



HIFMIP Roadmap—DRAFT

*HUD Integrated Financial Management Improvement
Project*

U.S. Department of Housing and Urban Development

October 3, 2005



The MIL Corporation

Revision Sheet

Release No.	Date	Revision Description
Rev. 0	8/22/2005	Initial Draft
Rev. 1	10/3/2005	Revised Draft per HUD comments dated 9/2/2005

HIFMIP ROADMAP

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1.0 GENERAL INFORMATION

1.0 GENERAL INFORMATION

The Department of Housing and Urban Development (HUD) is in the process of modernizing its financial management systems in accordance with a vision of financial management consistent with modern business practices, customer service, legislation and technology. The overall initiative to implement the financial management vision is the HUD Integrated Financial Management Improvement Project (HIFMIP). Within HIFMIP, several implementation phases have been defined to provide a manageable method of moving from the current state to the desired financial management environment. This document provides an overview of these phases and describes in more detail the implementation of core financials phase (Phase II).

Phase I is organizational preparation for the upcoming financial systems implementation. Phase II is the implementation of a new HUD-wide financial management system. The new Integrated Core Financial System (ICFS) will provide the first building block to enable later integration with other desired management improvements such as integrated financial performance management. HUD describes the end result as the Integrated Financial Management Solution (IFMS), of which ICFS is one key component. HUD is currently preparing to select and implement the ICFS using a Center of Excellence (COE) approach as described in its HIFMIP Plan (revised April 6, 2005). This *Roadmap* provides a discussion of the phases and implementation components to achieve full IFMS, with a more detailed focus on the ICFS implementation for the organizations currently accounted for in HUD's Central Accounting and Program System (HUDCAPS) under the control of the Office of the Chief Financial Officer (OCFO).

1.1 Identification

Table 1-1 provides summary information on the ICFS component of IFMS.

Table 1-1. ICFS System Information

Responsible organization	OCFO, HUD
System name or title	Integrated Core Financial System (ICFS); component of the HUD Integrated Financial Management Improvement Project (HIFMIP)
System code	To Be Determined
Performance Accountability and Communication System number	To Be Determined
System category	Major Financial Application
Operational status	System Define Phase of HUD's Systems Development Methodology (SDM)

Users	OCFO, Program Managers, Accounting and Finance Users, Federal Housing Administration (FHA), Government National Mortgage Association (Ginnie Mae), and Office of Federal Housing Enterprise Oversight (OFHEO)
Interaction with other systems	The system must transmit and receive data from a large number of HUD programmatic and financial feeder systems. The system must also interact with Treasury and other federal agency systems and with some commercial systems. The system must support and integrate with e-government initiatives.

1.2 Document Overview

HIFMIP encompasses more than just a new financial system. The overall HIFMIP vision calls for a four-phased approach to fully integrate programmatic and financial information. Integrated financial and programmatic information will allow HUD to be proactive in decision-making and timely in providing information to its various constituencies. The full vision was documented in the January 12, 2004 document: *HUD's Financial Management Vision (CFO Vision Document)*. The *CFO Vision Document* was recently updated to reflect changes that have occurred since its initial publication. The updated draft was delivered on July 20, 2005. Updates to the HIFMIP vision after the SDM Define Phase has been completed will be made to the *HIFMIP Roadmap*, rather than to the *CFO Vision Document*.

The IFMS implementation approach includes the following four phases:

- Phase I: Organizational Preparation.
- Phase II: Implementation of Core Financials.
- Phase III: Operational Systems Enhancements.
- Phase IV: Integrated Financial and Program Performance.

Systems implementation projects at HUD follow HUD's Systems Development Methodology (SDM). HUD's SDM provides for tailoring the software development approach. Of particular relevance for HIFMIP, the SDM states:

“For very large or complex systems, it may be appropriate to divide the system into major subsystems or other partitions and manage evolution of each subsystem through its own development approach. For these very large or complex systems, it will be important to develop project team structures and other mechanisms to ensure effective coordination across subsystems. In adapting the development approach to suit a particular situation, the following considerations are of particular importance:

- Document clearly in the Project Plan any tailoring of the system development approach.

- Identify early and explicitly (i.e., not by default or accident) issues regarding project approach, execution, and continuation; resolve these issues no later than the completion of the corresponding activity.
- Include system reviews and approvals in any tailoring of the system development approach to ensure appropriate program management participation and oversight; as appropriate, combine reviews and approvals to reflect consolidation of individual activities.”¹

The aforementioned SDM considerations are addressed by identifying and defining the subdivisions of IFMS implementation into the appropriate stages that will be separately tracked and managed. Each IFMS stage will include multiple SDM Phases and tasks that will be reflected in the Project Work Plan (PWP) accordingly.

Development of this HIFMIP *Roadmap* is a way to help ensure the successful design, development, and deployment of IFMS. Much like a roadmap is used to arrive at a driving destination, a systems roadmap or plan serves to identify important milestones and provide information about alternative routes that can help the project team avoid delays. It is a guide for the upcoming phases and stages of IFMS implementation. It illustrates what the end result will be and the time scale anticipated for completion. It will be important for the roadmap to be approved and communicated by management throughout HUD, and to be updated at key checkpoints (such as at the end of each HIFMIP phase and stage).

HUD has requested that the HIFMIP Roadmap identify phases, steps, tasks, and milestones for taking HUD from its current financial system configuration through to the complete IFMS outlined in the *CFO Vision Document*. The Roadmap will serve as the internal guide to the implementation of IFMS, using graphics as well as prose.

Appendix A—HIFMIP Roadmap Executive Summary—provides a summary of the information provided in this *Roadmap* in presentation format. The body of the *Roadmap* provides a more detailed description of the process to achieving the integrated HIFMIP vision.

Three deliverables are identified as part of this task:

- **Preliminary Roadmap**—identified and described planned roadmap phases; key decisions needed and dates by which key decisions must be made; issues, assumptions, and risks associated with IFMS implementation; and an outline of the actual Roadmap. The *Preliminary Roadmap* was delivered in final on July 5, 2005.
- **Roadmap**—prepared in both draft and final formats. The *Roadmap* will include an implementation timeline and the high level tasks associated with IFMS along with a more detailed timeline and task plan for ICFS implementation for HUD program areas other than FHA, Ginnie Mae, and OFHEO. The *Roadmap* will provide a migration plan that identifies activities for three levels: organization, project, and application (including legacy systems, COTS, and bolt-ons, if any). The *Roadmap* will also include updated issues, assumptions, and probable risks.
- **Project Work Plan (PWP)**—breakdown of tasks to be performed for each stage within the *Roadmap*. Will include a minimum three-level work breakdown structure with dates, milestones, and responsibilities identified. The PWP will be prepared using the SDM Project

¹ HUD, *Systems Development Methodology, Release 6.03*, February 2005, “Introduction,” pp. 5-6.

Plan template and will include updated issues, assumptions, and probable risks. A draft PWP is due October 24, 2005.

A significant amount of information gathering and analysis have already taken place to reach this point in the HIFMIP lifecycle. HUD has selected a COTS software package—PeopleSoft Enterprise Financials, Government Version—to serve as the basis of its ICFS. HUD is in the process of selecting a COE and systems integrator to assist in carrying out the COTS implementation tasks in conjunction with the move to a COE. The selection activities are scheduled to be completed by March 31, 2006. Initial ICFS implementation at the COE for HUD OCFO-Managed Organizations is targeted for October 1, 2007.

The *Roadmap* is organized as follows:

- Chapter 2 provides an overview of HIFMIP.
- Chapter 3 addresses scope and approach.
- Chapter 4 describes the current financial environment.
- Chapter 5 describes the proposed financial systems environment and systems architecture year-by-year.
- Chapter 6 identifies required short-term actions and key decisions affecting project, organizational and application level activities.
- Chapter 7 describes the future HIFMIP timeline and activities.
- Chapter 8 reviews issues, assumptions and probable risks.
- Appendix A provides an executive summary of the *HIFMIP Roadmap* in presentation format.
- Appendix B provides the HIFMIP Project Plan.

1.3 Roadmap Scope

The *Roadmap* identifies and describes planned HIFMIP phases and stages. This document addresses all components of the full IFMS with a more detailed discussion of the initial ICFS implementation since this is the first HIFMIP implementation stage. ICFS will be implemented for all of HUD's major business areas as described more fully later in this document.

Within HUD are four units or business areas that are independently audited. These areas are:

1. Federal Housing Administration (FHA);
2. Government National Mortgage Association (Ginnie Mae);
3. The Office of Federal Housing Enterprise Oversight (OFHEO);
4. Other Major Program Areas:
 - a. Office of Housing;
 - b. Office of Public and Indian Housing (PIH);
 - c. Office of Community Planning and Development (CPD);
 - d. Office of Fair Housing and Equal Opportunity (FHEO); and
 - e. Office of Healthy Homes and Lead Hazard Control.

OCFO provides financial accounting for the Other Major Program Areas identified (Item 4 above) through HUDCAPS and related subsidiary systems. It is these Other Major Program Areas, along with HUD Administrative Funds, that will initially be implemented in ICFS, replacing HUDCAPS and selected subsidiary systems. The term “HUD OCFO-Managed Organizations” will be used throughout the *Roadmap* to describe the scope of the initial ICFS implementation. See Section 1.7, “Acronyms, Abbreviations, and Terminology” for more information on the terms used in the *Roadmap*.

The *Preliminary Roadmap* addressed key decisions needed and dates by which key decisions must be made for initial ICFS implementation, along with issues, assumptions, and risks associated with the overall IFMS implementation. These areas have been updated in this *Roadmap* document. Some of the issues and key decisions identified in the *Preliminary Roadmap* and subsequent discussions have been addressed through the identification of new tasks in the FY 2006 project plan. Specific information on these tasks is available in Chapter 7.

Since the *Roadmap* is intended to be HUD’s internal guide to implementation of IFMS, the Statement of Work asks that it address activities for three levels—Organization, Project, and Application—in addition to the project timeline and description of phases and tasks. Chapter 6 addresses Organization-level activities. Assignment of organizational responsibilities for project tasks will be addressed in more detail in the PWP. Chapter 7 provides an overview of the HIFMIP project plan by fiscal year and descriptions of the Project-level activities. A description of the major task areas required during fiscal years (FY) 2006 and 2007 to prepare for ICFS implementation is also included in Chapter 7. Application-level activities are addressed in Chapter 5 with more detail provided in the *Legacy Systems Disposition Plan (LSDP)* (initial draft August 22, 2005; revised draft due October 17, 2005).

HUD should plan to update the *Roadmap* whenever significant changes to the HIFMIP vision or implementation priorities occur. Changes that impact the project’s schedules or update details within the project plan can be made directly to the PWP.

1.4 Project Goals and Objectives

HIFMIP is an enterprise-wide initiative that will implement the new vision for HUD financial management. The vision includes a core financial system that provides a comprehensive source of financial, budget, and performance information to the Department. A modern and effective core financial system is key to the Department’s ability to obtain an unqualified audit opinion on HUD’s annual financial statements. The system will ensure full Office of Federal Financial Management (OFFM) (formerly Joint Financial Management Improvement Project (JFMIP)) compliance, correct identified weaknesses, strengthen financial system data integrity, and improve controls.

The HIFMIP project goal is to implement an integrated financial management system that provides for the agency’s general ledger, payments, receipts, cost, funds management and reporting and that integrates/interfaces with other financial program systems that support the agency’s ability to manage funds and achieve program goals. The system will have the capability to share relevant information with other government agencies, such as the U.S. Department of the Treasury (Treasury) and include an agency executive information system that provides financial and program management information to all internal and external stakeholders.

The primary objectives for HIFMIP are:

- Provide HUD managers accurate and timely financial information to oversee programs;
- Resolve Office of Management and Budget (OMB), Federal Financial Management Improvement Act (FFMIA), and Office of the Inspector General (OIG) compliance issues;
- Meet President’s Management Agenda (PMA) initiatives for improved financial performance; and
- Provide a modern, integrated core financial system and solid foundation for implementation of e-Government initiatives.

There are many challenges posed by HUD’s current financial systems environment. The purpose of ICFS is to address these challenges and the existing weaknesses in HUD’s financial environment as noted above. Systems modernization initiatives in all HUD business areas support eventual transition to a single core financial system and external service provider.

Secondary goals of ICFS and HIFMIP in general, include the following:

- Save Costs.
 - Minimize expensive customizations;
 - Lower transaction processing costs; and
 - Reduce the number of systems.
- Improve Control and Use of Resources.
 - Ensure adequate funds control and
 - Eliminate audit related material weaknesses.
- Provide Better, More Useful Information.
 - Provide direct access to standardized, accurate, timely information;
 - Link Department performance to costs, increase the ability to accurately measure and report on program costs, and maximize return on investment;
 - Provide efficient reporting and fiscal year end closings;
 - Improve data quality; and
 - Provide efficient programmatic data for budget formulation.
- Improve Staff Productivity and Use of Personnel Resources.
 - Provide productivity improvements and improve staff focus on providing better analytical information and
 - Provide user friendly, intuitive customer interfaces.

1.5 Contacts

This section identifies HUD and contractor points of contact for this document.

1.5.1 HUD Contacts

HUD points of contact for the HIFMIP project are provided in Table 1-2 below.

Table 1-2. HUD Contacts

Type of Contact	Name	Dept.	Telephone	Email
Government Technical Representative	Kenneth Traylor	OCFO	(202) 708-0614 x 8056	kenneth_j._traylor@hud.gov
Government Technical Monitor	Jenny Shaker	OCFO	(202) 708-1136 x3805	virginia_a._shaker@hud.gov
Project Sponsor	Gail Dise	OCFO	(202) 708-1757 x3749	gail_b._dise@hud.gov
Project Manager	Mary Kohlmeier	OCFO	(202) 708-0614 x3853	mary_l._kohlmeier@hud.gov

1.5.2 MIL Contacts

Table 1-3 provides the MIL Corporation points of contact for the *HIFMIP Roadmap*.

Table 1-3. MIL Contacts

Type of Contact	Name	Telephone	Email
Operational Vice President	Linda Glasco	(202) 708-1136 x3814	lglasco@milcorp.com
Project Manager	Karen L. McGee	(202) 708-1136 x3727	kmcgee@milcorp.com

1.6 Referenced Documents

A significant amount of documentation has already been created through HIFMIP. The existing material has been reviewed and used in preparing the *Roadmap*. Documents that are specifically referenced in the *Roadmap* are listed below. References to specific items within the documents are footnoted in the appropriate section of the *Roadmap* where appropriate.

The following documents provided by or made available through HUD were used as input to the *Roadmap*:

- HIFMIP 300B (edited version with no dollars), 5/27/2005;
- HIFMIP Plan to Implement an integrated financial management at HUD – January 1, 2005 (revised April 6, 2005);
- HIFMIP Presentation to Integrated Program Team (IPT) HIFMIP – Current Developments, April 30, 2005;

- HIFMIP Presentation to Office of Assistant CFO Systems – Current Status and Approach; July 19, 2005;
- Enterprise Architecture (EA) Information Management: Segment Architecture: Financial Management, draft April 2005;
- HIFMIP Commerce Business Daily (CBD) Synopsis, March 31, 2005;
- HUD, *E-Government Act of 2002 Second Annual Report*, December 2004;
- HUD, *Financial Management Systems as of September 30, 2005*, draft;
- HUD, OCFO Interface Inventory, August 4, 2005;
- OCFO Systems Conversion to HIFMIP Plan (draft dated August 18, 2005);
- HUD, *Inventory of Financial/Mixed Systems*, September 30, 2004;
- HUD Systems Development Methodology (SDM) Guide, Release 6.03, February 2005.
- HUD Office of Information Technology (OIT), Project Leader Help Guide, February 2005;
- FHA Blueprint for Financial Management Systems, April 10, 2001;
- HUD Quality Assurance Guidelines, Version 1.0, June 2000; and
- PriceWaterhouseCoopers, *Working Capital Fund Handbook and Desk Procedures Document*, Chapter 2, “Roles and Responsibilities,” July 2002, pp. 2-3 and 2-4.

The following documents prepared by Initiate Stage Project Team provided specific input to the *Roadmap*:

- HUD Financial Management Vision, January 12, 2004;
- HIFMIP Risk Analysis, April 13, 2004;
- HIFMIP Risk Management Plan, May 11, 2004; and
- HIFMIP Independent Decision and Recommendation Paper, May 18, 2004, rev. June 1, 2004.

The following documents prepared by the Define Stage Project Team provided specific input to the *Roadmap*:

- *HIFMIP Concept of Operations*, February 9, 2005;
- HIFMIP Memorandum HIFMIP2005-018: Memorandum of Understanding on Detail Functional Requirements Document and Detail Data Requirements Document, April 19, 2005;
- HIFMIP Financial Management Vision, July 20, 2005;
- HIFMIP Functional Requirements Document, May 11, 2005;
- HIFMIP Detail Level Data Requirements Document, August 23, 2005;
- HIFMIP Legacy Systems Disposition Plan, August 22, 2005;
- HIFMIP Roadmap and LSDP Meeting Minutes, September 15, 2005;
- HIFMIP Preliminary Roadmap, July 5, 2005;

- HIFMIP Roadmap, Draft August 22, 2005; and
- HIFMIP System Support and Acquisition Plan, July 22, 2005.

The following information from other sources provided input to the *Roadmap*:

- Assistant Deputy Under Secretary of Defense (Logistics Systems Management); “Road Map Overview,” EI Toolkit Reference Document, Version 2.0; November 2003;
- CFO Research Services & Clarity Systems, *Best Practices in Selecting Performance Management Software: Finance Searches for Increased Flexibility and Control*,” CFO Publishing Corporation,
http://wp.bitpipe.com/resource/org_1121456614_902/CFO_Best_Practices_White_Paper_edp.pdf, February 2005;
- Harris, Randy, *Darwin Magazine*, “What is a Customer Relationship Management System?” December 2003, <http://www.darwinmag.com/read/120103/question65.html>.
- Jackson, Joab, *Government Computer News*, “Oracle Details Fusion Plans,” July 25, 2005; and
- Oracle Corporation, “Our Long-Term Commitment to Your PeopleSoft and J.D. Edwards Products,” http://www.oracle.com/peoplesoft/psft_jde_commitment.html, September 19, 2005;
- Oracle Corporation, “Oracle® Fusion Middleware Enhances Application Foundation for Enterprise Services and Business Applications - Oracle Delivers Roadmap for Certifying Applications on Oracle Fusion Middleware,”
http://www.oracle.com/corporate/press/2005_apr/042505_fusionmw.html, September 19, 2005;
- Oracle Corporation, “Oracle Applications,” <http://www.oracle.com/applications/home.html>, September 25, 2005;
- Oracle Corporation, “Oracle Financials,” <http://www.oracle.com/applications/financials/intro.html>, September 25, 2005; and
- Power, D.J., *What is a Decision Support System?*, <http://dssresources.com/papers/whatisadss>, September 25, 2005.

1.7 Acronyms, Abbreviations, and Terminology

This section summarizes the acronyms and abbreviations used throughout the document. In addition, this section defines some specific terms to clarify exactly how the terms are used in this *Roadmap*.

The word “phase” is used within the SDM and within existing HIFMIP documentation to mean different things. There are SDM phases (e.g., Initiate, Define, Design) and the phases outlined in the *CFO Vision Document*. Within each of the phases outlined in the *CFO Vision Document*, there are phases and tasks, such as the phases of the initial ICFS implementation (which is part of the vision Phase II, but includes multiple SDM phases). To clarify use of the word “phase” within the *Roadmap*, the following terms will be used:

- **Phase or HIFMIP Phase**—the four major HIFMIP phases already outlined in the *CFO Vision Document* (Phase II is ICFS implementation).
- **SDM Phase**—the phases defined in HUD’s SDM (Initiate, Define, Design, etc.).
- **Stage**—a major component of one of the HIFMIP Phases, for example, integration of FHA core financials into ICFS is Stage 2 of Phase II.
- **Task Area**—a segment of the systems implementation lifecycle within a stage of the ICFS implementation, e.g., development or conversion.
- **Task**—the highest level work breakdown within a stage (e.g., requirements definition, system testing, documentation). Tasks may repeat within different stages (and HIFMIP Phases).

The other area of clarification is the portion of HUD that will initially implement ICFS. Various terms have been used to define this area, including OCFO, HUD Administrative Funds, HUD Other Program Areas, and HUD Other Business Areas. To clarify the initial ICFS implementation, the following terms will be used throughout the *Roadmap*:

- **HUD OCFO-Managed Organizations**— will be used throughout the *Roadmap* to describe the scope of the initial ICFS implementation. This term encompasses HUD Other Program Areas and HUD Administrative Funds and refers to the set of programs and administrative functions currently accounted for in HUDCAPS under the financial control of OCFO (rather than FHA, Ginnie Mae or OFHEO).
- **HUD Administrative Funds**—refers to all HUD administrative funds, such as Salaries and Expenses (S&E), and Travel.
- **Office of the Chief Financial Officer (OCFO)**—refers to the HUD organizational unit responsible for HUD’s financial operations. OCFO will be the primary user and organization impacted by the initial ICFS implementation.
- **HUD Program Funds**—refers to HUD general programs such as subsidies and grants.
- **Other Major Programs Areas**—refers to the program areas other than those administered by FHA, Ginnie Mae and OFHEO. Other Major Program Areas include the following:
 - Office of Housing;
 - Office of Public and Indian Housing (PIH);
 - Office of Community Planning and Development (CPD);
 - Office of Fair Housing and Equal Opportunity (FHEO); and
 - Office of Healthy Homes and Lead Hazard Control.

Table 1-4 contains a glossary of acronyms and abbreviations used in this document. Refer to <http://www/hud/cfo/cfointrnt.html> for a full HUD glossary.

Table 1-4. Acronyms and Abbreviations

Acronym/Abbreviation	Definition
ADMN	Office of the Secretary for Administration

Acronym/Abbreviation	Definition
AMS	American Management Systems
BOSS	Section 8 Budget Outlay Support System
BPD	Bureau of Public Debt
CBD	Commerce Business Daily
CCARS	Cash Control Accounting and Reporting System
CCFF	Consolidated Cost and Full-Time Equivalent (FTE) Files System
CDBG	Community Development Block Grant
CFO	Chief Financial Officer
CFOAC	Chief Financial Officer Accounting Center
CMM	Capability Maturity Model
COE	Center of Excellence
COTS	Commercial-off-the-shelf
CPD	Office of Community Planning and Development
CRM	Customer Relationship Management
CSD	Customer Service Division
DARTS	Departmental Accounts Receivable Tracking and Collection System
DM	Data Mart
DOCS	Departmental Organization Code System
DRD	Detail Level Data Requirements Document
ECS	Electronic Certification System
EFT	Electronic Funds Transfer
EPM	Enterprise Performance Management
ESG	Emergency Shelter Grants
eTravel	FedTraveler.com
EZB	EZBudget Budget Formulation System
FAADS	Federal Assistance Award Data System
FACTS	Federal Agencies Centralized Trial Balance System
FAR	Federal Acquisition Regulations
FC	Fund Control Division of Housing Budget
FEDWIRE	Treasury, FEDWIRE Deposit System

Acronym/Abbreviation	Definition
FDM	Financial Data Mart
FEMIS	Furniture and Equipment Management Information System
FFMIA	Federal Financial Management Improvement Act
FFS	Federal Financial System
FHA	Federal Housing Administration
FHA-SL	FHA Subsidiary Ledger
FHEO	Office of Fair Housing and Equal Opportunity
FIMS	Financial Information and Management System
FIRMS	Facilities Integrated Resource Management System
FMFIA	Federal Managers' Financial Integrity Act
FM LoB	Financial Management Line of Business
FMS	Financial Management Service
FRD	Functional Requirements Document
FTE	Full-Time Equivalent
FTR	Financial Transaction Repository
FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GAO	Government Accountability Office
GFRS	Government-wide Financial Reporting System
GFITSA	Government-Furnished Information Technology Software and Applications
Ginnie Mae	Government National Mortgage Association
GMRA	Government Management Reform Act
GPRA	Government Performance and Results Act
GSA	General Services Administration
GTM	Government Technical Manager
GTR	Government Technical Representative
HA	Housing Authority
HATS	Human Resources Action Tracking System
HCFSS	HUD's Consolidated Financial Statement System
HIFMIP	HUD Integrated Financial Management Improvement Project

Acronym/Abbreviation	Definition
HIHRTS	HUD Integrated Human Resources Training System
HOME	Home Investments Partnerships Program
HOPE 3	Home Ownership for People Everywhere 3
HOPWA	Housing Opportunities for Persons with AIDS
HPS	HUD Procurement System
HTMS	HUD Travel Management System
HUD	Department of Housing and Urban Development
HUDCAPS	HUD's Central Accounting and Program System
Hyperion	HUD's Consolidated Financial Statement System
IATS	Integrated Automated Travel System
ICFS	Integrated Core Financial System
IDIS	Integrated Disbursement & Information System
IDRP	Independent Decision and Recommendation Paper
IFMS	Integrated Financial Management Solution
IPAC	Intra-governmental Payment and Collection System
IPIA	Improper Payments Information Act
IPT	Integrated Program Team
IT	Information Technology
IRS	Internal Revenue Service
JFMIP	Joint Financial Management Improvement Project
LAS	Loan Accounting System
LOCCS	Line of Credit Control System
LSDP	Legacy Systems Disposition Plan
MAF	Master Account File
MASS	MACOLA Accounting Software System
MOU	Memorandum of Understanding
MS	Microsoft
NFC	National Finance Center
NLS	Nortridge Loan System
OCFO	Office of the Chief Financial Officer

Acronym/Abbreviation	Definition
OCIO	Office of the Chief Information Officer
OCPO	Office of the Chief Procurement Officer
OFFM	Office of Federal Financial Management
OFHEO	Office of Federal Housing Enterprise Oversight
OH	Office of Housing
OIG	Office of the Inspector General
OIT	Office of Information Technology
OITIM	Office of Information Technology Investment Management
OLAP	Online Analytical Processing
OMB	Office of Management and Budget
OSDM	Office of System and Development Management
PAS	Program Accounting System
PC-TARE	Personal Computer Time & Attendance Remote Entry System
PIC	PIH Information Center
PIH	Public and Indian Housing
PL	Public Law
PMA	President's Management Agenda
PMO	Project Management Office
PSCRS	Personal Service Cost Reporting System
PWP	Project Work Plan
REAP	Resource Estimation Allocation Process
REMS	Real Estate Management System
S&E	Salaries and Expenses
SATO	Scheduled Airline Traffic Office
SDM	Systems Development Methodology
SECLDGER	Low Rent Housing Security Ledger
SI	Systems Integrator
SME	Subject Matter Expert
SPS	Small Purchase System
TEAM	Total Estimation and Allocation Mechanism

Acronym/Abbreviation	Definition
TFCS	Treasury Financial Communication System
TFM	Treasury Financial Manual
TIBEC	Technology Investment Board Executive Committee
TIBWG	Technology Investment Board Working Group
TMD	Travel Management Division
TRACS	Tenant Rental Assistance Certification System
Treasury	Department of the Treasury
Treasury SPS	Treasury's Secure Payment System
TROR	Treasury Report on Receivables
VA	Veterans Affairs
VRS	Voice Response System

2.0 HIFMIP PROJECT OVERVIEW

2.0 HIFMIP PROJECT OVERVIEW

The purpose of this chapter is to provide a brief overview of HIFMIP and its project structure. This chapter includes the following sections:

- Section 2.1 HIFMIP Vision
- Section 2.2 HIFMIP Context
- Section 2.3 Organization and Project Structure

2.1 HIFMIP Vision

This section summarizes the future financial systems vision described in more detail in the *CFO Vision Document*. As Figure 2-1 below depicts, integrated financial management fundamentally supports the mission of HUD and is an inherent function of the delivery of all programs.

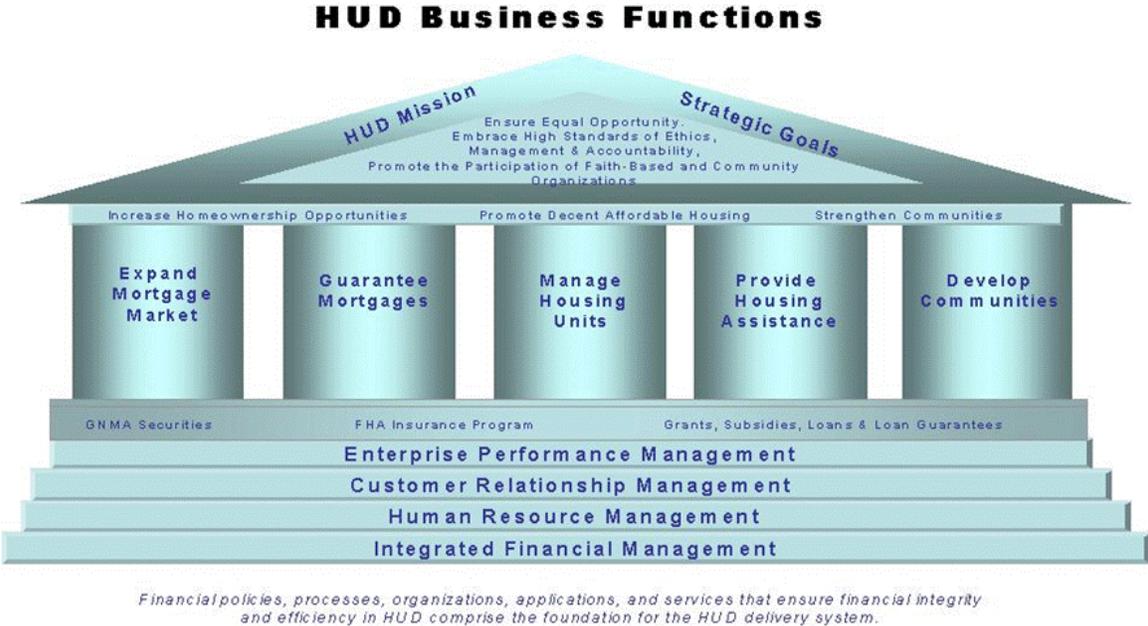


Figure 2-1. HUD Business Functions²

To enable cost-effective mission achievement and risk mitigation, financial management at all levels of HUD must manage and control programs through activities that:

²HUD’s Financial Management Vision, Figure ES-1.

- Capture business event information;
- Ensure budgetary integrity;
- Establish financial control over obligations and costs; and
- Produce timely, accurate, consistent, and complete financial data.

HUD’s vision for the future is an IFMS that includes ICFS, a Customer Relationship Management (CRM) System, and an Enterprise Performance Management (EPM) System, along with the integration of information from many other systems. Figure 2-2 illustrates this integrated vision.

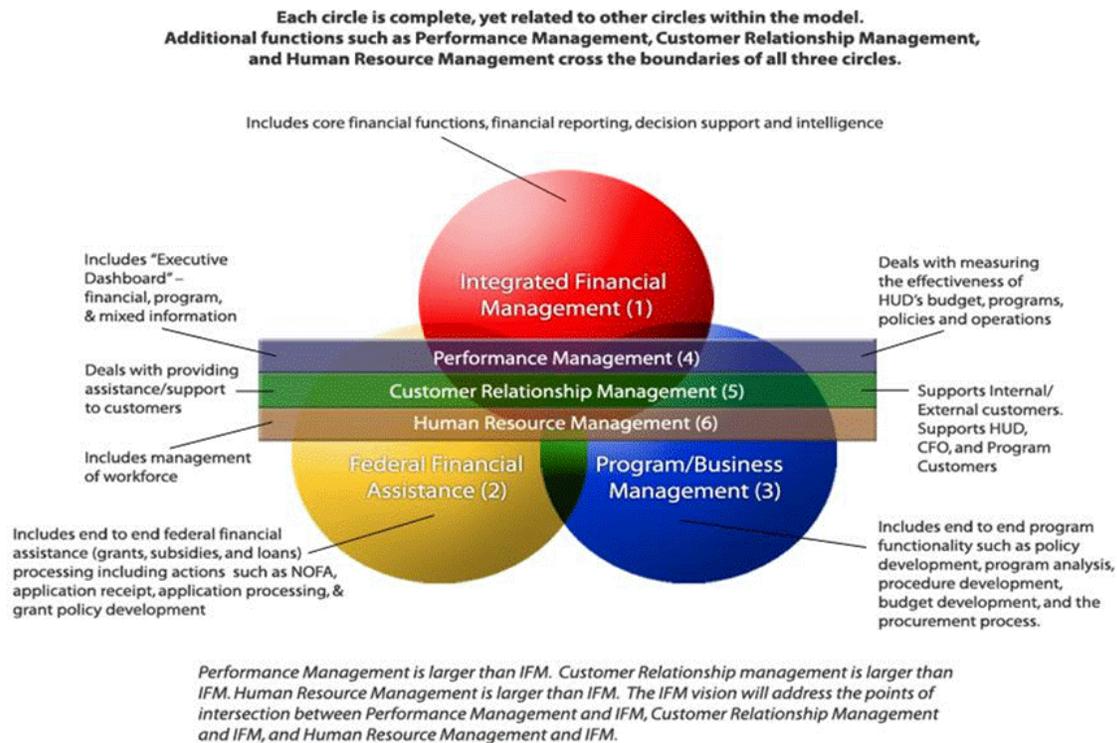


Figure 2-2. HIFMIP Integrated Financial Management Diagram³

ICFS will be the first portion of the IFMS to be implemented and will be in place at the conclusion of HIFMIP Phase II. Figure 2-3 illustrates the planned ICFS end-state architecture at the conclusion of the HIFMIP initiative. More information about the systems architecture during the transition years is included in Chapter 5.

