

Bureau of Ocean Energy Management
and
Bureau of Safety and Environmental Enforcement



Joint Information Technology Strategic Plan
2013 – 2017



August 2013

Contents

INTRODUCTION	2
MULTI-ORGANIZATION SUPPORT BY BSEE	3
IT MISSION ENVIRONMENT	3
IMPACT OF IT TRANSFORMATION	4
JOINT IT VISION, MISSION AND GUIDING PRINCIPLES	5
IT PROGRAM STRATEGIC GOALS	6
GOAL 1: PROVIDE AN EFFECTIVE FRAMEWORK FOR THE STRATEGIC DEPLOYMENT OF TECHNOLOGY ACROSS THE BUREAUS	7
GOAL 2: ENHANCE THE COLLECTION, STANDARDIZATION, ACCURACY, COMPLETENESS, CONSISTENCY, CONSOLIDATION AND STORAGE OF DATA	8
GOAL 3: ACQUIRE, DEVELOP AND MAINTAIN RELIABLE INFORMATION MANAGEMENT TOOLS AND CONTINUALLY WORK TO OPTIMIZE THEIR USE	9
BUSINESS ARCHITECTURE, GOVERNANCE AND TECHNOLOGY ROADMAP	10
IT STRATEGIC GOAL TO FIVE YEAR ROADMAP CROSSWALK	11
MISSION TECHNOLOGY ROADMAP	16
IMPLEMENTATION	17

Introduction

The Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) have vast and complex missions. BSEE works to promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement. The Bureau of Ocean Energy Management (BOEM) manages the exploration and development of the nation's offshore resources. BOEM seeks to appropriately balance economic energy development and environmental protection through oil and gas leasing, renewable energy development and environmental analysis and studies.

Information Technology (IT) is ingrained in all aspects of the BOEM and BSEE missions. The IT program operates in an environment of multiple missions, changing requirements, emerging technologies and resource constraints. IT is managed through various management and governance processes within the Bureau and the Department. All IT investment is planned and budgeted for to ensure it is fully integrated into and supports the needs of the business.

The purpose of IT strategic planning is to identify the needs and solutions to ever changing situations. The assumption is that change will occur and the planning process must be flexible enough to accommodate the evolving environment. IT strategic planning is a tool to assist in preparation for the future. As such, this tool provides broad direction for the bureau and its programs given certain assumed environments. To ensure its usefulness, this plan must be integrated/interfaced with the many subparts of the bureau (e.g. the mission elements, the support elements, the resource acquisition processes, its management structure, relationships to other bureaus/offices, etc.).

The central theme of this plan is how the IT program will align with mission requirements, while providing an effective framework for the strategic deployment of technology across the Bureau and supported organizations.

The IT Program is committed to partnering with the program mission areas to enhance mission support with the best technology and service possible. The goals and objectives in this plan provide a roadmap for BOEM and BSEE's IT future.

The BOEM/BSEE Joint IT Strategic Plan will be used to guide bureau IT investment decisions based on mission and regulatory requirements.

Multi-Organization Support by BSEE

The Technology Services Division (TSD) within BSEE provides IT support to BOEM, BSEE and the Office of Natural Resources Revenue (ONRR). Administrative services provided to BOEM and ONRR are reviewed annually and enacted via a Reimbursable Service Agreement (RSA).

Where applicable, this IT Strategic Plan applies to the IT services, including enterprise, provided to BOEM and ONRR. BOEM and BSEE have been incorporated into the existing governance and technology management processes to ensure that the diverse set of mission requirements from both organizations are addressed.

IT Mission Environment

The IT Program supports government and contractor staff across all of the Bureaus major locations. The IT program consists of both infrastructure and mission support. The technical environment is complex and includes server and network infrastructures, data management solutions (storage, backup and recovery), voice over IP (VoIP) telephony services and specialized printing and plotting capabilities. In addition, the program includes a comprehensive IT security program that monitors, identifies and seeks to prevent malicious or unauthorized activity and has developed a proactive vulnerability and risk assessment capability.

