable information resources and assets.

**Information system
decision-making
structures lack overall
coordination**

During our audit we found that OHA's organizational structure is designed to have cross-divisional issues discussed and worked on by division heads, separate from policy-making decisions, which rest with the OHA administrator and board. Recommendations are then passed upward from division heads to deputy administrators and finally to the OHA administrator for approval. This process allows for the varying interests of the *hale* to be represented in a forum comprised of division chiefs. However, within this structure, there is no position with authority and responsibility comparable to a division director that can represent the interests of information systems across the organization. Without such a position, the requirements and capabilities of information systems, and the expertise possessed by information systems staff, are not adequately represented in this process.

Without adequate representation of information systems in organizational decision making, we found that staff roles, responsibilities, and accountability structures related to information systems are not clearly defined. This creates an environment where clear lines of authority and direction are not always obvious, and gaps in oversight and accountability can occur. One example of this is the SharePoint system currently deployed throughout the organization to handle OHA's document and resource management needs. We found that the Office of Board Services is seeking to streamline its records management process by looking into a Xerox document management system, which is a competing product to SharePoint. The board services director has assigned one of his specialists to conduct an assessment of OHA's information workflow to serve as a reference point to determine the viability of using Xerox to automate that process. Concurrently, OHA's database manager is in the process of piloting an electronic workflow process utilizing the existing SharePoint system to streamline a paper based system. If successful, the new electronic workflow process will be rolled out to the entire organization with further plans to expand this effort to other workflows. These two efforts present legitimate efficiency benefits, but they also duplicate capabilities for the trust. If allowed to continue, the implementation of redundant systems could lead to wasted expenditures and effort as well as create conflicts that may impact the staff's productivity.

In making this point, we commend the Office of Board Services for its initiative to seek a more streamlined records management process.

Proactive thinking must continue to be encouraged at OHA so that problems and shortcomings of the agency's information systems are addressed. This type of input regarding the IT needs of the various divisions and *hale* is required to ensure that the IT strategy encompasses the organization as a whole. A CIO is required to coordinate this input. However, a CIO cannot do this alone. An "IT steering committee" made up of the CIO and key information stakeholders from across the agency should be organized to assist in the delivery of the IT strategy and oversee the day-to-day management of information systems and projects.

Except for the lack of a CIO, such a structure already appears to exist at OHA in the form of its division chiefs. Collectively, this group possesses a working knowledge of the needs of the entire agency. The focus of this committee should be on the implementation of information systems in order to: 1) help prioritize IT projects; 2) assess the costs vs. benefits of IT initiatives and how they improve business processes; 3) ensure that both present and future IT needs of the organization are properly addressed; 4) ensure that risk is managed for all IT projects; and 5) define and monitor success of the enterprise's IT projects.

Exhibit 2.2 associates thirteen recommendations for the roles and responsibilities of an IT Steering Committee to the five components of sound IT governance, as recommended by the ITGI.

Exhibit 2.2
Roles and Responsibilities of an IT Steering Committee for IT Governance

Strategic Alignment	Value Delivery	IT Resource Management	Risk Management	Performance Management
Define project priorities	Review, approve, and fund initiatives, assessing how they improve business processes	Balance investments between supporting and growing the enterprise	Ensure all projects have a project risk management component	Define project success measures
Assess strategic fit of proposals			Act as sponsor of the control, risk, and governance framework	Follow progress on major IT projects
Perform IT portfolio reviews for continuing strategic relevance	Ensure identification of all costs and fulfillment of cost/benefit analysis		Make key IT governance decisions	Monitor and direct key IT governance processes
	Perform IT portfolio reviews for cost optimization			

Source: *Board Briefing on IT Governance*, IT Governance Institute, 2003

The addition of a CIO and an IT steering committee would ensure that the growing needs of OHA's information systems are addressed by knowledgeable and empowered staff. With such people and structures in place, we are confident that the agency's disparate IT resources can be coordinated around a cohesive future-oriented strategy that not only addresses the immediate needs of the organization but also has the flexibility to meet future challenges and opportunities.

Conclusion

OHA's board and administrator have supported the use of technology throughout the organization, and our audit found several examples of improvements made to OHA's information systems. However, we also found that both the board and the administrator view information systems as a tactical implementation tool and do not fully appreciate the increasing benefits, complexity, risks, and strategic importance of information systems. As a result, a strong, authoritative, and technically sound advocate/director of IT is missing. Without such a role within the organization, OHA's information systems are scattered throughout the various divisions and *hale* without overarching direction, oversight, and support.

OHA faces a multitude of important issues; some at its doorstep, others looming over the horizon. The creation of a new organizational strategic plan, the potential passage of an act that will grant federal recognition to Native Hawaiians, the recent economic downturn, and the possibility of large business development projects are challenges that must be effectively managed in conjunction with OHA's overall mission to better the conditions of all Hawaiians. All of these issues will require the board and staff to make sound decisions based on accurate and accessible information, which is secure and flows uninterrupted throughout the organization. In summing up the importance of information to OHA, the administrator said, "The nation will be strong by the people having information." In light of this, the trust cannot afford to neglect the strategic importance of its information systems.

