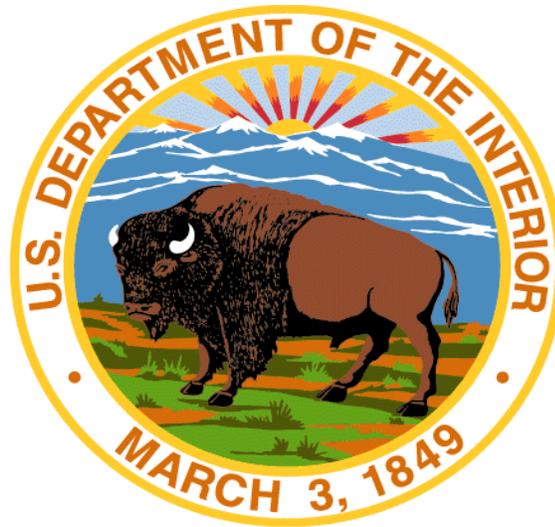


# Department of Interior Enterprise Architecture (IEA)



## Modernization Blueprint for the DOI Financial Management Business Area *- Public Version -*

Version 1.0  
January 8, 2007  
*(updated on 1/12/07 with IRB feedback)*

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## Blueprint Introduction

The original DOI Financial Management Target Architecture, a precursor to this modernization blueprint, was completed by the Interior Enterprise Architecture (IEA) team in May 2003. Submission of the Financial Management Target Architecture to the Office of Management and Budget (OMB) resulted in the approval of the department's budget request for funding to acquire the Financial and Business Management System (FBMS).

When the FBMS implementation began in 2004, the IEA team continued coordination with the FBMS Project Management Office (PMO) to provide architectural guidance and support to ensure consistency with the overall IEA. In addition, this blueprint strives to ensure alignment with the Federal Financial Management Line of Business (LOB) initiative and DOI's e-Government Strategy.

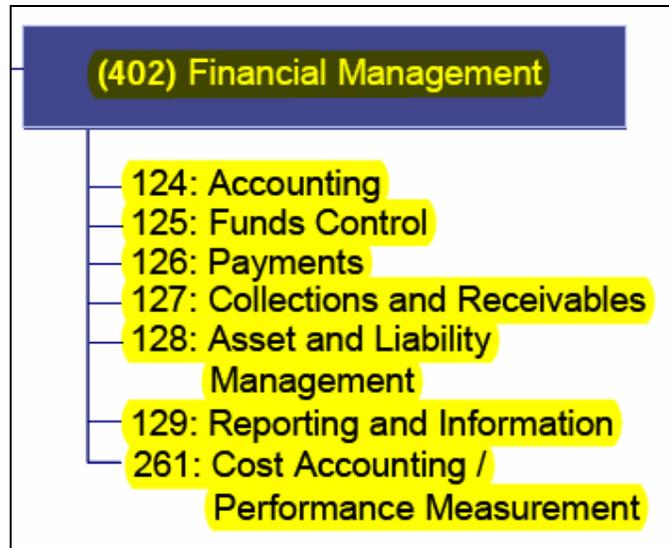
The intent of this Modernization Blueprint is to document the as-is and target architectures with associated transition plan for the Financial Management Business Area within DOI consistent with the OMB Federal Enterprise architecture. As a result, this Modernization Blueprint is comprised of eight primary sections:

1. Overview of Financial Management at DOI – This section provides a descriptive overview of the functions within Financial Management at DOI.
2. Business and Performance Architecture – This section provides a drill down from the business functions to show the links to the strategic intent of the Financial Management environment at DOI.
3. Current Systems, Technology, and Investment Environment – This section provides a detailed discussion of the current systems and investments that support the Financial Management Business Area at DOI.
4. Target Systems, Technology, Data, and Security Environment – This section outlines the target solution for Financial Management at DOI and provides an overview of what the data and security will look like in that target environment.
5. Transition Sequencing Plan – This section details the sequencing of moving from the current environment to the target environment for Financial Management.
6. Electronic Government and FBMS – This section provides an overview of the DOI e-Government Strategy, how FBMS supports the strategy, and how FBMS is related to the Federal e-Government initiatives.
7. Measurable Results – This section details the measurable results that are anticipated by moving to the target architecture for Financial Management.
8. Record of Decision – This section provides the draft record of decision for the Investment Review Board to consider for this Blueprint.

# 1. Overview of Financial Management at DOI

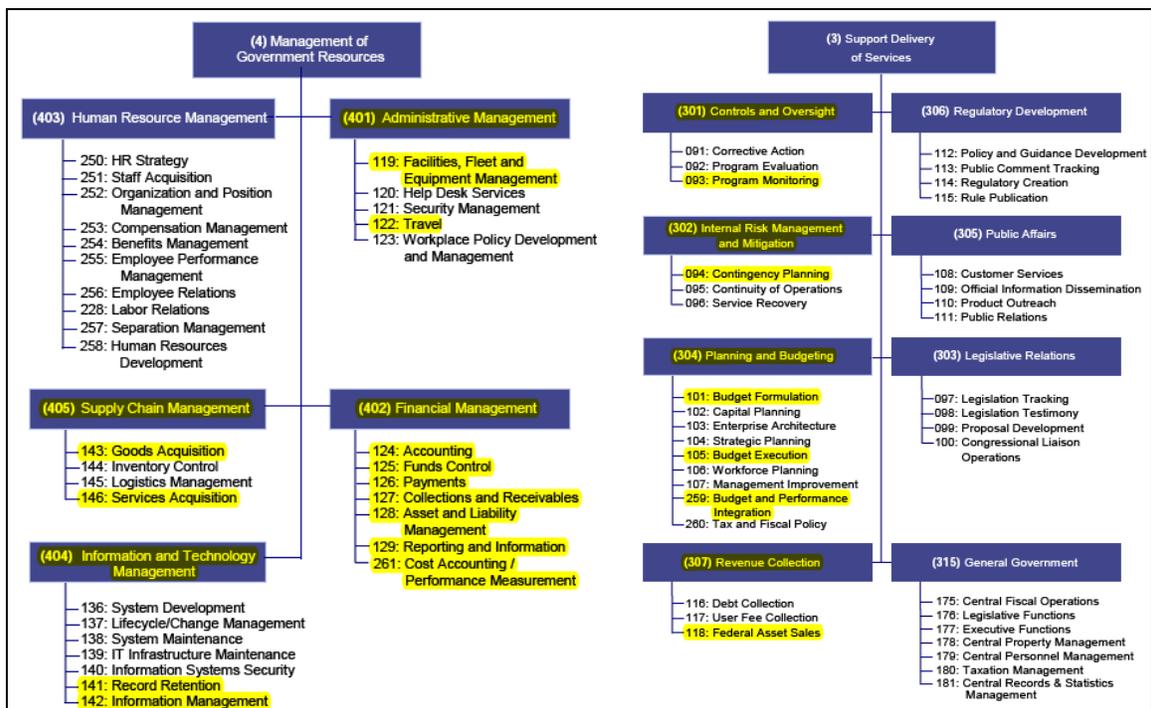
The Office of Financial Management at the Department of the Interior (DOI) serves as the focal point for DOI's financial matters by providing direction, planning, and oversight for financial policy and procedures, financial reporting, the management control program, accounting policy and systems, and audit follow-up. From an operations perspective however, financial management (Financial Management) at DOI is performed within each of the eight Bureaus as well as offices within the Department itself.

There are many definitions of financial management and at the Office of Management and Budget (OMB); it is defined in their Business Reference Model (BRM) with the following sub-functions as shown in Figure 1-1.



**Figure 1-1: Financial Management Subfunctions from the OMB BRM**

However, at DOI it has been recognized that many back-office management functions are intertwined with the traditional financial management functions. As a result, in OMB BRM terms, the scope of the Financial Management Modernization Blueprint has been extended beyond the OMB definition of Financial Management to the subfunctions highlighted in yellow in Figure 1-2 below.



**Figure 1-2: Subfunctions Covered in the extended scope of the Financial Management Modernization Blueprint**

In addition to the subfunctions listed above, the Financial Management Business Area also includes Federal Financial Assistance (Grants) as well as Investments Management.

In simpler terms, the DOI Financial Management community has existing documentation that classifies its main business functions in both the as-is and target state to include:

- Budget Formulation and Execution
- Core Financial
- Financial Assistance
- Acquisition
- Personal Property and Fleet Management
- Travel
- Real Property

The following sections outline the above seven functions as they have been detailed by the Financial and Business Management System (FBMS) PMO. In addition to these seven main functions, the DOI Financial Management business area also performs Reporting and Information functions as well as Collections and Receivable functions. Reporting and Information functions are discussed as part of the target solution. The Collections and Receivables functions are currently not in scope for being modernized as part of the target solution. For more information on the functions outlined below, refer to the FBMS Concept of Operations (CONOPS), Version 1.d3, and published July 14, 2006.

## 1.1 Acquisition

The acquisition function supports the process of obtaining goods and services including construction. It prepares and tracks the status of requisitions, solicitations, offers, purchase orders, contracts including intergovernmental transfers, invoices and invoice payments; validates fund availability prior to commitment and award; records and validates the receipt and approval of goods and services; and provides information to the core financial function for creating commitments and obligations and for matching invoices and issuing

payments. Moreover, the acquisition function receives information (e.g., payments made, receiving reports, invoices, etc.) from the core financial function. Acquisition uses electronic commerce for transactions and contract documentation with vendors including: posting of synopsis, solicitations, receipt of quotes, offers and bids, publishing of awards and the process of invoice submission, approval, tracking and payments.

DOI will begin moving to the PRISM Acquisition system as part of the FBMS phased deployments. PRISM is an acquisition system that supports electronic preparation, review/approval of requisitions and placement of orders/contracts. The system can be interfaced to FPDS-NG and FEDBIZOPPS, as well as expanded to interagency agreements. FAR clauses and Agency Specific Clauses are able to be maintained in PRISM. PRISM has the capabilities to automate both the requisitioning and buying functions. This system can conceivably automate the entire acquisition process flow from requisition development/approval, bid/proposal analysis, to purchase order/contract award. The system streamlines and simplifies purchasing processes, speed up cycle times through parallel processing, reduces FTEs for creating and tracking acquisition documentation and provides reporting tools. The PRISM system was initiated in response to an Executive Order dated October 26, 1993 mandating that agencies implement electronic commerce/electronic data exchange (ES/EDI) in acquisitions.

DOI has an integrated charge card program where one card can be used for travel, purchase, and /or fleet, depending on the needs of the cardholder. There are about 90,000 cards currently in use. The Bureau Integrated Charge Card administrator(s), processes the charge card applications and configures the user account parameters such as, user profile, option set and default cost accounting code(s). The administrator is also responsible for storing the application forms, overall charge card program usage and quality management control.

## **1.2 Budget Formulation and Execution**

The budget formulation and execution function includes program, bureau and Department-wide budget formulation, as well as, bureau funds distribution and bottom up planning processes. This function involves budget and plan development, justification, and reporting at all levels of the Agency. Opportunities for improving this function include:

1. Providing for the efficient entry of data
2. Standardizing business processes within types of budgeting and planning
3. Allowing for the establishment, analysis and prioritization of needs for budgetary decision making within the bureaus and Department-wide
4. Providing the analytical tools necessary for informed decision making (i.e. projection and reporting capabilities)
5. Allowing for the entry and reporting of the budget at any level of detail (i.e. line-item, below Financial Management object level)
6. Producing budgetary justification documents that have a dynamic link between budgetary data and supporting text
7. Full integration with the core financial function (i.e. retraction of the budget for execution and extraction of subsequent changes).

## **1.3 Core Financial**

The core financial function supports DOI's general ledger management, funds management, payment management, receivable management, and cost management. It provides detailed transaction information necessary to comply with Bureau, Department, Treasury, OMB, and Federal Accounting Standards Advisory Board (FASAB) requirements. This function supports annual, multi-year, and no-year funding for many different sources such as appropriated, franchise, reimbursable, revolving, available receipts, unavailable receipts, special/trust receipts, contract authority, and loan authority.

This function provides critical financial reporting, budgetary status, and program information to agency managers. The function also provides effective internal controls and supports a large number of DOI projects by tracking costs, linking project costs to reimbursable agreements, and generating customer billings. The reporting and information functions within Core Financial supports the DOI's general ledger management, funds management, payment management, receivable management, and cost management as well as financial statement reporting.

The core financial function integrates with numerous other business processes and systems such as budget formulation, acquisition, real and personal property, financial assistance, travel, and permanent change of station. Major interfaces exist with the DOI's Federal Personnel/Payroll System and DOI's charge card provider, both of which include detailed transaction cost allocation functionality.

## **1.4 Financial Assistance**

The financial assistance function in DOI supports grants, cooperative agreements, and subsidies to State and Local governments, educational institutions, tribal organizations, individuals, non-profit organizations, and other organizations, as well as Public Law 93-638 awards. The NBC enters into grants, cooperative agreements, and other transactions under the Defense Conversion, Reinvestment, and Transition Assistance Act of 1992, and other related legislation. This authority is interpreted to permit only NBC's administration of assistance relationships on behalf of Department of Defense activities under those authorities.

The two major types of grants awarded by the Department are mandatory and discretionary awards.

- A Mandatory Grant is an award which DOI is required to make if the eligible entity meets the prerequisites specified by statute or in implementing program regulations, e.g., entity submits an acceptable State Plan or application that meets the eligibility and compliance requirements of the statutory and regulatory provisions of the grant program. There is generally no competition for funds among eligible entities in mandatory grants.
- A Discretionary Grant is an award that DOI makes, according to specific authorizing legislation, where DOI can exercise judgment in selecting the project, grantee/recipient organization and/or the amount of the award through a competitive grant process. Limited eligibility and many grant programs with matching or cost sharing requirements are discretionary in nature since they contain competitive components.

Cooperative agreements may be competitive or non-competitive, and are administered according to the same processes as other financial assistance programs. The unique characteristic of a cooperative agreement is that it requires DOI to be substantially involved during performance of the project, providing financial, training, technical assistance, property, or personnel support.

Public Law 93-638 programs (638 programs) issue awards (non-procurement contracts, grants, or cooperative agreements) that provide funding to an Indian tribe or tribal organization according to the Indian Self-Determination and Education Assistance Act.