The IT Program's goal is to be responsive to mission changes and requirements while managing its own challenges:

- Critical legacy system enhancements have been on hold for several years
- Increased security costs related to the Federal Information Security Management Act
- Complexity and cost in coordinating IT projects across the Enterprise
- Continued demand for new technologies and increased storage requirements
- Rapid pace of technology change
- Historically flat resource support levels in an environment of increasing mission and technology needs
- Increased information exchange between different bureaus and offices
- IT Human Capital Issues
 - Difficult recruitment of specialized IT positions
 - Steep learning curve for oil and gas knowledge as well as legacy systems
 - Need for IT training to support new technologies
 - Retirements of seasoned staff and managers
- Federal statutory requirements incorporated into Program focus areas include:
 - Federal Information Security Management Act
 - Performance Measurement

- E-Government
- Outer Continental Shelf Lands Act
- Oil Pollution Act of 1990
- Energy Policy Act
- Office of Management and Budget memoranda

Impact of IT Transformation

The BOEM/ BSEE Joint IT Strategic Plan is consistent with activities included in the DOI IT Transformation effort. The DOI IT Transformation effort is primarily focused on enterprise infrastructure, not mission systems and applications, however BOEM and BSEE mission systems and applications rely heavily, and are impacted by, technologies employed in enterprise infrastructure. Because of the symbiotic relationship between infrastructure and mission, it is critical that the Bureaus work closely with the Department to accomplish a successful consolidation of infrastructure of resources that effectively support the Bureaus mission applications.

As the DOI IT Transformation effort begins to develop and deliver new, infrastructure-based services, this plan will be reviewed and adjusted accordingly to incorporate effects of transformation and modernization.

Joint IT Vision, Mission and Guiding Principles

Vision

The IT program partners with mission programs from BOEM and BSEE to enhance mission delivery by managing IT as a strategic asset while achieving substantial improvement in efficiency and customer service in a secure IT environment.



Mission

Obtain, develop and manage information technology and resources to effectively support both Bureaus' missions.

Guiding Principles

- Shared Services - Maximize the efficiencies obtained through the use of shared services.
- Collaboration - Working with mission programs towards a common goal.
- Agility - Responsive to change.
- Value - Return on investment.
- Stewardship - Responsible resource management.
- Transparency - Open and accountable.
- Governance - Effective management and controls.

IT Program Strategic Goals

The over-arching strategy is to build and sustain the organizational, technical and intellectual capacity within and across BOEM's and BSEE's key functions – capacity that keeps pace with outer continental shelf (OCS) industry technological improvements, innovations in program administration, regulation and enforcement and reduced risk through continuous monitoring. This is accomplished via the following IT strategic goals:

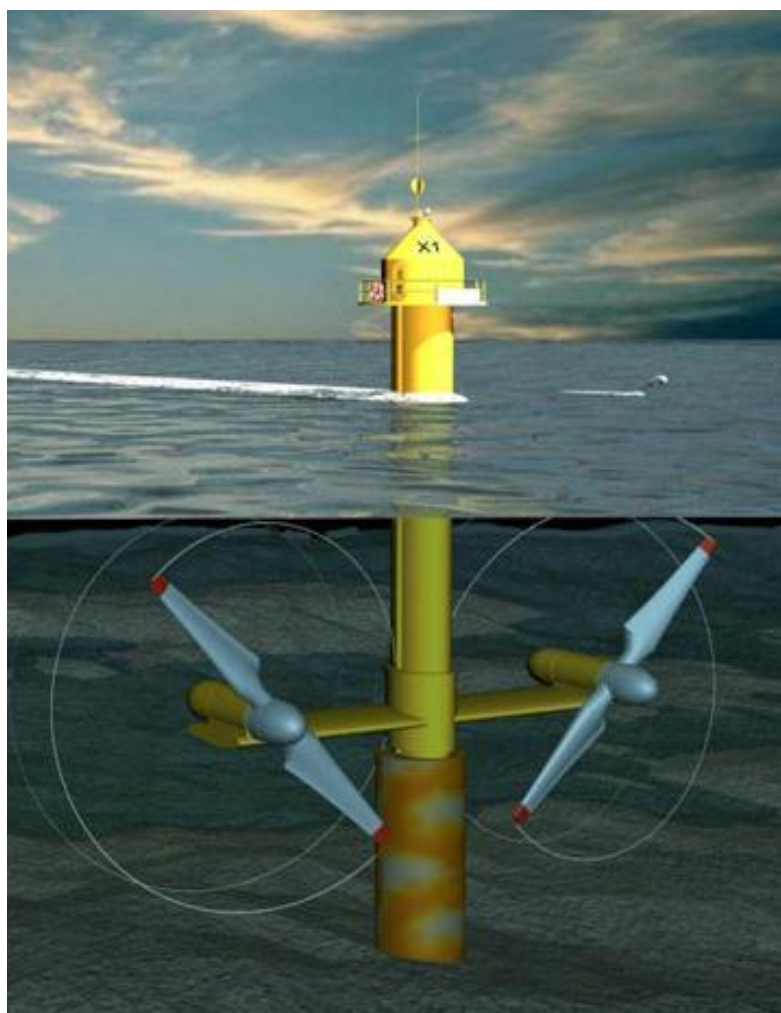
Goal	Principles
1. Provide an effective framework for the strategic deployment of technology across the Bureaus	<i>Collaboration</i> <i>Agility</i>
2. Enhance the collection, standardization, accuracy, completeness, consistency, consolidation and storage of data	<i>Value</i> <i>Stewardship</i>
3. Acquire, develop and maintain reliable information management tools and continually work to optimize their use	<i>Transparency</i> <i>Governance</i>