³HUD’s Financial Management Vision, January 12, 2004, Figure 1-3.

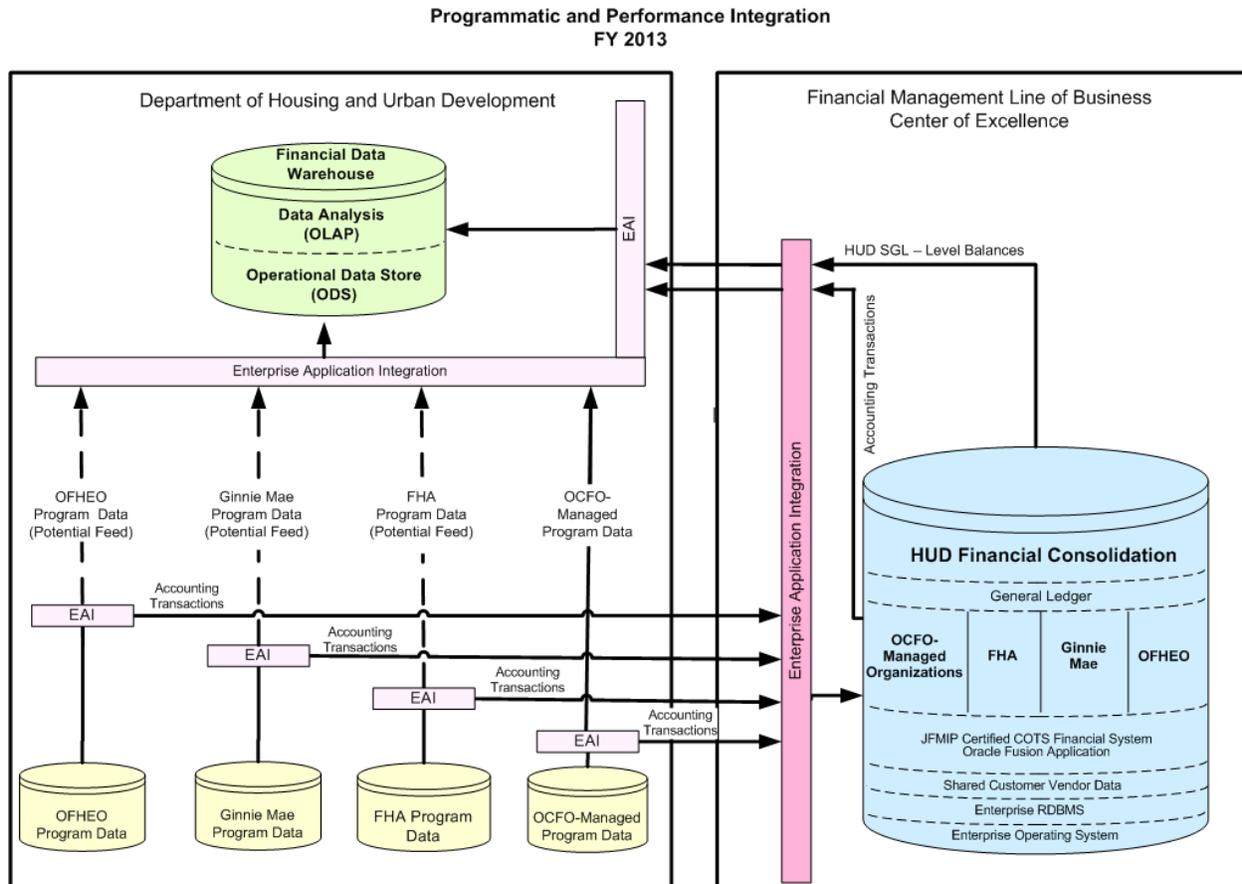


Figure 2-3. ICFS High Level Systems Architecture –HIFMIP End State

Figure 2-3 illustrates the ideal or desired solution for HUD core financials. This vision is an enterprise-wide single vendor/single instance system. This single platform core financial system, with subsidiary ledgers for the FHA, Ginnie Mae, OFHEO, and HUD OCFO-Managed Organizations uses dedicated applications, common vendor and customer files, and a common database to capture and record financial events at the transaction level as shown in the figure.

The integrated financial management vision includes the entire financial management cycle for HUD. The scope of the key financial management functions extends beyond core accounting to enterprise-wide financial management. It encompasses the origination of transactions across the Department's program and other administrative areas, as well as core accounting and reporting. The financial management cycle includes processes and functions necessary to execute and automate both the budgetary and proprietary federal accounting transactions. Establishing a seamless integrated system for managing all financial activity in a robust relational database is a desired component of the overall vision. The core solution enforces the following:

- Standard data classifications (definitions and formats) for establishing and recording financial events;
- Common processes for similar kinds of transactions;
- Internal controls over data entry and transaction processing;
- Elimination of unnecessary duplication of transaction entry; and

- Elimination of fragmentation in the accounting cycle.

ICFS will serve as the single and central source for the following:

- Approved budgetary information at every level of the budget process once an appropriation has been passed, from appropriation to apportionment to allotment to the field site budgetary control levels;
- Commitments, obligations, costs, and outlays based on funds availability as established by the budgetary controls;
- Detailed financial/cost accounting transactions within sub-ledgers; and
- General Ledger balances based on posted entries from the sub-ledgers.

Funds will be controlled through a combination of budgetary general ledger entries (that establish basic funding limits) with integrated purchasing controls to verify available funds before allowing approvals, commitments, or obligations. Invoice approval (matching) will be controlled by the associated purchase orders and outlays by the invoices. Basically, every dollar will be controlled and accounted for from appropriation through the lowest level of funds distribution through final outlay in a seamlessly integrated system.

ICFS supports all of HUD's current business functions. Figure 2-4 maps HUD's current business functions to the components of the core solution.

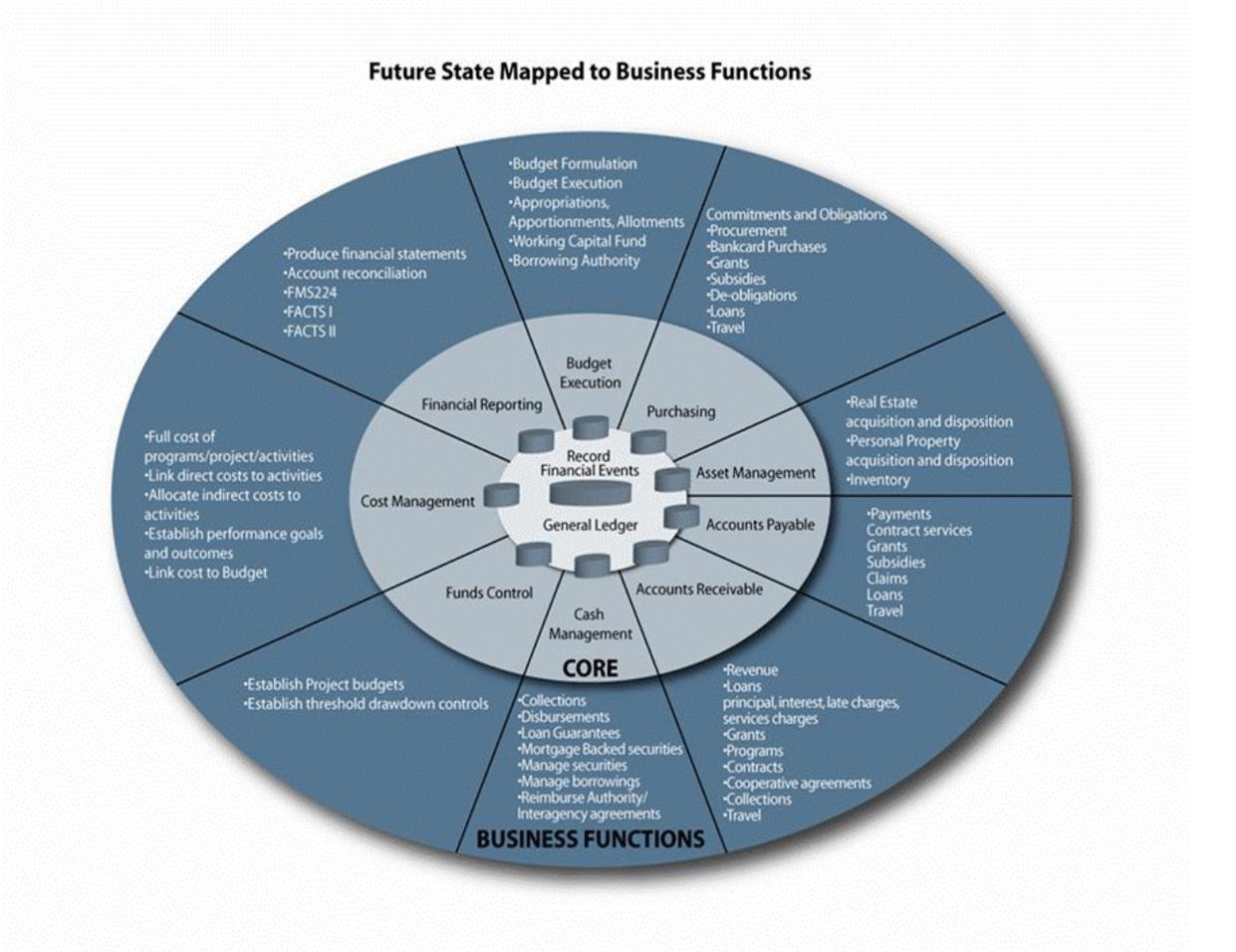


Figure 2-4. Future State Mapped to Business Functions⁴

ICFS will include the financial functions listed in Table 2-1. More information on these functions can be found in the HIFMIP *High-Level Functional Requirements Document* (May 11, 2005) in Chapter 4.2, “Functional Area System Functions.”

⁴HUD’s *Financial Management Vision*, Section 2.3 “Supported Business Functions.”

Table 2-1. ICFS Core Financial Activities

Functional Area	Financial Activities
Budget	<ul style="list-style-type: none"> ▪ Budget Formulation Results ▪ Appropriation ▪ Apportionment ▪ Allotment
Budget Execution and Cost Management	<ul style="list-style-type: none"> ▪ Procurement/Acquisition <ul style="list-style-type: none"> • Commitment • Obligation • De-obligation ▪ Accounts Payable ▪ Expenditures ▪ Payment
Resource Management and Control	<ul style="list-style-type: none"> ▪ Funds Control ▪ Accounts Receivable ▪ Cash Management ▪ Asset Management ▪ Customer and Vendor Master Files ▪ General Ledger
Measurement and Reporting	<ul style="list-style-type: none"> ▪ Financial Reporting ▪ Cost Accounting

2.2 HIFMIP Context

HUD has decided upon the architecture of the end state, to be achieved over time, as HUD organizations are brought into the IFMS architecture through a planned series of transition stages. The end state is discussed in the “HIFMIP Plan” document— an excerpt of which appears below:

The “HIFMIP Plan” document submitted to OMB in January 2005 (*HIFMIP Plan Align with FM LoB 03.03.2005.R*) states:

“Integrated financial management for HUD includes all financial management organizations and financial systems that provide financial information to HUD’s consolidated financial statements. HUD currently supports separate financial management organizations within the OCFO, FHA, GNMA and OFHEO organizations. The integrated core financial management system will be implemented in a phased approach that recognizes finite resources and evolving external and internal issues relevant to Federal financial system requirements. The initial phase will implement the integrated core financial management system in the OCFO organization with later phases to include FHA, GNMA and OFHEO organizations.

“The HIFMIP Project Team started the System Requirements phase of the project in FY 2005. The Department maintains four core financial systems; each interfaced or integrated with 70+ additional financial systems that perform financial and programmatic functions. The HIFMIP Project Team is developing comprehensive requirements to ensure a single financial system will support all HUD business processes. The requirements document will provide the critical information necessary to start the replacement of the current OCFO systems to implement the Department’s core financial system solution; and concurrently work with FHA, GINNIE MAE and OFHEO to standardize financial processes and financial systems to facilitate the goal to continue the transition to a single core financial system. The requirements phase will include evaluation and selection of an approved COTS core financial system.

“The FY 2005 and FY 2006 work includes evaluation and selection of a System Integrator/center of excellence (COE) service provider to work with HUD to transition the Department’s four core financial systems to a single system. The System Integrator will work with the HIFMIP Project Team to identify issues and develop a migration plan starting with transitioning the OCFO financial systems to the new system and operating environment in FY 2007; and later transitioning FHA, GINNIE MAE and OFHEO to the single core financial system when each of the three financial systems has completed their modernization and standardization plans. The transition of the remaining 3 core financial systems is scheduled for FY 2008 through FY 2009. Concurrently, HUD will initiate a plan to implement long-term business improvements and complete disposition of existing systems.”

The HIFMIP initiative is only one of many initiatives at HUD. Because of HUD’s ongoing, agency-wide automated systems transformation and the significant IT investment being made to deliver efficient and effective systems solutions, there are several key initiatives other than HIFMIP that are occurring concurrently throughout the Department. Of particular interest to HIFMIP are those initiatives that will position HUD to address agency-wide program, performance, and customer information integration in HIFMIP Phase IV.

The following initiatives are described in HUD’s *E-Government Act of 2002 Second Annual Report* (December 2004) and the *E-Government Strategic Action Plan*:

- Procurement;
- Human Resources;
- Rental Assistance; and
- Grants.

In addition to the HUD initiatives listed and HUD’s ongoing realignment and modernization around lines of business, there is always the possibility of externally-mandated initiatives that will affect HIFMIP. There are no new federal initiatives identified currently, but federal initiatives can arise at any time. HIFMIP project management will need to be aware of external

initiatives such as pending legislation, changing central agency requirements, or external system upgrades or replacements (such as Treasury or NFC).

Finally, HUD interacts with many third parties, including commercial entities, other government agencies, and a variety of other partners and stakeholders. Within HIFMIP, and throughout HUD, many vendors support the required day-to-day operations of the agency. The roles and relationships of HIFMIP vendors need to be included in the overall HIFMIP context.

A context diagram is a useful way of depicting the relationship of HIFMIP to other HUD initiatives. The context diagram developed in the SDM Initiate Stage is included in Figure 2-5.

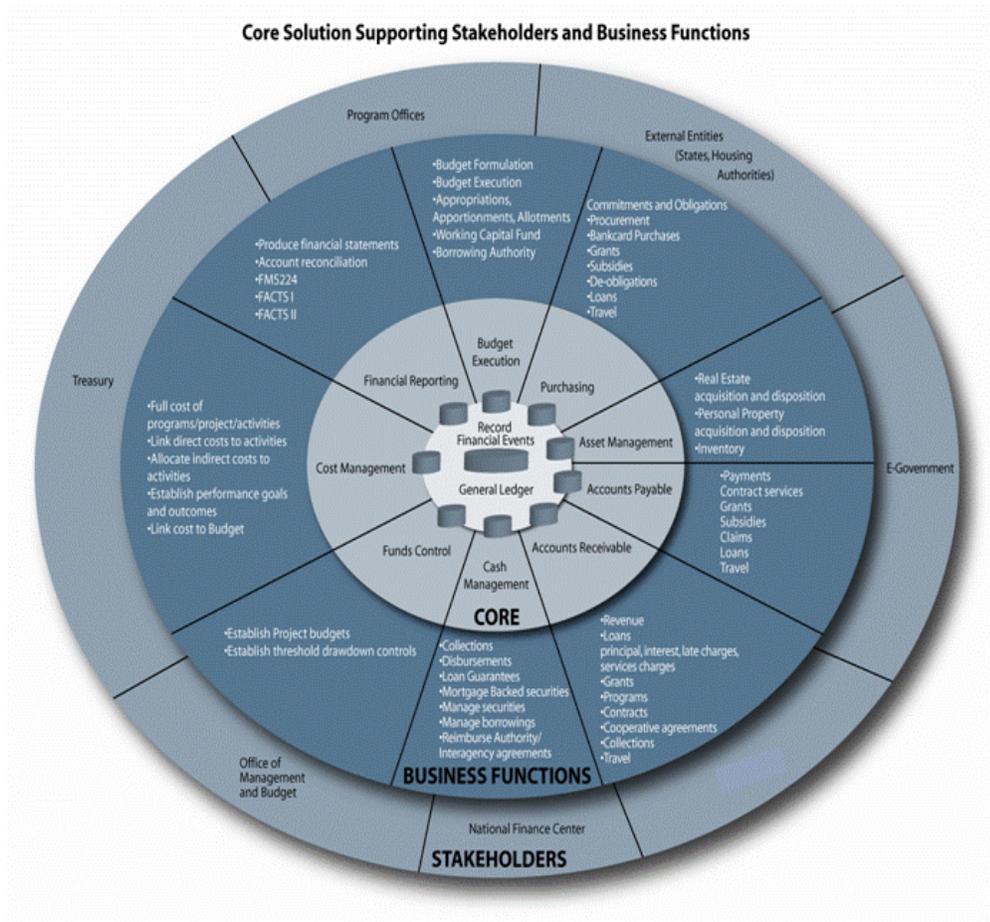


Figure 2-5. HIFMIP Context Diagram

2.3 Organization and Project Structure

OCFO and the Office of the Chief Information Officer (OCIO) are the key stakeholders for modernizing HUD's financial management systems as mandated by law.

OCFO is the primary stakeholder and sponsor of HIFMIP and has a major role in implementing its vision throughout HUD. The CFO Act of 1990 specifies that the HUD CFO will perform a variety of specific financial tasks, including the development and maintenance of an integrated agency accounting and financial management system that provides required financial reporting and internal controls.

The following HUD organizations are also major stakeholders in HIFMIP:

- Federal Housing Administration (FHA);
- Government National Mortgage Association (Ginnie Mae);
- Office of Federal Housing Enterprise Oversight (OFHEO);
- Office of Administration (ADMN);
- Office of Housing (OH);
- Office of Public and Indian Housing (PIH);
- Office of Community Planning and Development (CPD);
- Office of Fair Housing and Equal Opportunity; and
- Office of Healthy Homes and Lead Hazard Control.

Figure 2-6 illustrates HUD's overall organizational structure.

U.S. Department of Housing and Urban Development Organization Chart

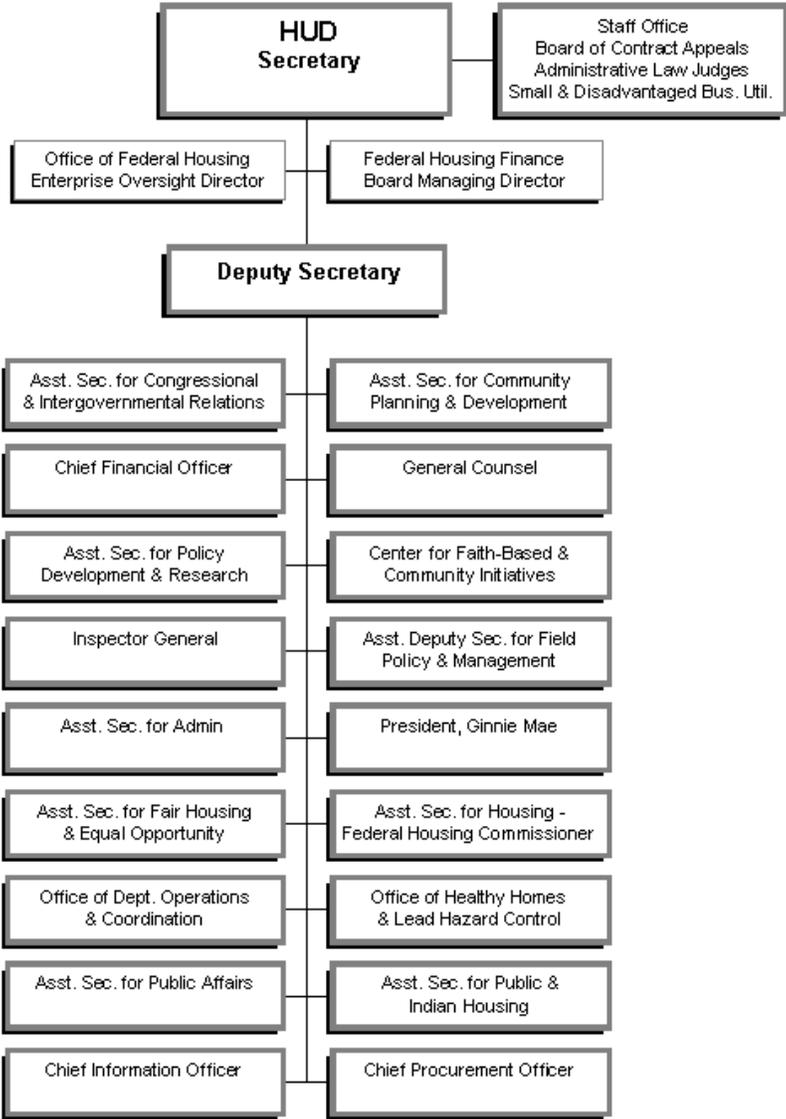


Figure 2-6. HUD Organization Chart

HUD's website, www.hud.gov, provides this department-wide organization chart, along with detailed descriptions of each major office within HUD.

2.3.1 HIFMIP Stakeholders

In addition to HUD offices, stakeholders include external constituents including OMB, Government Accountability Office (GAO), and Treasury. HIFMIP customers include HUD financial systems users and program managers. In addition, members of the public who receive payments for services as well as those who are provided information through HUD kiosks and other means of requesting information will benefit from having current, appropriate financial information available.

With the implementation of ICFS, integrated financial management will occur at the top-level entity within the Department. HUD consolidated accounting and financial reporting for all entities will be achievable at this level. FHA, Ginnie Mae, OFHEO, and HUD OCFO-Managed Organizations exist as sub-entities or subsidiary ledgers with the capability to perform integrated financial management using their own set of accounting, financial statement, and financial reporting capabilities.

Functional users are not expected to change significantly from the current system to the new ICFS in Phase II; however, with the transition to a COE, system operations and maintenance responsibilities will shift. ICFS should provide the capability to have Field Office location personnel enter transactions at the point of origin into the system for electronic transmission to HUD managers responsible for final approvals. The addition of these users would likely occur in HIFMIP Phase IV when programmatic integration is scheduled to occur and will increase the total number of ICFS users.

Roles and responsibilities of individual users will change over time as data entry and reconciliation functions are eliminated by the implementation of the new system. Personnel performing these data entry and reconciliation functions will shift to performing more proactive analysis.

2.3.2 HIFMIP Project Structure

The roles of key HUD players in HIFMIP for the implementation of the ICFS include the following organizations:

- **OCFO**—Identify HUD financial requirements, standards, and related business processes; initial implementation site(s);
- **OCIO**—Ensure compliance with HUD Enterprise Architecture, bring findings to the Technical Investment Board, and determine the technical requirements for the implementation of the proposed solution;
- **OIG**—Understand relevant departmental and federal regulations and legislation;
- **OCPO**—Advise on appropriate procurement strategies; and
- **HIFMIP Project Team**—described below.

The HIFMIP initiative is a major enterprise project. To effectively manage and communicate all aspects of the project and build and maintain stakeholder support through all project phases, the following three groups have been established:

- Executive Advisory Committee;
- HIFMIP Stakeholder Working Group; and
- HIFMIP Integrated Program Team (IPT).

The **Executive Advisory Committee** is an ad hoc group composed of principals from each HUD major business unit. Members include HUD's senior level management and a consensus building body that makes agency recommendations to the Secretary and Deputy Secretary. The HUD CFO coordinates process with members, sharing periodic status reports and decisions and recommendations that are received from the Stakeholder Working Group.

The **HIFMIP Stakeholder Working Group** is composed of representatives from each of HUD's major program and administrative organizations. Each primary office head has designated one or more members to represent the office's interests in the group. The group identifies issues that require a HUD enterprise-level response. The group, under the direction of the Executive Advisory Committee, identifies HIFMIP functional issues that require research and coordination across several program areas or offices to determine the best course of action. The Stakeholder Working Group provides the IPT a process to resolve issues that have enterprise-wide implications and impact.

The **HIFMIP Integrated Program Team (IPT)** is the primary means by which the HIFMIP Project Team conducts its work. The IPT consists of HUD stakeholders who complete specific work to approve, guide, facilitate, and implement the vision for an ICFS for HUD. Group membership includes Project Managers and System Owners, as well as subject matter experts from OCFO, OCIO and major program organizations within HUD. The broad representation on this team ensures enterprise level involvement to enable the program, administrative, and support organizations within HUD to adapt their processes and systems to ICFS.

FHA and Ginnie Mae have participated in the HIFMIP Working Group activities since its inception in April 2004 and will continue to participate in the Stakeholder Working Group and IPT to support the Deputy Secretary's August 2004 directive for HIFMIP.

In addition to the key players and HIFMIP organizations described in the preceding paragraphs, several OCIO organizations interact with and support HIFMIP. These organizations include:

- OCIO Enterprise Architecture (EA) Program Management Office;
- OCIO Project Management COE;
- Technology Investment Board Executive Committee (TIBEC); and
- TIB Working Group (TIBWG).

The **HUD OCIO Enterprise Architecture (EA) Program Management Office** provides staff with the expertise to review and approve the recommendations and actions of the HIFMIP IPT. The EA Program Management Office's primary role on HIFMIP is to ensure that the IPT actions support HUD's target architecture for the financial resource management function.

HUD is creating a Project Management COE within OCIO. The **OCIO Project Management COE** has been assigned the responsibility to monitor cost and schedule performance on a monthly basis for each initiative in the HUD portfolio. Key HUD personnel that will lead this center have been designated, and technical support for the center is moving forward. To date,

HUD's Office of Information Technology Investment Management (OITIM) has provided this oversight role and will continue to do so until the center is established and fully staffed.

The **Technology Investment Board Executive Committee (TIBEC)** provides the forum through which HUD's Principal Staff can formulate, manage and monitor the performance of the HUD IT portfolio. The TIBEC is responsible for the oversight of the implementation and execution of the HUD IT investment process.

The **TIB Working Group (TIBWG)** is charged with reviewing and selecting proposed initiatives for inclusion in the IT investment portfolio following a screening and scoring process. The TIBWG prioritizes IT projects and conducts quarterly reviews to evaluate project performance.

The HIFMIP initiative includes and affects all program, administrative, and support organizations within HUD and requires their support, input and resources to achieve the new ICFS on time, on budget, and within scope.

To date, HIFMIP has been supported by a small project office, including a full-time HUD project manager and various contractor staff to support the SDM Initiate and Define Stage tasks. HUD is in the process of selecting a COE, and Systems Integrator (SI) to support the implementation of ICFS. Once the SI contract has been awarded and the ICFS implementation begins in earnest, HIFMIP will require a variety of staff with specific skills to support and oversee the implementation efforts. Chapter 6 identifies suggested HUD staffing roles and skills required for future HIFMIP Phases.

3.0 SCOPE AND APPROACH

3.0 SCOPE AND APPROACH

HUD's vision is to achieve integrated financial management by employing a common set of FFMIA-compliant procedures, processes, and controls that are supported by a modern, integrated suite of OFFM (formerly JFMIP)-compliant financial management systems. These systems must enable the end-to-end capture and recording of timely and accurate information from the point of origin to the point of dissemination. HUD will operate in an efficient, business-like manner, providing accurate, reliable, and timely financial information to all stakeholders and will consistently achieve clean audit opinions. Financial information should depict HUD's overall fiscal performance along with more detailed information on HUD programs and supporting operations. Available information should also support decision-making and performance management.

Key tenets of the vision for the ICFS include an integrated system that:

- Processes and reports on all core financial events enterprise-wide from point of origin to point of dissemination;
- Provides a full range of integrated analytical and decision support capabilities to stakeholders;
- Provides online, real-time access to and processing of financial information;
- Seamlessly integrates with HUD's major business systems to ensure all financial events are recorded in a timely standardized manner;
- Employs a standard financial business model to ensure common definitions and usage of fiscal data across HUD;
- Leverages the full range of e-government initiatives; and
- Allows for implementation alternatives that provide key management checkpoints to achieving the desired outcome.

This chapter addresses the following areas:

- HIFMIP Scope (Section 3.1) and
- HIFMIP Approach (Section 3.2).

3.1 HIFMIP Scope

HIFMIP is a multi-year project that will replace the current core financial system with an integrated financial management solution. Integrated financial management includes all financial management organizations and financial systems that provide financial information to HUD's consolidated financial statements.

The current core financial system's subsidiary systems that are integrated, interfaced, or otherwise provide information to the current core financial system will be affected as the HIFMIP Project Team implements a phased plan to transition HUD to the new integrated system. The existing core financial system will be phased out over the implementation period and relevant data transferred to ICFS. Similarly, the current subsidiary financial systems will be assessed and a decision made whether to integrate, interface, adapt, or replace to support the

HIFMIP Vision. *The Legacy Systems Disposition Plan (LSDP)* provides the recommended strategy for handling impacted HUD systems in a manner consistent with the HIFMIP Vision.

ICFS will eventually be used to support core financial functions for all of HUD’s major business areas:

- HUD OCFO-Managed Organizations
- FHA;
- Ginnie Mae; and
- OFHEO.

The systems affected by HIFMIP are identified in Table 3-1.

Table 3-1. Systems Affected by HIFMIP

No.	Office (Owner)	System ID	System Short Name	Name
1	ADMN	D67A	FIRMS	Facilities Integrated Resources Management System
2	ADMN	A35	HPS	HUD Procurement System
3	ADMN	P162	HIHRTS	HUD Integrated Human Resources Training System
4	ADMN	P035	SPS	Small Purchase System
5	ADMN	A51	FAADS	Federal Assistance Award Data System
6	OCFO	A21	LAS	Loan Accounting System
7	OCFO	A39	Hyperion	HUD Consolidated Financial Statement System
8	OCFO	A65A	SAVE	Section 235 Automated Validation and Editing
9	OCFO	A67	LOCCS	Line of Credit Control System
10	OCFO	A75	HUDCAPS/FFS	HUD Central Accounting & Reporting System
11	OCFO	A75I	PSCRS	Personal Service Cost Report Subsystem
12	OCFO	A75R	FDM	Financial Data Mart
13	OCFO	A91	CCFF	Consolidated Cost and FTE Files
14	OCFO	A96	PAS	Program Accounting System
15	OCFO	D08	Bonds	Bond Payment
16	OCFO	D091	CAPS	OCFO WebFocus Corrective Action Plan Reports System
17	OCFO	D21	DARTS	Departmental Accounts Receivable and Collection Tracking System
18	OCFO	D61	EZB	EZ Budget
19	OCFO	D65A	BOSS	Section 8 Budget Outlay Support System
20	OCFO	D91A	REAP/TEAM	Resource Estimation Allocation Process/ Total Estimation and Allocation Mechanism
21	OCFO	H18	IATS	Integrated Automated Travel System
22	OCFO	P001	HTMS/ eTravel	HUD Travel Management System/ FedTraveler.com
23	OCFO	P190	GFITS	Government Financial Information Tracking System
24	CPD	C04	IDIS	Integrated Disbursement and Information System
25	OH	A43	SFIS	Single Family Insurance System

No.	Office (Owner)	System ID	System Short Name	Name
26	OH	F24D	REMS	Real Estate Management System
27	OH	F87	TRACS	Tenant Rental Assistance Certification System
28	OH	P013	FHA-SL	FHA Subsidiary Ledger
29	OH	F17C	FHAC	FHA Connection
30	Ginnie Mae	B16	MASS	Macola Accounting Software System
31	PIH	P113	PIC	PIH Information Center System
32	PIH	P104	WASS	Web Access Security Subsystem
33	OFHEO	UNK	FIMS	Financial Information and Management System
34	OCIO	Unknown	TIBEC	Technology Investment Board Portfolio

Interfaces between these systems, and interfaces with systems external to HUD, are also addressed as part of the HIFMIP planning process. More detailed information is available in the LSDP.

3.2 HIFMIP Approach

HIFMIP is a multi-year project that will replace the current core financial system with an integrated financial management solution. Integrated financial management includes all financial management organizations and financial systems that provide financial information to HUD's consolidated financial statements.

The HUD Central Accounting and Program System (HUDCAPS) is HUD's current core financial system for OCFO-Managed Organizations. FHA, Ginnie Mae, and OFHEO each maintain their own core financial systems that provide information to support preparation of the consolidated financial statements. More information on HUD's current financial systems environment is included in Chapter 4.

HUDCAPS is based on the Federal Financial System (FFS), a COTS software package provided by American Management Systems (AMS). FFS was certified as an approved Federal financial system when the selection was made in 1990. In 2003, JFMIP provided its latest round of testing and software certification using an updated set of requirements. At that point, FFS was not re-certified by AMS.

HUD is looking to reduce its dependence on its mainframe architecture. Unisys support will be eliminated in the near future, affecting several of HUD's current financial systems. In addition, HUD has identified financial goals and a fully integrated financial management vision that requires implementation of new core financial software. HUD must select new financial software from the COTS packages that are currently OFFM-compliant.

To develop a strategy for financial management improvement, HUD defined a vision that outlined the desired future state of financial management and its supporting systems. The updated vision is documented in the *CFO Vision Document* that was developed during the SDM Initiate Project Phase of HIFMIP. The *CFO Vision Document* was recently updated to reflect changes that have occurred since its initial preparation.