## **1.5 Personal Property and Fleet Management**

The personal property and fleet management function supports physical and financial control over DOI's personal property, including fleet management of DOI vehicles. The personal property and fleet management program manages physical assets by using systems that provide information and data to assist property managers and officials in making business decisions. Examples of property management responsibilities and activities supported by the property management systems include: recording the results of inventories, monitoring maintenance requirements, depreciation, utilization, retirement, transfer, or disposal of property. The program also provides overall accountability for all personal property acquired by or in the custody of the bureau contractors/grantees.

## **1.6 Real Property**

DOI has the largest land holdings in the Federal government, in addition to an extensive portfolio of buildings and structures. Real property owned or leased by DOI must be properly accounted for in real property accountability and financial records in accordance with Joint Financial Management Improvement Program (JFMIP) and its successors. Reporting capability must fulfill reporting requirements internally and externally as required by Federal regulations. Some of these reporting requirements encompass extensive energy consumption information, cost collection data, condition assessment and inventory information, utilization standards, specific disposal-related reporting requirements, and many others, all of which support Interior's Asset Management Plan and the Federal Real Property Profile. DOI has heritage assets, multi-use heritage assets and stewardship real property which require different financial processes. DOI also manages housing units occupied by employees and others that require management of rent collection.

## **1.7 Travel**

DOI processes roughly 310,000 travel vouchers annually. Over 50,000 DOI employees have a government-sponsored integrated charge card with the travel business line. The travel function supports the Department's management of travel and transportation activities and expenses. The function supports general temporary duty (TDY) travel, permanent change of station, local travel, and non-Federal sponsored travel.

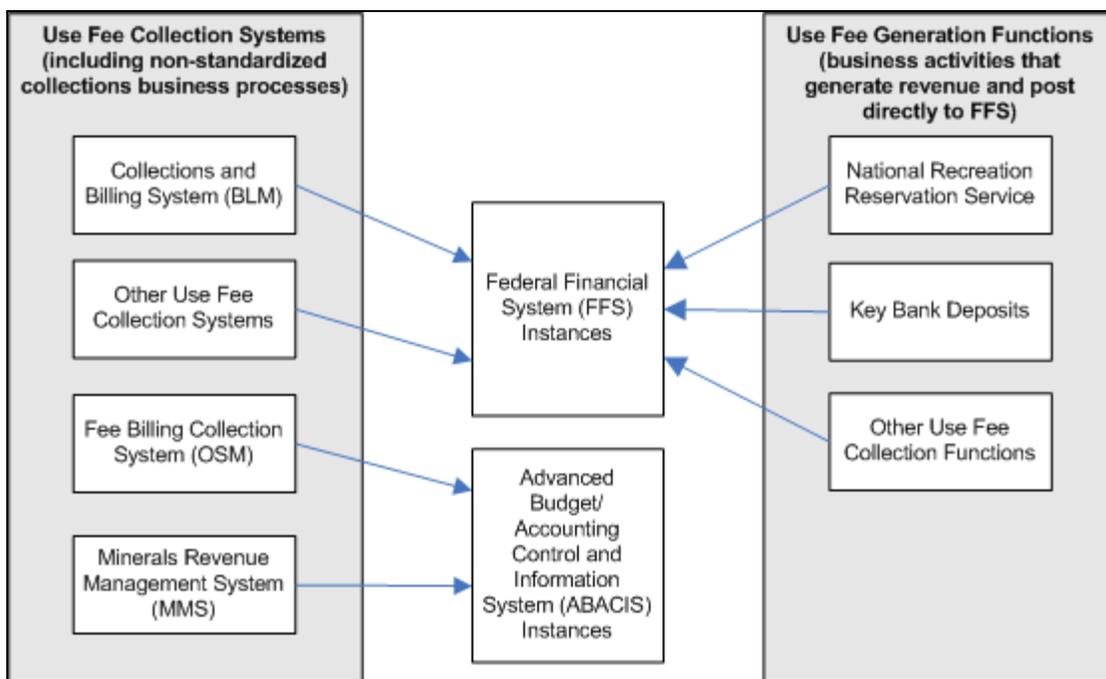
As part of the FBMS implementation, the Department will identify opportunities to align with the eGovernment Travel initiative and identify opportunities for consolidating administrative processes in support of the Department.

## **1.8 Use Fee Collection**

The FBMS scope includes acquisitions which drive expenses on the income statement, cash expenditures for the cash flow statement, and accounts payables on the balance sheet. The FBMS scope also includes property asset inventory and accounting which drive depreciation expenses on the income statement and asset values on the balance sheet. FBMS scope does not include the modernization of revenue collection which is an important element of reporting and information, specifically financial statement reporting.

The recognition of revenue is an important element to financial accounting as it drives revenue values on the income statement, cash from operations on your cash flow statement, and receivable values on the balance sheet. Revenue will be posted to the general ledger within SAP as part of FBMS, but revenue collection will be managed, in a non-standardized way, within each of the Bureaus.

Currently, there are several revenue collection solutions with the DOI and its Bureaus. Some of the current solutions include Collections and Billing System (CBS) within BLM, Fee Billing Collection System (FEEBACS) within OSM, and Minerals Revenue Management System (MRM) within MMS. These solutions all ultimately solve the issue of posting revenue to the general ledger, however the lack of standard processes and rules surrounding revenue collection make reconciliation and financial audit difficult tasks to accomplish. Figure 1-3 illustrates the current environment where there are revenue collections systems interfacing directly with Federal Financial System (FFS)/ Advanced Budget/Accounting Control and Information System (ABACIS) while in other instances there are Bureau specific revenue collection systems that interface to FFS. The model that is used by BLM, to leverage a Bureau specific revenue collection system that then interfaces with FFS, streamlines the collection and recognition of revenue and employs a single set of revenue business rules for the entire Bureau.



**Figure 1-3: Current State Use Fee Scenario**

Overall, the lack of standardized revenue collection processes and technologies adds risk to the revenue collection business function, which in turn adds risk to DOI’s compliance with the 1990 CFO Act.

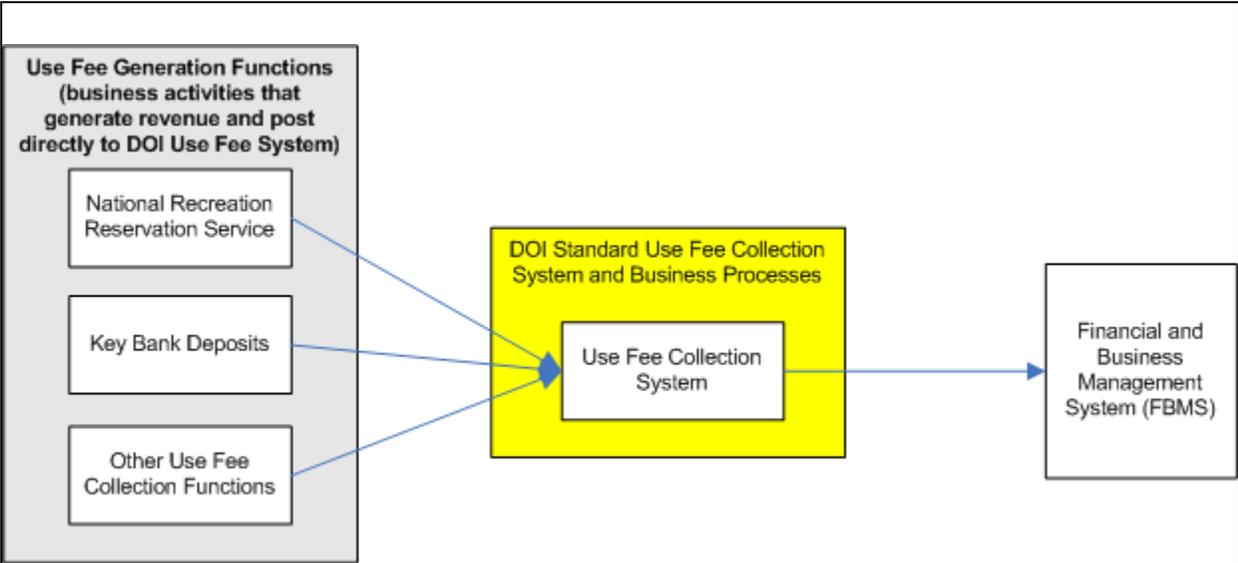
In general, each of the Bureaus has their own solution to this critical dimension of the financial domain. In some instances, like BLM, there are Bureau standards for use fee collection rules and systems. In other Bureaus, there are many direct interfaces into the financial system from the various revenue generating functions.

Each of the Bureau solutions, no matter the maturity, presents additional risk to overall Department financial statement and reporting and information validity. Currently there are two approaches in place for use fee collection. First, Bureaus like BLM have a Bureau centralized model for use fee collection (one Bureau system). Although this is a step in the right direction and although this standardizes use fee collection within BLM, there still exists the risk of inconsistent rules and interfaces being employed across the different Bureaus.

A second use fee approach currently implemented within the Bureaus is the fragmented, decentralized model for use fee collection. Specifically this occurs when a Bureau has more than one use fee collection system and process. This approach introduces an even greater risk as each of the revenue generation functions manages its own rules and interfaces to the financial system. Under this model, it is likely that even within a single Bureau, there will be many different rules being employed for use fee collection.

It is recommended that an investment be considered to standardize the revenue collection processes and systems across the Bureaus. This investment would be focused on re-engineering and standardizing use fee collection processes, standardizing use fee related data elements, eliminating redundant use fee collection systems, and reducing the overall number of interfaces into the FBMS solution. Figure 1-4 illustrates a proposed target use fee collection concept. Note that in the target concept, the same legacy systems continue to exist as it is likely that these systems have other functionality beyond use fee collections. In other words, the sub-systems that currently enable use fee collection will be retired, while the subsystems that enable other business functions will continue to exist. The goal of use fee collection modernization is not to reduce systems, but rather to standardize and secure the use fee collection capabilities within the Bureaus. It should also be noted that Reclamation collects millions of dollars of revenue each year which are not “fees.” A common “fee collection

system” may not be adequate or applicable to the type of revenue collection practiced by Reclamation. This would be determined in the detailed analysis as part of the business case for this investment.



**Figure 1-4: Proposed Target State Use Fee Concept**

## 2. Business and Performance Architecture

The functions discussed in the previous section outline the core business of the Financial Management Modernization Blueprint. As stated in the previous section, the business environment for Financial Management at DOI is intertwined with other business management functions as defined by OMB and shown in Figure 2-1. The target solution for the Financial Management business area is designed to support functions across the business support services captured in OMB’s BRM.

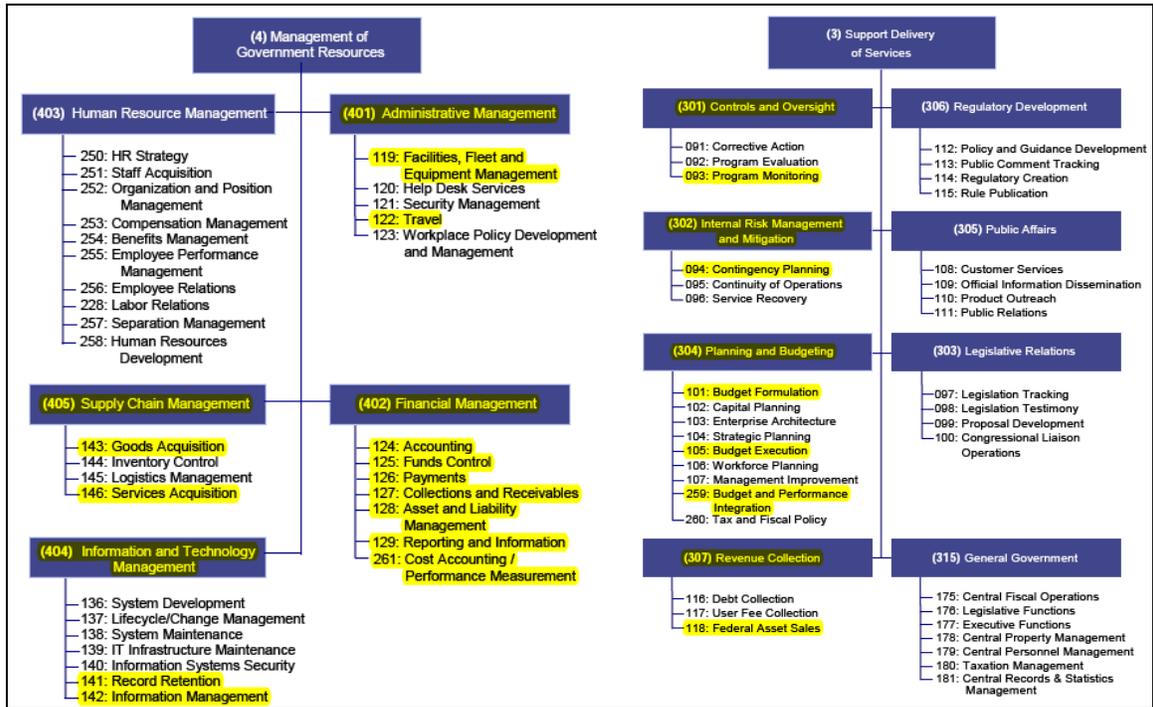
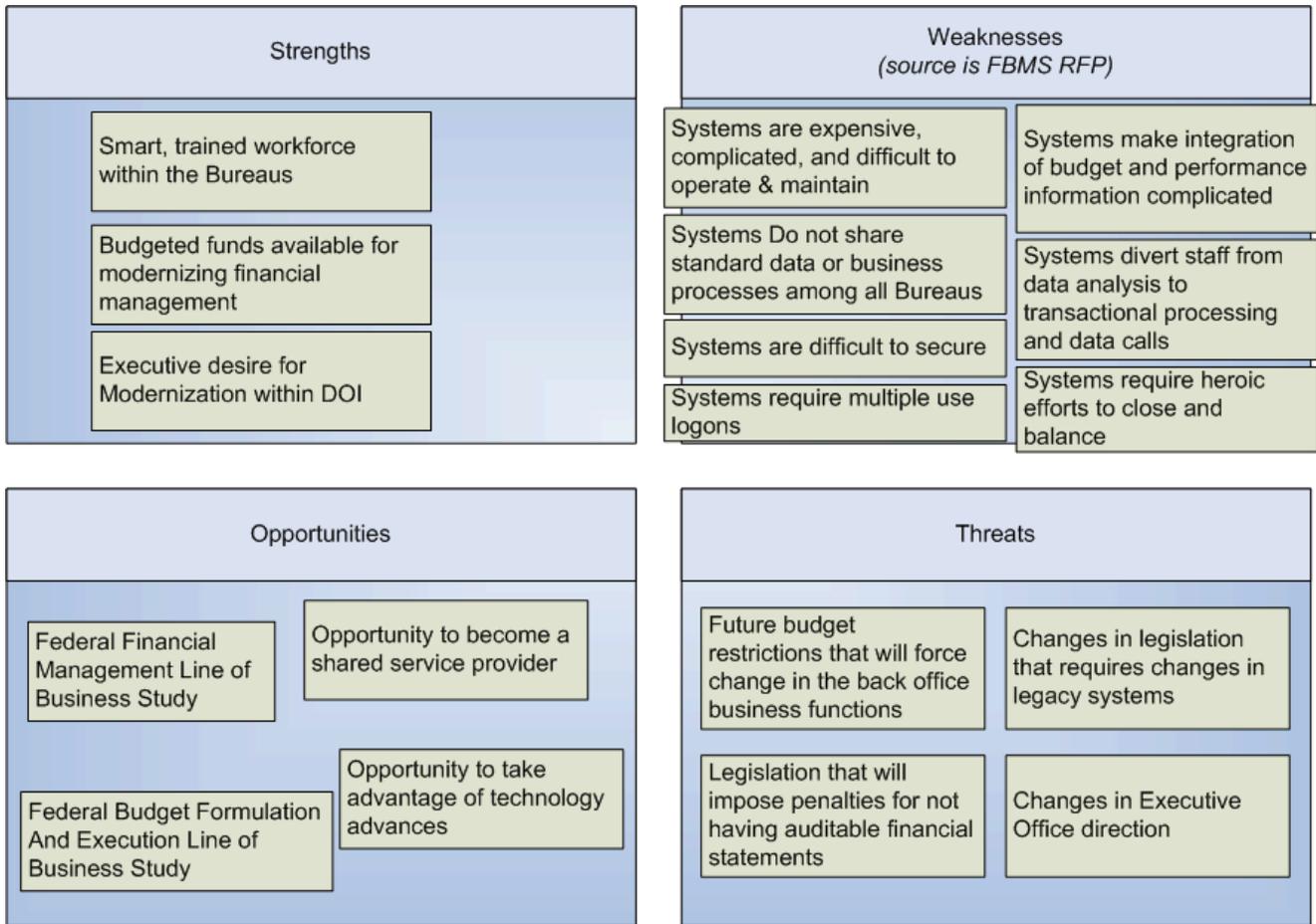