Goal 1: Provide an effective framework for the strategic deployment of technology across the Bureaus

The outcome of this goal is to ensure IT investments support mission priorities. This alignment will be made by developing documented methods to determine the right mix of IT projects and services that provide the most benefit and value to mission delivery. This goal will enhance governance and transparency, and will play a significant role in collaboratively identifying and prioritizing new mission requirements as well as implementing new technologies.

- Objective 1 – Develop and implement a new and more efficient governance model to improve decision-making for IT support.
- Objective 2 – Develop and implement an IT planning and policy process balancing mission needs, new technologies and budgetary requirements.
- Objective 3 – Improve transparency of IT by developing and implementing an aggressive communication plan explaining IT and its role in supporting the programs.
- Objective 4 – Continually review IT systems, program policies and performance measures.



Goal 2: Enhance the collection, standardization, accuracy, completeness, consistency, consolidation and storage of data

The outcomes of this goal are to provide mission programs with access to the information they need, ensuring confidence in its integrity and delivering effective, agile, timely IT solutions at the least cost possible.



- Objective 1 – Develop a data model facilitating increased use of system data and simplified query tools, reducing the reliance on stand-alone/separate data bases.
- Objective 2 – Support a data management structure working towards improved data quality and more accurate reporting/decision making.
- Objective 3 – Establish effective data stewardship.

Goal 3: Acquire, develop and maintain reliable information management tools and continually work to optimize their use

The outcomes of this goal are to manage the IT program more effectively, ensure staff have the tools needed for current and future support, and to improve IT service delivery. This goal reflects the principles of value and stewardship.

- Objective 1 – Employ application and system development methodologies ensuring usability of products in discrete time segments and using industry best practices.
- Objective 2 – Facilitate and support knowledge management initiatives and requirements as identified by the organizations supported.
- Objective 3 – Develop an overall enterprise solution and data architecture to improve IT effectiveness and decision making by creating a singular vision of desired IT capabilities.



Business Architecture, Governance and Technology Roadmap

BOEM and BSEE have developed a long term technology roadmap to assist the bureaus in the development and implementation of new technology over the next five years. The roadmap describes actionable steps to align targeted business processes with cost effective technologies.

The table below provides of crosswalk of the technology roadmap initiatives to the three strategic goals outlined in this Joint IT Strategic Plan. The initiatives identified below are not bureau-centric. The recommendations are focused on the TIMS system and mission requirements across BOEM and BSEE.