A number of other documents were prepared during the SDM Initiate Phase that defined the approach for HIFMIP. Because HUD had already procured and FHA was in the process of implementing PeopleSoft Financials when HUD began the agency-wide HIFMIP initiative, the PeopleSoft alternative was more attractive from a cost and risk standpoint. The SDM Initiate Phase documents support that approach.⁵

Recent government-wide financial systems initiatives have had some impact on the planned approach to ICFS implementation. OMB, as part of the e-government initiative and the PMA, established a Financial Management Line of Business (FM LoB) Project Team in late fiscal year 2003. The FM LoB-recommended financial management solution includes the use of COEs to provide information technology (IT) hosting and operational support, i.e., processing services, for core financial management activities.

Federal Executive agencies were required to designate specifically in their 2006 submission to OMB and the Congress their intent to either (1) be designated as a COE; or (2) migrate to a COE. HUD plans to migrate to a COE and is currently preparing to do so in conjunction with the implementation of ICFS. HUD is currently in the process of updating its *Independent Decision and Recommendation Paper* to reflect the changes in circumstances since the original recommendations were developed; the *Roadmap* reflects the planned updates in approach and implementation strategy.

The four phases of the implementation approach include:

- Phase I: Organizational Preparation;
- Phase II: Implementation of Core Financials;
- Phase III: Operational Systems Enhancements; and
- Phase IV: Integrated Financial and Program Performance.

These phases will be referred to throughout this document as HIFMIP Phases or plain “phases.” HIFMIP Phase I will end with the selection of the COE and Systems Integrator to host and facilitate ICFS implementation (targeted for March 31, 2006). Phases II through IV are logical organizational pieces of HIFMIP. Each Phase will include several stages or components. These phases and stages were identified in Table 1-2 and are included in Table 3-2 to provide an overview for the discussion in the remainder of this chapter.

⁵*Independent Decision and Recommendation Paper*, May 18, 2004, rev. June 1, 2004, Section 2.3.2 “Alternative Analysis and Recommendation.”

Table 3-2. HIFMIP Phases and Stages

HIFMIP Phase	Stage	Stage Description	Target Implementation Timeframe
Phase I – Organizational Preparation	N/A	Planning and preparation for ICFS Implementation	FY 2006
Phase II – Implementation of Core Financials	II-1	Implement ICFS for HUD OCFO-Managed Programs at COE	FY 2008
	II-2	FHA ICFS Integration at COE	FY 2009
	II-3	Ginnie Mae ICFS Integration at COE	FY 2010
	II-4	Upgrade to Fusion at COE	FY 2011
	II-5	OFHEO ICFS Integration at COE	FY 2012
Phase III - Operational Systems Enhancements	III-1	Subsidiary Financial Systems Enhancements and Interfaces (e.g., LAS, LOCCS, IATS)	FY 2006 – 2009
	III-2	Program Systems Enhancements and Interfaces (e.g., IDIS, TRACS, Grantium)	FY 2007 - 2011
	III-3	Budget Formulation/Budget Preparation System Integration	FY 2010
	III-4	New Procurement System Integration/ HPS, SPS Interface Replacement	FY 2010
	III-5	DARTS Integration into ICFS	FY 2010
Phase IV - Financial and Program Performance	IV-1	Financial Data Warehouse (FDM replacement)	FY 2012 - 2013
	IV-2	Customer Relationship Management System Implementation/ Integration	FY 2012 - 2013
	IV-3	Decision Support System Implementation/ Integration	FY 2012 - 2013
	IV-4	Enterprise Performance Management System Implementation/ Integration	FY 2012 - 2013

The term “stage” differentiates major components of a Phase from the Phase itself or the HUD Systems Development Methodology (SDM) Phases that comprise an implementation effort. Stage refers to logical subdivisions within a Phase. For example, within Phase II – ICFS Implementation, one stage would be Ginnie Mae’s implementation of ICFS.

Figure 3-1 provides an overview of the HIFMIP timeline.

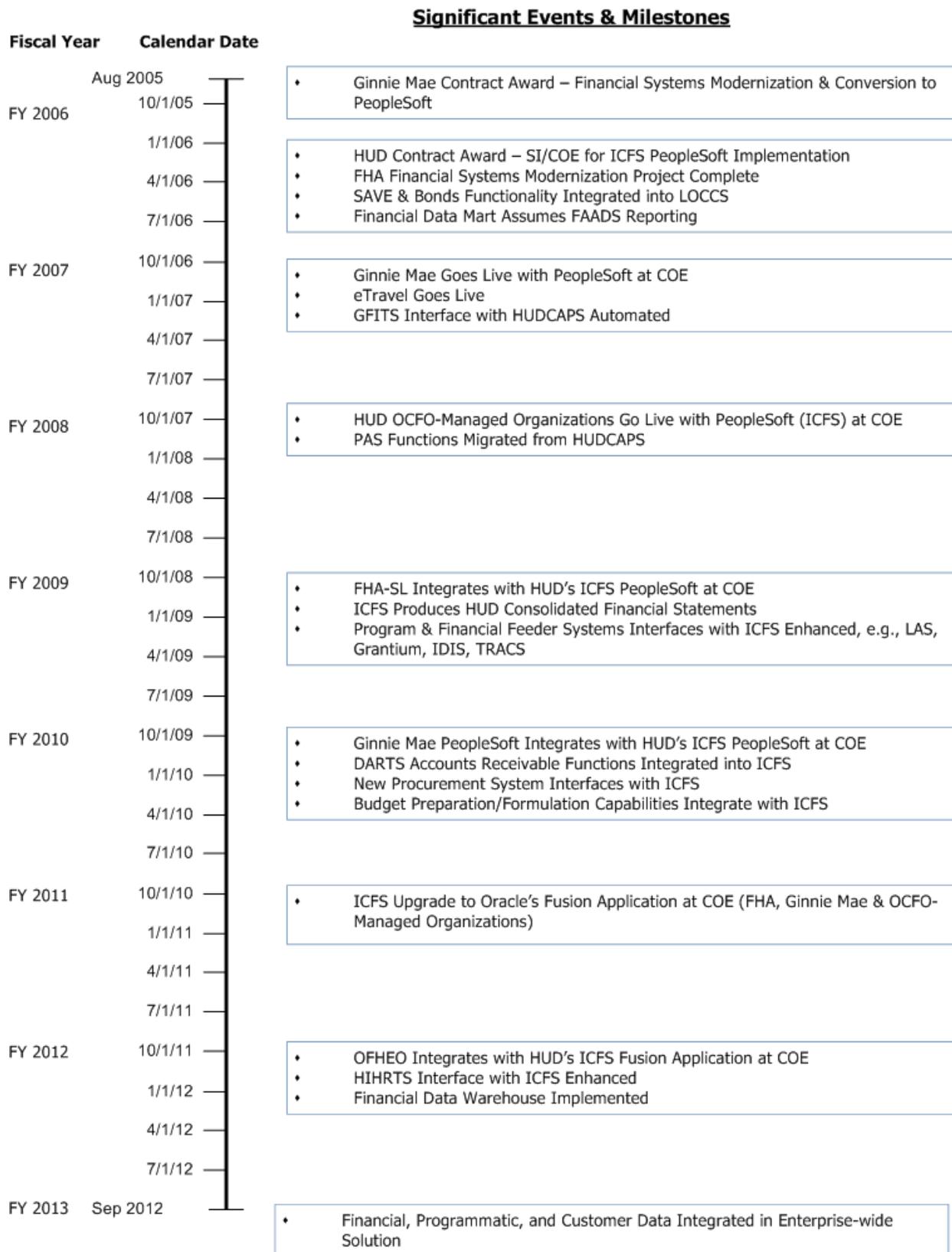


Figure 3-1. HIFMIP Timeline

The HIFMIP Phases are described in more detail in Section 3.2.1. The SDM Phases and their relationship to HIFMIP are described in Section 3.2.2.

3.2.1 HIFMIP Phases

The HIFMIP Phases were initially defined in the *CFO Vision Document* prepared during the SDM Initiate Phase. At that time, the HIFMIP Phases were envisioned as a logical, sequential set of organized implementation activities designed to achieve the full HIFMIP vision.

Within each of the HIFMIP Phases, there will be one or more stages to implement the identified system(s). Figure 3-2 illustrates the conceptual framework for each of the HIFMIP Phases and illustrates the progression of improvement as the phases are completed.

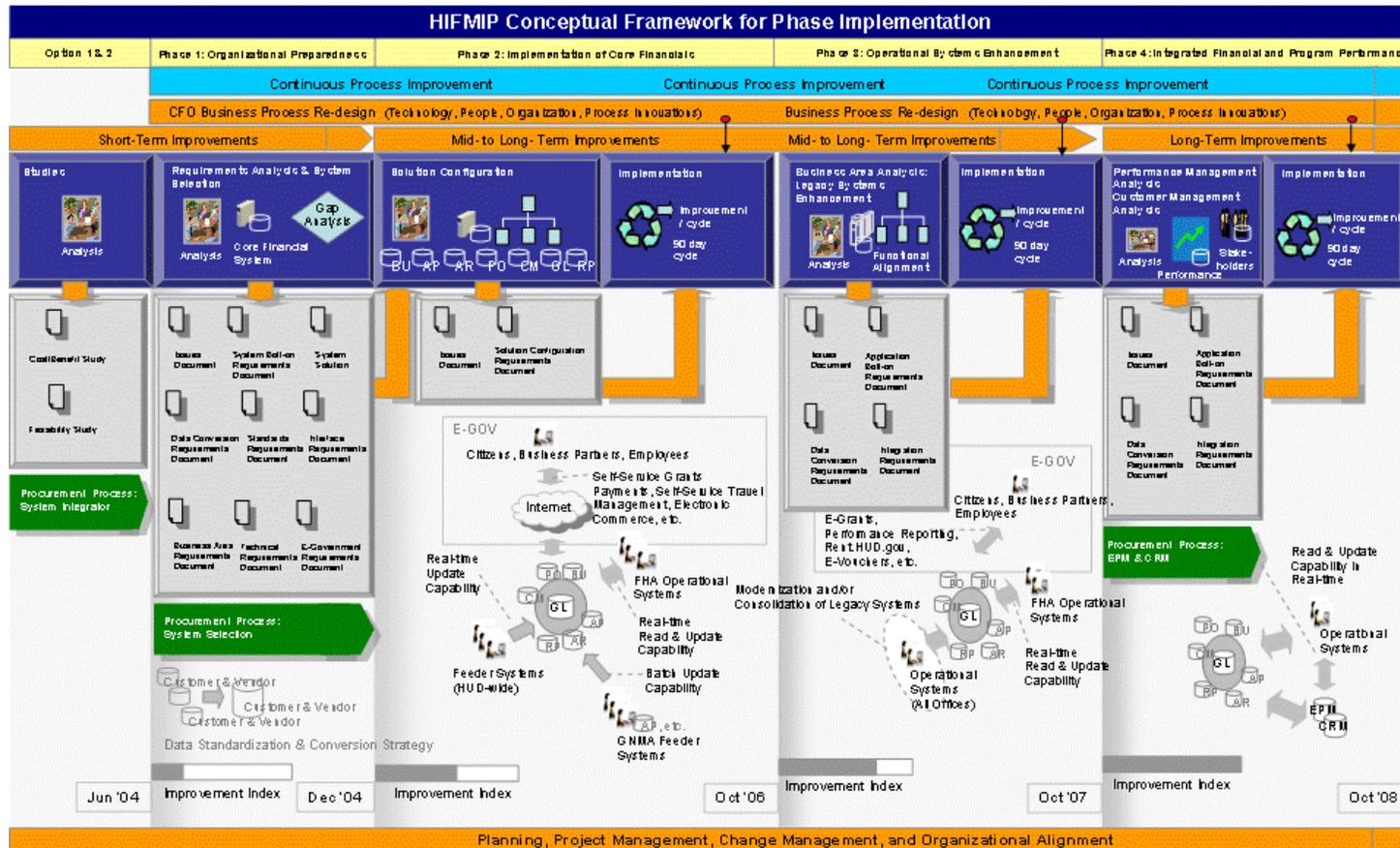


Figure 3-2. HIFMIP Conceptual Framework for Phase Implementation

While this is still conceptually valid, the development of a more detailed implementation approach during the SDM Define Phase indicates that the HIFMIP Phases will overlap with one another from a chronological standpoint, particularly HIFMIP Phases II and III. Therefore, the HIFMIP Phases as they are logically defined are described below. However, the remainder of the *Roadmap* has been prepared using a fiscal year-based timeline without regard to HIFMIP Phase.

3.2.1.1 *Phase I - Organizational Preparation*

Phase I focuses on the execution of a series of short-term improvements to ready HUD for the implementation of the core financial solution, strengthen financial policy, expedite solution development and select a core solution.

Phase I provides the basis for the successful implementation of ICFS. The success and ease of ICFS implementation depends on the quality of pre-implementation work that HUD performs in Phase I. The *Roadmap* identifies key areas of organizational preparation that should be undertaken to facilitate ICFS implementation. These areas include:

- Functional/Technical:
 - Review systems-related policy, procedures & configuration.
 - Develop & implement issue tracking & issue management procedures.
 - Analyze & resolve issues, decisions required.
- Existing Financial Systems & Data:
 - Prepare for impacts on legacy systems & interfaces.
 - Prepare for conversion to ICFS.
- Procurement:
 - Issue RFQ for Systems Integrator/COE to implement and host ICFS for Other HUD Business Areas.
 - Select SI/COE.
 - Issue/modify legacy systems contracts to support HIFMIP requirements.
- Project Management:
 - Manage project.
 - Conduct project & risk reviews.
 - Develop HIFMIP Staffing Plan.
 - Execute staffing plan (contract, in-house, reassignment, new hires, etc.).

The primary focus of Phase I is to select the COTS software package that will serve as the basis for ICFS. In addition, the task of selecting a COE and systems integrator for ICFS has been added as one of the preparatory tasks. Tasks still to be accomplished in Phase I have been incorporated into the *Roadmap* and will also be included in the HIFMIP PWP.

The organizational preparation tasks originally outlined for Phase I were envisioned as a series of short-term undertakings to prepare for ICFS. Some of these tasks have started; however, some of the preparatory work specific to an agency-wide ICFS implementation remains to be done. Therefore, upon the selection of the COTS software and the COE/Systems Integrator, Phase I will be considered complete. All preparatory tasks specific to the ICFS implementation that still remain open, e.g., data clean-up, will be included in the PWP.

At the end of Phase I, HUD will have accomplished the following:

- Clearly defined the HIFMIP vision;
- Selected a COTS software package to serve as the basis for ICFS (tentatively identified as PeopleSoft);
- Selected a COE and a Systems Integrator to support the ICFS implementation; and
- Developed a roadmap to guide the HIFMIP efforts going forward.

3.2.1.2 Phase II – Implementation of Core Financials (or ICFS Implementation)

Phase II is the implementation of a tightly integrated core financial solution that leverages state of the art technologies and reengineers business processes based on federal requirements and industry best practices.

Phase II involves the full implementation of an end-to-end integrated financial system that includes functions such as General Ledger, Accounts Payable, Accounts Receivable, Budget Execution (Funds Control), Asset Management, Cost Management, Reporting, Procurement Processing, and Expenditure Tracking.

Phase II Initiatives include:

- Core Financial Management System Configuration, Testing and Implementation for the following:
 - General Ledger;
 - Accounts Payable;
 - Accounts Receivable;
 - Procurement;
 - Budget Execution;
 - Cash Management;
 - Cost Accounting;
 - Funds Control; and
 - Financial Reporting.
- Workflow Automation, Business Process Re-engineering, Workforce Realignment and Training; and
- Interface Development, including interfaces in the following areas:
 - Procurement;
 - Travel;
 - Payroll; and

- Programmatic and Subsidiary Systems.

The primary focus of Phase II will be the implementation of the new COTS software package selected as the basis for ICFS. This will entail the development of interfaces to or from ICFS with existing systems that currently interface to HUDCAPS. Later stages of Phase II focus on the integration of core financial systems from HUD business areas outside of OCFO.

The HIFMIP Project and the new core financial system will support financial and budgetary functions, not programmatic functions. OCFO is not planning on implementing a grants system as a part of HIFMIP.

Thus at the conclusion of Phase II, HUD will have accomplished the following:

- HUD OCFO-Managed Organizations will have transitioned to a new OFFM-certified COTS supported by a qualified COE;
- All four HUD business areas (FHA, Ginnie Mae, OFHEO, and OCFO-Managed Organizations) will have completed core financial systems modernization; and
- All four HUD business areas will be fully integrated at the COE using Oracle's Fusion application (PeopleSoft successor software).

3.2.1.3 Phase III - Operational Systems Enhancements

Phase III will move beyond the core financial system functions to enhance, redesign or replace programmatic and financial systems interfaces to eliminate any negative impact on the financial cycle. The focus of Phase III is to improve the flow of information into the core financial management system by enhancing the operational feeder system interfaces that control data flows into ICFS.

Phase III will do more than enhance feeder system interfaces that control data flows into ICFS. During Phase III, HIFMIP will identify areas for improvement within feeder systems and work with systems owners to prioritize and implement these changes such as the incorporation of the payment function into ICFS. Additional business functions such as budget formulation will be integrated with the existing core financial system, where possible, and integration with new HUD systems such as the new procurement system will occur.

The impact of realignment and modernization of program systems by lines of business on ICFS and the other systems within the HIFMIP framework will have to be assessed as part of Phase III activities. The timing and nature of the stages currently identified for Phase III may change as a result of this assessment. The current stages identified for Phase III include the following:

- Stage III-1: Subsidiary Financial Systems Enhancements and Interfaces (e.g., LAS, LOCCS, IATS);
- Stage III-2: Program Systems Enhancements and Interfaces (e.g., IDIS, TRACS, Grantium);
- Stage III-3: Budget Formulation/Budget Preparation System Integration;
- Stage III-4: New Procurement System Integration/ HPS, SPS Interface Replacement; and
- Stage III-5: DARTS Integration into ICFS.

By the conclusion of Phase III, HUD will have accomplished the following:

- ICFS information will be enhanced to include integrated procurement, budget formulation, travel, and supporting operational and program system information.
- The linkages between ICFS and HUD's program systems will be enhanced and streamlined.
- All Treasury disbursing functions will be consolidated to flow through ICFS.

3.2.1.4 Phase IV – Integrated Financial and Program Performance

Phase IV leverages the core financial solution through the implementation of decision support, performance management, and customer relationship management solutions. Phase IV includes providing the necessary financial feeds into program, performance, and customer-based systems to establish a holistic management environment supported by analytical and decision support technology. Currently, HUD does not have a technology solution in place that effectively merges financial and programmatic information to achieve enterprise performance management or to measure program performance as required by the PMA.

In Phase IV, HUD will integrate programmatic and financial information. Additionally, financial, program performance, customer/business partner, and business management information will be integrated using Decision Support Software (DSS) and Enterprise Performance Management (EPM) software. HUD will also leverage Customer Relationship Management (CRM) software to better monitor and manage third party performance. A new Financial Data Warehouse, along with a relationship between HIFMIP systems and an Enterprise Data Warehouse will be developed. Information about DSS, CRM and EPM and currently available Oracle products is summarized below.

Decision Support Systems

The term “decision support system” (DSS) covers a wide variety of systems, tools and technologies. The term is inclusive of many types of systems and tools such as online analytical processing (OLAP), knowledge-based DSS, and optimization and simulation models. The term has been and can be used to apply to any system that is not a transaction processing system.

There are two primary categories of DSS: enterprise-wide DSS and desktop DSS. Enterprise-wide DSS are linked to large data warehouses and serve many managers in a company or agency. Desktop DSS are small, individual user systems that sit on a user's desktop. HUD's focus is on the enterprise-wide DSS.

The idea behind enterprise-wide DSS is that managers can access all kinds of information about the company or agency in a matter of minutes using the DSS tools. Decision makers can drill down, slice and dice, graph and chart agency and external data to suit their information or reporting requirements.

One of Oracle's primary tools for decision support with its financial applications is its Daily Business Intelligence (DBI) product. DBI is a pre-built decision support system for Oracle Financial Applications with easy-to-use pre-built intelligence reports. Examples of what can be done with DBI include:

- Track enterprise-wide capital investments;
- Monitor cash flows, positions, and net flows (or perhaps funds available) from a Web browser; and

- Manage projects with cost revenue, budget, and margin data.

Customer Relationship Management

The term “Customer Relationship Management” (CRM) has been applied to almost every element of business that even remotely interacts with a customer. In its infancy, CRM systems were a series of mainframe or server-based applications specific to sales, marketing and support business functions. The applications did little more than capture and file critical data. Today’s CRM applications create a single view of the customer, allowing agencies and organizations to track and analyze shifting customer needs and monitor sales activities for improved forecasting accuracy and manufacturing demand.

Revenue performance has become the central theme for CRM as agencies and organizations seek to achieve and maintain expected financial results. Some of the questions CRM can help to answer include:

- Which of my customers have the potential for a high-profit, sustainable relationship?
- What defines profitable and unprofitable customer segments?
- Where is my risk for loss?
- Am I making the right decisions related to balancing acquisition, cross-selling and upselling — and for the right customer groups?

These same questions can be adapted for use by HUD in relation to grantees and grant programs as well as with other HUD business partners.

Oracle currently offers three information-driven CRM product lines that leverage enterprise data to drive profitable customer interactions. One of these product lines is the PeopleSoft Enterprise CRM tailored specifically for Government designed to help develop an agency-wide strategy for a coordinated, streamlined approach to staying connected with constituents. Applications of the PeopleSoft CRM identified on Oracle’s web site include the following:

- **Create a constituent-focused organization:**
 - Gain a single, real-time view of the constituent.
 - Leverage information across agencies with seamless integration with back-office systems.
 - Provide transparent, single-point access to programs and services.
- **Meet constituent expectations with improved service levels:**
 - Provide convenient and consistent communications across all delivery channels—agency offices, contact centers, and constituent self-service.
 - Deliver personalized, targeted services based on constituent needs and preferences.
 - Implement agency best practices and policies for managing all constituent interactions.
- **Operate with greater efficiency:**
 - Decrease costs by servicing constituents through the most cost-effective channels.
 - Streamline operations and improve response times by automating business processes.

- Make better decisions with real-time, action-oriented performance measurements.

Specific applications of the CRM products have not yet been defined under the HIFMIP umbrella; however, after initial ICFS implementation, HUD will likely explore integration of a CRM product with ICFS. CRM can offer significant benefits to an agency like HUD that does much of its business with outside constituents.

Enterprise Performance Management

Corporate or enterprise performance management (EPM) applications combine a wide variety of financial functions in a single suite, allowing users from all over the agency to enter and extract information from the same data pool in real-time. EPM applications are faster and easier to use than traditional spreadsheets and offer improved information integrity and flow. EPM supports tailored analytical approaches to fit an agency's needs.

EPM combines a variety of finance functions such as budgeting, forecasting, business modeling, DSS, strategic planning, and consolidation and reporting into a single integrated platform using sophisticated database applications. Companies often implement EPM to demonstrate with real data how managers' decisions contribute to the company's overall strategy and to provide congruent goals for all stakeholders within an organization. The common platform and flexible database structures of EPM systems help companies assign accountability for data reporting to particular individuals, making it easier to trace any particular computation to its source.

Oracle currently offers two comprehensive Corporate Performance Management (CPM) products that deliver business intelligence, planning and budgeting, consolidation, profitability management, and analysis and reporting capabilities across an enterprise. One is a PeopleSoft Enterprise Performance Management product. Oracle CPM products enable corporations to:

- Align operations with corporate strategy;
- Actively manage risk; and
- Collaborate across the enterprise.

While none of the currently available products appears to be targeted to the government financial environment, it is likely that by FY 2013 there will be products available that can integrate with ICFS to provide HUD-wide EPM. This area should be addressed in more detail as HUD moves further along in the HIFMIP implementation.

Phase IV is the final step in achieving fully integrated financial, program and performance information. This Phase remains the same in concept as its initial focus; however, when defining specific components of performance integration, Phase IV may reflect changes in technology and priorities. In addition, depending upon what COTS solution is chosen for ICFS, vendor tools and software components may lend themselves toward implementation earlier in the overall implementation cycle than initially suggested in the *CFO Vision Document*.

At the conclusion of Phase IV, HUD will have accomplished the following:

- Integrated ICFS with performance and operational systems and information.
- Tie outputs and outcomes of HUD's programs to program goals and objectives.
- Provide an enterprise view of financial and programmatic information.

3.2.2 SDM Phases

HUD's SDM presents a methodology applicable to the development and maintenance of all HUD information system projects. Systems that support HUD programs vary in size, scope of application, complexity of processing, technologies used, and the methods and tools employed to support the evolution of the system from initial need statement through operation and eventual system termination. To accommodate the diversity of system development needs in HUD programs, the SDM offers a structured, disciplined approach.

The SDM has the following objectives:

- Clarify the importance, objectives, and benefits of system life cycle management to all potential participants in the system life cycle.
- Describe the progression of the life cycle through individual activities and processes, in terms of their respective objectives and products, and describe the relationships among the activities.
- Guide organizations to comply with level 2 of the Software Engineering Institute (SEI) Capability Maturity Model (CMM).

The SDM recognized that a single life cycle model is not appropriate for all HUD systems development projects. The activities defined in the SDM can support various life cycle models including packaged-based development, such as that anticipated for HIFMIP. The SDM addresses a broad range of activities from identifying a need to building or acquiring a system. The methodology is intended to provide the flexibility to select the activities, methods, tools, and technologies that are appropriate to solving defined information needs to permit selection and refinement of the basic life cycle as appropriate for a given need. However, the SDM framework requires the active participation of HUD program managers and information management professionals throughout the project life cycle.⁶

HUD's SDM consists of the following six phases:

- Initiate Project;
- Define System;
- Design System;
- Build System;
- Evaluate System; and
- Operate System.

HIFMIP is currently within the Define System Phase. Following is a brief summary of each SDM Phase taken from the SDM guide.

- **Initiate Project** involves identifying the information management need and deciding whether to commit the resources necessary to address the need. HIFMIP has completed the Initiate Project SDM Phase and has decided to move forward with the project.

⁶ HUD, *System Development Methodology, Release 6.03*, February 2005, "Introduction," pp. 3-5.

- **Define System** involves developing a detailed functional statement of the user's need and developing a project plan covering the estimated cost, schedule, security, and technical parameters of the project.
- **Design System** involves developing and approving detailed specifications to fulfill the stated functional and security requirements.
- **Build System** involves developing and testing computer programs in response to approved specifications and preparing documentation needed for the ongoing operation and maintenance of the system.
- **Evaluate System** involves testing of the system to ensure that the system functions as desired, certifying that the system has completed development, and is ready for accreditation and subsequent production release.
- **Operate System** involves installing the system at all sites and the onset of operational activities, including controls on all proposed computer hardware and software changes and continuous monitoring of the system.

Since HIFMIP is a multi-year initiative with multiple systems implementations included within its scope, each HIFMIP stage will include multiple SDM Phases and tasks. The SDM-required tasks will be reflected in the PWP. Figure 3-3 illustrates the relationship between HIFMIP Phases and SDM Phases.

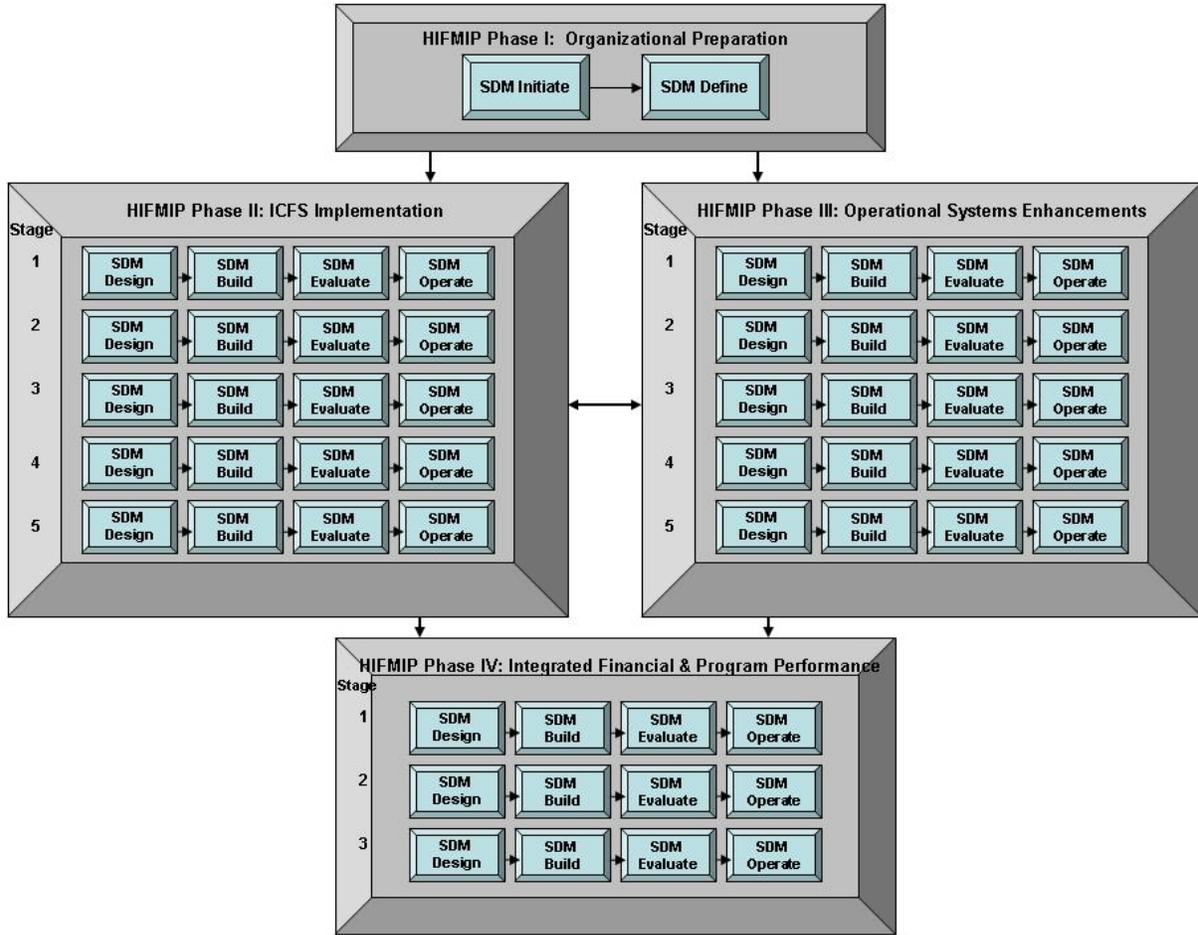


Figure 3-3. Relationship of SDM Phases and HIFMIP Phases

4.0 CURRENT FINANCIAL SYSTEMS ENVIRONMENT

4.0 CURRENT FINANCIAL SYSTEMS ENVIRONMENT

This section summarizes the current state of HUD’s financial management, focusing on the financial systems background and environment.

The original *CFO Vision Document* described in detail the long-standing problems, weaknesses, challenges, and issues inherent in the HUD financial systems environment at that time, and documented the necessity to replace the core financial system with a state of the art OFFM-compliant ICFS⁷. A summary of the current systems environment, along with an overview of its existing problems and issues is included in this chapter.

Within HUD’s major program areas are four units that are independently audited.

1. Federal Housing Administration (FHA);
2. Government National Mortgage Association (Ginnie Mae);
3. The Office of Federal Housing Enterprise Oversight (OFHEO);
4. Other Major Program Areas:
 - a. Office of Housing;
 - b. Office of Public and Indian Housing (PIH);
 - c. Office of Community Planning and Development (CPD);
 - d. Office of Fair Housing and Equal Opportunity (FHEO); and
 - e. Office of Healthy Homes and Lead Hazard Control.

These audited statements are combined for the Departmental level financial statements and reports. Auditors who have reviewed HUD financial statements have identified shortcomings in their ability to retrieve timely and accurate data from current financial systems. In addition, auditors have reported the need for improved quality control, improved funds control, and improved processes for reviewing obligation and financial balances. Inadequate financial information severely limits management’s ability to perform essential financial analysis. Even though auditors have provided unqualified audit opinions, they have recommended that HUD address the shortcomings and limitations in the current financial management environment. This is a primary factor in undertaking the development and implementation of the ICFS and the overall HIFMIP initiative.

For more than twenty years, HUD has undertaken various projects to address its financial management needs.⁸ In 1991, the American Management Systems’ (AMS) Federal Financial System (FFS) Commercial Off-the-Shelf (COTS) software solution was purchased with the expectation that FFS would be used for all HUD departmental accounting transactions. In reality, FFS was implemented for portions of HUD programs and offices, but not the full range of Departmental transactions, as initially envisioned.

In 1998, FFS, now known as HUD’s Central Accounting and Program System (HUDCAPS), was redefined and redeployed to act as the HUD-wide general ledger. The HUDCAPS general ledger

⁷HUD’s *Financial Management Vision*, Section 2.2 “Core Financial Solution,” January 12, 2004.

⁸HUD *Integrated Financial Management Improvement Project (HIFMIP) Presentation to Executive Advisory Committee*, July 9, 2004, Historical Perspective slides.

was intended to capture, record, control and summarize HUD's financial operations across all business areas (as initially intended at acquisition). Despite these efforts, software and technical limitations within HUDCAPS and the lack of a fully integrated core financial system are the roots of many of HUD's identified material weaknesses and reportable conditions documented in annual audits since 1991. This fact, combined with many other problems and concerns such as stove-piped systems and outdated technology, led to the HIFMIP initiative.