Figure 2-1: Subfunctions for Financial Management at DOI - from the OMB BRM

Ultimately, the DOI offices and Bureaus are responsible for outlining the performance of the functions shown in Figure 2-1 as well as reacting to the realities of strengths and weaknesses of how those functions are currently performed. These reactions to strengths and weaknesses as well as other drivers are part of this Financial Management Blueprint and collectively are the reason for modernization. Several of these drivers have been captured in the Strengths, Weaknesses, Opportunities, and Threats (SWOT) diagram shown in Figure 2-2. The SWOT diagram represents some of the gaps in capability within DOI today. Issues with systems, security, processes, and resource allocation are all gaps that are addressed by the target solutions within this document.



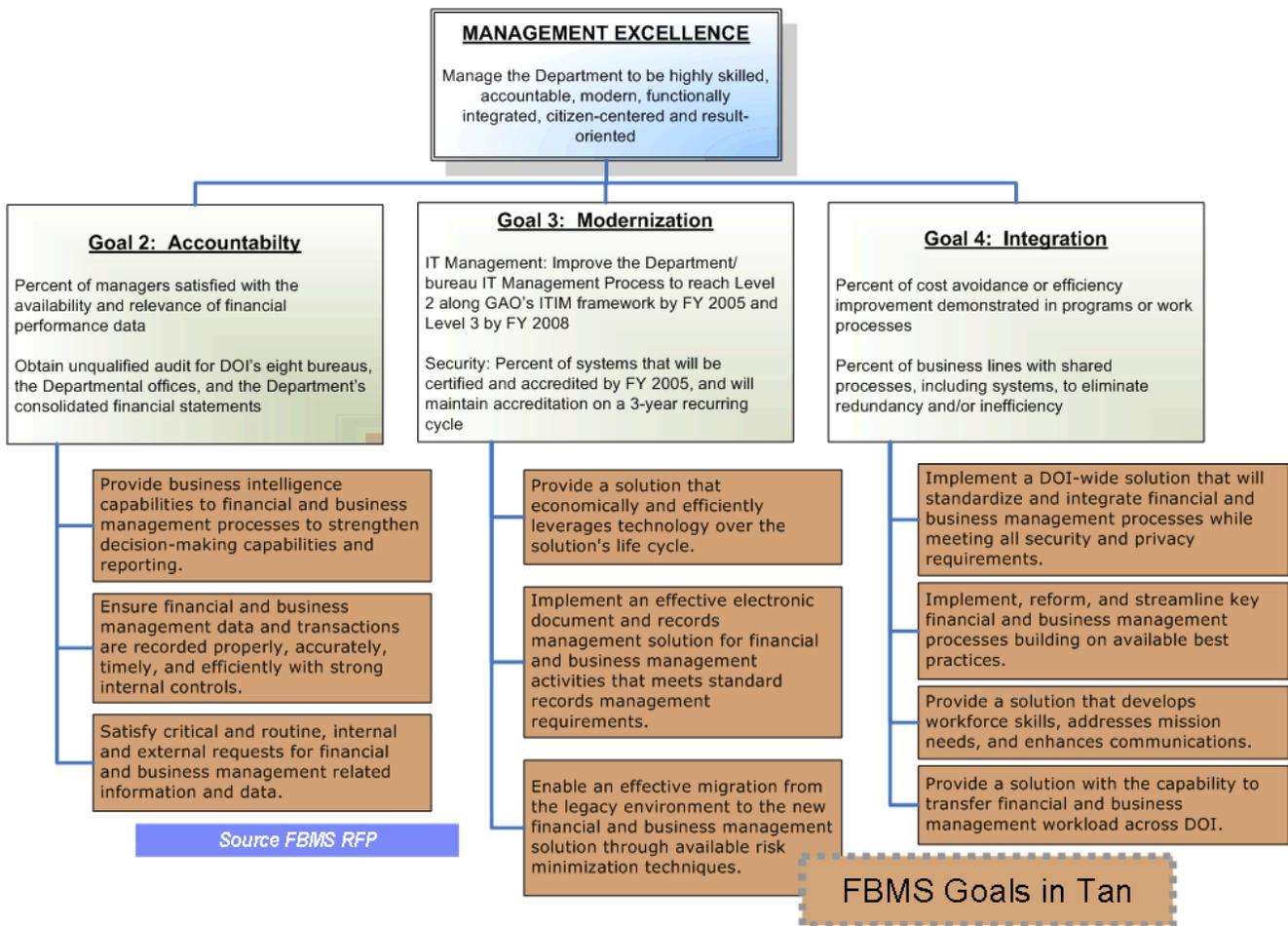
**Figure 2-2: SWOT for Financial Management (from existing documentation)**

The subfunctions outlined in Figure 2-1 and the drivers outlined in Figure 2-2 are performed and addressed by the stated goals and objectives of the organization. At DOI, most of these types of functions and drivers are covered in the Management Excellence portion of the DOI Strategic Plan. Figure 2-3 shows all of the goals and measures within the Management Excellence portion of the DOI Strategic Plan (2003-2008). The last column in Figure 2-3 shows how these goals and measures map to the Financial Management business area at DOI. The modernization of Financial Management directly impacts Goal 2 which is oriented towards financial management functions. However, the modernization of Financial Management also helps meet Goals 3 and 4 in terms of the IT and process modernization that is associated with Financial Management.

MANAGEMENT EXCELLENCE GOALS AND MEASURES		
GOAL	MEASURE	FM RELATED
<b>GOAL 1 Workforce Has Job-Related Knowledge and Skills Necessary to Accomplish Organizational Goals</b>	Percent of managers who indicate that their workforce has the job-relevant knowledge and skills necessary to accomplish the organizational goals	
	Percent of managers satisfied with the availability and relevance of financial performance data	X
<b>GOAL 2 Accountability</b>	Obtain unqualified audit for DOI's eight bureaus, the Departmental offices, and the Department's consolidated financial statements	X
	IT Management: Improve the Department/bureau IT Management Process to reach Level 2 along GAO's ITIM framework by FY 2005 and Level 3 by FY 2008	X
<b>GOAL 3 Modernization</b>	Security: Percent of systems that will be certified and accredited by FY 2005, and will maintain accreditation on a 3-year recurring cycle	X
	Percent of time that networks are operational for all users	
<b>GOAL 4 Integration</b>	Percent of cost avoidance or efficiency improvement demonstrated in programs or work processes	X
	Percent of business lines with shared processes, including systems, to eliminate redundancy and/or inefficiency	X
<b>GOAL 5 Customer Value</b>	Percent of external customers satisfied with services provided by the Department (survey results)	

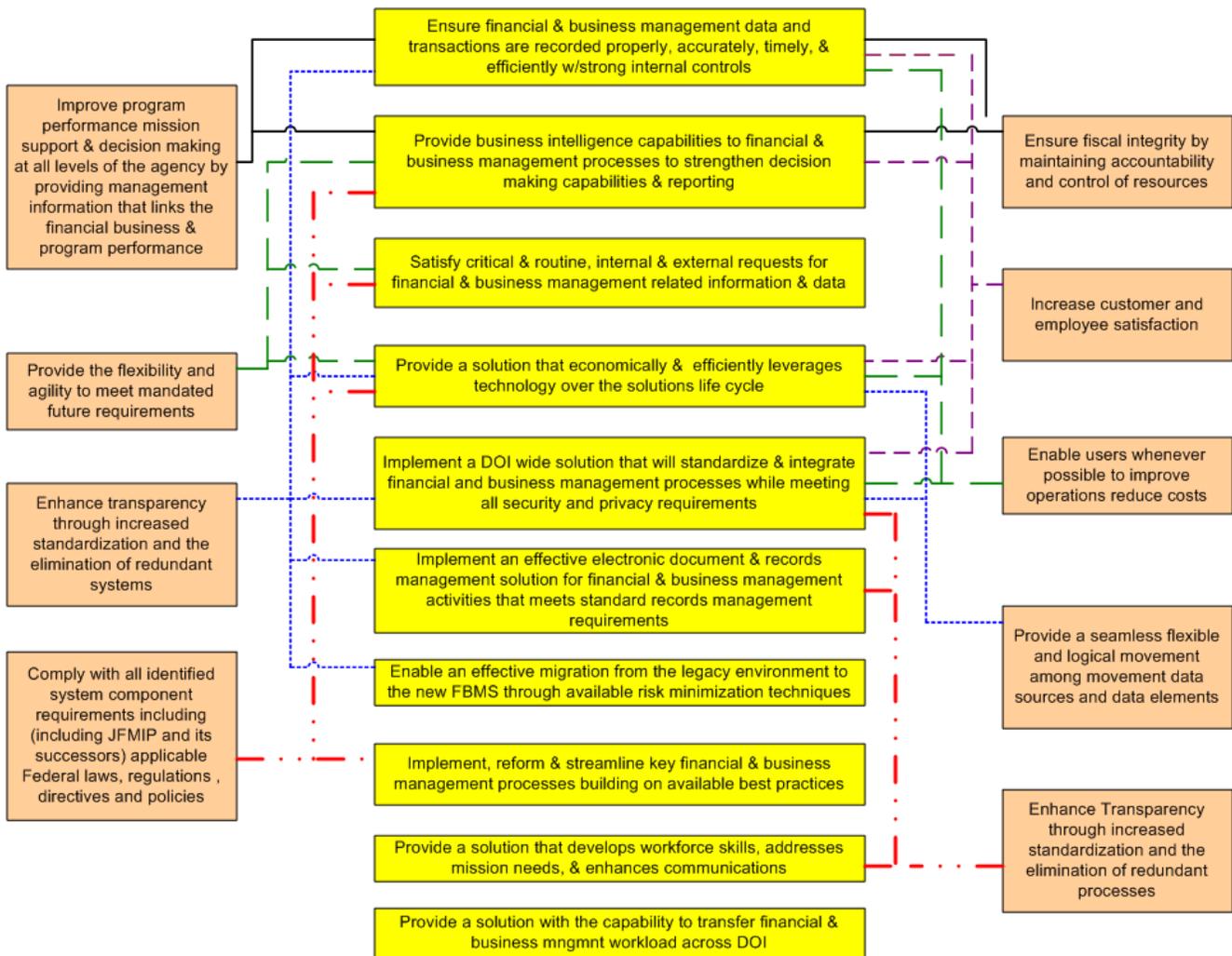
Figure 2-3: Management Excellence Goals and Measures from DOI Strategic Plan

The goals and measures from the Management Excellence portion of the DOI Strategic Plan can be further linked to the specific goals of the Financial and Business Management System (FBMS) project at DOI. The FBMS project is implementing the target state solution for the Financial Management business area. Figure 2-4 illustrates the mapping of the FBMS goals to the relevant goals and measures from the DOI Strategic Plan. This visual shows how the target solution for the Financial Management business area has goals that are in alignment and in support of the Management Excellence goals and measures for DOI.



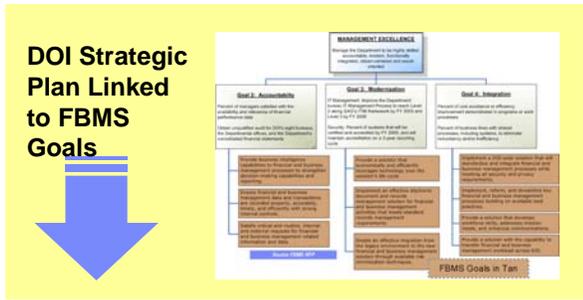
**Figure 2-4: FBMS Goals Linked to DOI Strategic Plan**

In an effort to show that performance measurement is available at all levels within DOI and the Financial Management business area, the goals of FBMS shown in Figure 2-4 can be further linked to the specific objectives of the FBMS project. Figure 2-5 illustrates this breakdown by highlighting the FBMS objectives in yellow and linking those objectives to the FBMS goals that they support. The intent of this decomposition is to show performance items that are inter-connected and supportive of each other throughout the layers of the enterprise and down to the project level.



**Figure 2-5: Goals of FBMS Linked to FBMS Objectives (objectives in yellow – line colors are for easier viewing)**

Ultimately the line of sight of goals and objectives links to specific measures that DOI Financial Management is held accountable to achieve. This line of sight provides a linkage from the DOI Strategic Plan all the way to measures associated with a specific investment. Figure 2-6 illustrates this line of sight and shows the measures for FY2007 for the target state solution for Financial Management.