IT Strategic Goal to Five Year Roadmap Crosswalk

IT Strategic Goal	Associated Objectives	Roadmap Initiative
<p>Provide an effective framework for the strategic deployment of technology across the Bureaus.</p>	<p>Objective 1 – Develop and implement a new and more efficient governance model to improve decision-making for IT support.</p>	<p><i>Apply more resources to the governance support function to enable an improved governance process</i></p>
		<p><i>Ensure that change requests are viewed holistically and align with standards and target architecture</i></p>
		<p><i>Formalize Data Management and Governance</i></p>
	<p>Objective 2 – Develop and implement an IT planning and policy process balancing mission needs, new technologies and budgetary requirements.</p>	<p><i>Invest in three planning and management initiatives to address gaps and guide long-term success of TIMS Extend and Enhance Management, Solution Planning and Management approach: Data Management, PMO and IT Portfolio</i></p>
		<p><i>Strengthen IT PMO</i></p>
		<p><i>Establish & mature the IT Portfolio Management</i></p>
<p><i>Use the IT Portfolio Management to rationalize requirements across the Requirements Priority Boards</i></p>		

		<i>Standardize an evaluation criteria hierarchy to enable consistent decision making at all levels of governance</i>
	Objective 3 – Improve transparency of IT by developing and implementing an aggressive communication plan explaining IT and its role in supporting the programs.	<i>Clarify decision rights and inter-relationships among governance bodies</i>
	Objective 4 – Continually review IT systems and program policies to ensure support of the DOI IT Program.	<i>Establish an Architectural Review Process</i>
		<i>Update Records Management Plan</i>
Enhance the collection, standardization, accuracy, completeness, consistency, consolidation and storage of data	Objective 1 – Develop a data model facilitating increased use of system data, reducing the reliance on stand-alone/separate data bases	<i>Create a Data Management Program</i>
		<i>Develop Content Management Plan</i>
		<i>Develop Information Architecture</i>
	Objective 2 – Support a data management structure working towards improved data quality and more accurate reporting/decision making	<i>Elevate & Broaden the Data Management Function</i>

	Objective 3 – Establish effective data stewardship	Assign Domain Leads & Data Stewards
<p>Acquire, develop and maintain reliable information management tools and continually work to optimize their use</p>	<p>Objective 1 – Employ application and system development methodologies ensuring usability of products in discrete time segments</p>	<p><i>Initiate Solution Planning Capability</i></p>
		<p><i>Continue with plans to deploy eWell to all regions</i></p>
		<p><i>Elaborate on Assumptions for ePermits & ePlans Business Cases</i></p>
		<p><i>Continue with eInspections (Toughbook rollout) to remaining rig inspectors; set expectations of continued prototype and potential replacement</i></p>
		<p><i>Reevaluate eInspections (Full rollout)</i></p>
		<p><i>Based on Transition Plan, add initiatives to modernize remaining Resource Valuation and Management components</i></p>
		<p><i>Based on Transition Plan, add initiatives to modernize remaining Plans & Permits components</i></p>
		<p><i>Add initiative to reevaluate and potentially redeploy inspector mobility solution (for both rigs and platforms), which is dependent on mobile strategy blueprinting</i></p>