4.1 Current Systems and Processing

HUD's current financial systems environment is composed of an assortment of financial systems, programmatic systems, and hybrid or mixed systems operating on multiple, disparate platforms. At the end of fiscal year 2000, there were at least 75 systems within HUD that contained financial information. Though this number was reduced to 49 systems by the end of fiscal year 2004, the scattering of information has led to untimely, redundant, and fragmented data. Most current systems are essentially stovepipe databases, a common occurrence in organizations that have developed systems over a long period of time independent of each other. Within these stovepipes, data is processed and isolated to specific, individual systems.

Three systems, HUDCAPS, the Program Accounting System (PAS), and the Line of Credit Control System (LOCCS), execute the major financial functions associated with the financial cycle: Funding, Accounts Payable, Disbursements, Accounts Receivable, and General Ledger. In addition, OFHEO, Ginnie Mae, and FHA operate their own financial software and their own sets of supporting programmatic and financial systems. OCFO consolidates information from all four business areas to prepare consolidated financial reports.

Figure 4-1 provides an overview of the current financial systems environment at HUD. This figure includes only the HUD financial systems that have been included within the HIFMIP scope for the *Legacy Systems Disposition Plan* (LSDP) since these are the systems that will be affected by HIFMIP. In Figure 4-1, HUD systems are illustrated using rectangles. The size of the systems on the diagram does not reflect their importance or the amount of data contained in the system; sizing has been adjusted to provide the clearest possible flow diagram. Manual interfaces are indicated through the use of dashed lines; automated interfaces are indicated through the use of solid lines.

External systems providing interfaces to or from core financial systems are included on this systems flow diagram. The external entities are identified through the use of shaded, non-rectangular parallelograms.

A brief description of each business area's financial systems follows Figure 4-1⁹.

⁹ Figure 4-1 depicts single interfaces with Treasury for both disbursing (HUDCAPS and LOCCS) and financial reporting (Hyperion). In reality, there are multiple interfaces with Treasury for both processes; however, these interfaces are not shown on the diagrams to simplify presentation. The LSDP contains more information on the specific interfaces with Treasury for each process.

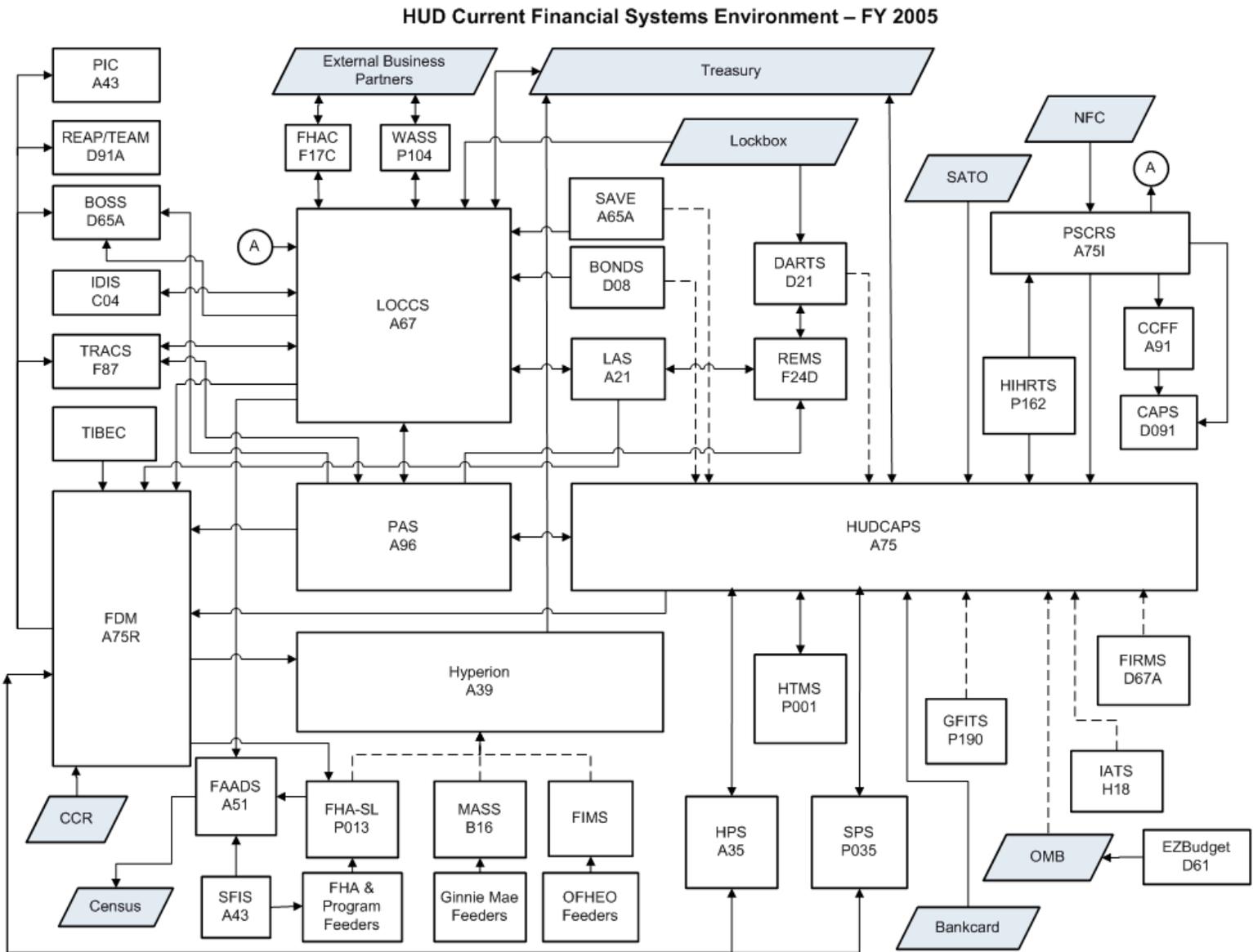


Figure 4-1. HUD Current Financial Systems Environment

4.1.1 HUD Financial Systems

Prior to 1985, HUD payment distributions were conducted by PAS which was also the HUD general ledger and subsidiary ledger financial system. LOCCS was added to meet the cash control and disbursement requirements of the payment process that were more complex than PAS as an integrated transaction processing system could handle. LOCCS is a tightly integrated module of PAS that shares the UNISYS architecture. Together, PAS and LOCCS control outlays of about \$20 billion annually.

In 1991 HUDCAPS, a Hitachi system, was introduced as the intended replacement program for both PAS and LOCCS. However, while HUDCAPS maintains Department/CFO level program information, it does not have a grant subsidiary module. A modification to accommodate Section 8 housing subsidies information for PIH was so expensive that it was deemed cost prohibitive to duplicate the effort for any further departments. In 1998 HUDCAPS was then converted into the primary HUD accounting system, and PAS was limited to its current role as the detailed general ledger of grant records.

The three primary financial systems of the Department—HUDCAPS, PAS and LOCCS—interrelate to provide the basic framework for financial management. Although PAS and LOCCS are old systems, they have operated successfully with HUDCAPS over a period of ten years while the Department has continued to plan towards their replacement. A brief description of each of these three primary financial systems is included below.

HUDCAPS manages the primary accounting functions (e.g., budget execution and funds control, accounts receivable and collections, accounts payable, and general ledger) through complex interfaces with PAS. HUDCAPS has been the Department's general ledger system since 1999 and is maintained by the OCFO.

PAS acts as a pass-through between A21, the Loan Accounting System (LAS) and HUDCAPS. All subsidiary loan accounting records are maintained in LAS which receives a large portion of its monthly loan collections from LOCCS through subsidy payment offsets. LAS applies the collections from LOCCS and the Mellon Bank lockbox and generates accounting transactions that are interfaced to HUDCAPS through LOCCS and PAS. PAS handles grant, subsidy, and loan program accounting records and is responsible for funds control. PAS interfaces with HUDCAPS to provide disbursement, accounts payable, receivable/ collection, and funding information.

LOCCS is both a payment control tool and a HUD post-award financial grants management system. LOCCS is also the link that connects HUD program management information systems to HUD's program accounting data. LOCCS supports the OCFO and all HUD program offices in coordinating and controlling grant, loan, and subsidy disbursements. LOCCS includes both a Voice Response System and an Internet-based e-LOCCS component that support HUD's business partners and grantees in requesting funds and accessing account information.

In addition to these major systems, HUD also maintains the following systems that interface directly or indirectly with HUDCAPS:

- A35, HUD Procurement System (HPS) processes procurements of \$100,000 and over. HPS sends commitment and obligation transactions to HUDCAPS to reserve or obligate funds in the core general ledger.

- P035, HUD Small Purchase System (SPS) processes purchases of less than \$100,000. SPS sends commitment and obligation transactions to HUDCAPS to reserve or obligate funds in the core general ledger.
- P001, the HUD Travel Management System (HTMS) provides for automated entry and routing of travel requests and vouchers online and interfaces with HUDCAPS for budget controls and general ledger postings. HTMS will soon be replaced by FedTraveler.com, an e-government travel solution operated by GSA. FedTraveler.com will perform the same travel-related functions as the current HTMS.
- A65A, SAVE processes and tracks vouchers for Section 235 programs. SAVE produces vouchers for transmission to LOCCS for payment.
- A75I, the Administrative Accounting Personal Services Cost Reporting System (PSCRS) feeds payroll and personnel cost data from the NFC payroll system into HUDCAPS.
- A75R, the HUDCAPS Financial Data Mart receives financial information from HUDCAPS through a nightly interface. The Data Mart allows HUD users to view financial data in a pre-defined format.
- C04, IDIS is the drawdown and reporting system for the four CPD formula grant programs: CDBG, HOME, ESG and HOPWA. IDIS allows grantees to request their funding from HUD and to report on what they have accomplished with the grant funds. HUD uses this information for Congressional reporting and to report to the Congress.
- D08, Bonds is used to generate amortization schedules and calculate bond payments to fiscal agents with a breakdown of interest and principal. Bonds also determines payments on New York State Bonds. Payments are made through LOCCS.
- F24D, The Tenant Rental Assistance Certification System (TRACS) provides funds control over Section 8 and other assisted housing programs.
- P190, GFITS provides control over HUD IT projects. Maximum project funding amounts are currently input manually to HUDCAPS.
- A39, HUD Consolidated Financial Statement System (Hyperion) is an Enterprise software tool for financial reporting to Treasury and OMB. Hyperion consolidates financial information from all four of HUD's major business areas to support financial statement preparation and reporting to Treasury.

A number of programmatic systems are used to monitor activities. Some of these systems currently perform the same accounting functions (purchasing, payment requests, accounts payable, and accounts receivable) for different programs or offices. Some of these systems also feed financial data into the financial systems.¹⁰

FHA, Ginnie Mae, and OFHEO manually enter financial information from their audited financial statements into spreadsheets that are then electronically transmitted into Hyperion to facilitate OCFO's preparation of the HUD-wide consolidated financial statements. HUD OCFO-Managed Program information from HUDCAPS is transferred to Hyperion via the Financial Data Mart. OCFO consolidates the financial information from the four general ledger systems using

¹⁰ HUD's *Financial Management Vision*, Chapter 4 "Current State Analysis."

Hyperion and produces the monthly, quarterly, and annual reports required by Treasury and OMB.¹¹

4.1.2 FHA Financial Systems

FHA is in the midst of a multi-year project called the FHA Subsidiary Ledger (FHA-SL) to modernize its financial systems environment. The work of the FHA-SL is organized in three phases. Phases I and II are complete, and FHA is currently in the midst of Phase III.

In Phase I FHA identified its financial management requirements, defined and built translation software to produce financial transactions in a common format from 19 different automated sources, and acquired an OFFM-compliant COTS product to serve as its new core financial system. In September 2000, FHA selected the financial software offered by PeopleSoft, and named the new system the FHA-SL.

In Phase II, FHA implemented the new PeopleSoft financial software to perform central accounting functions of the FHA Comptroller's office:

- General ledger operations and cash management;
- Certification of Treasury payments and cash reconciliation of payments and collections;
- Accounting and funds control for certain FHA contracts and grants;
- Funds control for all FHA disbursements on a daily basis;
- Credit subsidy accounting; and
- Tracking total liability for new insurance against annual limits.

FHA accomplished the first major milestone of Phase II in October 2002 by implementing the general ledger module of the Subsidiary Ledger system. With this step, FHA acquired the capability for the first time to record and track budgetary resources using the U.S. Standard General Ledger at the transaction level, to control expenditures against available resources (on a monthly basis), and to produce financial statement reports directly from the general ledger. The other central accounting functions were implemented by March 31, 2004.

In Phase III, which began April 1, 2004, FHA will integrate the financial operations supporting its insurance programs using the new core financial system. Currently, FHA relies on 19 different automated sources of accounting information from the legacy systems that support insurance operations. While a small number of accounting transactions are manually entered directly into PeopleSoft, the majority of transactions are transmitted from the legacy systems to the Financial Transaction Repository (FTR). The FTR crosswalks the "GAAP" entries coming from the legacy systems to SGL entries and rolls them up into batches. These batches are loaded into PeopleSoft. The FTR will eventually be eliminated as each legacy system's financial components are either brought into PeopleSoft or their interfaces are enhanced to post directly to PeopleSoft in compliance with the SGL.

Summary information from FHA-SL is processed each quarter into Hyperion using Excel spreadsheet templates.

¹¹HUD's *Financial Management Vision*, Chapter 4 "Current State Analysis."

During Phase III FHA will analyze each legacy system and the program area it supports to determine the capability of the new core financial system to replace all or part of the existing software.

Where cost and program needs warrant, FHA will replace some systems in their entirety with automated support from the FHA-SL. Where replacement is not feasible, FHA will define improvements in the integration of these systems with the new core financial system, eliminating wherever possible the intermediate crosswalks and look-ups required for Phase I and Phase II. In some cases, these improvements will require changes to an existing interface, but in other cases FHA will re-engineer the systems supporting an entire program area, applying the FHA-SL software to meet financial operations requirements.

By the end of Phase III, targeted for April 2006, FHA will perform its financial operations with a smaller number of better integrated systems, improving the effectiveness and timeliness of information available for financial operations and management.

4.1.3 Ginnie Mae Financial Systems

Macola Accounting Software System (MASS) is the general ledger system for Ginnie Mae. Ginnie Mae maintains feeder systems that interface financial information into MASS. Summary level financial information is interfaced from MASS to Hyperion on a quarterly basis.

Ginnie Mae is in the early stages of eliminating the use of its in-house financial systems and moving its financial management functions to a service provider environment. Ginnie Mae has recently awarded a contract to Deloitte & Touche to serve as their systems integrator in moving to a PeopleSoft COE model. Initial implementation at IBM Corio (the selected COE) is scheduled to occur on October 1, 2007.

4.1.4 OFHEO Financial Systems

The *CFO Vision Document* and other SDM Initiate Phase documents include information about OCFO, FHA, and Ginnie Mae, with limited information about OFHEO. When the initial HIFMIP planning work for the SDM Initiate Stage was completed, a draft bill was in the Congress to transfer OFHEO to Treasury; therefore, the HIFMIP Project Team did not include OFHEO in the interview and information collection activities at that time.

The HIFMIP Project Team met with OFHEO in July 2004 and established a plan to keep OFHEO informed as to the status of the project. To date, OFHEO remains a component of HUD and is providing the requested information for the SDM Define Phase efforts.

Prior to fiscal year 2005, OFHEO had a service level agreement with the Department of Veterans Affairs (VA) to provide financial support to their organization. OFHEO implemented Financial Information and Management System (FIMS) based on Oracle Financials COTS software in October 2004. They are presently working to establish processes, procedures and policies to support the new system and functions that have been transitioned back from VA to OFHEO.

4.1.5 Consolidated Reporting

FHA, Ginnie Mae, and OFHEO manually enter financial information from their audited financial statements into spreadsheets that are then electronically transmitted into Hyperion to facilitate OCFO's preparation of the HUD-wide consolidated financial statements. HUD OCFO-Managed

Organizations' information from HUDCAPS is transferred to Hyperion via the Financial Data Mart. OCFO consolidates the financial information from the four general ledger systems using Hyperion and produces the monthly, quarterly, and annual reports required by Treasury and OMB.

4.2 Existing Systems Affected by HIFMIP

This section identifies the systems that will be impacted by HIFMIP. Many of them are within the HIFMIP scope; however, systems that interface with or provide information to support the consolidated financial statements have been included even if the systems themselves are outside the HIFMIP umbrella, e.g., procurement systems. For each impacted system, Table 4-1 includes the system identifier, name, abbreviation, brief description, and interfaces. The table is organized by HUD office and system id.

Table 4-1. HUD Financial Systems Affected by HIFMIP

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
1.	ADMN	D67A	Facilities Integrated Resources Management System	FIRMS	<ul style="list-style-type: none"> ▪ OCPO ▪ APOs ▪ DPMIOs 	Decentralized system that identifies and tracks personal property by item. FEMIS incorporates bar code technology which partially automates the physical inventory and reconciliation processes.	<ul style="list-style-type: none"> ▪ HUDCAPS 	
2.	ADMN	A35	HUD Procurement System	HPS	<ul style="list-style-type: none"> ▪ OCPO ▪ Program Offices ▪ GTRs ▪ Field Contracting Activity Points (Philadelphia, Atlanta, Denver) ▪ Outstation Branch Teams 	Automates the contract procurement and acquisition process by recording, monitoring and reporting the status of all actions throughout the procurement lifecycle. Program offices build their annual procurement plans in HPS and link subsequent procurement activity to the plan.	<ul style="list-style-type: none"> ▪ HUDCAPS (real-time) ▪ FDM (real-time) 	<ul style="list-style-type: none"> ▪ FDM (real-time) ▪ HUDCAPS (real-time)
3.	ADMN	P162	HUD Integrated Human Resources and Training System	HIHRTS	<ul style="list-style-type: none"> ▪ HR staff ▪ Employees ▪ Managers 	Comprehensive Human Resource system that streamlines Human Resource information in a single platform. Supports workforce planning, succession planning, forecasting, and identification of staff competencies.	<ul style="list-style-type: none"> ▪ MSCS2 ▪ PERIS ▪ CCFF ▪ HUDCAPS ▪ PSCRS 	<ul style="list-style-type: none"> ▪ PACS/EPACS

Section 4.0 Current Financial Systems Environment

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
4.	ADMN	P035	HPS - Small Purchase System	HPS-SPS	<ul style="list-style-type: none"> ▪ OCPO ▪ Program Offices ▪ GTRs ▪ CPO Field Contracting Activity Offices ▪ Field Administrative Resource Divisions 	Records all commitments and obligations via a manual input, of all purchase documentation for purchases of \$100,000.00 or less throughout the procurement lifecycle.	<ul style="list-style-type: none"> ▪ HUDCAPS (real-time) ▪ FDM (real-time) 	<ul style="list-style-type: none"> ▪ HUDCAPS (real-time) ▪ FDM (real-time)
5.	ADMN	A51	Federal Assistance Award Data System	FAADS	<ul style="list-style-type: none"> ▪ Information Policy & Mgt. Div. ▪ OCFO 	Gathers obligation information from several program systems to support quarterly reporting to Census.	<ul style="list-style-type: none"> ▪ Census 	<ul style="list-style-type: none"> ▪ LOCCS ▪ SFIS ▪ FHA-SL
6.	OCFO	A21	Loan Accounting System	LAS	<ul style="list-style-type: none"> ▪ Section 202 & Flexible Subsidy Program Managers 	HUD tool for servicing loans. Manages loan portfolio system information for the Section 202, Housing for Elderly & Handicapped, Loan Program and the Flexible Subsidy Program.	<ul style="list-style-type: none"> ▪ LOCCS ▪ FDM ▪ REMS 	<ul style="list-style-type: none"> ▪ LOCCS

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No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
7.	OCFO	A39	HUD's Consolidated Financial Statement System	Hyperion	<ul style="list-style-type: none"> ▪ OCFO 	Financial reporting and analysis system for HUD's financial reporting submissions to Treasury.	<ul style="list-style-type: none"> ▪ Treasury Financial Reporting System (GOALSII for FACTS I & II) 	<ul style="list-style-type: none"> ▪ FDM ▪ MASS (via Excel spreadsheet) ▪ FHA-SL (via Excel spreadsheet) ▪ FIMS (via Excel spreadsheet)
8.	OCFO	A65A	Section 235 Automated Validation and Editing	SAVE	<ul style="list-style-type: none"> ▪ Section 235 lenders ▪ Section 235 Program Managers 	Supports direct input of voucher information for Section 235 voucher processing and tracking for the original, revised and recaptured programs. The system produces voucher information in check format, for transmission to (A67) LOCCS.	<ul style="list-style-type: none"> ▪ LOCCS ▪ HUDCAPS 	<ul style="list-style-type: none"> ▪ N/A

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
9.	OCFO	A67	Line of Credit Control System	LOCCS	<ul style="list-style-type: none"> ▪ OCFO ▪ HUD Program Offices ▪ OCIO 	Payment control tool and post-award financial grants management system. Link that connects HUD's Program Management Information Systems to HUD's program accounting data.	<ul style="list-style-type: none"> ▪ Treasury ▪ LAS ▪ PAS ▪ IDIS ▪ FAADS ▪ FDM ▪ BOSS ▪ IRS (1099) ▪ 1099 File ▪ REAP/TEAM ▪ PIC ▪ FHA-SL ▪ TRACS ▪ WASS ▪ FHAC 	<ul style="list-style-type: none"> ▪ LAS ▪ PSCRS ▪ PAS ▪ IDIS ▪ SAVE ▪ FAADS ▪ Bonds ▪ REMS ▪ TRACS ▪ WASS ▪ VRS ▪ eLOCCS ▪ Lockbox ▪ Treasury ▪ WASS ▪ FHAC

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No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
10.	OCFO	A75	HUD Central Accounting and Program System	HUDCAPS	<ul style="list-style-type: none"> ▪ OCFO ▪ Office of Budget (OB) ▪ CFOAC Ft. Worth ▪ Program Budget Offices ▪ FMC ▪ Regional Offices ▪ Field Offices 	HUDCAPS/FFS provides a central standardized accounting environment that captures, reports, controls, and summarizes financial results of accounting processes.	<ul style="list-style-type: none"> ▪ FDM ▪ PAS ▪ HPS ▪ SPS ▪ Treasury ▪ LOCCS (1099) 	<ul style="list-style-type: none"> ▪ HPS ▪ PSCRS ▪ PAS ▪ DARTS ▪ HIHRTS ▪ IATS ▪ HTMS/eTravel ▪ SPS ▪ FIRMS ▪ Bankcard ▪ SATO ▪ Treasury ▪ SAVE ▪ Bonds ▪ GFITS
11.	OCFO	A75I	Personal Services Cost Reporting Subsystem	PSCRS	<ul style="list-style-type: none"> ▪ OCFO 	HUDCAPS subsystem that receives the accounting and personnel data from NFC. It produces payroll reports and passes the accounting transactions to HUDCAPS System and BMIS Consolidated file.	<ul style="list-style-type: none"> ▪ LOCCS ▪ HUDCAPS ▪ CCFF ▪ CAPS 	<ul style="list-style-type: none"> ▪ NFC ▪ HIHRTS

Section 4.0 Current Financial Systems Environment

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
12.	OCFO	A75R	Financial Data Mart	FDM	<ul style="list-style-type: none"> ▪ OCFO ▪ Allotment Holders 	SQL Server database composed of HUDCAPS table extracts to allow HUD users to view financial data in specific desired report format. The Financial Data mart receives financial information from HUDCAPS nightly. The Financial Data Mart also receives information from PAS, LOCCS, and other systems.	<ul style="list-style-type: none"> ▪ HPS ▪ Hyperion ▪ BOSS ▪ REAP/TEAM ▪ FHA-SL ▪ TRACS ▪ PIC ▪ SPS 	<ul style="list-style-type: none"> ▪ HUDCAPS ▪ PAS ▪ CCR ▪ LAS ▪ HPS ▪ LOCCS ▪ SPS
13.	OCFO	A91	Consolidated Cost & FTE Files	CCFF	<ul style="list-style-type: none"> ▪ Program Managers ▪ Field Offices 	Helps program managers manage their personal services expenditures. A summary of FTE and personnel counts and personal service cost data files are created for each Field Office.	<ul style="list-style-type: none"> ▪ N/A 	<ul style="list-style-type: none"> ▪ PSCRS
14.	OCFO	A96	Program Accounting System	PAS	<ul style="list-style-type: none"> ▪ OCFO ▪ Regional Accounting Divisions 	Integrated subsidiary ledger for the Department's grant, subsidy, and loan programs. PAS maintains accounting records based on receipt of funding authorizations from HUDCAPS that generates transaction activity at different levels.	<ul style="list-style-type: none"> ▪ LOCCS ▪ HUDCAPS ▪ FDM ▪ BOSS ▪ REMS ▪ TRACS 	<ul style="list-style-type: none"> ▪ ARAMS/ TRACS ▪ HUDCAPS ▪ LOCCS
15.	OCFO	D08	Bond Payment	Bonds	<ul style="list-style-type: none"> ▪ PIH 	Used to determine semi-annual payments to fiscal agents throughout the country, as well as payments on New York State Bonds that are paid more frequently. These payments are used to curtail public housing authorities' outstanding debts previously financed through bond sales. Bond payments are made through LOCCS.	<ul style="list-style-type: none"> ▪ LOCCS ▪ HUDCAPS 	<ul style="list-style-type: none"> ▪ N/A

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No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
16.	OCFO	D091	OCFO WebFocus Corrective Action Plan Reports System	CAPS	<ul style="list-style-type: none"> ▪ Program Area Managers ▪ OB 	Produces reports to the help the Program Areas and the OCFO Office of Budget manage personal services expenditures and FTE utilization (known as managing to the payroll).	<ul style="list-style-type: none"> ▪ N/A 	<ul style="list-style-type: none"> ▪ PSCRS ▪ CCFF
17.	OCFO	D21	Departmental Accounts Receivable Tracking/ Collection System	DARTS	<ul style="list-style-type: none"> ▪ PIH 	Establishes, tracks, and collects account receivable information for residual receipts, excess financing, and miscellaneous payments for the PHAs/Indian Housing Authorities and Section 236 program receivables for Multi-Family Excess Rental Income.	<ul style="list-style-type: none"> ▪ HUDCAPS ▪ REMS 	<ul style="list-style-type: none"> ▪ Lockbox
18.	OCFO	D61	Budget Formulation System (EZBudget)	EZB	<ul style="list-style-type: none"> ▪ OB 	System used to support budget preparation and submission.	<ul style="list-style-type: none"> ▪ OMB 	<ul style="list-style-type: none"> ▪ N/A
19.	OCFO	D65A	Section 8 Budget Outlay Support System	BOSS	<ul style="list-style-type: none"> ▪ OB 	Tool to help increase the accuracy, consistency, and timeliness of budget forecasts for Section 8 program outlays.	<ul style="list-style-type: none"> ▪ N/A 	<ul style="list-style-type: none"> ▪ PAS ▪ LOCCS ▪ FDM ▪ TRACS ▪ REMS

Section 4.0 Current Financial Systems Environment

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
20.	OCFO	D91A	Resource Estimation Allocation Process/ Total Estimation and Allocation Mechanism	REAP/ TEAM	<ul style="list-style-type: none"> ▪ OCFO ▪ OB ▪ Program Area Coordinators ▪ Managers ▪ Employees 	<p>REAP is a resource management initiative currently being implemented throughout the Department. Provides a methodology for defining and estimating required staffing resources.</p> <p>TEAM is an automated information system designed to support REAP. The primary purpose of TEAM is to validate REAP data by capturing actual information on workload accomplishments and time usage by HUD employees in the program and support areas.</p>	<ul style="list-style-type: none"> ▪ N/A 	<ul style="list-style-type: none"> ▪ FDM ▪ HIHRTS
21.	OCFO	H18	Integrated Automated Travel System	IATS	<ul style="list-style-type: none"> ▪ OCFO Relocation Center – Ft. Worth, TX 	Automates the calculations and tracking of travel and relocation related functions. It has the capability of maintaining travel rates, rules, and parameters.	<ul style="list-style-type: none"> ▪ HUDCAPS 	<ul style="list-style-type: none"> ▪ N/A
22.	OCFO	P001	HUD Travel Management System/ FedTraveler.com	HTMS/ eTravel	<ul style="list-style-type: none"> ▪ Travelers 	Provides automated entry and routing of travel requests and vouchers.	<ul style="list-style-type: none"> ▪ HUDCAPS (real-time) 	<ul style="list-style-type: none"> ▪ HUDCAPS (real-time)

Section 4.0 Current Financial Systems Environment

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
23.	OCFO	P190	Government Financial Information Tracking System	GFITS	<ul style="list-style-type: none"> ▪ OCFO 	Automates the process for allocating the funding, tracking and reporting of the Working Capital Fund (WCF) appropriations and other sources of funds which support the approved HUD IT Portfolio. GFITS enables the CFO to provide timely and accurate funding allocations for HUD's IT portfolio throughout the budget process.	<ul style="list-style-type: none"> ▪ HUDCAPS 	<ul style="list-style-type: none"> ▪ N/A
24.	CPD	C04	Integrated Disbursement & Information System	IDIS	<ul style="list-style-type: none"> ▪ CPD Entitlement Grant Program Managers 	Supports CPD's consolidated planning, disbursement, and reporting requirements for the entitlement grant programs (HOME, CDBG, ESG, and HOPWA) and simplifies the grants management process for all participants.	<ul style="list-style-type: none"> ▪ LOCCS ▪ CGMP ▪ RC/EZ/EC ▪ EDIS 	<ul style="list-style-type: none"> ▪ LOCCS ▪ EDIS
25.	OH	A43	Single Family Insurance System	SFIS	<ul style="list-style-type: none"> ▪ OH 	Maintains the insurance-in-force database that contains accurate and detailed case information on FHA-insured single family properties.	<ul style="list-style-type: none"> ▪ FHA-SL ▪ FAADS ▪ Other FHA Program & Feeder Systems 	<ul style="list-style-type: none"> ▪ Other FHA Program & Feeder Systems

Section 4.0 Current Financial Systems Environment

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
26.	OH (FHA)	F24D	Real Estate Management System	REMS	<ul style="list-style-type: none"> ▪ MFH ▪ DEC ▪ REAC ▪ OMHAR 	<p>HUD's multifamily project management tool for the Office of Multifamily Housing (MFH), the Departmental Enforcement Center (DEC), and the Real Estate Assessment Center (REAC). Provides fiscal and regulatory control over HUD's multifamily housing portfolio, and ensures compliance with HUD program requirements.</p> <p>Provides REAC with the ability to validate financial statement submissions and mortgagee inspections.</p> <p>Provides DEC and Office of Multifamily Housing and Assistance Restructuring (OMHAR) the ability to track property/owner corrective action referrals.</p>	<ul style="list-style-type: none"> ▪ LOCCS ▪ NASS ▪ PASS/R ▪ FASS-FHA ▪ Ginnie Mae ▪ Kiosk 	<ul style="list-style-type: none"> ▪ PAS ▪ LAS ▪ DARTS ▪ WASS ▪ DAPS ▪ FASS-FHA ▪ LOCCS ▪ CSMS
27.	OH (FHA)	F87	Tenant Rental Assistance Certification System	TRACS	<ul style="list-style-type: none"> ▪ MFH ▪ OH 	<p>Collects tenant data for programs and automatically provide payment requests for subsidy programs where HUD is the contract administrator based upon the contract and tenant data resident in the system. TRACS sends the payment request information to LOCCS for subsidy programs under the auspice of the Office of Housing.</p>	<ul style="list-style-type: none"> ▪ PAS ▪ LOCCS ▪ FASS ▪ BOSS ▪ REMS ▪ RASS 	<ul style="list-style-type: none"> ▪ PAS ▪ LOCCS ▪ FDM ▪ REMS

Section 4.0 Current Financial Systems Environment

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
28.	OH (FHA)	P013	FHA Subsidiary Ledger	FHA-SL	<ul style="list-style-type: none"> ▪ FHA Office of the Comptroller 	Captures and reports FHA's financial transactions in a manner consistent with industry-specific federal rules and regulations. FHA-SL enables FHA to meet departmental and external reporting requirements while maintaining its own accounting and financial reporting.	<ul style="list-style-type: none"> ▪ Hyperion (via Excel spreadsheet) 	<ul style="list-style-type: none"> ▪ LOCCS ▪ FDM ▪ FTR (FHA Feeder Systems)
29.	OH (FHA)	F17C	FHA Connection	FHAC	<ul style="list-style-type: none"> ▪ Approved FHA Lenders 	Interactive system available through the Internet that provides approved FHA lenders access to FHA systems to conduct electronic business functions.	<ul style="list-style-type: none"> ▪ LOCCS ▪ TRACS ▪ CLAIMS 	<ul style="list-style-type: none"> ▪ LOCCS ▪ TRACS ▪ IMF
30.	Ginnie Mae	B16	MACOLA Accounting Software System	MASS	<ul style="list-style-type: none"> ▪ Ginnie Mae Office of Finance 	Maintains Ginnie Mae's General Ledger and performs accounting functions for Ginnie Mae.	<ul style="list-style-type: none"> ▪ Hyperion via Excel spreadsheet 	<ul style="list-style-type: none"> ▪ Ginnie Mae Feeder Systems ▪ DMS
31.	PIH	P113	PIH Information Center System	PIC	<ul style="list-style-type: none"> ▪ PIH 	Provides information about PHA clients, their Public Housing and Section 8 Voucher programs, and the families receiving assistance through PIH programs. PIC also tracks Public Housing stock and the performance of the PHAs in delivering Section 8 services to recipients.	<ul style="list-style-type: none"> ▪ EIV ▪ REAC 	<ul style="list-style-type: none"> ▪ LOCCS ▪ FDM
32.	PIH	P194	Web Access Security Subsystem	WASS	<ul style="list-style-type: none"> ▪ Internal HUD staff ▪ External Business Partners 	Provides a common framework for administering application-level security for HUD systems so that they can safely be accessed by internal staff and external trusted business partners.	<ul style="list-style-type: none"> ▪ LOCCS ▪ Other HUD proprietary systems 	<ul style="list-style-type: none"> ▪ LOCCS ▪ Other HUD proprietary systems

Section 4.0 Current Financial Systems Environment

No.	Owner	System Identifier	Name	System Short Name	Users	System Description	Sends Information To:	Receives Information From:
33.	OFHEO	UNK	Financial Information & Management System	FIMS	<ul style="list-style-type: none"> ▪ OFHEO 	Captures and reports OFHEO's financial transactions in a manner consistent with industry-specific federal rules and regulations and is instrumental in OFHEO's oversight responsibilities.	<ul style="list-style-type: none"> ▪ Hyperion via Excel spreadsheet 	<ul style="list-style-type: none"> ▪ OFHEO Feeder Systems
34.	OCIO	UNK	Technology Investment Board Portfolio	TIBEC	<ul style="list-style-type: none"> ▪ TIB ▪ TIBWG 	Excel file maintained by TIBWG to analyze and monitor IT project investments	<ul style="list-style-type: none"> ▪ FDM 	<ul style="list-style-type: none"> ▪ N/A

5.0 PROPOSED FINANCIAL SYSTEMS ENVIRONMENT

5.0 PROPOSED FINANCIAL SYSTEMS ENVIRONMENT

This section describes the proposed financial systems environment as HUD moves from the current environment and financial systems and processes described in Chapter 4 to the desired financial management vision described in the *CFO Vision Document* and summarized in Chapter 2 of this *Roadmap*. Because HIFMIP is a multi-year initiative affecting over 30 financial and mixed systems and more than 71 interfaces, the financial systems environment will change many times over the course of the next eight years. This chapter lays out the changes by fiscal year, combining the stages and implementation components of HIFMIP Phases II, III, and IV.