FY 2007 Measurements	
OMB Measure Areas	Measurement Indicators
<b>Customer Results</b>	All system users receive timely role-based training; 1. FBMS users will participate in training as stated in the training plan; 2. Over 80% of FBMS users pass post-training certification evaluations prior to Go-Live.
<b>Mission and Business Results</b>	Internal pre-audit findings for FBMS Deployments reveal no material weaknesses for those Bureaus using FBMS.
<b>Processes and Activities</b>	Process time reductions for end to end processes using FBMS compared to legacy systems, by deployment. Tentative goal is 20% efficiency improvement.
<b>Technology</b>	End to End functionality tests during FBMS acceptance testing: no critical or major errors reported for final phase, user acceptance testing, each deployment.
<b>Technology</b>	90% of designated legacy systems are retired within 6 months of FBMS go-live date.
<b>Technology</b>	System reliability index $\geq 1.0$ , based on negotiated Service Level Agreement (SLA) with the system host, where 1.0 represents full minimum compliance with SLA metrics.

Figure 2-6: Line of Sight through Investment Specific Measures (source of measures is FBMS 300)

### 3. Current Systems, Technology, and Investment Environment

The broad scope of financial and business management functions includes a wide array of legacy technologies to be included in the assessment for modernization. Currently, there are many different systems that support the Financial Management Business Area at DOI and are affected by the FBMS initiative. Table 3-1 shows the organization and total number of system instances affected. Note that a small handful of these systems might not ultimately be affected by FBMS. This is discussed in more detail in following sections. Also note that in many cases there is one system solution that has been deployed many times. Each deployment is counted and referred to as a distinct system.

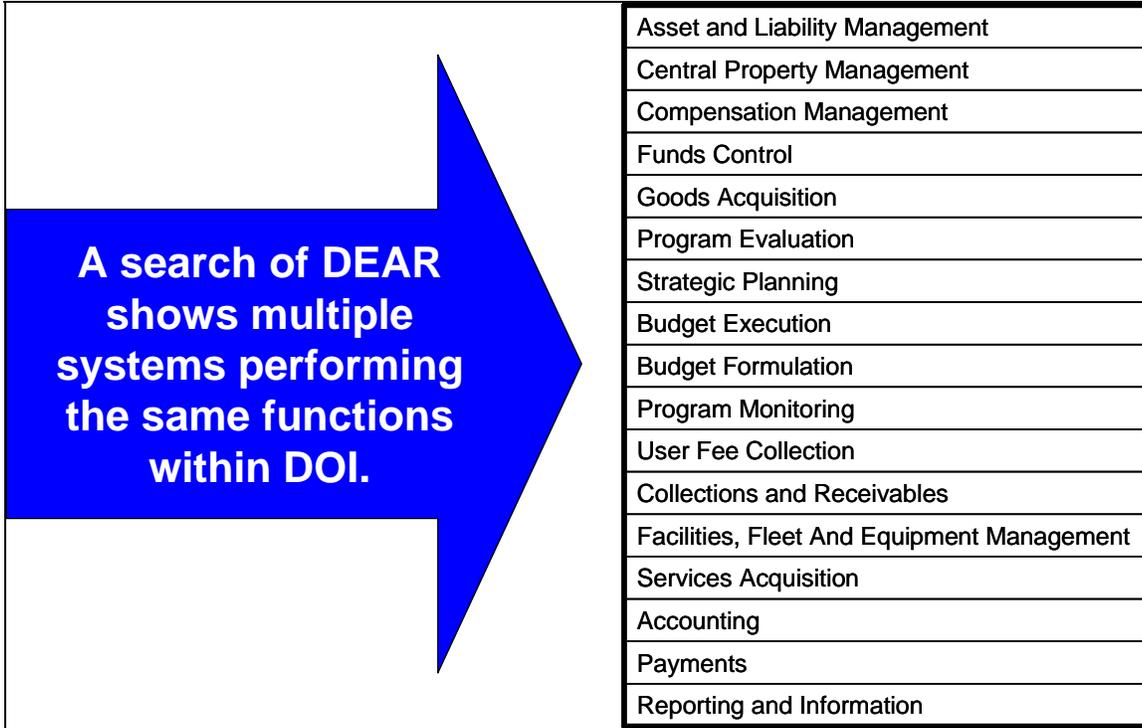
**Table 3-1: Financial and Business Management Systems (Affected by FBMS) by Organization**

Organization	Total System Instances
Bureau of Indian Affairs (BIA)	12
Bureau of Land Management (BLM)	14
Bureau of Reclamation (BOR)	20
Department of the Interior (DOI)	8
External	6
Minerals Management Service (MMS)	7
National Business Center (NBC)	18
National Business Center Aviation Management (NBCAM)	6
National Park Service (NPS)	14
Office of the Inspector General (OIG)	3
Office of the Secretary (OS)	6
Office of Surface Mining (OSM)	17
Office of the Solicitor	1
Office of the Special Trustee (OST)	1
United States Fish and Wildlife Service (USFWS)	15
United States Geological Survey (USGS)	12
<b>Grand Total</b>	<b>160</b>

The systems landscape varies in complexity by Bureau, but is far too complex even within the most modernized Bureau. Besides the use of applications, there are differences in hosting environments, hardware platforms, system operations rules, and underlying software development standards. As a result of the technology complexity, the Financial Management Business Area cannot adopt the modern business practices that are required by its mission. Figure 3-1 illustrates the tangled web that is currently the existing Financial Management (Financial Management) LOB systems environment.



Overall, each of the organizations performing financial management functions at DOI has a collection of systems that are, in many cases, redundant when compared across DOI as an enterprise. A quick report from the DOI Enterprise Architecture Repository (DEAR) shows redundancy of systems supporting the Financial Management related functions shown in Figure 3-2.



**Figure 3-2: A report from DEAR shows systems redundantly supporting these Financial Management related functions**

The following tables detail the systems within DOI and the Bureaus that are currently supporting either Financial Management or Business Management functions and are all impacted by FBMS. It should also be noted that there are many definitions of the term “system”. In all cases in this document the term “system” is intended to capture items that have business logic that support business functions. These could be spreadsheets or other minor implementations of technology. These items are tracked as it is in the best interest of the affected organizations to ensure that technology solutions that support critical mission functions are not missed in the conversion to the target state solution.

**Table 3-2: Bureau of Indian Affairs System Names**

Organization	System Name
BIA	Activity-Based Costing/OROS
BIA	Colorado River Electrical Utility Management System
BIA	Facilities Management Information System (FMIS)
BIA	Federal Financial System
BIA	Interior Department Electronic Acquisition System - BIA
BIA	Loan Management and Accounting System (LMAS)
BIA	MAXIMO

BIA	National Irrigation Management Information System
BIA	San Carlos Irrigation Project (SCIP)/Continental Billing System (CBS)
BIA	Self Governance Financial Management Database
BIA	Social Service Assistance System
BIA	Suspense Deposit System (SDS)

*Note: FBMS does not affect any BIA Trust systems*

**Table 3-3: Bureau of Land Management System Names**

Organization	System Name
BLM	Alaska Fire Store
BLM	Automated Fleet Management System
BLM	Budget Planning System
BLM	Collections and Billings System
BLM	Facility Asset Management System (MAXIMO-BLM)
BLM	Federal Financial System
BLM	Interior Department Electronic Acquisition System (BLM Instance)
BLM	Management Information Systems
BLM	Motor Vehicle Reconciliation
BLM	National Integrated Land System (NILS)
BLM	National Interagency Fire Center
BLM	Performance and Workload Measurement System
BLM	Property, Space and Vehicle System
BLM	Relocation Income Tax Allowance

**Table 3-4: Bureau of Reclamation System Names**

Organization	System Name
BOR	BOR Labor Cost System
BOR	Capital Asset and Resource Management Application (MAXIMO)
BOR	Corporate Data Warehouse/Financial Information Records System
BOR	Federal Financial System
BOR	Federal Standard Requisitioning and Issue Procedures
BOR	Foundation Information for Real Property Management
BOR	Interior Department Electronic Acquisition System - Billings, MT
BOR	Interior Department Electronic Acquisition System - Boise, ID
BOR	Interior Department Electronic Acquisition System - Burley, ID
BOR	Interior Department Electronic Acquisition System - Denver, CO
BOR	Interior Department Electronic Acquisition System - Grand Coulee, WA
BOR	Interior Department Electronic Acquisition System - Sacramento, CA
BOR	Interior Department Electronic Acquisition System - Salt Lake City, UT
BOR	Interior Department Electronic Acquisition System - Yakima, WA
BOR	Interior Department Electronic Acquisition System - Yuma, AZ
BOR	Moveable Property System
BOR	Program and Budget System
BOR	Time And Attendance System
BOR	TSC Management Information System
BOR	WORKS

**Table 3-5: Department of Interior System Names**

<b>Organization</b>	<b>System Name</b>
DOI	ABC/M System
DOI	Asset Inventory System
DOI	Consolidated Financial Statement System (Hyperion)
DOI	Contingent Liabilities Database
DOI	Federal Financial System
DOI	Interagency Cache Business System
DOI	Natural Resource Damage Assessment & Restoration
DOI	Quarters Management Information System

**Table 3-6: External Organizations System Names**

<b>Organization</b>	<b>System Name</b>
External	Cashlink (Treasury)
External	Electronic Account Government Ledger System (EAGLS)
External	Federal Real Property Profile
External	GSA Motor Pool Billing
External	National Recreation Reservation Service
External	Secure Payment System (Treasury)

**Table 3-7: Minerals Management Service System Names**

<b>Organization</b>	<b>System Name</b>
MMS	Advanced Budget/Accounting Control and Information System (MMS)
MMS	Interior Department Electronic Acquisition System MMS
MMS	OROS
MMS	Performance Gathering Tool
MMS	Property Management System
MMS	SAS ABC System
MMS	Vehicle Management System

**Table 3-8: National Business Center System Names**

<b>Organization</b>	<b>System Name</b>
NBC	Advanced Budget/Accounting Control and Information System (IFF)
NBC	Appraisal Request and Review Tracking System (ARRTS)
NBC	Business Information System
NBC	Cash Collection System
NBC	Contractor Costs
NBC	Customer Agreement System
NBC	eInvoicing
NBC	Electronic Certification System
NBC	Facilities Maintenance Tracking (Maximo)
NBC	Federal Financial System (payroll operations division)
NBC	Federal Personnel and Payroll System
NBC	GovPay
NBC	Interior Department Electronic Acquisition System - GovWorks
NBC	Interior Department Electronic Acquisition System - HQ, SW
NBC	Procurement Tracking System
NBC	QuickTime
NBC	Travel Management System

NBC Treasury Memo System

*Note that some of the NBC systems will not exist for DOI use (no longer be supported financially by DOI), but might exist for NBC to support their external customers. This might be the case for Customer Agreement Systems and IDEAS)*

**Table 3-9: National Business Center Aviation Management System Names**

Organization	System Name
NBCAM	Aviation Management Aircraft Maintenance Sub-system
NBCAM	Aviation Management Aircraft Management Sub-system
NBCAM	Aviation Management Finance Sub-system
NBCAM	Aviation Management Fuel Sub-system
NBCAM	Interior Department Electronic Acquisition System OAS
NBCAM	KATIE

**Table 3-10: National Park Service System Names**

Organization	System Name
NPS	Administrative Financial System 3
NPS	America the Beautiful
NPS	Construction Allocation System
NPS	Facilities Management Software System-FMSS
NPS	Federal Financial System
NPS	Financial Reporting and Reconciliation System
NPS	Interior Department Electronic Acquisition System NPS
NPS	National Recreation Reservation Service
NPS	Operations Formulation System
NPS	Performance Management Data System (PMDS)
NPS	Point of Sale System
NPS	Program Management Information System (PMIS) - OFS
NPS	Third Party Draft System
NPS	Travel Manager Plus

**Table 3-11: Office of Inspector General System Name**

Organization	System Name
OIG	Federal Financial System
OIG	New OIG Property Inventory System
OIG	OIG Property Inventory

**Table 3-12: Office of the Secretary System Names**

Organization	System Name
OS	Grant Management System
OS	Interior Department Electronic Acquisition System
OS	Management Information Tool
OS	OS Budget System
OS	Payment in Lieu of Taxes
OS	Screen Available and Exchange Sale Electronic HandBook

**Table 3-13: Office of Surface Mining System Names**

<b>Organization</b>	<b>System Name</b>
OSM	Advanced Budget Accounting Control and Information System (OSM)
OSM	AGS Invoice
OSM	AGS Procurement
OSM	AML Bids
OSM	Bidder Tracking System (AGS Bids)
OSM	Coal Fee Collection Management System (CFCMS)
OSM	CONDORS
OSM	Draw Down Express
OSM	E-BUDGET
OSM	EMC2 Scanning System for ABACIS
OSM	Grant Distribution and Reconciliation Spreadsheets
OSM	Grant Information Financial Tracking System (OSM)
OSM	Interior Department Electronic Acquisition System OSM
OSM	Investment Module
OSM	Management and Accounting Performance System
OSM	Property Asset Ledger System
OSM	Travel Manager

**Table 3-14: Office of the Special Trustee System Name**

<b>Organization</b>	<b>System Name</b>
OST	Federal Financial System

**Table 3-15: Office of the Solicitor**

<b>Organization</b>	<b>System Name</b>
SOL	Solicitor Budget Formulation and Execution Application

**Table 3-16: U.S. Fish and Wildlife Service System Names**

<b>Organization</b>	<b>System Name</b>
USFWS	Budget Allocation System
USFWS	Budget and Control Schedule
USFWS	Cost and Performance Management System (CPMS)
USFWS	Data Mart
USFWS	ECOS: FIS Subsystem: FONS Module
USFWS	Energy
USFWS	Federal Aid Information Management System (FAIMS)
USFWS	Federal Financial System
USFWS	Interior Department Electronic Acquisition System USFWS
USFWS	MAXIMO (FWS)
USFWS	Personal Property Management Information System
USFWS	Real Property Inventory
USFWS	Real Property Management Information System
USFWS	Refuges Management Information System: RONS Module
USFWS	Travel Manager

**Table 3-17: U.S. Geological Survey System Names**

<b>Organization</b>	<b>System Name</b>
USGS	BASIS Plus
USGS	Distributed Ordering Research Reporting & Acctg Network (DORRAN)
USGS	FBA Online (Facilities Budget Activity)
USGS	Federal Financial System
USGS	Federal Real Property Management (FRPM)
USGS	FFS Oracle Reporting Data Mart
USGS	Interior Department Electronic Acquisition System USGS
USGS	Lotus Notes Training
USGS	MAXIMO - USGS
USGS	Peachtree 2000 Inventory System
USGS	Personnel Resource Utilization System
USGS	PMIS

\* Some technical and investment information has been removed and is available in the DOI internal version of the Financial Management Blueprint \*

## 4. Target Systems, Technology, Security, and Data Architectures

### 4.1 Overview of the Financial and Business Management System (FBMS)

As detailed in the previous section, there are currently many redundant systems within the Financial Management Business Area at DOI. These systems redundancies will be eliminated through the implementation of the target systems architecture, FBMS. FBMS will implement a functionality driven Enterprise Resource Planning (ERP) solution that supports the administrative management requirements of DOI. More specifically, the FBMS initiative will be modernizing the processes, technologies, and human resources associated with the Financial Management Business Area. The modernization of processes and technologies are detailed in this Blueprint while the specific physical changes to these components as well as the human resources will be detailed in project specific Blueprints.