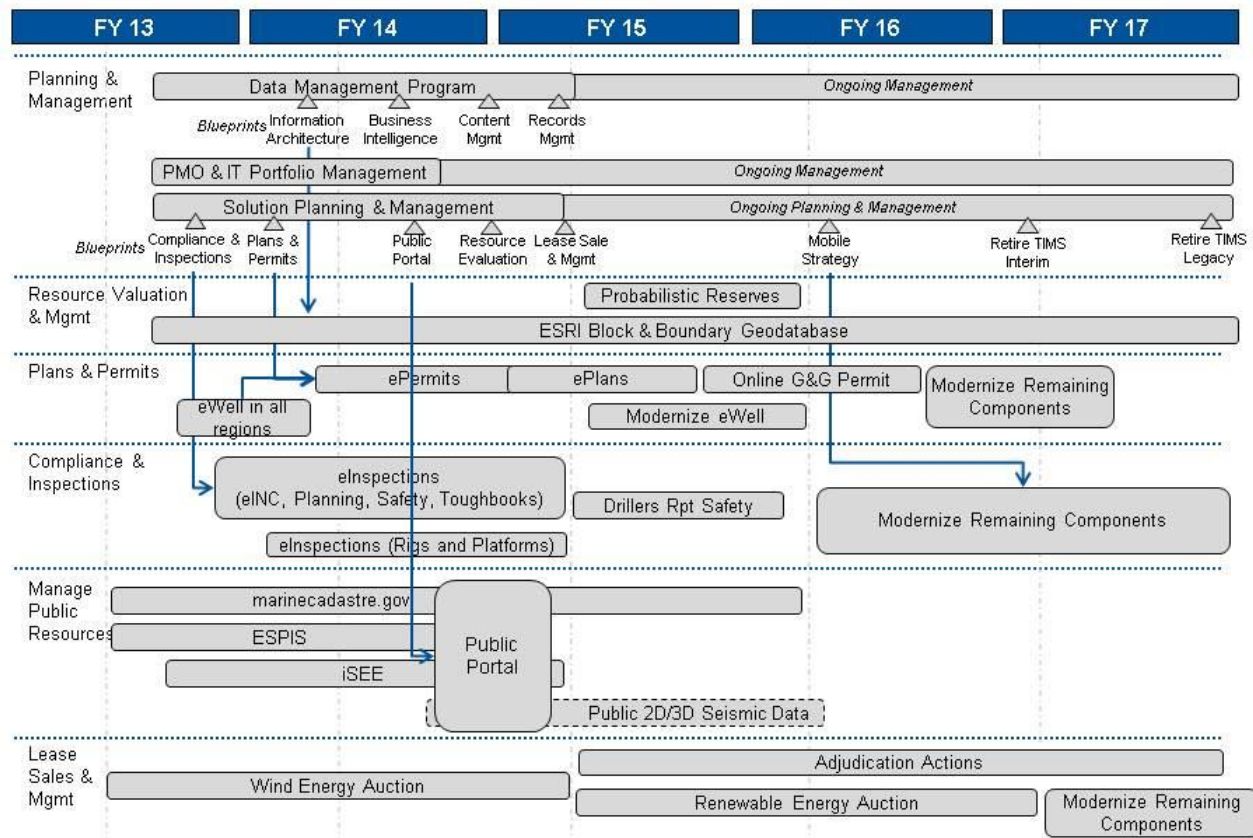
		Based on Transition Plan, add initiatives to modernize remaining Compliance & Inspections components
		Based on Transition Plan, add initiatives to modernize remaining Lease Sale & Management components
	Objective 2 – Facilitate and support knowledge management initiatives and requirements as identified by the organizations supported	Develop Business Intelligence Plan
		Develop Compliance & Inspections Blueprint
		Develop ePlans & ePermits Blueprint
		Develop Public Portal Blueprint
		Develop Resource Evaluation Blueprint
		Develop Lease Sale & Management Blueprint
		Develop a Mobility Blueprint
		Adjust Block & Boundary Geodatabase to be dependent on Information Architecture
Adjust ePermits and ePlans to be dependent on combined blueprinting and results from eWell		

		<i>Adjust eInspections (INC and Safety) to be dependent on blueprints</i>
		<i>Adjust all public data access initiatives to include investment in a public portal, dependent on public portal blueprinting</i>
	Objective 3 – Develop an overall enterprise solution and data architecture to improve IT effectiveness and decision making by creating a singular vision of desired IT capabilities.	<i>Develop a Solution Architecture & Transition Plan</i>
		<i>Integrate Solutions Processes into Governance Process</i>
		<i>Determine Cloud Readiness</i>
		<i>Prioritize Cloud-Ready Capabilities</i>
		<i>Develop Modernization Transition Plan</i>

Mission Technology Roadmap

In conjunction with the initiatives which map to the three strategic goals of this plan, the following swim lane diagram was developed to depict the bureaus' technology roadmap, over the same five year period, which will support mission service delivery and strategic goal realization.

Mission Technology Roadmap



Implementation

- The BOEM/BSEE Joint IT Strategic Plan will be used as a planning document that will be compared against progress and updated as needed, but at least annually.
- The BSEE Technology Services Division (TSD) will work with the Program Areas to continuously validate, refine and implement mission technologies in accordance with this plan and the TIMS Five Year Technology Roadmap.
- As the DOI IT Transformation effort begins to develop and deliver new, infrastructure-based services, this plan will be reviewed and adjusted accordingly.
- Key Performance Indicators will be defined and monitored within individual project plans.