This chapter also provides an overview of the ICFS systems architecture beginning with FY 2008 when ICFS is initially implemented. The system architecture information is included within each relevant fiscal year in the sections that follow.

Given the duration and complexity of the project—eight or more years—the further into the future, the less certain the schedule and proposed changes. The changes described for the next several fiscal years are more detailed and more likely to occur as planned than are the changes described for FY 2012 and later. For example, program systems are realigning and modernizing by lines of business and in phase III the ICFS will realign with them for operational efficiency.

Figure 5-1 illustrates the transition from the current financial systems environment in FY 2005 to the end state targeted for FY 2013. In all the diagrams in this chapter, the size of the systems on the diagram does not reflect their importance or the amount of data contained in the system; sizing has been adjusted to provide the clearest possible flow diagram. The following guidelines have been used to represent the systems and relationships included:

- HUD systems are illustrated using rectangles.
- Manual interfaces are indicated through the use of dashed lines.
- Automated interfaces are indicated through the use of solid lines.
- External systems providing interfaces to or from core financial systems are included on this systems flow diagram. The external entities are identified through the use of shaded, non-rectangular parallelograms.

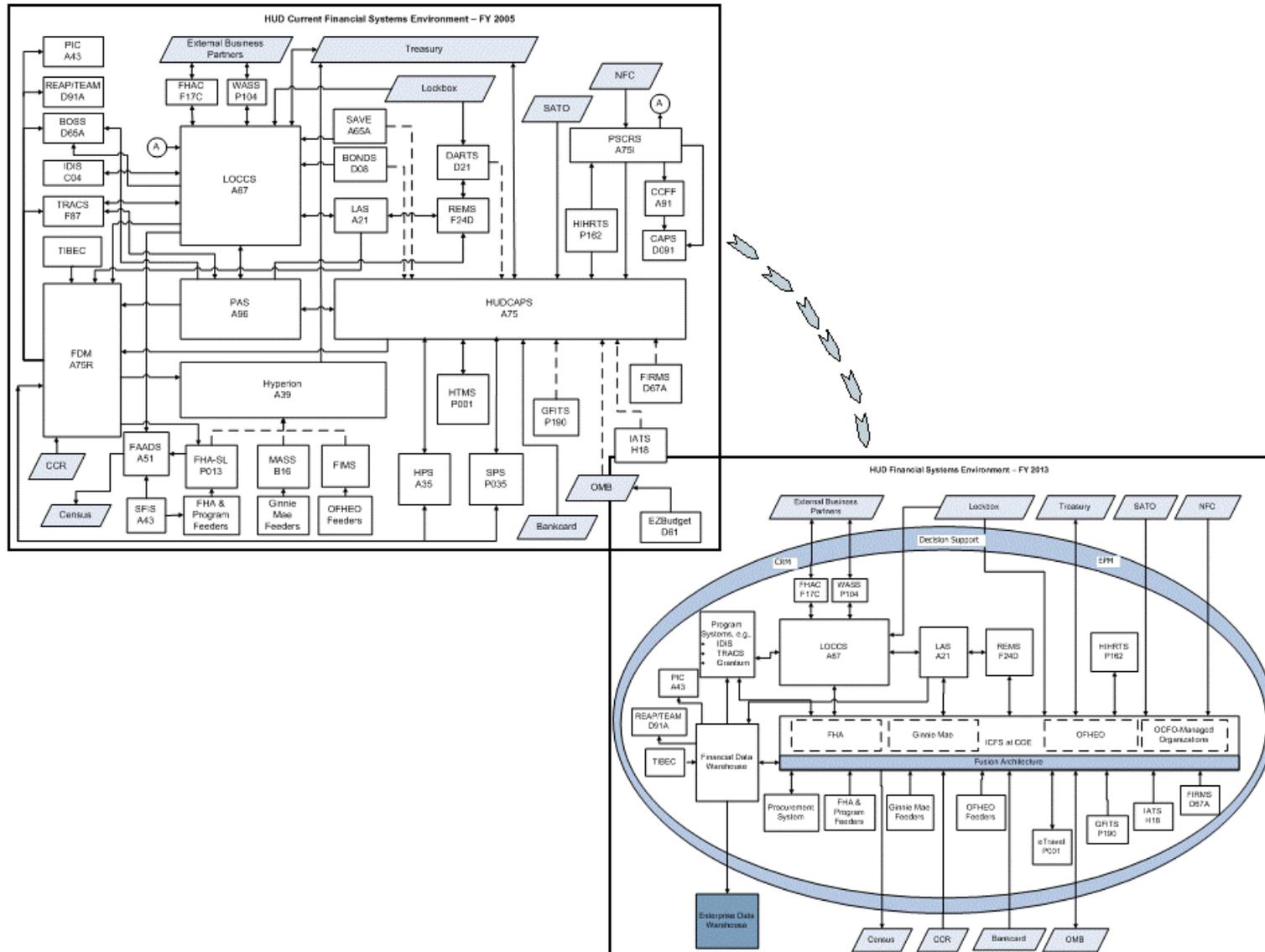


Figure 5-1. Financial Systems Environment Transition from Current to End State

The migration diagram depicted in Figure 5-1 provides an overview of the changes that can be expected during the HIFMIP life cycle. The number of systems included within the HIFMIP financial systems environment is reduced from the current 34 systems (shown in the upper left hand box of the figure) to 19 systems in 2013 (shown within the oval in the box at the bottom right of the figure). There will be a concurrent reduction from 71 interfaces in the current environment to 44 interfaces in FY 2013.

In addition to the reduction in total systems maintained, the end state HIFMIP vision depicted at the bottom right of Figure 5-1 shows fully integrated program, financial and performance information across all of HUD. This is represented by the systems included inside the oval in the bottom portion of the diagram. The end state portion of the diagram also shows the fully integrated set of financial and program applications supported by enterprise applications and support tools such as a decision support, CRM, and EPM. These tools are depicted as the shaded oval around the financial and mixed systems. Additionally, an enterprise data warehouse is planned for the HIFMIP end state as shown by the shaded rectangle in the lower left hand corner of the bottom diagram. More information on these tools is included in the detailed discussion that follows in this chapter.

Table 5-1 summarizes the systems impacted by fiscal year. The sections within this chapter describe the financial systems environment by fiscal year.

Table 5-1. HIFMIP Systems Impact by Fiscal Year

Fiscal Year	System ID	System Short Name	System Title	Notes & Comments
2006	A51	FAADS	Federal Assistance Award Data System	Replace with FDM
	A65A	SAVE	Section 235 Automated Validation & Editing	Integrate with LOCCS
	D08	Bonds	Bond Payment	Integrate with LOCCS
	D67A	FIRMS	Facilities Integrated Resources Management System	Automate interface with HUDCAPS
	P001	HTMS	HUD Travel Management System	Replace with FedTraveler.com
	A43	SFIS	Single Family Insurance System	Interface with FDM, not FAADS
	2007	P190	GFITS	Government Financial Information Tracking System
B16		MASS	Macola Accounting System Software	Replace with PeopleSoft at COE
2008		D67A	FIRMS	Facilities Integrated Resources Management System
	A35	HPS	HUD Procurement System	Interface with ICFS (real-time)
	P162	HIHRTS	HUD Integrated Human Resources and Training System	Interface with ICFS
	P035	SPS	Small Purchase System	Interface with ICFS (real-time)
	A39	Hyperion	HUD's Consolidated Financial Statement System	Interface with ICFS
	A67	LOCCS	Line of Credit Control System	Interface with ICFS

Section 5.0 Proposed Financial Systems Environment

Fiscal Year	System ID	System Short Name	System Title	Notes & Comments
	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with ICFS
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	Replace with ICFS
	A75R	FDM	Financial Data Mart	Interface with ICFS
	A91	CCFF	Consolidated Cost & FTE Files	Interface with ICFS
	A96	PAS	Program Accounting System	Replace with ICFS and/or LOCCS
	D21	DARTS	Departmental Accounts Receivable and Collections Tracking System	Interface with ICFS (manual)
	H18	IATS	Integrated Automated Travel System	Interface with ICFS (manual)
	P001	eTravel	FedTraveler.com	Interface with ICFS (real-time)
	P190	GFITS	Government Financial Information Tracking System	Interface with ICFS
	F24D	REMS	Real Estate Management System	Interface with ICFS
2009	A21	LAS	Loan Accounting System	Interface with ICFS
	A39	Hyperion	HUD's Consolidated Financial Statement System	Replace with ICFS
	Various	Program	Program Systems, e.g., IDIS, TRACS, Grantium	Interface with ICFS
	A43	SFIS	Single Family Insurance System	Replace interface to FDM with FHA ICFS to FDM interface
	P013	FHA-SL	FHA Subsidiary Ledger	Integrate with ICFS @ COE
	B16	Ginnie Mae SL	Ginnie Mae Subsidiary Ledger (PeopleSoft)	Interface with ICFS for financial statements
	OFHEO	FIMS	Financial Information & Management System	Interface with ICFS for financial statements
2010	A35	HPS	HUD Procurement System	Replace with new procurement system & new real-time interface with ICFS
	P035	SPS	Small Purchase System	Replace with new procurement system & new real-time interface with ICFS
	D21	DARTS	Departmental Accounts Receivable and Collections Tracking System	Replace with ICFS
	D61	EZB	EZBudget Budget Formulation System	Integrate with ICFS
	D65A	BOSS	Section 8 Budget Outlay Support System	Integrate with ICFS
	H18	IATS	Integrated Automated Travel System	Interface with ICFS (automated)
	B16	Ginnie Mae SL	Ginnie Mae Subsidiary Ledger (PeopleSoft)	Integrate with ICFS @ COE

Fiscal Year	System ID	System Short Name	System Title	Notes & Comments
2011	UNK	ICFS	Integrated Core Financial System	Upgrade to Oracle Fusion @ COE
2012	P162	HIHRTS	HUD Integrated Human Resources and Training System	Enhanced interface with ICFS
	A75R	FDM	Financial Data Mart	Replace with Financial Data Warehouse
	A91	CCFF	Consolidated Cost & FTE Files	Integrate with ICFS or HIHRTS
	D091	CAPS	OCFO WebFocus Corrective Action Plan Reports System	Integrate with ICFS or HIHRTS
	D91A	REAP/TEAM	Resource Estimation Allocation Process/Total Estimation & Allocation Mechanism	Interface with new Financial Data Warehouse
	P113	PIH	PIH Information Center System	Interface with new Financial Data Warehouse
	OFHEO	FIMS	Financial Information & Management System	Integrate with ICFS @ COE
	OCIO	TIBEC	Technology Investment Board Portfolio	Interface with new Financial Data Warehouse
2013	UNK	ICFS	Integrated Core Financial System	Implement/integrate customer relationship management system/ tools
	UNK	ICFS	Integrated Core Financial System	Implement/integrate decision support system/ tools
	UNK	ICFS	Integrated Core Financial System	Implement/integrate performance management system/ tools

5.1 Fiscal Year 2006

FY 2006 will be a year of preparation for the major portions of the HIFMIP initiative; however, some changes to the current financial systems environment will occur. These changes that affect or relate to HIFMIP include the following:

- The Financial Data Mart (A75R) will assume FAADS reporting to the Bureau of the Census. This means that HUD’s separate internal reporting system—FAADS (A51)— can be retired in FY 2006.
- LOCCS (A67) will assume the voucher processing and related functions currently handled by SAVE (A65A) and Bonds (D08). This means that SAVE and Bonds can be retired in FY 2006.
- A new travel system, FedTraveler.com (eTravel), will be implemented throughout the Department. eTravel will replace the existing HTMS in FY 2006.
- The interface from FIRMS (D67A) to HUDCAPS (A75) will be automated.

Figure 5-2 illustrates the planned financial systems environment at the end of FY 2006.

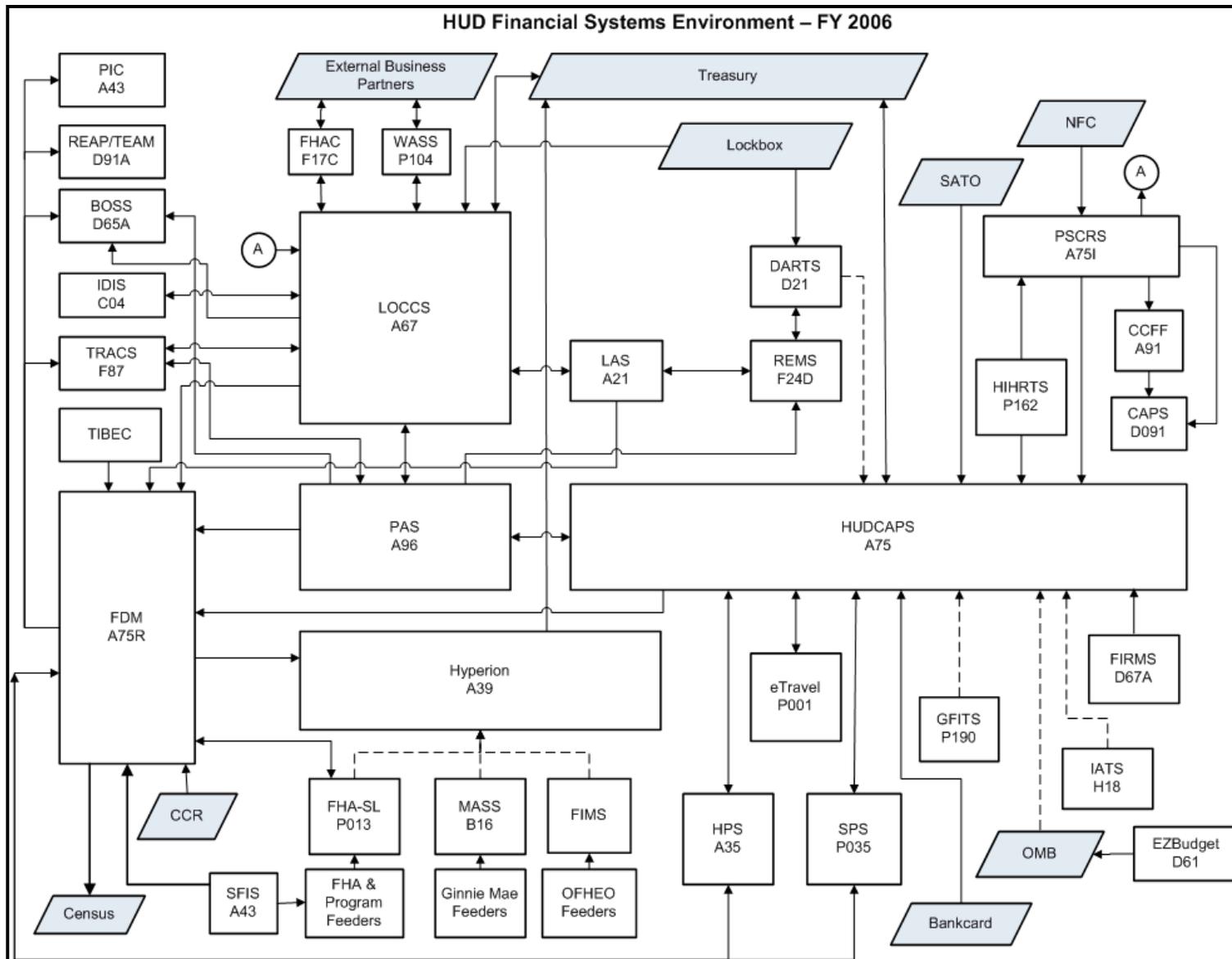


Figure 5-2. FY 2006 Planned Financial Systems Environment

5.2 Fiscal Year 2007

FY 2007 continues the preparation for ICFS implementation for the OCFO-Managed Organizations. Ginnie Mae plans to implement its new core financial system, based on PeopleSoft, in FY 2007 as well. Other changes to the current financial systems environment will occur, including the following:

- Ginnie Mae's current general ledger system—MASS (B16)—will be retired with the implementation of the new PeopleSoft general ledger.
- The Section 8 Housing Subsidy functions currently supported by HUDCAPS will be migrated from HUDCAPS to other program systems, e.g., Grantium, IDIS, that will support these program functions under the HIFMIP plan.
- The interface from GFITS (P190) to HUDCAPS (A75) will be automated.

Figure 5-3 illustrates the planned financial systems environment at the end of FY 2007.

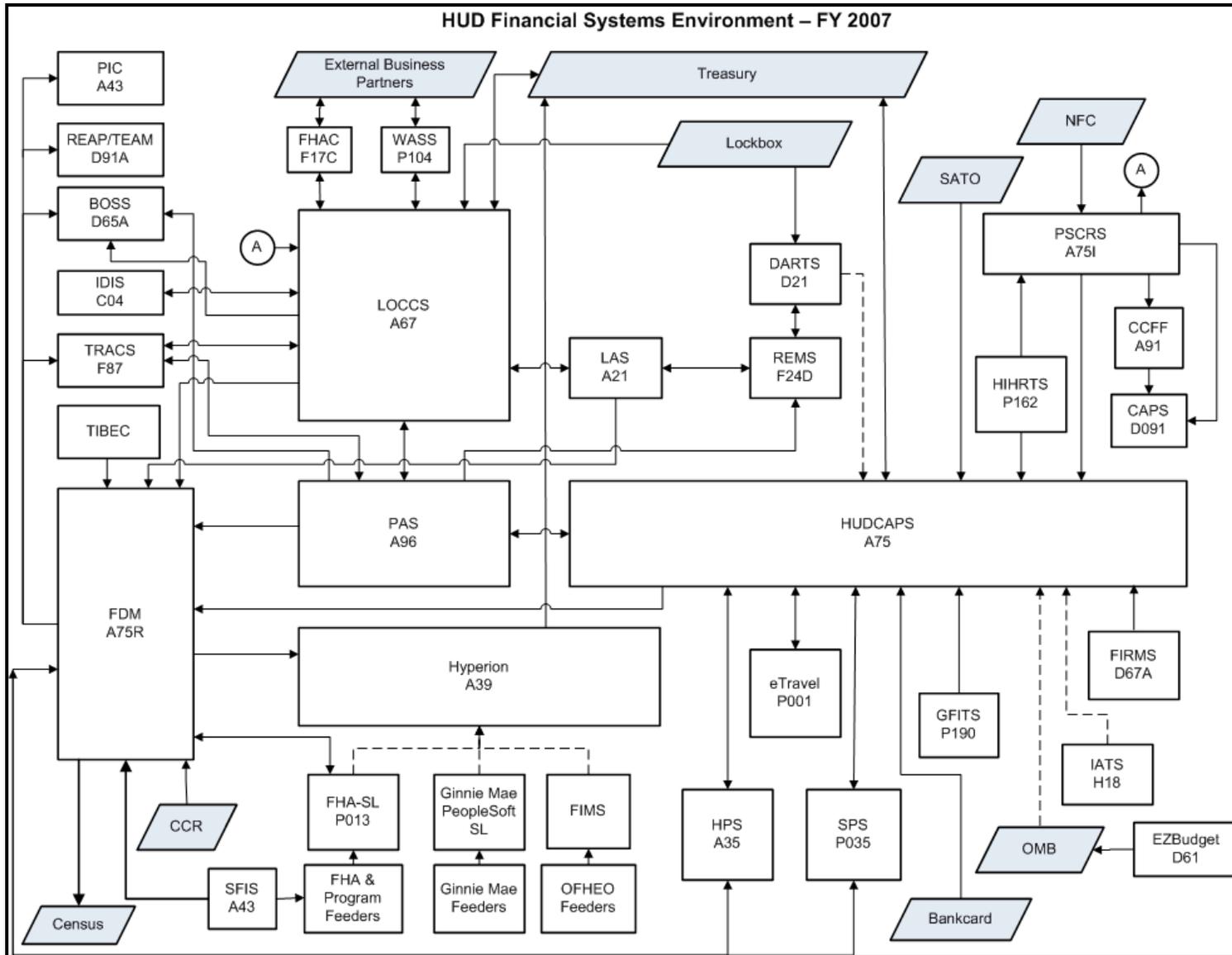


Figure 5-3. FY 2007 Planned Financial Systems Environment

5.3 Fiscal Year 2008

Initial implementation of ICFS is scheduled for FY 2008. ICFS will be implemented at a COE for HUD's OCFO-Managed Organizations. Figure 5-4 illustrates the planned systems architecture for ICFS in its initial year of implementation.

Under the initial ICFS systems architecture depicted in Figure 5-4, there will be four separate core financial systems, one for each of HUD's four major business areas. Each of the four business areas will complete its own system modernization efforts, with HUD-wide integration to occur later in the HIFMIP life cycle. All four business areas will, however, standardize systems, processes and procedures to prepare for future financial systems integration at the same COE. By this time (FY 2008), FHA and Ginnie Mae will have already implemented their own independent versions of PeopleSoft, and OFHEO will be operating Oracle's financial system.

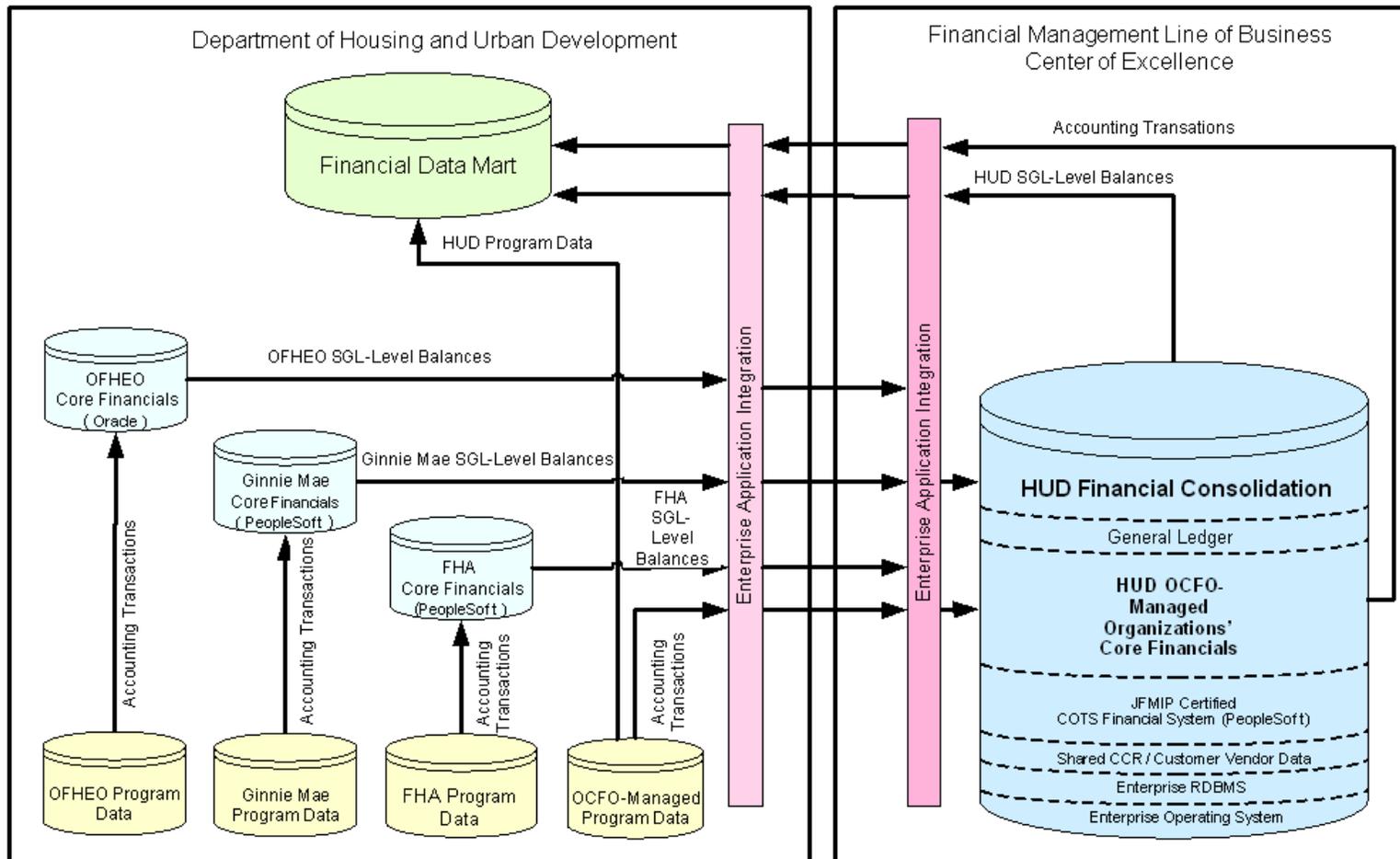


Figure 5-4. FY 2008 Planned ICFS Systems Architecture

Many changes will occur during this fiscal year as a result of the new core financial system implementation for HUD OCFO-Managed Organizations. These changes include the following:

- With the implementation of ICFS, HUDCAPS (A75) and PAS (A96) will be retired. HUD's desired goal is for ICFS to replace HUDCAPS and PAS; however, the final disposition of PAS will depend upon available ICFS functionality. Some functions may be integrated into other systems such as LOCCS (A67) if ICFS does not have all the functionality needed.
- The payroll interface with NFC will be redesigned to interface directly from NFC to ICFS. Therefore, PSCRS (A75I) will be retired.
- Existing interfaces with HUDCAPS and PAS will need to be redesigned, revised, or modified to work with ICFS. These interfaces include:
 - Interfaces with external entities will be revised: Bankcard vendor (currently Chase), SATO, and Treasury.
 - CCR interface will either come directly from CCR to ICFS or from FDM (A75R) to ICFS, depending on whether the ICFS design goes directly online to CCR or not.
 - With the redesign of the payroll interface, interfaces to CCFF (A91) and CAPS (D091) will be revised, and the interface from HIRTS (P162) to PSCRS will be eliminated.
 - Real-time interfaces with the procurement systems—HPS (A35) and SPS (P035)—will be replaced with real-time, two-way interfaces with ICFS.
 - Automated reports information to the FDM (A75R), Hyperion (A39), and BOSS (D65A) will be generated from ICFS.
 - The real-time interface with eTravel will be redesigned.
 - Interfaces with program and subsidiary financial systems will be revised: FIRMS (D67A); LOCCS; F24D, (F24D); TRACS (F87); and P190, (P190).
 - Manual interfaces from IATS (H18) and DARTS (D21) will support ICFS entry.

Figure 5-5 illustrates the planned financial systems environment at the end of FY 2008.

5.4 Fiscal Year 2009

Integration of FHA with ICFS at the COE is scheduled for FY 2009. FHA is already using a version of PeopleSoft (currently version 8.8). In order to integrate with ICFS at the COE and prepare for the later upgrade to Oracle's Fusion architecture, FHA should be using PeopleSoft version 8.9 or 9.0 – whichever version HUD implements for the OCFO-Managed Organizations. Additionally, any configuration differences or FHA customizations will need to be identified and addressed to facilitate integration. Figure 5-6 illustrates the proposed ICFS system architecture for FY 2009.

FHA Integration at a Center of Excellence
FY 2009

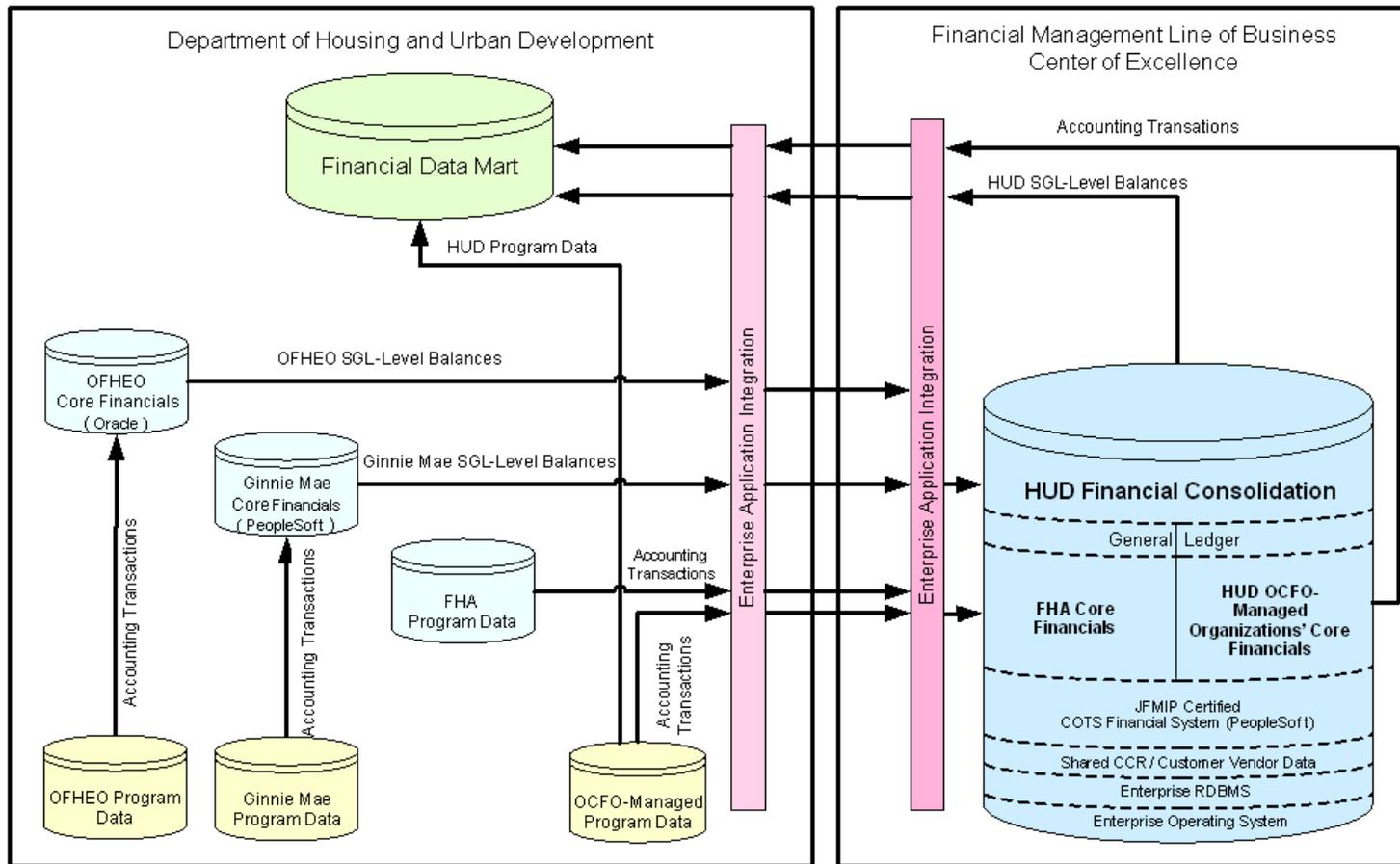


Figure 5-6. FY 2009 Planned ICFS Systems Architecture

Under this architecture, FHA will transition from its independent operation of PeopleSoft to HUD's COE. This transition will allow for the first integration of a HUD business area with ICFS. FHA-SL will be retired following ICFS integration.

Another significant change to occur in FY 2009 will be the use of ICFS to produce the HUD-wide consolidated financial statements. This will result in changes to the flow of information from Ginnie Mae and OFHEO and the retirement of Hyperion (A39).