The following guiding principles of the initiative are focused on standardizing and better enabling the financial management business functions across DOI and its Bureaus. These principles were briefed to OMB by DOI on January 29, 2004.

- **Integration:** The main intent is to standardize and integrate financial and business processes across the DOI and its Bureaus. This standardization will provide for more accurate, reliable, and timely financial reporting, business intelligence, and analytical capabilities as required by the Chief Financial Officer (CFO) Act of 1990.
- **Accountability:** The CFO Act of 1990 requires that the DOI has a CFO that is accountable for financial operations and reporting. The FBMS solution is focused on improving program performance and continuing to attain unqualified opinions as proof that financial accountability is in place within the DOI.
- **Customer Value:** The Financial Management Business Area, as a service organization within the DOI, will leverage the FBMS capabilities to seek new ways to improve service to its customers. Whether the customers are internal or external, the measures of success will be financial transparency and the availability of timely, reliable, and accurate financial information.
- **Modernization:** The scope of FBMS is broad, covering financial and business management within the DOI. A single point solution, like Systems Applications and Products (SAP), for modernizing such a broad scope will undoubtedly have a significant impact on the technology landscape of the DOI. This overall modernization of information technology (IT) solutions and infrastructure is a key objective of the FBMS initiative.
- **Professionalism:** The implementation of technologies will not result in mission success without the human resources and knowledge capital within the Financial Management Business Area. The change management portion of the FBMS initiative is focused on ensuring that the DOI workforce has the skills necessary to achieve organizational goals. This effort extends beyond training on new processes and applications to include fostering employee retention, professionalism, creativity, and overall excellence.

The high level goals (*source: FBMS RFP*) of the FBMS project are to:

1. Ensure fiscal integrity by maintaining accountability and control of resources.
2. Improve program performance, mission support, and decision-making at all levels of the agency by providing management information that links financial, business, and program performance.
3. Enhance transparency through increased standardization and the elimination of redundant systems and processes.
4. Enable users, whenever possible, to improve operations and reduce costs.

5. Provide a seamless, flexible, and logical movement among data sources and data elements.
6. Comply with all identified system component requirements (including Joint Financial Management Improvement Program (JFMIP) and its successors), applicable Federal laws, regulations, directives and policies.
7. Provide the flexibility and agility to meet mandated, future requirements.
8. Increase customer and employee satisfaction.

In order to select the right approach that would satisfy budget constraints and fulfill the goals of the project, a series of alternatives was considered. The FBMS Integrated Project Team (IPT) conducted Market Research from April 28 through May 9, 2003 with industry and other Government agencies that have, or are currently implementing financial management systems and enterprise-wide systems. These meetings were held to solicit Best Practices from industry and government entities on total business solutions, performance metrics, vendor due diligence, and solution implementations, and gain Lessons Learned from commercial and government entities having experience implementing solutions for programs similar in size, scope and complexity as the FBMS project. For FBMS's market research, emphasis was placed on best practices and innovative delivery methods for the eight specific functional areas included in the project (finance, acquisition, real property, etc.).

\* Some investment information has been removed and is available in the DOI internal version of the Financial Management Blueprint \*

## **4.2 Detailed Discussion of the Target Financial Management System and Technology Architecture**

The future state of the technologies used to enable the Financial Management Business Area is vastly different than the current state. The support systems for the Financial Management Business Area will be transformed by the implementation of the FBMS solution. Beyond just the technologies themselves, the FBMS solution will provide a unified technical approach to information management across the Bureaus by using applications where all the components have the same look and feel, and information access is familiar through standardized screens and reports.

The FBMS solution design is based upon several industry reference architecture models that provide best practice techniques for delivering a secure, scalable, highly available, and extensible architecture. The FBMS solution is leveraging the best practice patterns from SAP for their solutions, business patterns, application integration patterns, and best practices around system management and monitoring.

The target solution architecture for the Financial Management Business Area is built on the SAP solution set for Government financial and reporting systems. This SAP solution set provides an open systems architecture which leverages industry standards, and provide the building blocks for service oriented architecture within the Financial Management Business Area. The core components of the FBMS solution are applications from SAP that include Enterprise Portal, SAP R/3, Business Warehouse (BW), Supplier Relationship Manager (SRM), Solution Manager, Strategic Enterprise Manager (SEM), Master Data Management (MDM), and SAP Netweaver.

\* Some technical information has been removed and is available in the DOI internal version of the Financial Management Blueprint \*

One extended note is due necessary for the Master Data Management (MDM) component. MDM provides a means to store, augment, and consolidate master data, while ensuring consistent distribution to all applications and systems within the IT landscape. Working across heterogeneous systems at multiple locations, MDM leverages existing IT investments. MDM provides a Federated Data Model perspective of the enterprise landscape. It is important that the master data that is managed through MDM be consistent with the Financial

Management data model discussed in this Blueprint and also consistent with the DOI Data Reference Model (DRM) which includes the Financial Management data model.

The FBMS solution provides web-based personalized user access to end-users through the Internet and DOI wide area network (WAN), supports system-to-system interfaces, and provides capabilities for creating web based services based on Service Oriented Architecture (SOA) standards. The FBMS architecture utilizes an n-tier approach designed for scalability and for the flexibility of adding new components/technologies as the solution grows. The intent of this design approach is to provide a flexible technical infrastructure that can be easily extended as additional users and functionality is brought on-line. Figure 4-1 illustrated the high level technology solution for FBMS.

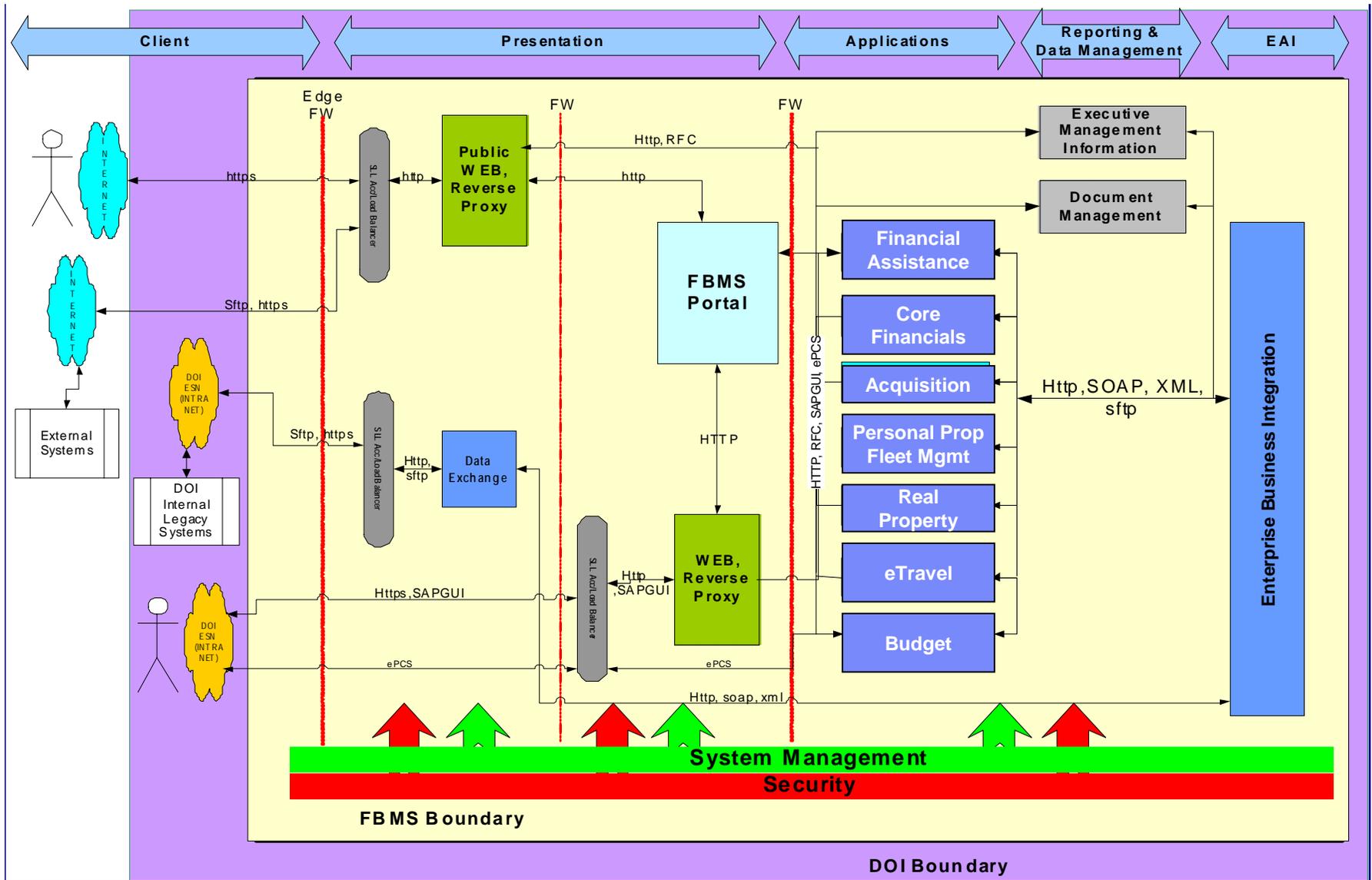


Figure 4-1: FBMS Solution Overview Diagram

The FBMS technical solution illustrated in Figure 4-1 includes the following tiers and cross-tier Tier Subsystems:

**Client Tier** – This tier included the user’s workstation or external system requiring access and thick client user interface (UI). A thick client is a client that performs the bulk of any data processing operations itself. The Client Tier of the FBMS solution consists of the user interface products that integrate the information to an “end-user” common point of access, such as workstation browsers, computers, terminals, and other display and viewing units. The FBMS client tier is a browser-based solution for all external users. For DOI internal users, FBMS is primarily a browser-based solution that will require thick-client solutions for certain transaction and user types depending on the business roles. The use of non-browser based presentation clients is being contained and limited to the greatest extent possible.

**Presentation Tier (aka Web tier)** - This tier web-enables the business logic and manages the interaction between web clients and application business logic. It comprises the infrastructure required to support building the applications’ presentation and generally performs the following:

- Generates dynamic content -- presentation-tier components generate content dynamically.
- Presents data and collects input -- components translate HTTP PUT and GET actions into a form that the business logic understands and present results as Web content.
- Controls screen flow -- the logic that determines which "screen" (that is, which page) is presented.
- Maintains state -- has a simple, flexible mechanism for accumulating data for transactions and for interaction context over the lifetime of a user session.
- Supports multiple and future client types -- extensible MIME types describe Web content, so a Web client can support any current and future type of downloadable content.

**Enterprise Application Integration (EAI) Tier** – This tier provides integration and message-oriented services to facilitate communication between FBMS and external systems and within the FBMS applications, subsystems and users. The Enterprise Business Integration Tier provides the “glue” by which the applications that comprise FBMS will be connected. All applications that do not have pre-existing integration components will use this layer to communicate and exchange data with other applications, both inside and outside the FBMS domain.

**Applications Tier** – This tier contains the business logic and business processing functionality. The Applications Tier houses the commercial-off-the-shelf (COTS) business applications that provide the business functionality of FBMS. \* Some technical information has been removed and is available in the DOI internal version of the Financial Management Blueprint \*

**Reporting and Data Management Tier** – The Reporting and Data Management Tier provides database management and data warehousing services. This Tier provides the capabilities for extracting, transforming, loading, and synchronizing operational data from FBMS transactional database stores for use by decision support services and business intelligence. These data services maintain internal data stores that support decision support, such as fact and dimension tables. \* Some technical and investment information has been removed and is available in the DOI internal version of the Financial Management Blueprint. \*

**System Management Subsystem** – The System Management subsystem provides FBMS systems and network management services including performance and availability management, storage management, configuration, and operations management. The FBMS solution uses an n-tier architecture, each tier providing specific functionality to the overall system. Although each tier is designed for modularity, the system management subsystem monitors and provides services for all parts of the system, regardless of tier.

**Security Subsystem** - This tier contains the tools, components, and services that provide the security features within the Architecture. The security aspects of the FBMS solution are detailed further in the following section.

### 4.3 Detailed Discussion of the Target Financial Management Security Architecture

\* Security information has been removed and is available in the DOI internal version of the Financial Management Blueprint \*

### 4.4 How do the Legacy Systems Relate to FBMS

Each of the Bureau and DOI Financial Management related systems had to be analyzed to determine which of the systems overlapped with the FBMS initiative. The goal was to identify all overlapping systems and decide which of those systems would remain versus which of those systems would be retired.

The FBMS PMO, along with the FBMS contractor team, and representatives from the OCIO organization, met with each Bureau and DOI organization individually to work through the details of understanding and assessing each legacy system. The purpose of these extended sessions with the Bureau and DOI systems and financial representatives was to identify a list of FBMS affected systems. Table 4-1 summarizes the output of these discussions by grouping the affected systems into one of three categories:

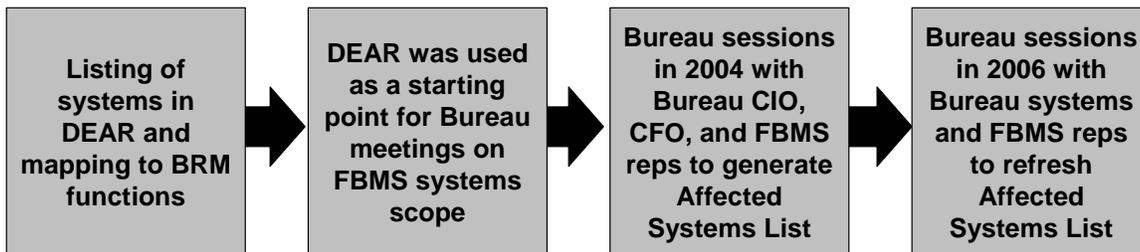
1. System Will Not Exist Post FBMS Implementation: These are systems that **will be retired** as part of the FBMS initiative. These systems will be retired once the FBMS solution is operational, and covers all of the functionality that is included in the legacy systems.
2. System Will Interface to FBMS: These are systems that will exist as part of the target systems environment for Financial Management **and will** interface to the FBMS solution.
3. System Fate is Not Yet Determined: The determining factor of whether or not these systems will be retired is the scope of the FBMS implementation. The Financial Management Business Area is making these clarifications as the FBMS project progresses.