Recommendations

We recommend that the Office of Hawaiian Affairs:

1. Create the position of a Chief Information Officer (CIO) to assume the overall governance duties over its information systems, to direct IT policy and strategic planning, and to provide oversight to the agency's varied information assets;
2. Form an IT steering committee to support the CIO in formulating an IT strategic plan that identifies, prioritizes, and monitors IT

requirements across the agency and to assist the CIO in maximizing value and minimizing risk in the delivery of the IT strategy; and

3. Implement an IT strategic plan as part of the overall strategic planning process it is currently going through. Headed by the CIO and supported by the IT Steering Committee, this IT strategic planning effort should articulate the appropriate IT infrastructure and identify the support it requires during the current period and in the future.

This page is intentionally left blank.

Appendix A – Glossary

The following is a glossary of terms and expressions as used throughout this report.

Application

A computer program or related programs that processes business data through activities such as data entry, update, or query to meet specific objectives and to provide information for decision making.

Chief Information Officer (CIO)

Lead individual over information technology and computer systems; supports enterprise goals in an organization.

Control Objectives for Information and Related Technology – (COBIT)

A highly regarded and widely accepted set of best practices for IT governance. A framework and supporting toolset that can be utilized by management to improve IT governance within an organization. Published by ISACA.

Database

Collection of data organized for convenient access of an application.

Database Manager (DBM)

A position within OHA's organizational structure whose responsibilities include the development, maintenance, and utilization of OHA databases.

Hale

Hawaiian word for house. Used by the Office of Hawaiian Affairs to designate any one of five program divisions within its Beneficiary, Advocacy and Empowerment (BAE) branch.

Hawaiian

Any descendent of the aboriginal peoples inhabiting the Hawaiian Islands in 1778. Also see native Hawaiian.

Information Asset

A definable piece of information, which is recognized as 'valuable' to the organization. Information Assets comprise a wide range of corporate product, service and process information.

Information Systems

Encompasses development, implementation, and communication of electronically stored information and applications as well as the hardware, software, and people used to support computer systems within an organization.

Information Systems and Audit and Control Association (ISACA)

A recognized global leader in IT governance, control and assurance whose information system auditing and control standards are followed world-wide.

Information Technology (IT)

See Information Systems.

Information Technology Governance Institute (ITGI)

A research think tank that exists to be the leading reference on IT governance for the global business community.

IT Control Framework

A set of IT guidance materials and best practices that help optimize IT investments, ensure service delivery and provide a measure against which to judge when things go wrong. COBIT is an example of an IT Control Framework.

Native Hawaiian

Any descendant of at least one-half part of the races inhabiting the Hawaiian Islands previous to 1778, as defined by the Hawaiian Homes Commission Act of 1920, as amended. Also see Hawaiian.

Performance Measurement

A component of IT governance that ensures organizations track and monitor strategy implementation, project completion, resource usage, process performance and service delivery, using, for example, balanced scorecards that translate strategy into action to achieve goals measurable beyond conventional accounting.

Resource Management

A component of IT governance that ensures the optimal investment in, and proper management of, critical IT resources: applications, information, infrastructure and people.

Risk Management

A component of IT governance that ensures senior leaders are aware of risks, have a clear understanding of the organization's appetite for risk, compliance requirements; requires transparency about the significant risks to the organization and embedding or risk management responsibilities into the organization.

Sharepoint

A Microsoft software tool used to provide document management, facilitate collaboration, enable enterprise search, and implement workflow processes.

Strategic Alignment

A component of IT governance that ensures the linkage of the organization and IT plans; defines, maintains, and validates the IT value proposition; and aligns IT operations with the organization's operations.

Value Delivery

A component of IT governance that ensures that IT delivers the promised benefits against the strategy, concentrating on optimizing costs and providing the value of IT.

Response of the Affected Agency

Comments on Agency Response

We transmitted a draft of this report to the trustees and the administrator of the Office of Hawaiian Affairs on May 19, 2009. A copy of the transmittal letter to the trustee chair is included as Attachment 1. The response from the Office of Hawaiian Affairs is included as Attachment 2.

The agency expressed its gratitude that we acknowledge the overall improvements that have been made since the last audit and for identifying areas for further improvement. In general, the trustees are satisfied with the findings of this report, pointing out a number of areas we identified that they have already begun to address. In fact, the totality of the other issues identified by OHA as well as by us further underscores the need for a CIO and strategic management of OHA's information resources.

We commend the trustees and the administration of the Office of Hawaiian Affairs for implementing the many improvements we identified during the course of this audit. We also encourage OHA to continue to implement the recommendations of this report.