ICFS will also consolidate all Treasury disbursing for the HUD OCFO-Managed Organizations. This will change the flow of information among program and subsidiary financial systems such as IDIS (C04), TRACS (F87), and LOCCS (A67).

Related changes that will occur during FY 2009 include the following:

- With the integration of FHA-SL (P013) into ICFS at the COE, all FHA Program and Feeder Systems will interface directly with ICFS.
- With the retirement of Hyperion, Ginnie Mae and OFHEO will need to provide general ledger balances and supporting financial statement information directly to ICFS, preferably via an automated interface rather than the Excel spreadsheets currently used to support Hyperion.
- The consolidation of Treasury disbursing functions in ICFS will result in new interfaces and/or changes to the information provided via the following interfaces :
 - LOCCS (A67) and ICFS;
 - LAS (A21) and ICFS;
 - LAS and LOCCS;
 - Program Systems (e.g., IDIS, TRACS, Grantium) and ICFS; and
 - Program Systems and LOCCS.
- Development or enhancement of interfaces between program systems and ICFS in addition to the changes in disbursing functions already described include the following:
 - LAS and ICFS and
 - Program Systems and ICFS.

Figure 5-7 illustrates the planned financial systems environment at the end of FY 2009.

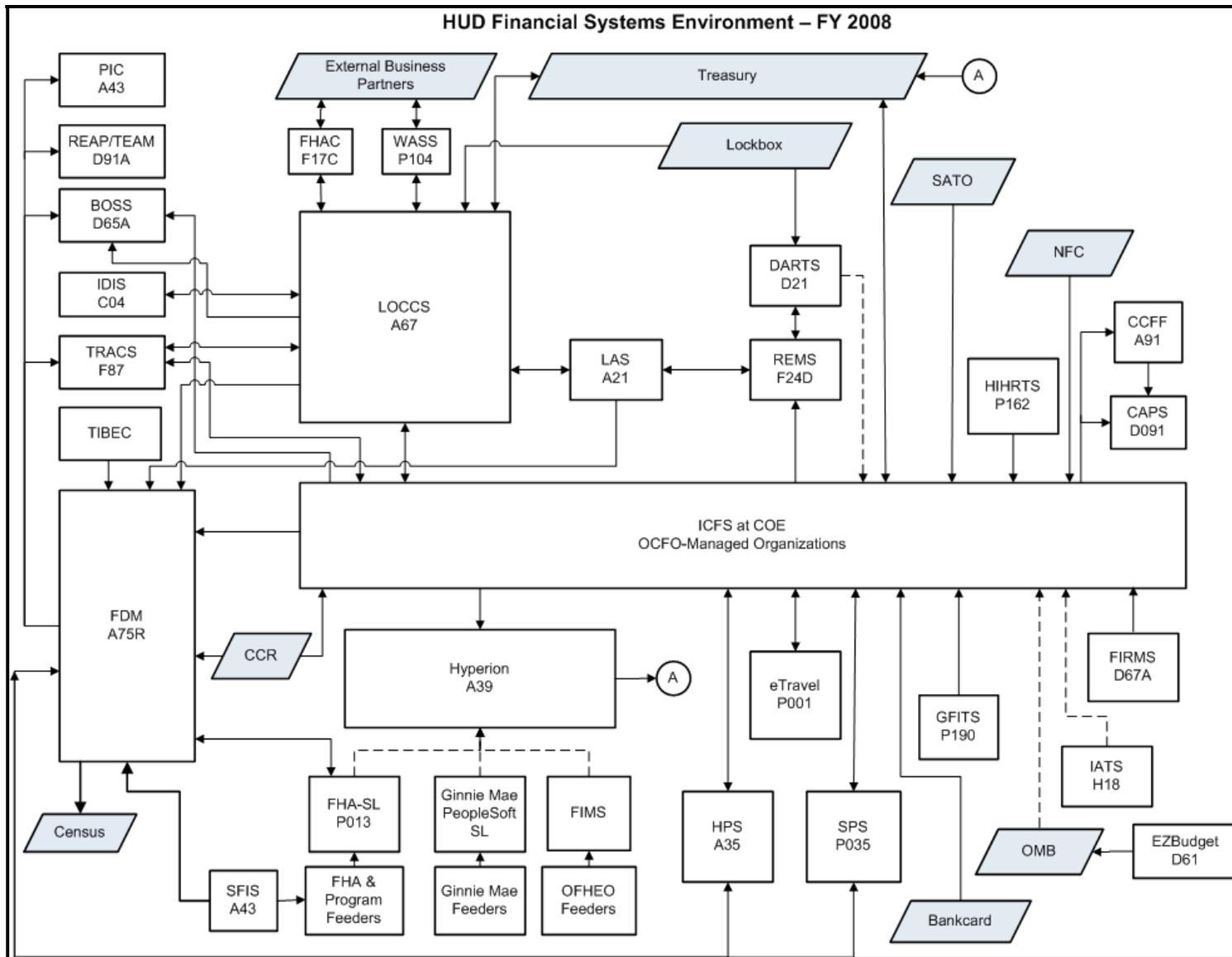


Figure 5-7. FY 2008 Planned Financial Systems Environment

5.5 Fiscal Year 2010

Integration of Ginnie Mae with ICFS at the COE is scheduled for FY 2010. Ginnie Mae will have already implemented PeopleSoft independently at a COE (planned to be IBM Corio). The timeframe and level of effort to integrate Ginnie Mae's PeopleSoft with ICFS may vary, depending on the COE selected by HUD for ICFS. If Ginnie Mae's PeopleSoft and ICFS are already being supported at the same COE with the same version of software, the integration may not require significant effort. Configuration differences or Ginnie Mae customizations will need to be identified and addressed to facilitate integration. Figure 5-8 illustrates the proposed ICFS system architecture for FY 2010.

Ginnie Mae Integration at a Center of Excellence
FY 2010

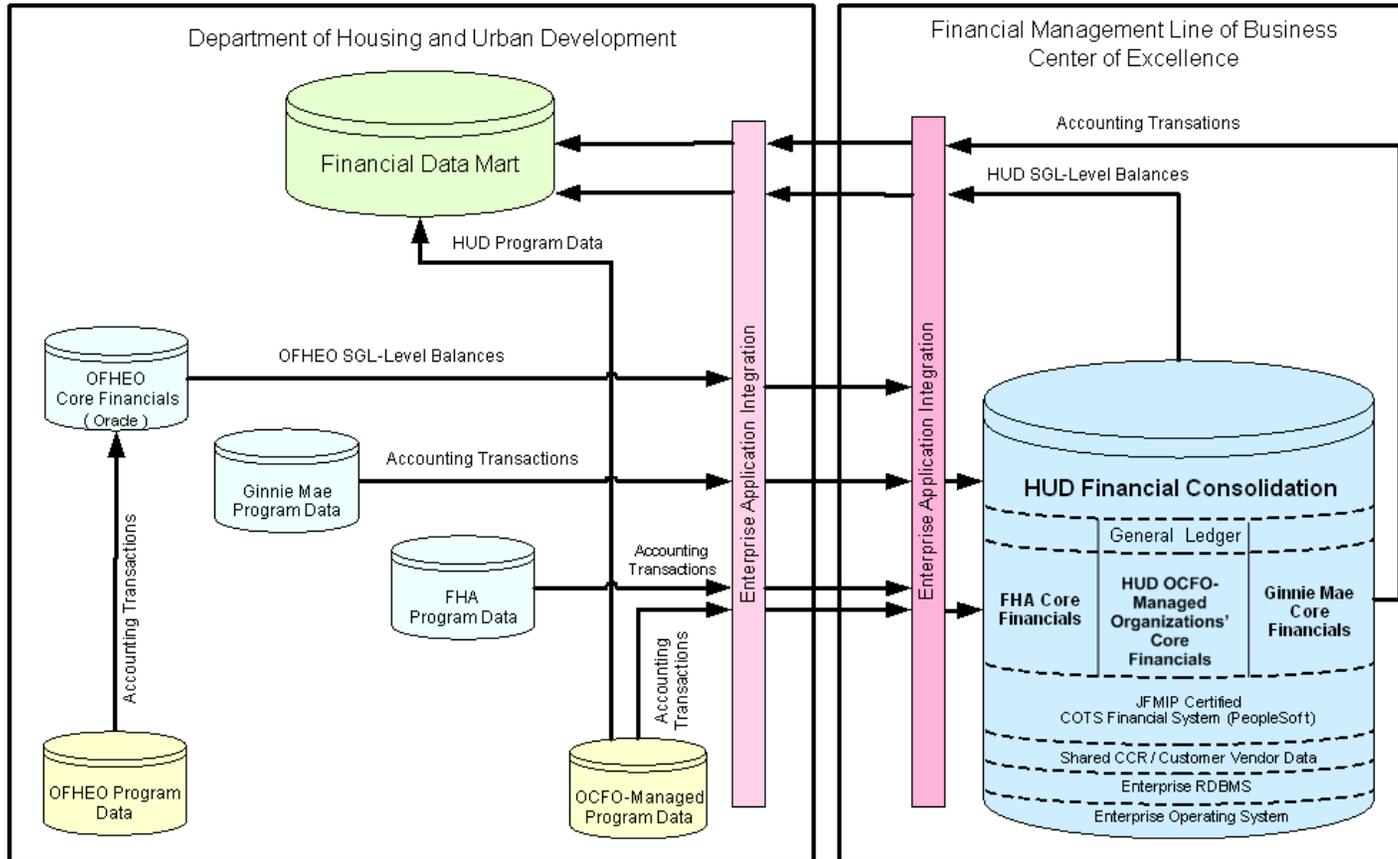


Figure 5-8. FY 2010 Planned ICFS Systems Architecture

Under this architecture, Ginnie Mae will transition from its independent operation of PeopleSoft at IBM Corio to HUD's COE. Ginnie Mae's feeder systems will interface directly to ICFS at the COE.

A potentially significant change included in the HIFMIP plan for FY 2010 is integration of ICFS with the newly implemented procurement system. The new procurement system is currently in the planning stages, and its implementation schedule has not yet been defined, so the timing of the new interfaces with ICFS may change as more information becomes available.

Another area of change currently scheduled to occur in FY 2010 is the integration of budget preparation and budget formulation functions within ICFS. The timing and nature of the integration will depend on the functionality available in the PeopleSoft COTS package.

A final area of change currently scheduled to occur in FY 2010 is the integration of DARTS (D21) functions into ICFS. HUD's desired goal is to incorporate all DARTS functions into ICFS; however, the final DARTS disposition will depend upon the functionality available in the PeopleSoft COTS package. Some or all of the DARTS functions may be incorporated into LAS (A21) if ICFS cannot fully meet the DARTS requirements.

Related changes that will occur during FY 2010 include the following:

- Implement a real-time interface between the new procurement system and ICFS. This interface should include the transmission of CCR data, allowing HUD to eliminate the interface between the FDM (A75R) and the current procurement systems (HPS (A35) and SPS (P035)).
- With the implementation of a new procurement system, HPS and SPS will be retired, and with them their interfaces to ICFS and the FDM.
- With the integration of budget formulation functions into ICFS, EZBudget (D61) can be retired. It is possible that BOSS (D65A) can be retired as well. An automated interface from ICFS to OMB will need to be developed to submit annual budgets. It is desirable that an automated interface from OMB could also be developed to load final budgets into ICFS for funds control.
- With the integration of DARTS into ICFS, DARTS will be retired. The following interfaces will need to be developed to support DARTS integration:
 - ICFS to REMS (F24D) and
 - Lockbox collections to ICFS.

Figure 5-9 illustrates the planned financial systems environment at the end of FY 2010.

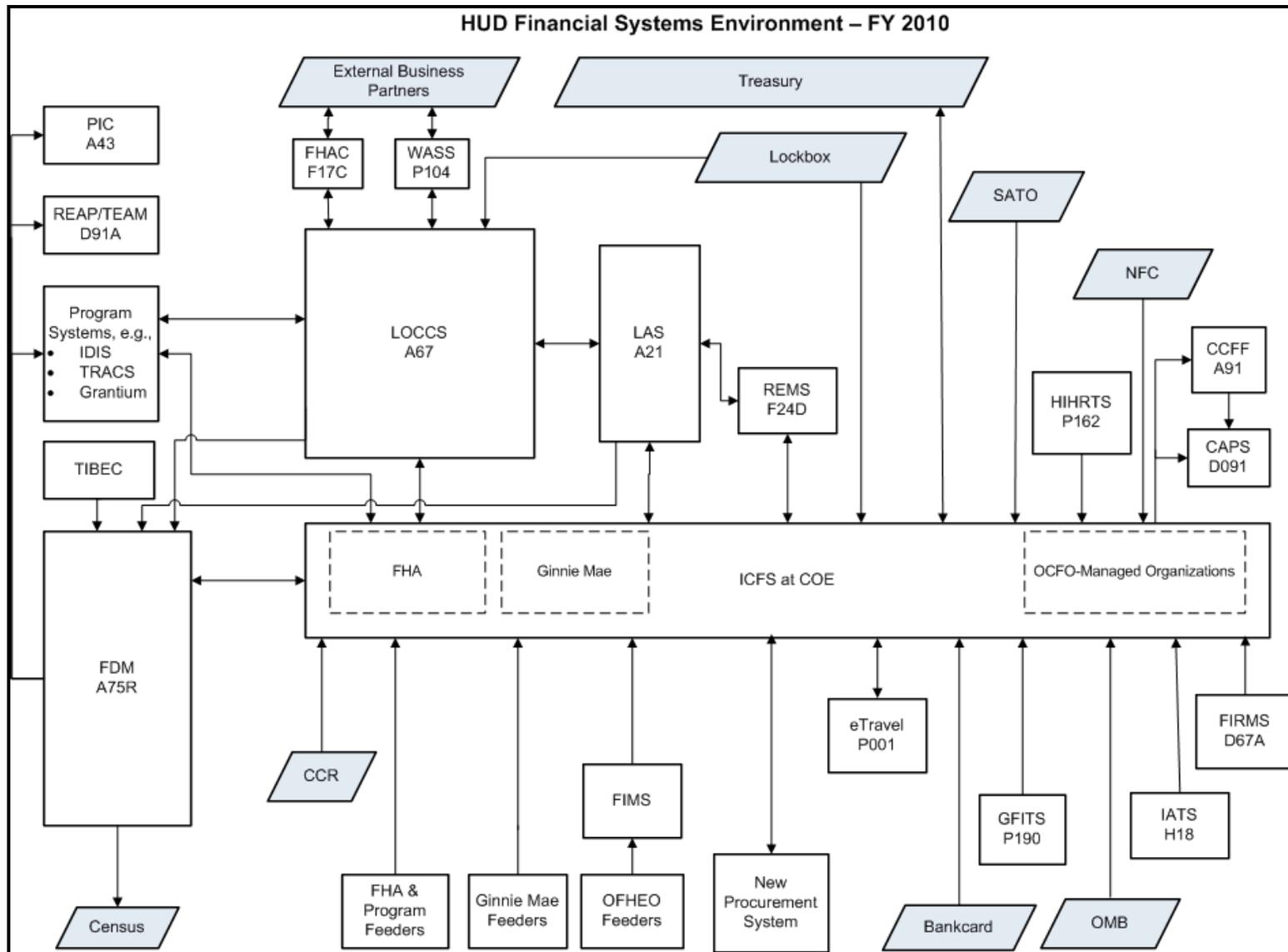


Figure 5-9. FY 2010 Planned Financial Systems Environment

5.6 Fiscal Year 2011

The major HIFMIP-related activity scheduled for FY 2011 is the upgrade to Oracle's Fusion platform at the COE. This upgrade is necessary to support integration of OFHEO and to prepare for future releases from Oracle of the combined Oracle/PeopleSoft financial software.

In a recent announcement, Oracle indicated that it will use a Fusion platform with a standards-based modular design for its architecture. Oracle plans to use the Java platform to build the different components and deploy the emerging Business Process Execution Language to "glue" the components together. Java Server Faces will take the place of Oracle Forms for the database-driven applications. PeopleSoft's own application server will be replaced with Oracle's. Essentially, Oracle is planning to provide application software with a PeopleSoft look and feel, but with Oracle architecture underneath.

Customers must use PeopleSoft 8.9 or Oracle's E-Business Suite Version 11i.10 in order to migrate to the Fusion platform. Figure 5-10 illustrates the proposed ICFS system architecture for FY 2011.

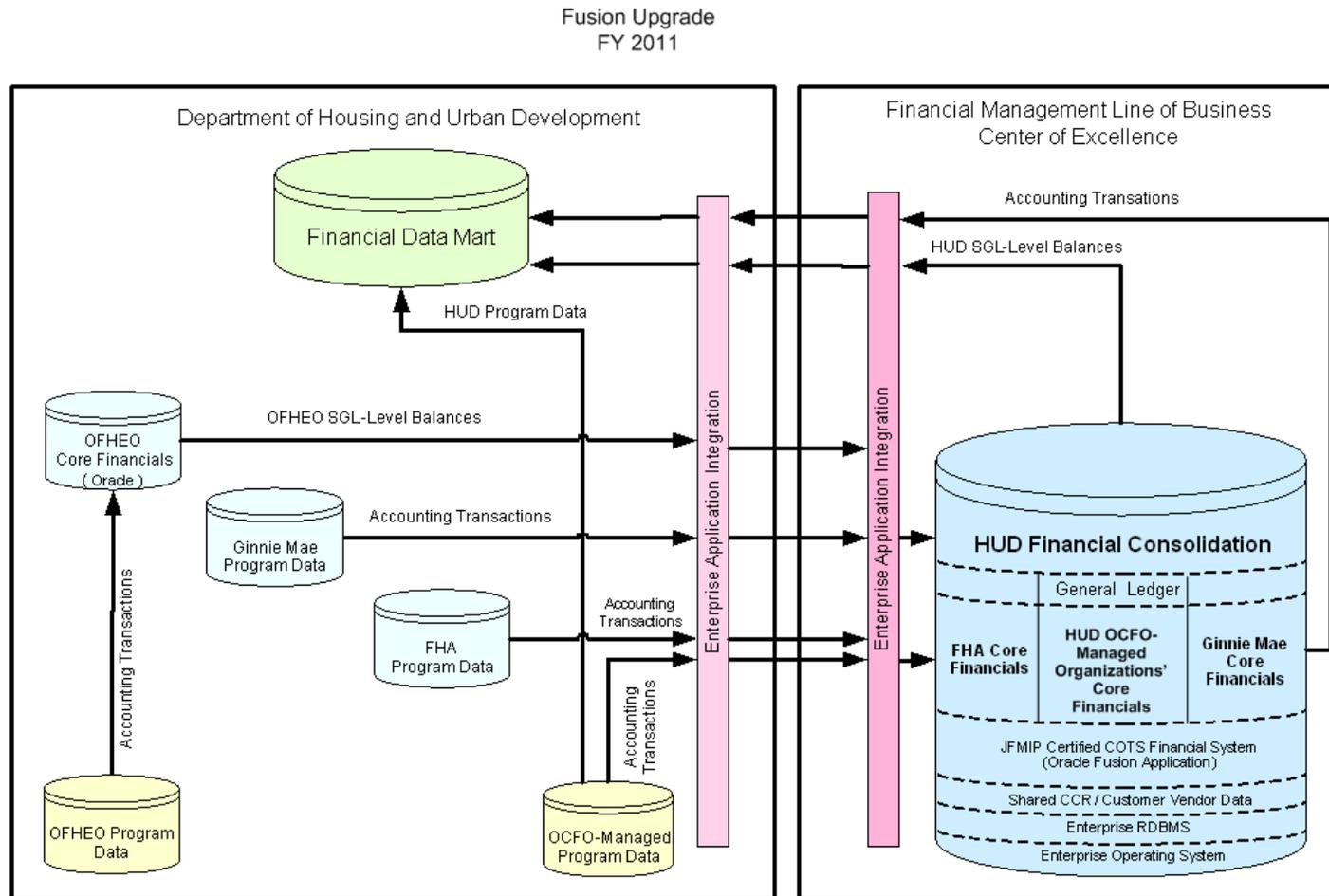


Figure 5-10. FY 2011 Planned ICFS Systems Architecture

The Fusion upgrade will position HUD to integrate OFHEO and to take advantage of Oracle upgrades that enhance application functionality and respond to new government requirements and technological advances. Oracle is planning to provide smaller upgrade packages more frequently than its previous major releases every two years. Oracle plans that these updates can be installed without taking existing applications offline.

There are no planned functional or system changes during FY 2011 due to the Fusion upgrade. Figure 5-11 illustrates the planned financial systems environment at the end of FY 2011.

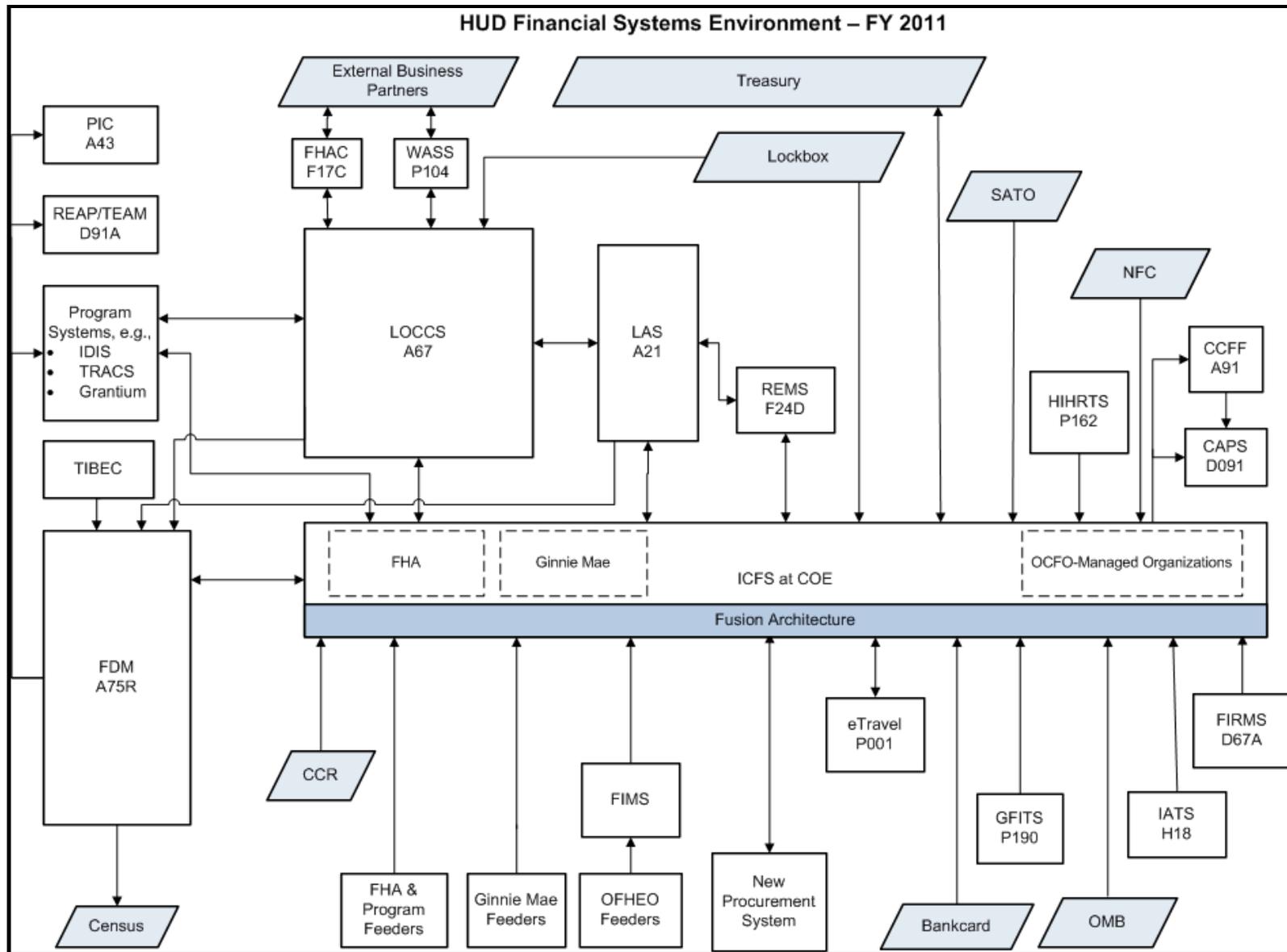


Figure 5-11. FY 2011 Planned Financial Systems Environment

5.7 Fiscal Year 2012

HIFMIP plans for FY 2012 include the integration of OFHEO with ICFS at the COE, implementation of a new Financial Data Warehouse to replace the existing Financial Data Mart (A75R), and enhanced interfaces with HHRTS (P162). Figure 5-12 illustrates the proposed ICFS system architecture for FY 2012.

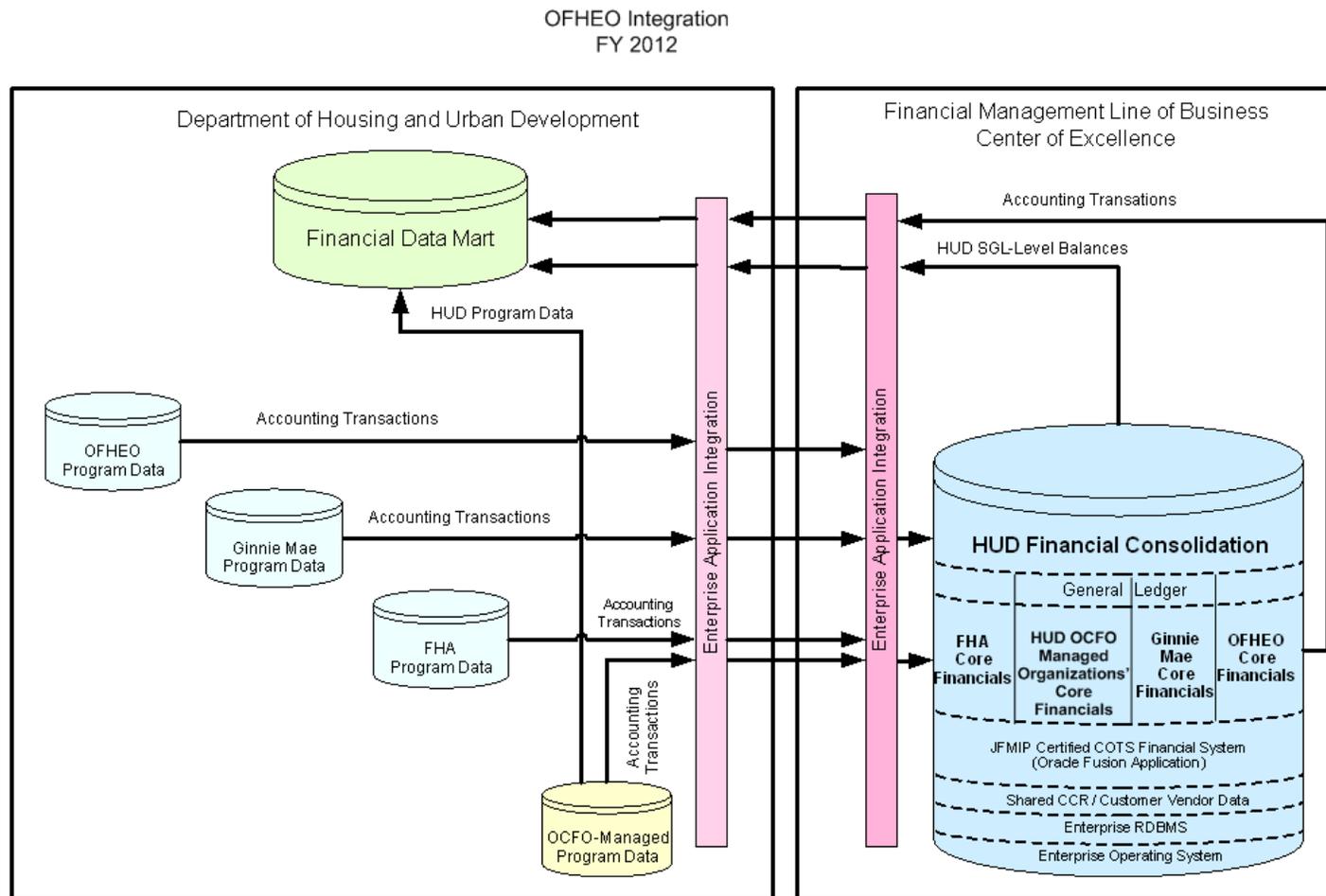


Figure 5-12. FY 2012 Planned ICFS Systems Architecture

With the integration of OFHEO into ICFS at the COE, all HUD business areas will be fully integrated using Oracle's Fusion platform and financial application. HUD will then be able to take advantage of the additional system functions and tools available with the Oracle platform and COTS application. One of these integrated applications will be a Financial Data Warehouse which will replace the existing FDM (A75R). Oracle's current product offering is called the Oracle Financial Consolidation Hub. The Financial Consolidation Hub brings together financial data from disparate sources to create a single, global view of financial information across the entire agency or enterprise. This Oracle product uses Fusion middleware and may be a starting point for a HUD Financial Data Warehouse that integrates with ICFS more fully than the existing FDM.

An additional change tentatively planned for FY 2012 is an enhanced interface between HIHRTS (P162) and ICFS. People Soft is the COTS package on which HIHRTS is based. HUD is using Treasury as a service provider for HIHRTS. As additional functionality is developed via HIHRTS and the OCFO develops a more comprehensive cost management process, additional integration/interface opportunities will be identified and scheduled. For example, HUD may determine whether HIHRTS maintains improved Time and Attendance (T&A) functions versus PC-TARE and transition to the new system and T&A function.

The following systems and interfaces may be affected in FY 2012 with the implementation of a new Financial Data Warehouse and enhanced integration with HIHRTS:

- The existing FDM will be retired.
- Interfaces that currently exist between the FDM and other systems will be modified or replaced. These include interfaces to and/or from LAS (A21), PIC (P013), REAP/TEAM (D91A), and TIBEC.
- The enhanced HIHRTS interface/integration with ICFS may result in the elimination of CCFF (A91) and CAPS (D091) and the related interfaces.
- REAP/TEAM will be evaluated based on changes to and implementation of a cost management function in the new financial system and processes with the new system and functionality available in HIHRTS.

Figure 5-13 illustrates the planned financial systems environment at the end of FY 2012.

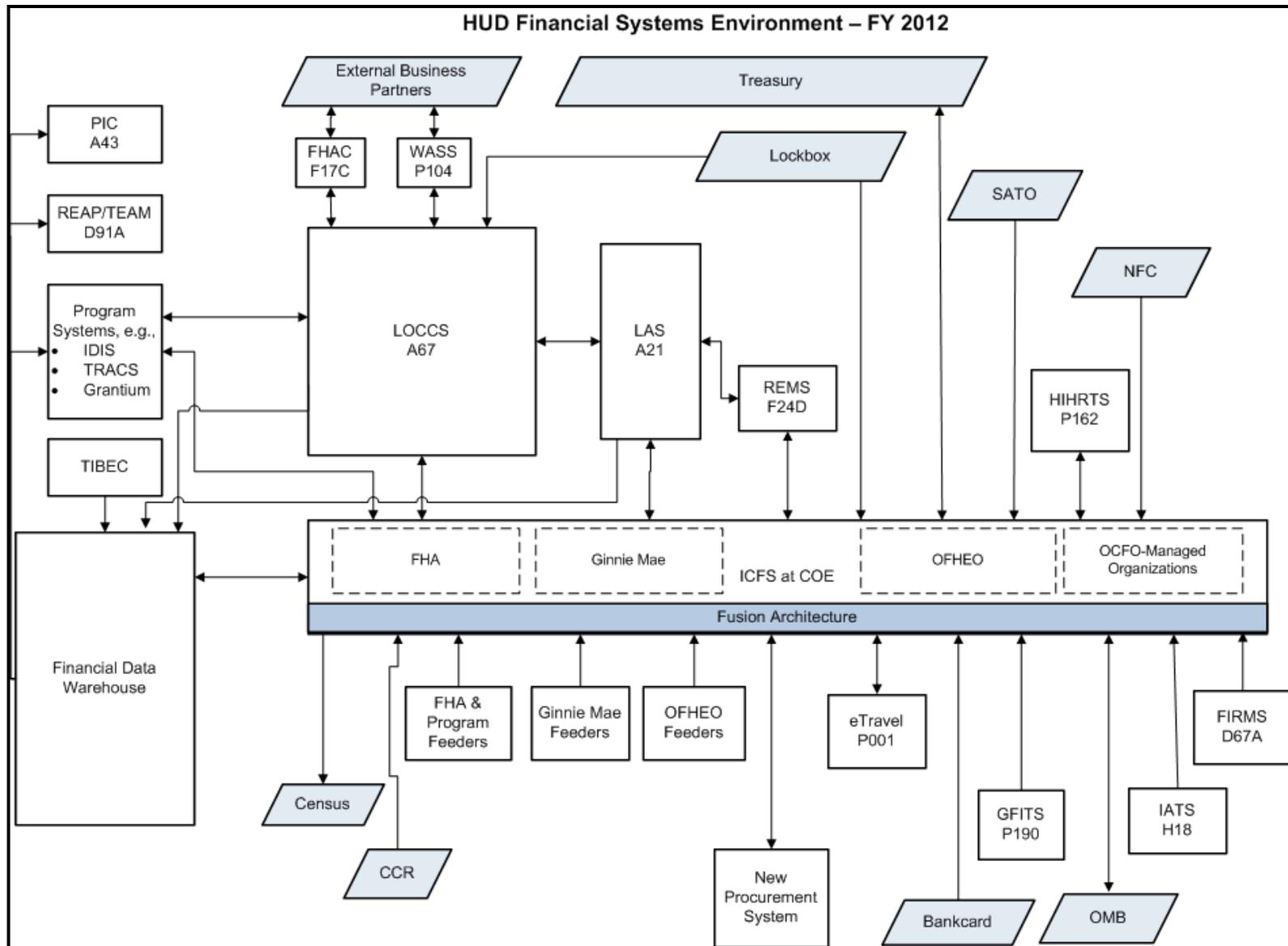


Figure 5-13. FY 2012 Planned Financial Systems Environment

5.8 Fiscal Year 2013

FY 2013 is the last year included formally in the HIFMIP plan. The focus of FY 2013 will be the addition of tools, technologies, and products that enhance the available financial information and provide agency-wide integrated management information. Figure 5-14 illustrates the proposed ICFS system architecture for FY 2013.