**Table 4-1: Summary of FBMS Affected Systems**

Organization	System Will Not Exist Post FBMS Implementation	System Will Interface to FBMS	System Fate is Not Yet Determined	Total
BIA	4	5	3	12
BLM	8	4	2	14
BOR	14	5	1	20
DOI	5	2	1	8
External		6		6
MMS	6		1	7
NBC	9	8	1	18
NBCAM	4	2		6
NPS	5	4	5	14
OIG	3			3
OS	5	1		6
OSM	16	1		17
OST	1			1
SOL	1			1
USFWS	11	2	2	15
USGS	6	1	5	12
<b>Grand Total</b>	<b>98</b>	<b>41</b>	<b>21</b>	<b>160</b>

It is important to note that some of these systems may need to be refreshed prior to the proposed FBMS modules being available for some of the Bureaus. Any modifications to systems in the affected systems list need to be in compliance with this Blueprint and in compliance with the policy that addresses such changes. This policy can be reviewed at: <http://www.doi.gov/ocio/architecture/documents/fbmschangecontrol.pdf>

*Note on the FBMS Affected Systems List:* The information in Table 4-1 is a summary of the full FBMS Affected Systems List that was assembled by the FBMS team in conjunction with OCIO. The information in the list was gathered through a series of interviews with the FBMS (Federal and contractor), Bureau technology, and Bureau financial management personnel. In all instances, follow-up meetings were held to clarify outstanding issues and validate originally reported system impacts. A brief history of this list is shown in Figure 4-2. The full FBMS Affected Systems List is available at <http://www.mydoi.doi.net/ocio/architecture/index.html>.

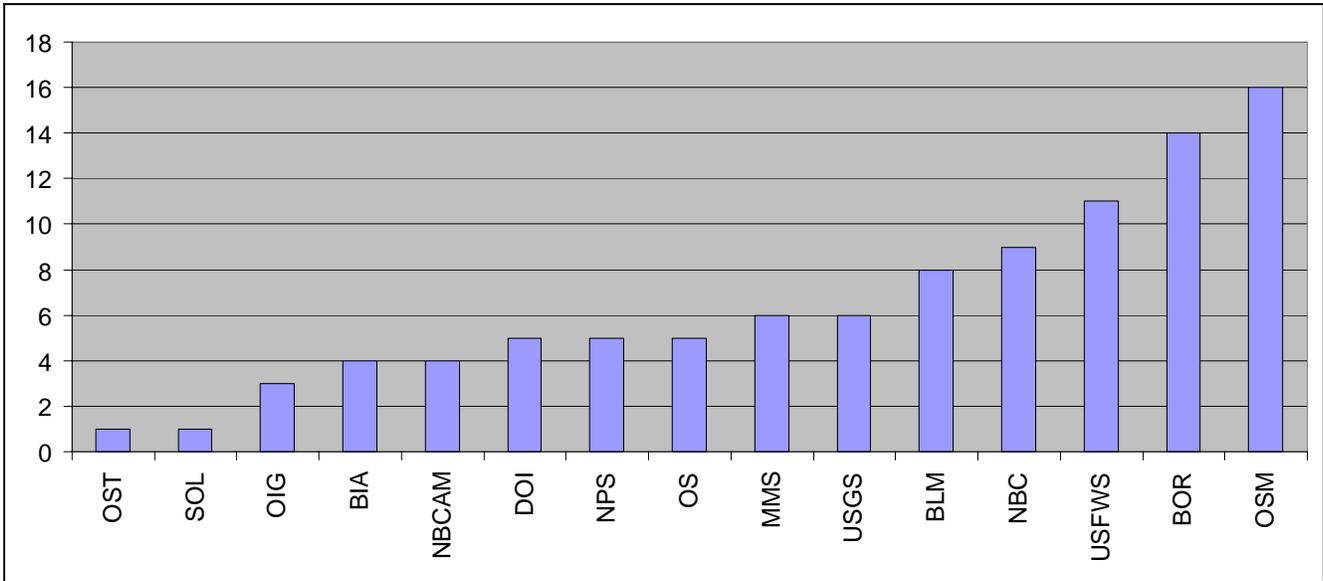


**Figure 4-2: FBMS Affected Systems List History**

*System Will Not Exist Post FBMS Implementation:* Each of the categories in Table 4-1 has its own challenges that affect the implementation of FBMS. Obviously, one of the categories requires more analysis from the FBMS PMO to determine the ultimate fate of those systems. The other two categories, representing continuing systems and retiring systems, are interesting to visualize and analyze.

The category for systems that will be retired represents a sizable impact on the associated organizations. The larger the number of system retirements for a given organization, the greater the impact on existing processes and personnel. Functions performed in legacy systems are now going to be performed in new systems. This often means new processes, new screens, and new jobs. The organizational impacts will be compounded by the general FBMS principle of virtually eliminating customization of the SAP solution. This principle will require the DOI to change business processes to meet the out of the box capabilities and workflow of the FBMS solution.

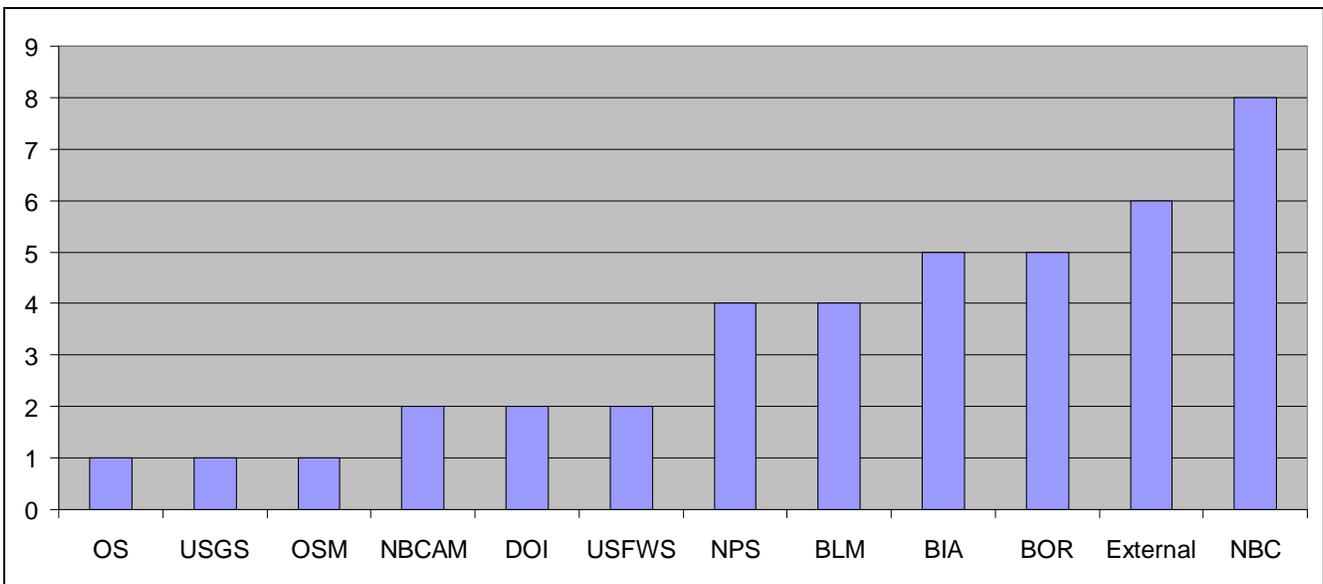
Figure 4-3 illustrates the retirement of the FBMS affected systems by organization. Since OSM and BOR have an extraordinary number of systems being retired, it can be expected that these Bureaus will have more challenging organizational change issues to resolve.



**Figure 4-3: System Retirements Due to FBMS**

Systems that Will Interface with FBMS: Although there are a large number of systems being retired as part of the FBMS initiative, there are many systems within each Bureau that will continue to exist. Many of these continuing legacy systems will need interfaces into the FBMS solution. The systems that will interface with FBMS are illustrated, by organization, in Figure 4-4.

There are significantly different challenges posed to Bureaus when they are interfacing legacy systems versus retiring legacy systems. In the case of system interfaces, the organizational impact on Bureaus is minimal as legacy feeder systems remain the same. However, Bureaus will face the equally challenging task of planning, funding, and implementing the technical solutions for integrating their legacy systems with FBMS. Training of resources and funding of these Bureau level modernization initiatives will be a critical component of the FBMS solution adoption and success.



**Figure 4-4: Systems that will Interface with FBMS**

*System Fate is Not Yet Determined:* There are currently several systems whose fate is not yet determined. Some of these systems might ultimately be retired, some might ultimately be interfaced, and some might not be impacted by FBMS at all. The reason for these systems being in an undetermined status is varied. Some systems, for instance, are undetermined because the specific functions performed by the system could be in scope for FBMS but are not yet officially in scope. Overall, each of these systems needs to be further investigated in terms of the functions performed, the data contained, and the applicability of the system in the target Financial Management systems environment.

#### **4.5 How FBMS will be Supported by the DOI IT Infrastructure**

Information technology plays a major role in the operations of Financial Management within DOI. In order to better serve business areas like Financial Management, DOI is upgrading the business processes, services, and enabling technologies associated with IT infrastructure within the Agency. This investment in IT infrastructure impacts each of the business areas within DOI and is an enabler for many of the recommendations within this and other Modernization Blueprints.

Historically, DOI's Information Technology (IT) infrastructure has paralleled the evolution and nature of the organization, in that it is large, diverse, and geographically dispersed. Each bureau and office has operated with relative independence, managing individual network and information services and a wide range of IT systems and applications. The result has been an IT environment that is challenging to control, maintain, and plan. These facts have been cited by audits and legal challenges that have scrutinized the Department's information management and security practices.

Under the leadership of DOI's senior management, with the acknowledgement of these historical issues, and in response to external pressures, mandates, and business needs, DOI has embarked on an IT infrastructure transformation. FBMS will benefit from two specific investments in IT infrastructure. Specifically, FBMS will benefit from the Enterprise Services Network (ESN) as well as the Active Directory (AD).

The ESN project has recently gone into production with a solution that reduces DOI's points of internet presence from 33 to 5. Additionally, Bureau networks have been integrated into the ESN management and technical infrastructure. FBMS will benefit greatly from this collapsing and simplification of networks. As a common solution, FBMS will rely on consistent and standardized network connectivity. FBMS will also benefit from the AD initiative which is designed to store DOI information and settings (resources, services, people) in a central, organized, and accessible database. This investment allows DOI to integrate management and centralize coordination of network resources and users for enterprise applications such as FBMS.

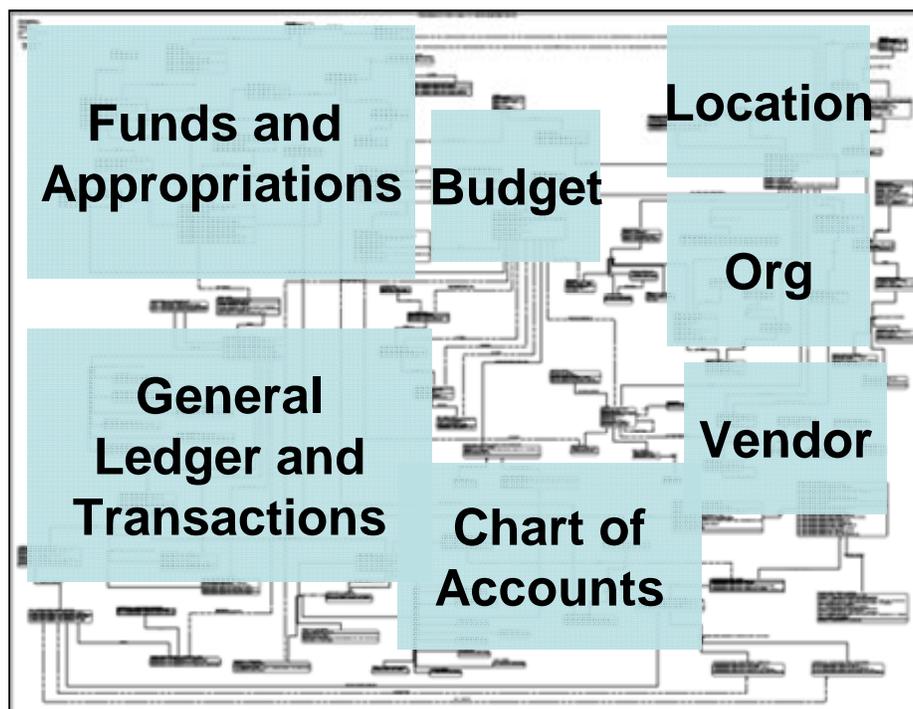
#### **4.6 Detailed Discussion of Target Financial Management Data Architecture**

The target state of the Financial Management business area will feature not only new processes and technologies but a more cohesive and well structured data architecture. The obvious data issue of redundant sources of record will be resolved by the retirement of legacy systems however the establishment of official data standards and relationships will be the enabler of a successful migration to the target technology environment.

Based on the target business functions described in Section 1 of this document, the data analysts have developed a view of the target data architecture for the Financial Management business area. In addition to the target business functions, the data analysts also used external publications as sources for determining the target data architecture. The following sources were used in addition to the target business functions:

- United States Government Standard General Ledger, Supplement No. S2 Treasury Financial Manual (S2 05-01).
- OMB A-11, current and prior years
- Framework for Federal Financial Management Systems (JFMIP-SR-01-04)
- OMB Circular A-129, Managing Federal Credit Programs
- OMB Circular A-130, Management of Federal Information Resources
- OMB Circular A-123, Management Accountability and Control (or Successor Documents)
- OMB Circular A-127, Financial Management Systems (or Successor Documents)
- OMB Circular A-25, Appropriations Law Manual
- Treasury Financial Manual, Volume I
- GAO-05-225G, Core Financial System Requirements
- DOD Business Enterprise Architecture - Financial Management Business Area (many individual models and documents were used.)