ATTACHMENT 1

STATE OF HAWAII
OFFICE OF THE AUDITOR
465 S. King Street, Room 500
Honolulu, Hawaii 96813-2917



MARION M. HIGA
State Auditor

(808) 587-0800
FAX: (808) 587-0830

May 19, 2009

COPY

The Honorable Haunani Apoliona, Chairperson
Board of Trustees
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Chairperson Apoliona:

Enclosed for your information are nine copies, numbered 6 to 14, of our confidential draft report, *Management Audit of Information Technology Within the Office of Hawaiian Affairs*. We ask that you telephone us by Thursday, May 21, 2009, on whether or not you intend to comment on our recommendations. Please distribute the copies to the members of the board. If you wish your comments to be included in the report, please submit them no later than Friday, May 29, 2009.

The Administrator of the Office of Hawaiian Affairs, Governor, and presiding officers of the two houses of the Legislature have also been provided copies of this confidential draft report.

Since this report is not in final form and changes may be made to it, access to the report should be restricted to those assisting you in preparing your response. Public release of the report will be made solely by our office and only after the report is published in its final form.

Sincerely,

A handwritten signature in cursive script, appearing to read "Marion M. Higa".

Marion M. Higa
State Auditor

Enclosures



ATTACHMENT 2

STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

May 28, 2009

Ms. Marion M. Higa
State Auditor
Office of the Auditor
465 S. King Street, Room 500
Honolulu, Hawaii 96813-2917

RECEIVED

2009 MAY 28 PM 2: 04

OFC. OF THE AUDITOR
STATE OF HAWAII

Dear Ms. Higa:

This responds to the draft of your audit report entitled "Management Audit of Information Technology Within the Office of Hawaiian Affairs."

First we are grateful that the Auditor acknowledges the overall improvements which have been made by the Office of Hawaiian Affairs (OHA) since the last audit and for identifying areas where further improvements can be made.

Your recognition of the improvements made by OHA is very encouraging, especially the items highlighted below:

- OHA was found to be a much more stable and functional organization that is focused on its strategic mission.
- The backgrounds and attitude of OHA board members play a significant role in the improvements of overall governance at OHA.
- Along with the improved atmosphere at OHA, the board now operates under improving governance structures and streamlined processes.
- The Board of Trustees Executive Policy Manual gives directions on how the board interacts with the rest of the organization and board members have been removed from the operational aspects of management and that they no longer micromanage the efforts of the staff.
- Consistency and stability in the administrator position over the past seven years has contributed to the overall improvements in OHA's governance structures.

- The OHA Administrator is receptive to and perceives the value of using information systems and technology. He has championed the use of technology and information systems to improve the ability of the organization to increase operational efficiency and to improve the capacity of OHA to serve the needs of its beneficiaries.

Generally the Trustees are satisfied with the report findings. However, we would like to address a number of issues identified in the audit and highlight a number of improvements that we have initiated since the audit was completed:

- We have procured an off-site server mirroring and back-up system that are housed in a data fortress. The system will not only provide OHA with real-time off-site information back-up, but will also ensure we can continue to function in the event of a disaster.
- We have procured and will soon implement an organization wide enterprise security monitoring system that will enable OHA to better track computer applications usage and need for making strategic IT decisions.
- We have procured and will soon implement an organization wide encryption software program to improve information security.
- A security risk analysis has been conducted on the Kau Inoa database program. As a result a contract amendment has been prepared and is currently being executed which incorporates a mandate for regular audits and security checks.
- While we agree that the OHA information systems can be better integrated we would like to point out that the IT Department is responsible, under the direction of the CFO, for the management of all of the systems and databases noted on page 22 of your report. The IT and the Database managers provide technical advice and support on all aspects of these systems including initial decision making and ongoing maintenance.
- It is correct that the IT manager does not directly participate in cross divisional meetings, but he is brought into the process through the CFO. His technical expertise and input is sought and valued regarding all strategic IT decisions.
- The Administrator and CFO have more than adequate IT knowledge and experience, but like all senior managers they understand the need and importance of utilizing the expertise of appropriate staff and external consultants in IT and other strategic decision making.

Ms. Marion M. Higa
May 28, 2009
Page 3

- The Xerox document management system is being analyzed to determine if this system can better meet the needs of the organization. The decision to explore this alternative system was made in consultation with the OHA senior management team and not by the OBS director. We will decide if we obtain the new system, stay with SharePoint or keep both systems after our analysis is completed. We believe this is a strategic decision that will impact the entire organization.

As it relates to the recommendations, OHA generally supports the Auditor's recommendations and your report is timely as we are currently undergoing a six year comprehensive strategic planning process. We have recently completed the first phase of the process which resulted in the development and BOT adoption of six priority areas. During this initial phase it became very clear that OHA needs to be a culturally sensitive data driven organization and has recognized the need for information systems to be managed at a strategic level. Your report and recommendations reinforce this understanding. We hope to have the new strategic plan completed before the end of this calendar year and the three recommendations included in the report should be implemented in conjunction with OHA's strategic planning process.

Sincerely,



S. Haunani Apoliona, MSW
Chairperson
Board of Trustees

C: OHA Board of Trustees