Programmatic and Performance Integration
FY 2013

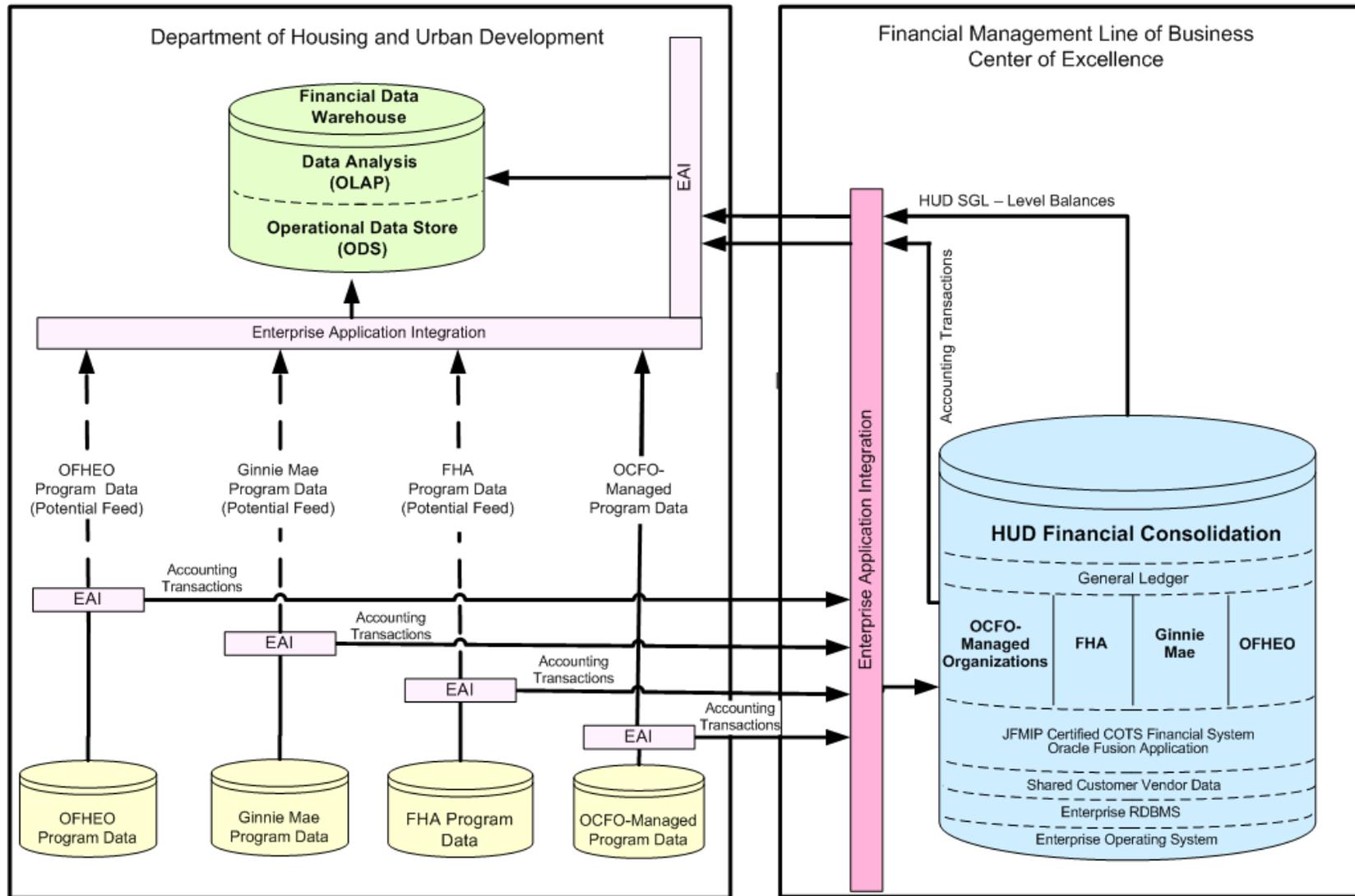


Figure 5-14. FY 2013 Planned ICFS Systems Architecture

Figure 5-15 illustrates the planned financial systems environment at the end of FY 2013.

Some of the areas identified for enhancement of the core financial foundation provided with ICFS include the following:

- Decision Support System;
- Customer Relationship Management System; and
- Enterprise Performance Management System.

The types of products available to support these functions and the way in which they might be integrated with ICFS may change over the next five to seven years. HUD will need to monitor available products that will integrate with ICFS and Oracle's Fusion application and address the specific applications, tools, and implementation strategies as HIFMIP moves further along in its life cycle.

HUD Financial Systems Environment – FY 2013

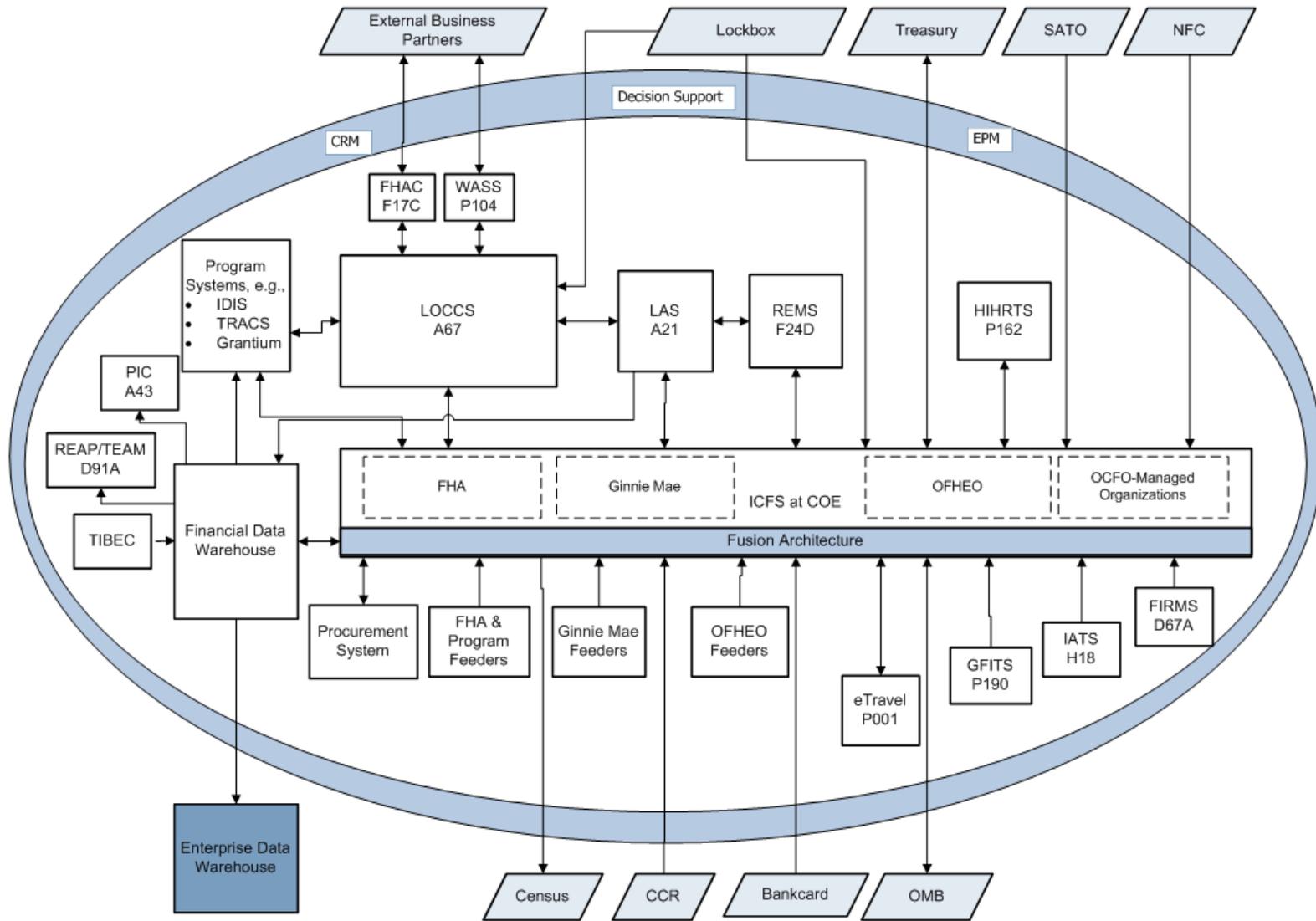


Figure 5-15. FY 2013 Planned Financial Systems Environment

6.0 SHORT TERM ACTIONS AND KEY DECISIONS

6.0 SHORT TERM ACTIONS AND KEY DECISIONS

Currently, HIFMIP is in the SDM Define Phase for ICFS implementation, as illustrated in Figure 6-1.

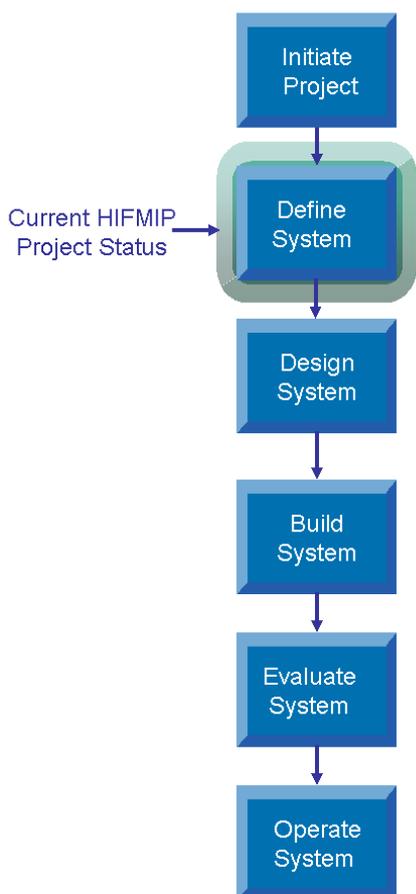


Figure 6-1. Current HIFMIP Project Status

Key components of the SDM Define Phase include the following:

- Functional and Detail Requirements (completed);
- Legacy Systems Disposition Plan – October 2005;
- COTS Selection – September/October 2005; and
- COE/Integrator Selection – March 2006.

HIFMIP Phase I/SDM Define Phase will end with the selection of the COE/Systems Integrator to host and facilitate ICFS implementation (targeted for March 31, 2006).

Figure 6-2 illustrates the overall approach to selection of both the COTS software (now completed) and the COE/systems integrator to support ICFS.

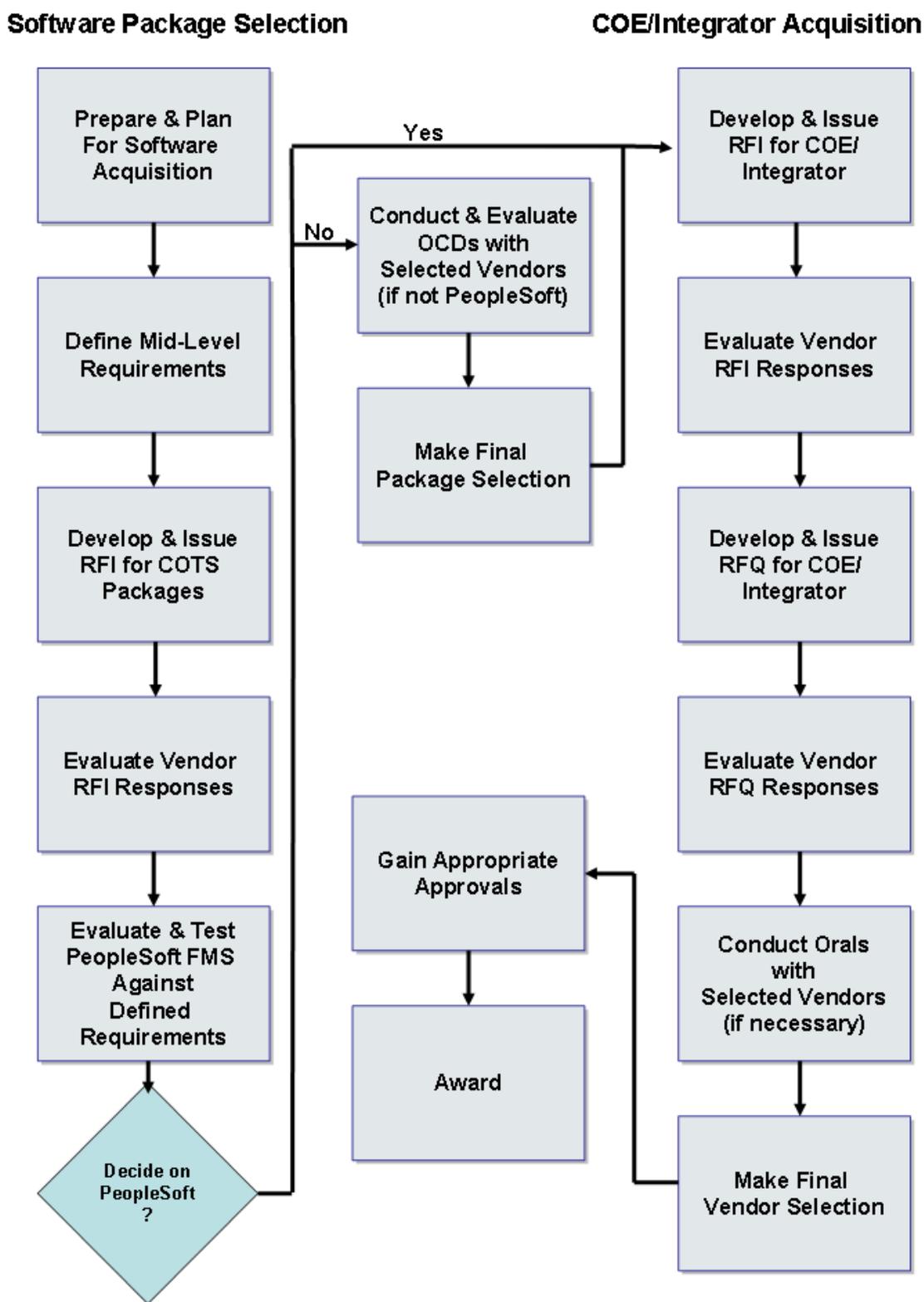


Figure 6-2. COTS Software, COE & SI Selection Process Overview

Upon completion of the tasks depicted in Figure 6-2, HUD will move into HIFMIP Phase II – ICFS Implementation, and from SDM Define Phase into the SDM Design Phase. Because the SDM Define Phase will be completed within the next six months, and a Define Phase contractor has completed most of the required Define Phase deliverables, this section of the *Roadmap* focuses on the tasks necessary to complete HIFMIP Phase I that are not already assigned or in process.

Table 6-1 summarizes the open Phase I tasks by category. The following categories have been identified and used in the table:

- Functional/Technical;
- Strategy & Planning;
- Existing Financial Systems & Data;
- Procurement; and
- Project Management.

Tasks that have already been completed are shaded in the Table 6-1. Tasks that have not been assigned (because they are new or because no one has been available to support the effort) are identified in the “Currently Assigned?” column. Tasks not currently assigned are discussed following Table 6-1. All of these tasks have been incorporated into the HIFMIP Project Plan that is included as Appendix B.

Table 6-1. HIFMIP Phase I Status

Fiscal Year	Area of Focus	Task/Milestone	Currently Assigned?	Responsible Organization	Target Completion Date	Status ¹²
FY 2005 - 2006	Functional/ Technical	Define functional/technical requirements.	Yes	MIL	7/31/2005	Complete
		Conduct PeopleSoft Gap Analysis.	Yes	MIL	8/31/2005	Complete
		Select COTS Package for ICFS.	Yes	HUD	9/30/2005	Complete – PeopleSoft selected
		Review financial system-related policies, procedures, and configuration.	No	TBD	6/30/2006	
		Analyze & resolve issues.	No	TBD	Ongoing	
	Strategy/ Planning	Develop HIFMIP Vision, Concept of Operations.	Yes	MIL	8/31/2005	Complete
		Develop HIFMIP Roadmap.	Yes	MIL	11/30/2005	In process. Draft Roadmap scheduled for delivery 10/3/2005.
		Approve Roadmap approach.	Yes	HUD	12/15/2005	
		Develop PWP.	Yes	MIL	12/15/2005	Scheduled
	Existing Financial Systems & Data	Operate and maintain existing legacy systems.	Yes	Various, primarily OCFO with contractor support	Ongoing	Ongoing
		Develop Legacy Systems Disposition Plan (LSDP).	Yes	MIL	11/30/2005	In process. New draft scheduled for delivery 10/17/2005.
		Approve Legacy Systems Disposition Plan.	Yes	HUD	12/15/2005	
		Develop maintenance contract update strategy & plan.	No	TBD	2/15/2006	Need to add task & define responsibility for developing plan based on final LSDP.
		Maintain liaison with other systems initiatives, and assess HIFMIP impact.	No	TBD	Ongoing	

¹² Completed tasks & milestones are shaded. Decision and approval points are highlighted in bold.

Section 6.0 Short Term Actions and Key Decisions

Fiscal Year	Area of Focus	Task/Milestone	Currently Assigned?	Responsible Organization	Target Completion Date	Status¹²
		Prepare for conversion: review data quality in legacy systems affected by HIFMIP.	No	TBD	6/30/2006	
		Develop data clean-up strategy and plan, if needed.	No	TBD	7/31/2006	
	Procurement	Issue RFQ for SI/COE to implement and host ICFS for HUD Other Business Areas.	Yes	HUD	10/31/2005	In process
		Select SI/COE.	Yes	HUD	3/31/2006	
		Select IV&V Contractor.	Yes	HUD	9/30/2006	Complete – awarded to MIL Corporation.
		Issue/modify legacy systems contracts to support HIFMIP requirements.	No	HUD	TBD	
		Manage and oversee contracts.	Yes	HUD	Ongoing	
	Project Management	Manage project.	Yes	HUD	Ongoing	
		Standardize & upgrade project management support tools.	No	HUD	12/31/2005	
		Develop and implement issue tracking and issue management procedures.	No	TBD	12/31/2005	Need to assign responsibility. Current issues should be analyzed and addressed using the procedures.
		Conduct project and risk reviews.	No	HUD	As needed	Need to determine required frequency, format, and responsible parties.
		Develop & implement HIFMIP Staffing Plan.	No	HUD	3/31/2006	.
		Manage staff.	Yes	HUD	Ongoing	

While many of these tasks can be deferred until the SI contract is awarded, HUD would benefit from addressing most of these tasks in the next six months, where possible. Otherwise these tasks will need to be included as part of the initial Organizational Preparation or Functional and Technical Analysis task areas addressed by the SI to prepare for ICFS implementation.

As HUD prepares to implement the new ICFS, there are a number of actions that can and should be undertaken in the near term to facilitate ICFS implementation. These short-term actions and related key decisions are documented in the remainder of this chapter.

Chapter 7 provides a detailed discussion of the future HIFMIP activities beginning in Phase II. All HIFMIP tasks described in Chapters 6 and 7 have been combined into the HIFMIP Project Plan contained in Appendix B. This remainder of this chapter is organized as follows:

- Section 6.1 Short-Term Actions;
- Section 6.2 Organizational Actions; and
- Section 6.3 Key Decisions.

6.1 Short-Term Actions

There are actions that HUD can and should undertake now to prepare for ICFS implementation. These activities have been grouped into the following categories:

- Functional and Technical Analysis;
- Existing Financial Systems and Data;
- Procurement; and
- Project Management.

Each of these activities has several tasks or sub-categories that must be addressed. These activities and tasks are described in the sections that follow.

6.1.1 Functional and Technical Analysis

A significant amount of functional and technical analysis has been performed during the SDM Define Phase currently underway. There are, however, areas that are not covered under the SDM requirements for this phase that should be identified and included in the PWP to help ensure a successful implementation and roll out of ICFS across all HUD business areas. These tasks include:

- Review Systems-Related Policies, Procedures and Configuration and
- Analyze and Resolve Issues.

Each of these tasks is described briefly below.

6.1.1.1 *Review Systems-Related Policies, Procedures and Configuration*

Many systems implementations run into snags when the agency's organizational units have different ways of handling the same financial transactions or capturing financial data. The review of financial and systems-related policies, procedures and systems configurations can identify these areas of difference (if not already known) so that decisions can be made prior to systems implementation in areas where department-wide standardization is desirable or required.

By implementing standard policies and procedures in advance of systems implementation, HUD can avoid ICFS implementation serving as the scapegoat for other desired changes that enhance financial management within the Department. System configuration can be standardized. In addition, issues can be explored prior to software configuration and development to save time and money on changes downstream.

Since HUDCAPS is a COTS software package, many of these issues have been addressed in its implementation; therefore, the level of effort to standardize policies and procedures will be less than if HUD were converting from custom systems. However, where possible, HUD should look across all major business areas to ensure common policies and procedures.

Since all four HUD business areas have implemented or will be implementing COTS software, review of systems configuration manuals or the actual system configuration settings will provide much of the information required for this analysis and facilitate identification of differences or issues that need to be addressed. This task should be scheduled early in FY 2006 once the SI contractor is on board.

Areas to be reviewed include the following:

- Budget Structure –Do all HUD business areas use HUD’s standard budget structure? If not, are there issues or requirements that need to be incorporated into the standard budget structure to make it workable for these business areas?
- Vendor Codes – will vendor codes be standardized across all of HUD, or will they be handled by major business area? If by business area, there is a need to ensure a way of keeping the vendor codes unique when they all are contained in the same database after full ICFS rollout.
- Account Classification Code Structure (ACCS)– how much of the account classification code structure or accounting strip, particularly beyond the formal budget structure, is to be standardized? Are the same fields being used to capture financial data elements in existing systems? If not, they should be mapped to standard fields in ICFS. This also impacts conversion design since HUD’s goal should be to re-use conversion software and mappings as much as possible in the roll-out of ICFS.
- Document Numbering – depending on the COTS software package used, document numbering may or may not be key. In some systems, use of different document numbering schemes in different business areas or systems can create problems for conversion and interface processing.
- Core Financial System Functionality – what modules and functions will be included in the initial ICFS implementation? If additional functionality that might benefit HUD is available with the COTS package, when will it be incorporated? Early analysis of potentially beneficial COTS functionality may save time and resources downstream even if the full functionality is not incorporated until later. For example, later addition of a cost allocation module can be included in the upfront planning processes to ensure that data necessary to support cost allocation is considered in the initial configuration process.

6.1.1.2 *Analyze and Resolve Issues*

Issues arise at all phases of a systems implementation. Chapter 8 of this *Roadmap* identifies some known issues. The key decisions identified later in this chapter may also require analysis.

Addition of a distinct task to address issues as they arise will help to ensure that issues will not be overlooked or deferred until they are critical.

This issue analysis and resolution task relates to the issues tracking and issues management task included within the project management category, but it is a separate task. The issues tracking and management task is a project management function that provides a mechanism for tracking and assigning issues. The issues analysis and resolution task refers to the analysis required to provide the information and recommendations necessary for management to make decisions about the issues. It should include preparation of issue papers to document the results of the analysis, and possibly management sign-off when decisions are made. Resources should be allocated for issue analysis and resolution as part of the HIFMIP budget and PWP.

6.1.2 Existing Financial Systems and Data

There are two primary areas to be addressed as part of dealing with existing financial systems and the data within those systems: impacts on legacy systems and interfaces, and data conversion. Each area is described briefly in this section.

6.1.2.1 Prepare for Impacts on Legacy Systems and Interfaces

HUD maintains a large number of financial and mixed systems that interface with one another and with external entities such as Treasury. The current financial systems environment was described in Chapter 4. Implementation of a new core financial system will have a significant impact on the overall HUD systems environment. Detailed planning for this impact is provided in the LSDP.

There are other tasks that should be done, as well, to prepare for ICFS. These tasks include:

- **Develop a maintenance contract update strategy and plan** for all affected systems that will need to modify their interfaces. Maintenance contracts for affected systems will need to be modified to allow for HIFMIP-related modifications to systems and/or interfaces. Table 5-1 contains the list of systems affected, and Table 6-5 contains a list of the interfaces affected by HIFMIP-related implementations. This task needs to identify what contracts are in place to support the affected systems, what requirements must be defined for the contract modifications, what timeframes are required, and where the contract funding for the changes will come from.
- **Maintain a liaison with other HUD and external systems initiatives, and assess the HIFMIP impact.** During the course of ICFS implementation, other organizations within HUD and other federal agencies will also continue to plan for and implement changes to their systems and procedures that will impact HIFMIP. Proactively coordinating with these organizations and agencies can minimize the impact on ICFS implementation. In addition, active participation by HIFMIP staff in cross-organizational initiatives can, in some cases, allow HIFMIP to influence the timing of an implementation or ensure that needed data is included in a new system or system enhancement.

Many initiatives are already known and in process. Some of these HUD-wide systems initiatives that impact HIFMIP include: implementation of a new HUD-wide procurement system; implementation of enhanced HIRTS capabilities such as cost management; improvements in rental assistance systems such as TRACS; participation in a government-wide eGrants initiative; and implementation of a comprehensive grants management system.

These initiatives may impact existing or planned interfaces with program and subsidiary feeder systems.

The HIFMIP Project Manager or a designee(s) will need to coordinate with project teams outside of HIFMIP to stay informed on the status of these initiatives and any impacts they might have on ICFS implementation.

6.1.2.2 Prepare for Conversion to ICFS

While the bulk of the data clean up for conversion is likely to take place in the months just prior to ICFS implementation, there are steps that can be taken in FY 2006 to ready HUD for conversion. The first step is to determine the quality of the financial and reference data in existing systems that will convert to ICFS. There are several parts to this data review, including the following:

- Review existing system reference data for invalid or inactive codes.
- Review existing financial data for issues, problems, or invalid conditions likely to cause problems in conversion or provide inaccurate financial status.
- Review reference and financial data requirements that will be required in ICFS, and determine if there are any data fields or edits that may present problems for data conversion.

This review should be scheduled for early in FY 2006 after the SI contract has been awarded. If the review identifies problems with reference and/or financial transaction data, a data clean up strategy and plan can be developed and implemented as part of the conversion task area.

6.1.3 Procurement

There are a variety of procurement-related tasks in a project the size of HIFMIP, many of which are already detailed and scheduled. The *HIFMIP System Support and Acquisition Plan* (July 22, 2005) identified many of these activities. The major procurement-related tasks highlighted in the *Roadmap* are:

- Selection of the SI/COE and
- Issuing or modifying the legacy systems maintenance contracts to support HIFMIP requirements.

The procurement process for selection of the SI/COE is scheduled and underway and proceeding according to plan. The issuance or modification of existing legacy systems maintenance contracts was discussed in the preceding section; however, this task relates specifically to the procurement actions required of OCPO to issue the contract modifications on a timely basis.

6.1.4 Project Management

Project management encompasses a wide variety of tasks and management functions, many of which are already in place for HIFMIP. This section addresses the following areas not already scheduled, including:

- Standardizing and Upgrading Project Management Support Tools;
- Developing and Implementing Issue Tracking and Issue Management Procedures;
- Developing and Implementing a HIFMIP Staffing Plan; and

- Conducting Project and Risk Reviews.

6.1.4.1 *Project Management Support Tools*

The Systems Integrator selected to support HUD in the ICFS implementation is likely to have a proprietary project management methodology and related management tools and techniques. In the interim, however, and as a supplement to any proprietary tools, the HIFMIP project team could benefit from the use of some of these commercial tools. The *Preliminary Roadmap* provided information on some readily available support tools, e.g., Microsoft (MS) Visio and MS Project. These tools can be used in conjunction with the *Roadmap* to manage and report on ICFS implementation progress.

HUD's current standard tool set includes MS Word 2000. Some staff also use MS Project 2002, and the CFO's office has licensed MS Visio for use by some individuals. Most commercial enterprises are now using the MS Office 2003 suite of products. The Define Stage Project Team has already experienced problems in converting deliverables for HIFMIP prepared using MS Word 2003 for use by HUD staff with Word 2000. Additionally, MS Visio has been used in many deliverables, such as to prepare the swim diagrams used in the FRD.

In the *Preliminary Roadmap*, we recommended that OCFO consider upgrading to the MS Office 2003 product suite, including licenses for MS Visio and MS Project 2003 for use by the HIFMIP project team. This upgrade will provide greater functionality for the team and allow for greater compatibility among HIFMIP contractors and HUD staff in sharing project plans, deliverables, and other project-related items.

The standard MS Office suite used at HUD, which includes MS Word, is administered through HUD's contract with EDS. EDS maintains the upgrade schedule for all of HUD. The OCIO is currently upgrading and standardizing automation tools for HUD employees. This upgrade should include an upgrade to MS Word 2003.

MS Project and MS Visio are not part of the standard HUD MS Office suite, therefore, OCFO will need to acquire licenses so that the latest versions of these software products can be used by members of the HIFMIP Project Team. The HIFMIP Project Manager will need to prepare the tools requests and justifications to seek approval from the CCMB to obtain and/or upgrade the necessary licenses for both products. This task has been added to the FY 2006 task plan.

Though there is no specific deadline for the software upgrades and acquisitions, the sooner the entire HIFMIP project team is using the same versions of software, the more internal and external communication will be facilitated. A target date of December 31, 2005 has been established to obtain approvals, determine required licenses, and begin the upgrade process.

6.1.4.2 *Issue Tracking and Issues Management*

HUD will need to update its issue tracking procedures for ICFS implementation. This will involve a method for identifying, tracking, and categorizing HIFMIP issues. Additionally, and more importantly from a project management standpoint, a process for escalating and resolving issues must be in place to ensure that ICFS stays on schedule. HUD already has a Stakeholder Working Group and an Executive Advisory Committee in place. These are important components in issue resolution. Development of the issue tracking and resolution procedures should include identifying criteria for escalating issues, gathering key decision-makers, and resolving critical issues in a timely fashion.

HUD already has a support mechanism in place for tracking software testing issues—the issue tracking database. The current database can be expanded to include other issues such as those identified in contractor and internal status reports.

Issue resolution, including issue escalation to the appropriate levels is the responsibility of the HIFMIP Project Manager. Some issues can be decided at the project level, but there are others that may require elevation to higher organizational levels, such as decisions that affect HUD-wide policy or implementation options that affect all HUD business areas.

The HIFMIP Project Manager should be responsible for developing issue management and issue resolution procedures. The procedures should address the following areas:

- **Classification Guidelines**—decide and document what issue categories will be used, and how they are defined.
- **Assignment of Priorities**—identify who will assign priorities, and what guidelines will be followed in their assignment.
- **Tracking and Reporting**—decide what reports will be produced, who will review them, and how frequently reviews will occur.
- **Escalation Guidelines**—determine who will escalate issues, what criteria will be used in deciding to escalate an issue beyond the project level; what process will be used for resolving open issues; who will be involved in the decision process; and who has the final decision-making authority if consensus cannot be reached.
- **Communication of Decisions**—decide how issue resolutions will be communicated, and to whom.

The HIFMIP Project Manager or someone from the HIFMIP IPT should oversee the issue management process once it is established. Timely resolution of project issues is critical to a successful ICFS implementation.

6.1.4.3 *Develop and Implement a HIFMIP Staffing Plan*

Section 2.3 described the HIFMIP Project Organization Structure and introduced the need to review HIFMIP Project Team roles, skills, and staffing resources as HUD gears up for HIFMIP Phase II. Section 6.2, “Organizational Actions,” describes the required roles, skills, and estimated staffing resources for initial ICFS implementation. HUD should develop and implement a Staffing Plan using the information provided in Section 6.2 to identify specific individuals, their roles, and estimated level of effort/time required to support HIFMIP activities. HUD will also need to begin acquiring the appropriate personnel resources over the next six months so that a skilled team is in place when the SI/COE contract is awarded and implementation work begins in earnest. A target date of March 31, 2006 has been set for the completion of the HIFMIP Staffing Plan.

6.1.4.4 *Conduct Project and Risk Reviews*

An initial analysis of risks and a risk management plan were developed by the Initiate Stage Project Team. These documents were updated during the SDM Define Phase. The updated *Risk Analysis* addressed risk management in detail. *Roadmap*-specific risks are described in Chapter 8. The HIFMIP Project Manager will need to regularly review project risks and determine if

there are proactive risk mitigation actions that should be taken to minimize or avoid project crises downstream.

A good way to address project and risk status is through a regularly scheduled project and/or risk review. These reviews should be in addition to the quarterly TIB reviews so that HIFMIP Project Management can focus on project-specific actions and issues. The project and risk reviews have been incorporated into the PWP, though the frequency with which they should be held will need to be determined once the SI is on board. In the interim, HUD may wish to consider a quarterly project status and risk review to assess preparatory activities and environmental changes that might affect the implementation plan and schedule. This is particularly important in the areas of contract modifications for legacy systems changes and HIFMIP staffing.