The result of pulling all of the sources together and performing the data analysis is an expansive data model that is summarized in Figure 4-5. Figure 4-5 also shows a miniature version of the Financial Management Target Data Model with overlays of the major categories of data entities within the model. Once this model was developed, it was validated against the known FBMS documentation as well as with other Federal Financial Management data model sources as available.



**Figure 4-5: Overview of Financial Management Data Model**

For the full Financial Management Target Data Architecture, you can access the PDF file at <http://www.mydoi.doi.net/ocio/architecture/index.html>

The data sources for the Financial Management target system solution will be designated as the ADS for portions of the Financial Management target data model information classes. For example, while the target solution may be an ADS, the following are sample information classes that are managed in other ADSs. These sample information classes will be used to in the target solution for Financial Management:

- Expense Account
- Asset Account
- General Ledger
- Liability Account
- Standard General Ledger Journal Entry

In partnership with the FBMS PMO, the IEA program will work to:

- Validate the Financial Management data model
- Map the legacy systems to the Financial Management data model
- Officially propose the target Financial Management solution to be the ADS for certain key data entities

The designation of authoritative data sources has a key impact on Capital Planning and Investment Control (CPIC) as well as on future investment decision making by the DOI Investment Review Board (IRB). It is proposed that there be a new policy that states that no future investment will be approved when the system is going to redundantly create data that is already being created in an ADS like FBMS. This policy would also include a waiver process that would center on a recommendation to the IRB from the Data Advisory Committee (DAC). The OCIO would issue this official policy focused on the creation of ADS designations at the entity level, new investment restrictions based on ADS designations, and the DAC waiver process. The new ADS policy would then be integrated with the DOI CPIC guide and would be of impact for the IRB as they would enforce the policy through future investment decisions.

It should also be noted that the development and validation of the Financial Management Data Model is consistent with the further development of the DOI Data Reference Model (DRM). Whenever possible, the Financial Management data model has re-used data standards that are already published in the DOI DRM. In cases where standards are not available, the new standards in the Financial Management data model will be adopted into the DOI DRM following the CIO Directive for Data Standardization. As should always be the practice, it is advised that in cases where the Financial Management target solution should leverage XML to exchange information, the standards published in the DOI DRM should be used as the basis for developing the XML schemas and tags.

## 5. Transition Sequencing Plan

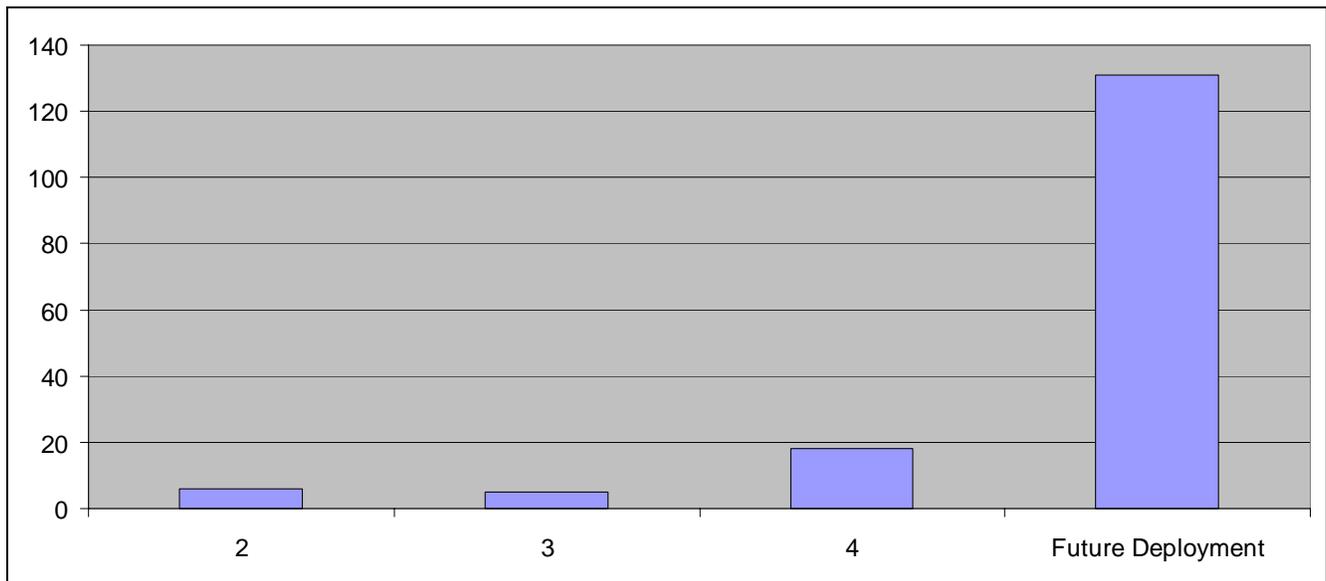
The Financial Management Modernization Blueprint and specifically the FBMS initiative is focused on improving business operations. However, one of the objectives is the modernization of the IT infrastructure that currently supports financial and business management.

The transition from current state to future state will be a multi-year endeavor for the Financial Management Business Area at DOI. Based on the number of redundant systems and the number of organizations performing financial management functions, the transition to the target state will be a phased approach that will impact people, processes, systems, data, and infrastructure.

The implementation timeline for FBMS is fluctuating but in general, there is a concentration on OSM and MMS in the initial deployments. OSM and MMS are followed GovWorks, then BLM, then the Office of the Secretary, then National Park Service, then Fish and Wildlife Service, and then Bureau of Reclamation and Bureau of Indian Affairs in the final deployments.

The implementation timeline is important to containing potentially run away costs and avoiding unfulfilled expectations. ERP implementations, due to their large size and broad scope, are particularly vulnerable to slippage in schedule. Extended slippage in schedule can quickly lead to negative financial consequences and a lack of overall belief that the project will be successful. Both of these occurrences are widely known to be failure points for large implementations.

Figure 5-1 shows a count of the affected systems by deployment. Note that although there is significant headway in Deployments 2, 3, and 4, most systems will be impacted in future deployments.



**Figure 5-1: Count of Systems Affected in Each Deployment**

The following visuals summarize each deployment in terms of the systems impact. Each visual shows a deployment and the systems that will be retired and interfaced as a result of the deployment. (RED shows systems to be retired; BLUE shows systems to be interfaced; GREEN shows target FBMS).

# Sequencing Visual for Modernization of DOI Financial Management Line of Business: Deployment 2

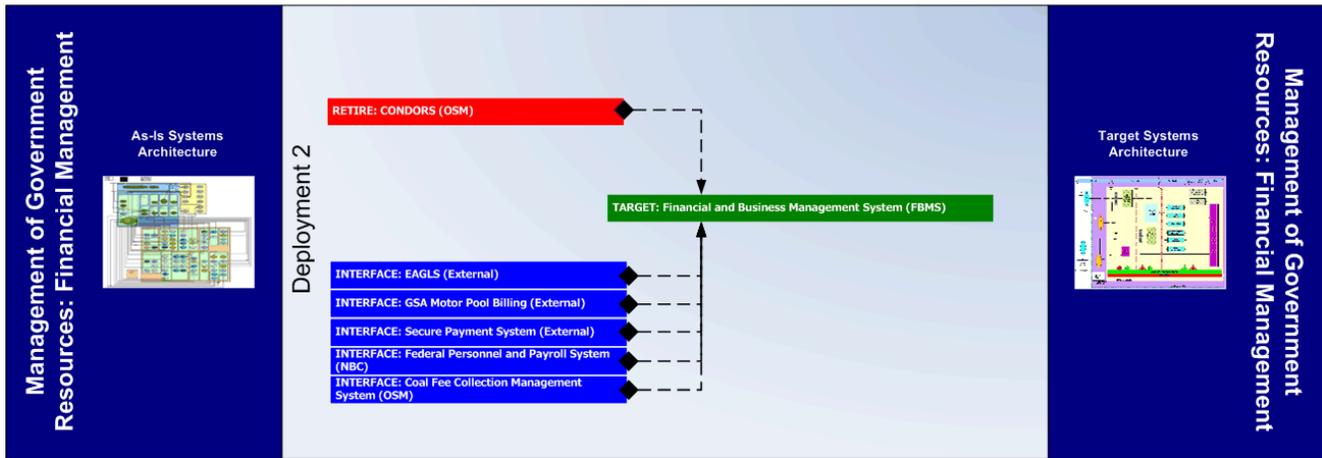


Figure 5-2: Sequencing Visual for Deployment 2

# Sequencing Visual for Modernization of DOI Financial Management Line of Business: Deployment 3

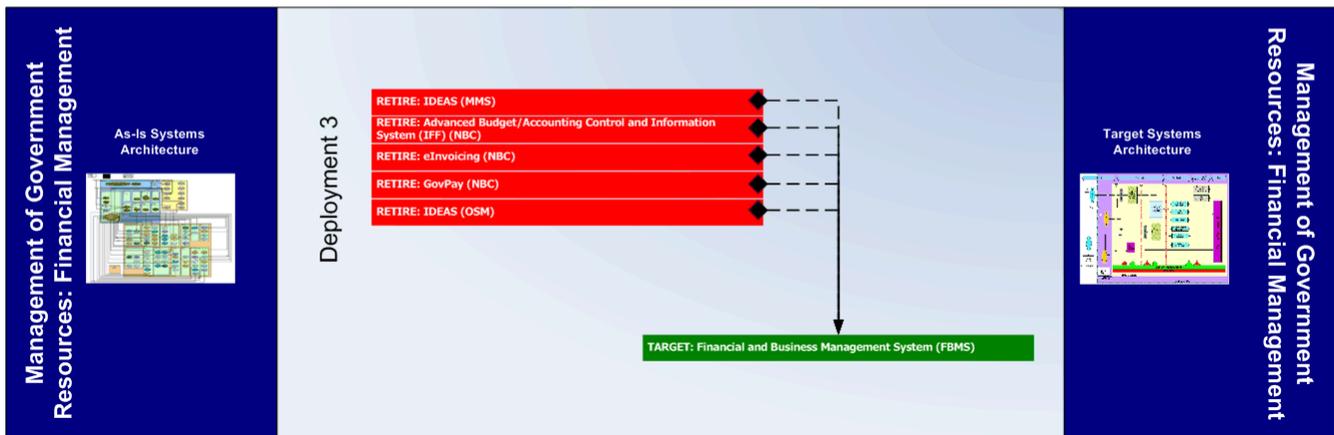
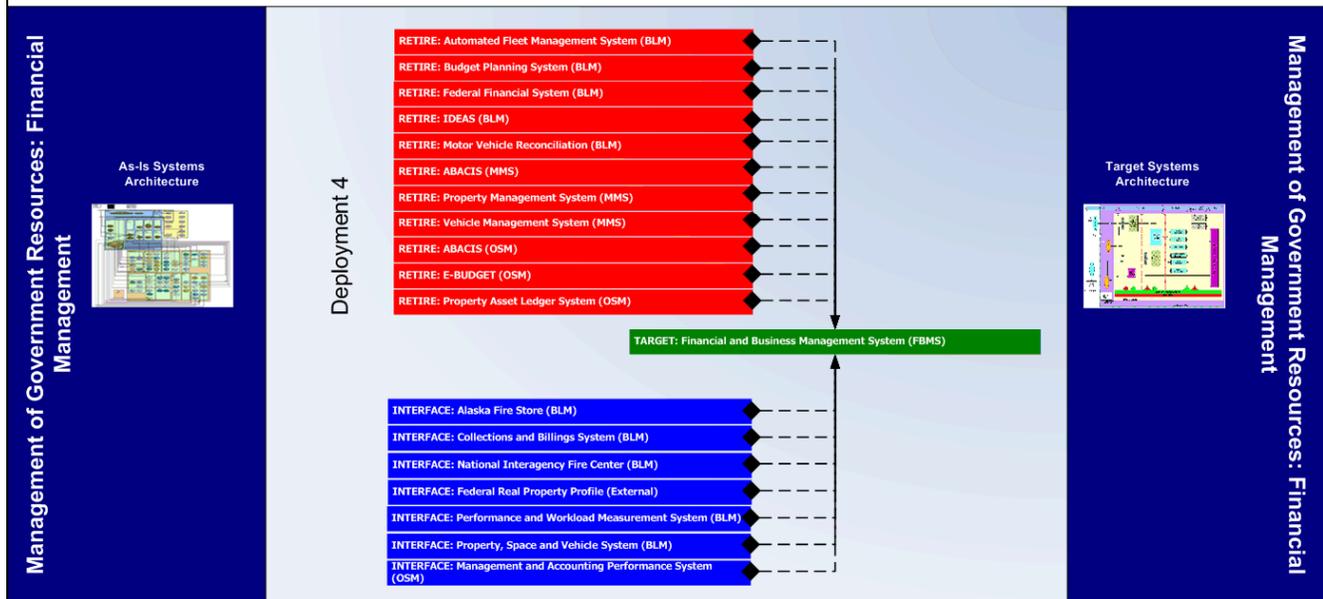


Figure 5-3: Sequencing Visual for Deployment 3

# Sequencing Visual for Modernization of DOI Financial Management Line of Business: Deployment 4



**Figure 5-4: Sequencing Visual for Deployment 4**

The DOI implementation of FBMS has an additional challenge in that the enterprise itself is very complex and very large. The Bureaus within DOI will be responsible for shouldering some of the implementation burden. Specifically, Bureaus will be asked to:

- Contribute subject matter experts from all financial and business management areas.
- Participate in the development of human capital impact plans with each deployment
- Participate in many FBMS specific working sessions.
- Train technical resources to build interfaces to legacy systems.
- Train operations staff in the use of new systems and new processes.
- Coordinate the retirement of the Bureau level systems that are being replaced by FBMS.
- Juggle existing resources to operate and maintain legacy systems while also implementing FBMS.
- Work closely with the PMO and the contractor integrator to configure their respective business areas within the system.
- Review and approve functional and technical designs.
- Develop and monitor project plans.
- Define and map all financial and business functions, processes, policies, procedures and roles.
- Identify IT, access, and networking requirements.
- Perform testing of all modules and processes (transaction processing, interfaces).

- Develop, reconcile, and validate data conversion files.
- Develop internal controls, checks and balances, work-arounds.
- Create financial management reports.
- Develop and reproduce training materials.
- Create and operate internal help desk.

The reliance on Bureau level involvement in FBMS, as an extended stakeholder community and as an extended implementation team, introduces the challenge of a large user pool and affected community. It is critical that the Bureaus actively support the implementation of FBMS so that the risks in the transition to the target state are minimized.

## 6. The DOI e-Government Strategy and FBMS

In December 2003, a four year e-Government Strategy was published by the DOI e-Government team. According to its Executive Summary, the e-Government Strategy:

- Defines a common mission and purpose for the use of e-Government throughout the Department of the Interior.
- Establishes e-Government goals and objectives that foster a more citizen-centered, efficient, and results-oriented organization.
- Provides a Department-wide structure to integrate Presidential Initiatives, current e-Government capabilities, and future e-Government initiatives.
- Establishes an organizational model to coordinate e-Government efforts across the Department.

DOI defines its e-Government Mission as follows:

*“e-Government at the Department of the Interior enhances services for citizens and increases efficiency by using technology to improve business processes.”*

Within the DOI e-Government Strategy, the DOI mission is supported by a set of guiding principles and is put into operation by six goals. Figure 6-1 summarizes the DOI e-Government Mission, Vision, Goals, and Objectives.

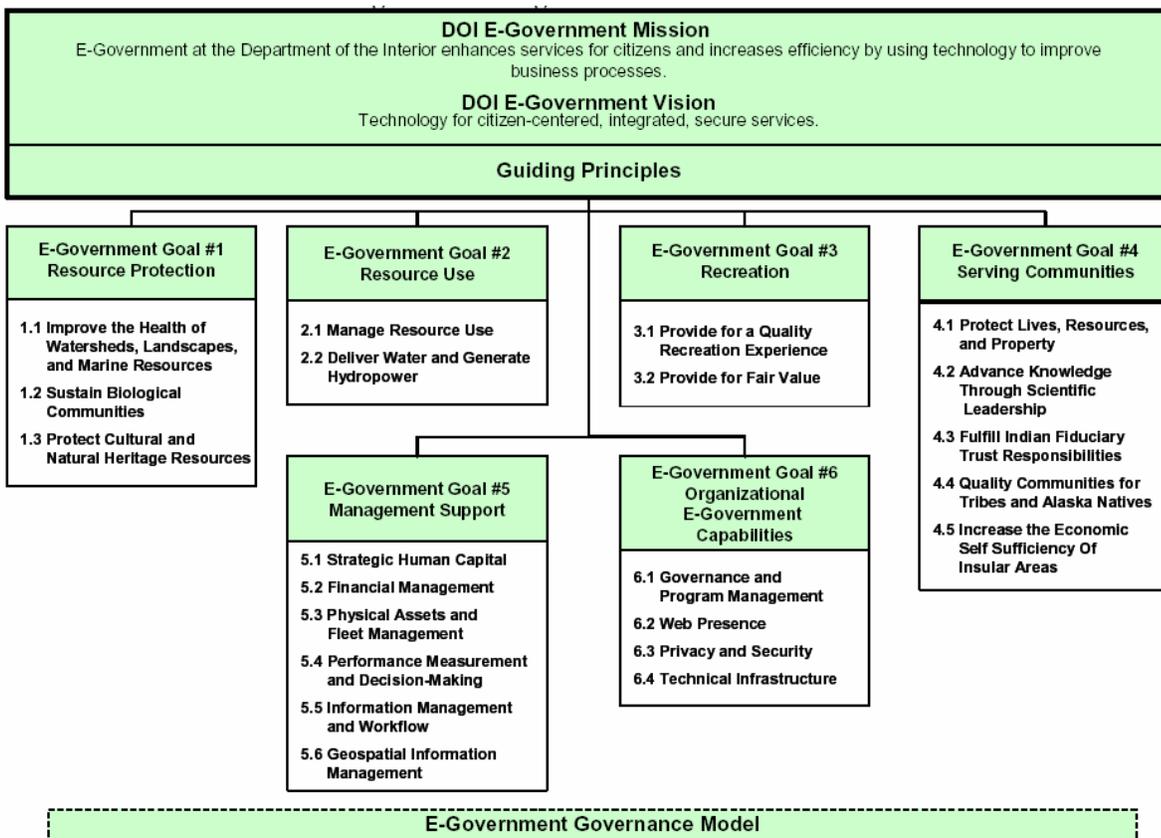


Figure 6-1: DOI e-Government Strategy

The FBMS initiative is essentially focused on improving internal business operations. The intent is to better enable DOI to be a more effective and efficient service provider to the American public. Although the DOI e-Government Strategy is largely citizen focused, it does give reference to the organization becoming increasingly efficient through the use of technologies to better enable business processes. This portion of the DOI e-Government Strategy is the true business case for the FBMS initiative. No other initiative within DOI will have a greater impact on achieving the technology and business process portions of the e-Government Strategy than the FBMS initiative.

Within the overall DOI e-Government Strategy, there are six identified goals. These goals are largely focused on the citizen focused mission of the DOI and its Bureaus. FBMS most closely aligns with *Goal 5: Management Support* and *Goal 6: Organizational e-Government Capabilities*. Within Goals 5 and 6, FBMS directly supports the following objectives:

- *Objective 5.2 - Financial Management*: The FBMS initiative is the cornerstone of this e-Government objective. The FBMS initiative fulfills the precise focus of this objective: “Ensure up-to-date, easy-to-use, and centralized financial analysis tools and information for Interior’s management and employees.”
- *Objective 5.3 - Physical Assets and Fleet Management*: This e-Government Objective has the following focus: “Improve the accountability and condition of physical property, including buildings, equipment, and vehicles by providing systems that monitor and manage their location, condition, and maintenance.” It is expected that FBMS significantly supports this e-Government objective by providing a single source of asset information for the DOI and its Bureaus. This asset information capability will allow for a more accurate tracking of physical assets and fleet. Although FBMS will not impact the condition of physical property, the initiative will certainly modernize the accountability of that property throughout the enterprise.
- *Objective 5.4 – Performance Measurement and Fleet Management*: This e-Government objective has the following focus: “Improve resources allocation and operating efficiencies by providing electronic capabilities to evaluate and monitor program performance.” The FBMS solution includes a business warehouse capability that will aid in performing business performance management and analytics.
- *Objective 5.5 - Information Management and Workflow*: This e-Government objective has the following focus: “Improve operating efficiencies and effectiveness through internal information sharing and collaboration using data management, electronic records management, and workflow tools.” The FBMS initiative leverages best of breed technology components to enable the modernized Financial Management Business Area. These technology components will, for the first time within the DOI, leverage enterprise-wide information management and electronic workflow to reduce workloads and improve organizational efficiency.
- *Objective 6.1 – Governance and Program Management*: This e-Government objective has the following focus: “Create a management environment that fosters innovation and communication while establishing repeatable best practices for consistent IT capital planning, implementation, and operation.” FBMS will enable this objective by delivering a suite of technology solutions that will be reusable across Business Areas and will strengthen Financial Management Business Area and DOI-wide communications.

## 7. Measurable Results

The Financial and Business Management System Strategy is designed to improve efficiencies and reduce costs within the Financial Management Business Area at DOI. Upon the transition to the target architecture, the following efficiencies are expected:

- Labor cost avoidance from improved efficiency of operations due to faster applications that will allow FBMS users to do their jobs in less time;
- Cost avoidance from decreased time taken to accumulate Enterprise Management Information System (EMIS) information from integrated databases that will be a fundamental part of the FBMS;
- Decreased maintenance costs by reducing previous baseline operations as a result of retiring legacy and redundant systems;
- Standardize processes to provide better services to program and other managers handling financial and related transactions and implement, using COTS products, "best practices" from the private and public sectors;
- Improve the timeliness and accuracy of information available to Interior employees to minimize the need to maintain separate records and to reduce the confusion of conflicting data or information;
- Improve the data available to analyze operations and improve decision support;
- Reduce the cost of moving data between systems and eliminate the need for extensive reconciliation efforts;
- Improve the security of systems through security awareness and new technology to reduce the risk of misuse of data and systems that could cost the government substantial time and resources to continue operations;
- Core Financial System components will be modernized and, hence, better meet emerging regulatory and accounting requirements;
- Procurements will be fully automated, thus allowing workload sharing/balancing across the Department;
- Travel will be fully automated, thus saving labor in travel preparation and travel-voucher processing;
- Personal and Real property systems will be fully automated and integrated into other systems (procurement and financials), thus saving labor in connecting property acquisition and property management with other required systems, e.g., core financials and procurement, eliminating the reconciliation necessary today;
- Grants processing and administration will be automated, saving labor costs and improving transparency of the process;
- Budget Formulation will be closely connected to financial planning and execution, e.g., obligations and expenditures, thus enabling enterprise report generation of a wide variety of data elements, thus saving significant time and labor;
- The performance component of the EMIS module will provide the ability to incorporate workload and performance data from the whole department into individual, multi-level and cross-functional decision-making;
- Multiple departmental and bureau legacy systems will be retired;
- Through automatic and ad-hoc reporting, FBMS will provide DOI employees with information necessary to make better decisions. FBMS will enable the creation of reports at a lower cost.

\* Some investment information has been removed and is available in the DOI internal version of the Financial Management Blueprint \*

Only a portion of the affected systems are tracked as major or non-major systems in the Exhibit 53. IEA will be analyzing true total cost of ownership (TCO) for all systems to be retired in order to gain a better understanding of the true cost savings/avoidance due to the FBMS solution. In the coming months, IEA will be working in partnership with the FBMS PMO to survey each of the systems that will be retired due to FBMS in order to calculate a total cost of ownership for these systems. IEA has developed a template to capture the TCO for these systems. These TCO templates will be completed in conjunction with the FBMS PMO, the Bureau Chief Architects, and the system owners themselves. A portion of the IEA TCO template is shown in Figure 7-1.

Total Cost of Ownership			
<b>System Name:</b>			
<b>System Start Date</b>			
<b>System Projected Retirement Date</b>			
<b>Number of Users:</b>			
<b>System Owner</b>			
<b>Organization</b>			
<b>Name of Person Providing Information</b>			
<b>IT System Cost</b>	<b>Type of Cost</b>	<b>\$ One-time</b>	<b>\$ FY07 Annual</b>
<b>License Cost:</b>	Acquisition		
	Renewal		
	Software Maintenance		
	Software Updates		
	Other License Costs		
	Subtotal	\$ -	\$ -
<b>Hardware Costs:</b>	Server/Appliance Cost		
	Storage Upgrades		
	Memory Upgrades		
	Processing Speed Upgrades		
	Installation		
	Network Hardware (router, switch)		
	Other Hardware		
	Hardware Maintenance		
	Other Costs - Enter Description		

Figure 7-1: A portion of the IEA TCO Template

## **8. Record of Decision**

Shown below in the following figures is a draft Record of Decision (ROD) for the Investment Review Board to consider. The draft ROD recommends an approval of the Financial Management Modernization Blueprint including the target architecture represented by the Financial and Business Management system. Refer to the actual signed ROD available at <http://www.mydoi.doi.net/ocio/architecture/index.html> in order to view final stipulations and signatures.

**Investment Review Board (IRB) Recommendation for Approval and Implementation of the DOI  
Financial Management Modernization Blueprint**

**Record of Decision (ROD):**

The IRB approves the recommendations encompassed in the Financial Management Modernization Blueprint dated January 8, 2007 including identified system retirements and interfaces (see attached Affected Systems List). This Modernization Blueprint is approved with the stipulation that no systems will be retired from service until the appropriate level of functionality is implemented within the target FBMS solution.

All systems scheduled for retirement or interface will be centrally tracked within the Office of the CIO with Bureau input as to progress with defined milestones.

The approved Blueprint will be used by the Bureaus for their Capital Planning and Investment Control (CPIC) planning so that associated investments and project schedules are consistent with the FBMS schedule and the FBMS Affected Systems List included in this Record of Decision and imbedded in the Financial Management Modernization Blueprint.

The Financial Management Modernization Blueprint will be updated regularly to reflect any changes associated with the Financial Management Line of Business and/or the FBMS deployment. Updates to the Financial Management Modernization Blueprint will be created in partnership between the DOI IEA program, FBMS PMO, DOI PFM, and DOI PAM offices. All changes to the Blueprint must be approved by the Financial Management business owners and the DOI Investment Review Board.

The IRB is requesting, to the maximum extent possible, that the FBMS project team supply regular updates to FBMS planning and architecture artifacts. The FBMS planning and architecture artifacts should be consistent with artifacts that are regularly documented as part of DOI EA.

This Record of Decision (ROD) serves to approve the target architecture as outlined in the Financial Management Modernization Blueprint and serves as a commitment by the organizations represented on the Investment Review Board to participate actively in the FBMS implementation.

**Approved:** \_\_\_\_\_

**Approved with Stipulations:** \_\_\_\_\_

Stipulations: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Michael J. Howell  
DOI Acting CIO  
Chair, ITMC  
Co-Chair, IRB

\_\_\_\_\_  
Paul Hoffman  
Deputy Assistant Secretary for Performance,  
Accountability, and Human Resources  
Chair, DOI E-Gov Team  
Co-Chair, IRB

**Figure 8-1: Draft IRB Record of Decision – Page 1 (see intranet for final version with stipulations and signatures)**

**Background**

The Financial Management Modernization Blueprint was documented in accordance with the Interior Enterprise Architecture (IEA) Methodology for Business Transformation, which can be viewed at <http://www.doi.gov/ocio/architecture/mbt>. The Financial Management Modernization Blueprint was released for review and comment November 20, 2006 and can be viewed on the DOI intranet website at <http://www.mydoi.doi.net/ocio/architecture/index.html>. Joint briefings on the blueprint were provided to the Interior Business Architecture Team (IBAT), Data Advisory Committee (DAC), and Chief Technology Officer Council (CTOC) during the months preceding its draft release. Additionally, there have been individual review and feedback sessions between the IEA program and the Office of Financial Management (PFM) and Office of Acquisition and Property Management (PAM).

The table below summarizes the count of feedback items received from the reviewing organizations:

Organization	Total
BIA	18
BLM	18
BOR	21
DOI	22
FWS	53
MMS	24
NBC	17
OSM	30
<b>Grand Total</b>	<b>203</b>

For the detailed feedback items and their resolutions refer to the Feedback Tracking Document and Action Log available at <http://www.mydoi.doi.net/ocio/architecture/index.html>.

**Figure 8-2: Draft IRB Record of Decision – Page 2 (see intranet for final version with stipulations and signatures)**