6.2 Organizational Actions

To date, HIFMIP has been supported by a small full-time HUD staff, some part-time working groups and executive committees, and various contractors who have performed analytical work in the SDM Initiate and Define Stages of the project. Once HUD selects the SI/COE next spring, the level of effort and the demands on HUD staff will increase significantly as HIFMIP moves into implementation mode. This section identifies the roles, skills and staffing levels that HUD will need to support the ICFS implementation scheduled for FY 2008.

The overall roles and responsibilities for the initial ICFS implementation phase will be similar to those for the implementation of HUDCAPS, and HUD can use that model as a frame of reference for staffing the project team for the ICFS implementation. Some differences in who will be responsible for various functions will exist in the ICFS implementation due to the planned implementation strategy using a COE; much of the technical expertise for installing and maintaining ICFS will lie with contractor staff. The HIFMIP team will coordinate through OCIO to communicate with the COE on technical matters. Additionally, due to the broader scope and eventual agency-wide impact of HIFMIP, more coordination across offices will need to occur, particularly in later HIFMIP Phases.

The following skill areas have been identified:

- Functional and Business Process Expertise;
- Technical Support; and
- Management Functions.

Table 6-2 indicates the types of tasks and skills required in each skill area along with suggested resource levels for each of the areas. A discussion of each skill area follows the table.

Table 6-2. Required HUD Staffing Skills for ICFS Implementation

Skill Area	Skills and Tasks	Estimated Staffing Levels
Functional and Business Process Expertise	<ul style="list-style-type: none"> ▪ Functional Software Configuration ▪ HUD Business Process Subject Matter Experts (SME) ▪ HUD Policies & Procedures SME ▪ Legacy Systems SME ▪ Conversion SME ▪ PeopleSoft (or other COTS software used for ICFS) SME ▪ Document Review & Sign-Off (e.g., plans, designs, test results) ▪ Training & User Support ▪ Robust System Test Team Support ▪ Reconcile, review & sign off on converted reference data, balances, and transactions ▪ Liaison to Other Systems Initiatives 	5 to 8 FTE
Technical Support	<ul style="list-style-type: none"> ▪ Legacy System Technical Expertise ▪ Conversion Technical Support ▪ Technical Configuration ▪ Telecommunication Coordination ▪ Hardware and Web Access Assessment & Acquisition Support ▪ COE liaison ▪ Operations ▪ Interface Support ▪ Technical Liaison to Other Systems Initiatives 	4 to 6 FTE
Management Functions	<ul style="list-style-type: none"> ▪ Contract Technical Oversight ▪ Deliverable Reviews & Sign offs ▪ Project Plan Maintenance ▪ Project Reviews & Briefings ▪ Budget Preparation & Oversight ▪ Status Meetings ▪ Issue Management, Escalation, and Resolution ▪ Risk Management ▪ Communication Plan Development & Execution ▪ Change Tracking ▪ Staffing Plan & Staff Management 	3 to 5 FTE

Acquisition of needed resources may vary by skill category or area. Each area is discussed below, along with suggested responsibilities and potential methods of obtaining the required expertise for the HIFMIP team.

6.2.1 Functional and Business Process Expertise

Functional or business process expertise is typically the largest staffing requirement not provided by developers/SI during systems implementations. Functional expertise in HUD's business operations and legacy systems is difficult to hire since there is a small pool from which to draw. Even among staff on board, there are finite numbers of functional or subject matter experts (SMEs), and those with the expertise are usually in demand for multiple projects or job functions.

The SI should be able to provide staff with PeopleSoft expertise, including federal government implementation of PeopleSoft. In addition, some Define Stage Project Team members are developing expertise in PeopleSoft as HUD would use it through the current Gap Analysis task. These team members may be an additional resource to HUD in Phase II.

The critical requirement for functional expertise will be for HUD business processes, policies and procedures, and legacy systems. The SI will be looking for designated functional experts as "go-to" staff for information, issue resolution, and document reviews and sign-offs. HUD staff will need to be involved in planning for conversion, training, user support, and ICFS configuration as well. The following functional area expertise required for most ICFS task areas will need to be covered on the HIFMIP Project Team:

- Core Financial Functions:
 - Budget/Funds Control,
 - Purchasing,
 - Payables/Disbursements,
 - Receivables/Collections,
 - Travel/Transportation,
 - Cash Management/Reconciliation,
 - Customer/Vendor Maintenance,
 - General Ledger/Account Balances,
 - Working Capital Fund,
 - Reporting, and
 - Annual Closing.
- HUD Programs:
 - General Program Requirements (as they relate to financial functions) and
 - Interfacing Systems (e.g, PAS/LOCCS, IDIS, TRACS).
- Conversion:
 - Strategy/Plan,
 - Existing System Data (e.g., HUDCAPS, PAS), and
 - Reconciliation/Review.
- ICFS Configuration:
 - HUD Policies & Procedures,
 - Reference Data,
 - System Options, Controls, and Posting Models, and

- Transaction Definitions.
- Legacy Systems:
 - HUDCAPS/FFS and
 - Interfacing Systems (expertise needed for each interface to be developed/maintained).

When FFS was initially implemented at HUD, the FFS implementation project team became the HUDCAPS experts. This approach can be used for ICFS implementation as well. HUD can identify a functional project team for ICFS and let them develop their system knowledge throughout the course of the project. HUD will provide a stronger functional team by staffing it with current HUDCAPS experts and filling in the gaps on the HUDCAPS team with more junior staff or new hires that can be trained in the support roles required until HUDCAPS is retired.

HUD will need a core full-time functional team for ICFS implementation, but the team can be supplemented with part-time expertise in some areas. For example, the team may require a full-time staff member to work on conversion tasks (and the closely related robust system test), but will need to bring in additional staff for the execution of conversion and reconciliation of converted data. Part-time resources might be required for short periods of full-time work such as the conversion example just mentioned. Other staff might be required part-time throughout the implementation life cycle, such as managers whose expertise will be needed for key design reviews, issue analysis, or meetings.

The SI can provide training in the selected COTS to begin educating the HUD staff in the generic workings of the software. This training often serves the dual purpose of beginning the configuration process as HUD functional experts translate their knowledge of current business processes to the new system.

6.2.2 Technical Support

Since HUD is planning to implement ICFS using a COE model, the need for technical expertise and technical support is lessened compared to previous in-house implementations. However, technical expertise will still be needed on the HIFMIP Project Team. As a service provider, the COE should provide the following functions:

- Establishment of ICFS Environments (e.g., development, testing, IV&V testing, training);
- Software Installation and Maintenance;
- Technical System Configuration;
- System Backups; and
- Software Upgrades.

Contracting for these services significantly reduces the need for HUD technical resources in these areas. Depending on the COE selected and the service level provided, HUD may be responsible for systems operations tasks, e.g., running batch jobs such as interfaces and for disaster recovery planning. HUD may also want to designate a HIFMIP team member to work with the COE to gain expertise. Having someone on the team who understands the technical issues will facilitate communications between HUD and the COE.

Coordination with the COE will occur through OCIO. Additionally, OCIO will be responsible for coordinating telecommunications, the HUD technical environment, system access, and user

workstations. Field Office implementation of ICFS will require a telecommunications plan. OCIO coordinates with EDS for telecommunications services in the current environment. HUD will need to determine who will provide these functions for ICFS.

OCIO staff will need to be considered as part of the HIFMIP Project Team, though if OCIO cannot provide full-time team members, HUD may wish to designate a full-time HIFMIP Project Team member to serve as OCIO liaison and monitor the status of the technical tasks required for successful ICFS implementation.

In addition to the COE and OCIO functions, the HIFMIP Project Team will require technical expertise in existing legacy systems to facilitate interface and conversion design. Support will also be needed to extract data from legacy systems for testing, conversion, and/or new interfaces. While ICFS implementation and interface development will be the responsibility of the SI and HIFMIP Project Team, changes to legacy systems, extraction of data from legacy systems to support new interfaces, and planning for retirement of legacy systems that will be replaced with ICFS do not typically fall under the scope of SI work. Therefore, HUD will need to ensure that these tasks occur through the use of HUD systems staff or other contractors or a combination of both.

The COE will reduce technical support requirements, but it does not eliminate them completely. HUD will need to find the necessary technical resources for the HIFMIP Project Team. Like acquiring functional expertise, HUD is most likely to be successful in obtaining technical support by reassigning knowledgeable systems and technical experts from existing staff and hiring in or promoting more junior staff members to take their place in operating and maintaining established systems. Additional technical support might come from existing contracts, where applicable. One of the actions identified under short term actions earlier in this chapter described the need for HUD to modify existing contracts to support ICFS implementation. These contracts might also be used in some cases to acquire additional technical expertise.

6.2.3 Management Functions

HUD already has designated a HIFMIP Project Manager and GTR/GTMs for existing HIFMIP contracts. Project management functions will change significantly during HIFMIP Phase II. The amount of management work required will increase due to the increase in the size of the project overall and the amount of coordination that will be required among HIFMIP Project Team members, ICFS contractors, other HUD offices, ICFS users, and HUD management. Strong oversight will be needed to ensure that project tasks stay on schedule, issues are resolved in a timely fashion, and required decisions are made by the appropriate individuals to keep the project on schedule. The assumptions documented in Chapter 8 provide more information about the critical nature of project management for a sizeable initiative like HIFMIP.

The project management functions that will be needed during Phase II include the following:

- Project Planning (development, maintenance, monitoring);
- Status Meetings and Status Reports;
- Communications Planning and Communications;
- Briefings;
- Issue Monitoring and Resolution;

- Budget Preparation, Justification, and Management;
- Contract Management;
- Risk Planning and Risk Management;
- Project Guidance and Direction;
- Establishing and Monitoring Project Priorities; and
- Coordinating the Work of Contractors and HUD Staff.

While many of the management tasks do not require particular knowledge of HUD, its business processes, or systems, it will help to have a project management team that has experience in managing systems implementations. HUD may be able to hire the needed additional resources in this area if sufficient staff resources are not already available.

6.3 Key Decisions

This section identifies key decisions that HUD will need to make with regard to HIFMIP Phase II. An initial list of key decisions was included in the *Preliminary Roadmap* delivered to HUD on July 5, 2005. During meetings to discuss the *Roadmap* (June 21 and August 2-3, 2005), these decision areas were reviewed in detail. At those meetings, preliminary decisions or approaches to reaching the decisions were made for each area. Decisions that have been made are listed in Table 6-3.

Table 6-3. Key Phase II Decisions Made

Decision Area	Description	Current Status (October 2005)
HUDCAPS Enhancements	What HUDCAPS custom enhancements will be included in ICFS?	Complete
Section 8 Housing Subsidies	How will Section 8 Housing Subsidies currently in HUDCAPS be handled?	Complete
Stage II-1 Implementation Approach	Will Stage II-1 implementation use a pilot, pilot simulation or full-scale implementation approach?	Complete
Pilot Selection	What area will be selected for pilot or pilot simulation, if included in Stage II-1 implementation approach?	Complete
Grant Processing	Will HUD use ASAP for grants processing as indicated in the <i>CFO Vision Document</i> ?	Complete
Procurement	Will ICFS initially interface to the existing procurement system or the new one being planned?	Complete
PeopleSoft Go/No Go	Will PeopleSoft meet HUD's business requirements?	Complete

Table 6-4 provides the current status for each open decision area, along with contingencies and dependencies for each area.

Table 6-4. Open Phase II Key Decisions

Decision Area	Description	Dependencies & Contingencies	Date Decision Needed	Next Steps
FY 2008 ICFS Interfaces	Which legacy systems will interface to ICFS in FY 2008, which will be integrated or replaced, and which will not be included at all?	LSDP	11/30/2005	Review and update to LSDP. Finalize interface listing for FY 2008.
Existing System Changes	What changes to systems interfacing with ICFS will be required?	LSDP	12/31/2005	Designate HIFMIP liaison(s) for affected systems. Conduct preliminary meetings with affected organizations and systems owners. Modify maintenance and support contracts as needed.
COE Selection	What COE will be selected to operate ICFS?	RFI/RFQ	3/31/2006	Complete planned procurement actions.
Systems Integrator Selection	What Systems Integrator will be selected to work with HUD on ICFS implementation?	RFI/RFQ	3/31/2006	Complete planned procurement actions.
PAS Disposition	What system(s) will support functions currently provided by PAS in Stage II-1?	Gap Analysis Update	6/30/2006	Include in PWP for SI as part of the Functional and Technical Analysis task area.
Conversion Strategy	What conversion strategy will be used, and what impact will the selected strategy have on data clean up?	Data Quality Review & Data Clean Up Plan	6/30/2006	Include in PWP for SI as part of Conversion Task Area.

All of the decision areas included in this section (open and closed) are described in more detail below to provide a record for future reference, should one be needed. The decision areas are described in the order listed in the preceding tables—first the closed decision areas listed in Table 6-3, followed by the open decision areas listed in Table 6-4.

6.3.1 HUDCAPS Enhancements

AMS's FFS software package includes a number of custom enhancements that were made when it was implemented at HUD. Initially only three enhancements to the FFS baseline were authorized; however, subsequent to its initial implementation, additional enhancements were added to address changing government requirements and HUD-specific needs. The federal

government-required changes should be included in all current OFFM-certified COTS and will not need to be carried over to ICFS.

One significant enhancement to FFS was made to handle Section 8 Housing Subsidies. See the next section (6.3.2) for specific discussion of this area.

The Define Stage Project Team recently conducted a review of HUD requirements against PeopleSoft capabilities. This analysis identified a number of HUD-specific requirements not able to be met by PeopleSoft, assuming PeopleSoft is the COTS package selected as the basis for ICFS. These areas identified in the gap analysis will need to be reviewed and addressed on a case-by-case basis.

Decisions on any issues identified in the gap analysis should be completed by June 30, 2006 so that desired enhancements, if any, can be completed for implementation. HUD is not planning to enhance or customize the COTS software at this time.

6.3.2 Section 8 Housing Subsidies

A custom enhancement to FFS was made for Section 8 Housing Subsidies. This is a major enhancement that falls into the programmatic area, rather than a core financial function. The HIFMIP Project and the new core financial system will support financial and budgetary functions and not programmatic functions.

Since the Section 8 Housing Subsidies enhancement will not be carried over to ICFS, the functions it serves will need to be migrated to another HUD system or systems. The migration will need to occur prior to Stage II-1 implementation of ICFS, and preferably sooner, to allow time for conversion and testing in the new system(s).

HUD has made the decision that these subsidies will be migrated from HUDCAPS; they will not be carried forward into ICFS. Letters were sent to OH, CPD and PIH on August 1, 2005 notifying them of this decision. These organizations were requested to provide by August 15, 2005 their plans for transitioning the program functions from HUDCAPS Section 8 module after FY 2007. The last possible date for the transition from HUDCAPS is September 30, 2007. The HIFMIP Project Manager will need to monitor progress in this area.

6.3.3 Stage II-1 Implementation Approach

The Stage II-1 implementation approach options were discussed in the *Preliminary Roadmap*. They included:

- Full-scale Stage II-1 implementation;
- Pilot; or
- Pilot Simulation.

HUD has decided not to conduct a pilot or pilot simulation for Stage II-1. Instead, a robust system test will be conducted prior to full-scale Stage II-1 implementation. This approach is discussed more fully in Chapter 7. The SI will confirm the implementation approach and may recommend modifications to ensure sufficient planning and testing prior to the final FY 2008 cutover to the new financial system.

6.3.4 Pilot Selection

Since HUD has decided not to use a pilot or pilot simulation as part of the overall Stage II-1 implementation strategy, this decision is no longer required.

6.3.5 Grant Processing

Currently, HUD handles grants management through a variety of in-house systems, most of which interface to LOCCS for grants payment processing. At some future point, HUD may consider a standard grants management system, though implementation of such a standard system is not on the critical path for ICFS implementation.

The original *CFO Vision Document* included a task within its description of HIFMIP Phase II for the Automated Standard Application for Payments (ASAP) Implementation. ASAP is a government-wide grants management application. HUD has evaluated the benefits and issues related to selecting and migrating grants disbursement functions to ASAP in FY 2003. No benefits were identified to support the recommended change; therefore, HUD plans do not include transitioning grant payments to ASAP. This task has been removed from HIFMIP Phase II in all updates to relevant documentation such as the *CFO Vision Document*.

6.3.6 Procurement

HUDCAPS currently interfaces with the existing procurement systems HPS and SPS. OCPO is planning to acquire and implement a new procurement system in the near future that will replace HPS and SPS. Since procurement and financial functions are closely intertwined, selection of compatible COTS packages will be important to facilitate integration of the financial and procurement functions.

However, HIFMIP is further along in the implementation life cycle than the procurement system. The timing of the procurement implementation is uncertain as of this writing. Because of the timing issues, HUD has decided to develop initial interfaces to the existing procurement systems for initial ICFS implementation, recognizing that later integration will be necessary when the new procurement system is implemented.

Since HUD has decided to interface ICFS with the existing procurement systems, the *Roadmap* includes a stage to address interface with the new procurement system in FY 2010. Additionally, coordination with OCPO will be required to ensure that their implementation date for procurement can be factored into the ICFS plan with a reasonable lead time for development and testing.

6.3.7 PeopleSoft Go/No Go

HUD's HIFMIP approach is based on the use of PeopleSoft Financial software as the basis for ICFS. This approach was recommended in the original *Independent Decision and Recommendation Paper* (IDRP) prepared for the HIFMIP Project Team by Initiate Stage Project Team and currently in the process of being updated by the Define Stage Project Team. As stated in the IDRP:

“The PeopleSoft alternative scores the highest across all the categories; its major advantage is reduced risk and the fact that this alternative builds on the investment and success already achieved by the FHA-SL project.

Therefore, the PeopleSoft Alternative is recommended at this stage in the SDM. This recommendation is based on HIFMIP findings and analyses conducted to date. These analyses do not conclude that PeopleSoft is the best COTS package for HUD. Definitive requirements must be developed and evaluated before a final selection can be made. Furthermore, PeopleSoft or another COTS package may not meet ICFS functionality in its entirety and bolt-on packages or other software solutions may be required to meet HUD's needs. However, JFMIP has certified that PeopleSoft, as well as other COTS packages, met a core set of financial requirements."¹³

HUD has recently completed a task to assess the fit of PeopleSoft with the requirements defined in the FRD. The final *COTS Evaluation Test Results Report* found PeopleSoft to be acceptable in terms of meeting HUD's requirements. Therefore, this decision is completed.

6.3.8 FY 2008 ICFS Interfaces

The LSDP analyzes existing systems, how they will be impacted by ICFS implementation and their impact upon ICFS implementation. Tentative decisions on which interfaces with ICFS will be developed and which legacy systems will be replaced or integrated were made during the August 2-3, 2005 working sessions and updated during a September 15, 2005 meeting. This information will be incorporated into the updated LSDP and the *Roadmap*.

Timely confirmation of the decisions about the disposition of legacy systems under HIFMIP will be necessary to ensure that the proper planning and development can occur prior to FY 2008 ICFS implementation. Review of the LSDP and decisions on the systems and interfaces included in Stage II-1 will be needed by November 30, 2005 to allow for incorporation into the PWP and to provide input to the SI/COE procurement actions scheduled to occur in the fall of 2005. Additionally, early decisions on interfaces will be critical to maintaining the overall HIFMIP schedule.

6.3.9 Existing System Changes

Sufficient notice and detail should be provided to existing system owners to allow for scheduling and implementation of any required changes so that they will be available when needed by ICFS. A specific impact has already been identified – the need to move the Section 8 Housing Subsidies functions from HUDCAPS. (See Section 6.3.2.)

The draft LSDP (August 22, 2005) analyzed existing systems, how they will be impacted by ICFS implementation and their impact upon ICFS implementation. Any changes required to legacy systems that will interface with ICFS or otherwise be impacted through HIFMIP are identified in the LSDP; however, further analysis by individual system owners may be needed to determine detailed specifications for change.

There are at least 71 interfaces impacted by HIFMIP, with a large number these interfaces affected for the FY 2008 ICFS implementation. Table 6-5 identifies known interface changes by fiscal year.

¹³*Independent Decision and Recommendation Paper*, May 18, 2004, Section 2.3.2, pp. 2-9 – 2-10.

Table 6-5. Interfaces Affected by HIFMIP by Fiscal Year

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
2008	D67A	FIRMS	Facilities Integrated Resources Management System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with Interface to ICFS
	A35	HPS	HUD Procurement System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with Interface to ICFS (real-time)
	P162	HIHRTS	HUD Integrated Human Resources and Training System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with Interface to ICFS
	P162	HIHRTS	HUD Integrated Human Resources and Training System	A75I	PSCRS	Personal Services Cost Reporting Subsystem	Eliminate – not needed with new payroll interface to ICFS
	P035	SPS	Small Purchase System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with Interface to ICFS (real-time)
	A75R	FDM	Financial Data Mart	A39	Hyperion	HUD's Consolidated Financial Statement System	Replace with Interface from ICFS to Hyperion
	A67	LOCCS	Line of Credit Control System	A96	PAS	Program Accounting System	Replace with interface to ICFS
	A75	HUDCAPS	HUD Central Accounting & Program System	A35	HPS	HUD Procurement System	Replace with interface from ICFS to HPS (real-time)
	A75	HUDCAPS	HUD Central Accounting & Program System	A75R	FDM	Financial Data Mart	Replace with interface from ICFS
	A75	HUDCAPS	HUD Central Accounting & Program System	A96	PAS	Program Accounting System	Eliminate – PAS will be integrated with ICFS and/or LOCCS
	A75	HUDCAPS	HUD Central Accounting & Program System	P035	SPS	Small Purchase System	Replace with interface from ICFS to SPS (real-time)
	A75	HUDCAPS	HUD Central Accounting & Program System	External	Treasury	Treasury Disbursing System	Replace with interface from ICFS to Treasury
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	A67	LOCCS	Line of Credit Control System	Replace with interface from ICFS to LOCCS
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface from NFC to ICFS

Section 6.0 Short Term Actions and Key Decisions

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	A91	CCFF	Consolidated Cost & FTE Files	Replace with interface from ICFS to CCFF
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	D091	CAPS	OCFO WebFocus Corrective Action Plan Reports System	Replace with interface from ICFS to CAPS
	A96	PAS	Program Accounting System	A67	LOCCS	Line of Credit Control System	Eliminate – PAS will be integrated with ICFS and/or LOCCS
	A96	PAS	Program Accounting System	A75	HUDCAPS	HUD Central Accounting & Program System	Eliminate – PAS will be integrated with ICFS and/or LOCCS
	A96	PAS	Program Accounting System	A75R	FDM	Financial Data Mart	Eliminate – PAS will be integrated with ICFS and/or LOCCS
	A96	PAS	Program Accounting System	D65A	BOSS	Section 8 Budget Outlay Support System	Replace with interface from either ICFS or LOCCS
	A96	PAS	Program Accounting System	F24D	REMS	Real Estate Management System	Replace with interface from either ICFS or LOCCS
	A96	PAS	Program Accounting System	F87	TRACS	Tenant Rental Assistance Certification System	Replace with interface from either ICFS or LOCCS
	D21	DARTS	Departmental Accounts Receivable and Collections Tracking System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface with ICFS (manual)
	External	Bankcard	Chase Bank Bankcard System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS
	External	CCR	Central Contractor Registry	A75R	FDM	Financial Data Mart	Add interface from CCR to ICFS
	External	NFC	NFC Payroll System	A75I	PSCRS	Personnel Services Cost Reporting Subsystem	Replace with interface to ICFS
	External	SATO	Scheduled Airline Traffic Office System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS
	External	Treasury	Treasury Disbursing & Collections System(s)	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS
	F87	ARAMS/ TRACS	Automated Renewal and Amendment Management Subsystem/ Tenant Rental Assistance Certification System	A96	PAS	Program Accounting System	Replace with interface to either ICFS or LOCCS

Section 6.0 Short Term Actions and Key Decisions

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
	H18	IATS	Integrated Automated Travel System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface with ICFS (manual)
	P001	eTravel	FedTraveler.com	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS (real-time)
	P190	GFITS	Government Financial Information Tracking System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS
2009	A21	LAS	Loan Accounting System	A67	LOCCS	Line of Credit Control System	Revise existing interface to reflect changes to LAS and LOCCS functionality
	A21	LAS	Loan Accounting System	TBD	ICFS	Integrated Core Financial System	New interface from LAS to ICFS
	A67	LOCCS	Line of Credit Control System	A21	LAS	Loan Accounting System	Revise existing interface to reflect changes to LAS and LOCCS functionality
	A67	LOCCS	Line of Credit Control System	C04	IDIS	CPD Integrated Disbursement & Information System	Revise or replace with interface to Program System(s)
	A67	LOCCS	Line of Credit Control System	External	Treasury	Treasury Disbursing & Collections System(s)	Eliminate – disbursements will go through ICFS to Treasury
	A39	Hyperion	HUD's Consolidated Financial Statement System	External	Treasury GOALSII	Treasury Financial Reporting System - Government Online Accounting Link System	Replace with interface from ICFS
	Various	Program	Program Systems, e.g., IDIS, TRACS, Grantium	TBD	ICFS	Integrated Core Financial System	New interface(s) with ICFS for disbursements, financial information.
	A43	SFIS	Single Family Insurance System	A75R	FDM	Financial Data Mart	Replace interface to FDM with FHA ICFS to FDM interface
	A75R	FDM	Financial Data Mart	P013	FHA-SL	FHA Subsidiary Ledger	Eliminate – not needed when FHA integrates with ICFS
	A75R	FDM	Financial Data Mart	F87	TRACS	Tenant Rental Assistance Certification System	Revise or replace with interface to Program System(s).

Section 6.0 Short Term Actions and Key Decisions

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
	C04	IDIS	CPD Integrated Disbursement Information System	A67	LOCCS	Line of Credit Control System	Revise or replace with interface to Program System(s). Add new interface directly to ICFS for disbursements.
	External	Treasury	Treasury Disbursing and Collections System	A67	LOCCS	Line of Credit Control System	Eliminate – interface will be from Treasury to ICFS since payments and collections will go through ICFS.
	F87	TRACS	Tenant Rental Assistance Certification System	A67	LOCCS	Line of Credit Control System	Revise or replace interface. Disbursements will go through ICFS. Interface with Program System(s) may replace or change remaining portion of existing interface.
	P013	FHA-SL	FHA Subsidiary Ledger	A39	Hyperion	HUD's Consolidated Financial Statement System	Eliminate interface – FHA will integrate with ICFS @ COE
	B16	Ginnie Mae SL	Ginnie Mae Subsidiary Ledger (PeopleSoft)	A39	Hyperion	HUD's Consolidated Financial Statement System	Replace with interface to ICFS for financial statements
	OFHEO	FIMS	Financial Information & Management System	A39	Hyperion	HUD's Consolidated Financial Statement System	Replace with interface to ICFS for financial statements
2010	A35	HPS	HUD Procurement System	A75	HUDCAPS	HUD Central Accounting and Program System	Replace with real-time interface from the new procurement system to ICFS
	A35	HPS	HUD Procurement System	A75R	FDM	Financial Data Mart	Replace with real-time interface from the new procurement system to FDM or ICFS (CCR data)
	A75	HUDCAPS	HUD Central Accounting and Program System	A35	HPS	HUD Procurement System	Replace with real-time interface to the new procurement system
	A75	HUDCAPS	HUD Central Accounting and Program System	P035	SPS	Small Purchase System	Replace with real-time interface to the new procurement system
	A75R	FDM	Financial Data Mart	A35	HPS	HUD Procurement System	Replace with real-time interface to the new procurement system to FDM or ICFS (CCR data)

Section 6.0 Short Term Actions and Key Decisions

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
	A75R	FDM	Financial Data Mart	P035	SPS	Small Purchase System	Replace with real-time interface to the new procurement system to FDM or ICFS (CCR data)
	A75R	FDM	Financial Data Mart	D65A	BOSS	Section 8 Budget Outlay Support System	Eliminate – if BOSS and EZBudget functionality integrated with ICFS, ICFS can provide data
	P035	SPS	Small Purchase System	A75R	FDM	Financial Data Mart	Replace with real-time interface from the new procurement system to FDM or ICFS (CCR data)
	P035	SPS	Small Purchase System	A75	HUDCAPS	HUD Central Accounting and Program System	Replace with real-time interface from the new procurement system to ICFS
	D21	DARTS	Departmental Accounts Receivable and Collections Tracking System	A75	HUDCAPS	HUD Central Accounting and Program System	Eliminate – DARTS will be integrated with ICFS
	D21	DARTS	Departmental Accounts Receivable and Collections Tracking System	F24D	REMS	Real Estate Management System	Replace with interface from ICFS to REMS
	D61	EZB	EZBudget Budget Formulation System	External	OMB	OMB Budget System	Replace with interface from ICFS to OMB
	External	CCR	Central Contractor Registry	A75R	FDM	Financial Data Mart	Replace with new interface from CCR to Financial Data Warehouse or ICFS
	External	Lockbox	Mellon Bank Lockbox	D21	DARTS	Departmental Accounts Receivable and Collections Tracking System	Replace with interface from Lockbox to ICFS
	External	OMB	OMB Budget System	TBD	ICFS	Integrated Core Financial System	Replace manual input with automated interface from OMB to ICFS for budget data
	H18	IATS	Integrated Automated Travel System	TBD	ICFS	Integrated Core Financial System	Replace manual interface to ICFS with automated interface
	B16	Ginnie Mae SL	Ginnie Mae Subsidiary Ledger (PeopleSoft)	TBD	ICFS	Integrated Core Financial System	Eliminate – not needed when Ginnie Mae integrates with ICFS @ COE

Section 6.0 Short Term Actions and Key Decisions

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
2011	UNK	ICFS	Integrated Core Financial System	UNK	ICFS	Integrated Core Financial System	Upgrade to Oracle Fusion @ COE
2012	A21	LAS	Loan Accounting System	A75R	FDM	Financial Data Mart	Replace with interface to new Financial Data Warehouse
	P162	HIHRTS	HUD Integrated Human Resources and Training System	TBD	ICFS	Integrated Core Financial System	Enhance interface with ICFS
	A75R	FDM	Financial Data Mart	P113	PIC	PIH Information Center System	Replace with interface from new Financial Data Warehouse
	A75R	FDM	Financial Data Mart	D91A	REAP/TEAM	Resource Estimation Allocation Process/Total Estimation & Allocation Mechanism	Replace with interface from new Financial Data Warehouse
	TBD	ICFS	Integrated Core Financial System	A91	CCFF	Consolidated Cost & FTE Files	Eliminate - Integrate CCFF with ICFS or HIHRTS
	D091	CAPS	OCFO WebFocus Corrective Action Plan Reports System	TBD	ICFS	Integrated Core Financial System	Eliminate - Integrate CAPS with ICFS or HIHRTS
	OFHEO	FIMS	Financial Information & Management System	TBD	ICFS	Integrated Core Financial System	Eliminate – not needed when OFHEO Integrates with ICFS @ COE
	OCIO	TIBEC	Technology Investment Board Portfolio	A75R	FDM	Financial Data Mart	Replace with interface to new Financial Data Warehouse
2013	UNK	ICFS	Integrated Core Financial System	TBD	TBD		Implement/integrate customer relationship management system/ tools
	UNK	ICFS	Integrated Core Financial System	TBD	TBD		Implement/integrate decision support system/ tools
	UNK	ICFS	Integrated Core Financial System	TBD	TBD		Implement/integrate performance management system/ tools

As shown in Table 6-5, at least 32 interfaces are affected for FY 2008 when ICFS is implemented. A target date of December 31, 2005 has been identified for notification to affected offices and system owners of the potential for system and/or interface modification under HIFMIP. Details of the required changes will need to be provided once the SI is on board and can complete the detailed requirements analysis and design of the ICFS interfaces.

Close coordination between HIFMIP project management and other systems owners will also need to occur to ensure any identified changes are on schedule and available when needed. The HIFMIP Project Manager will need to serve as a liaison to various system owners affected by HIFMIP or designate one or more staff members to fill this function. The need to modify systems maintenance contracts for the affected systems was discussed earlier in this chapter and has been added to the project plan.

6.3.10 COE Selection

Selection of the COE is targeted for March 31, 2006. This is a key component of the HIFMIP implementation strategy and must be completed on schedule in order to meet the overall go-live dates already stated. A key factor in the COE decision will be finding a COE that has experience operating PeopleSoft. Additionally, HUD needs a COE that can support the transition to the Oracle/PeopleSoft Fusion platform in FY 2011. The COE should have large facilities and the ability to attract and retain skilled, qualified technical staff to support HUD.

HUD's ability to find an acceptable COE with good, relevant experience is key to the overall success of HIFMIP. If a COE cannot be found, the project schedule and approach will have to be revisited.

6.3.11 Conversion Strategy

At the working sessions on August 2-3, 2005, HUD decided that they would not address conversion strategy in detail until the SI was selected (April 2006) and could become involved in developing a conversion strategy and plan. Therefore, the decision on conversion strategy has been deferred.

6.3.12 Systems Integrator Selection

Like the selection of a COE, selection of a Systems Integrator is targeted for March 31, 2006. This is another key component of the HIFMIP implementation strategy and must be completed on schedule in order to meet the overall go-live dates. A key factor in the Systems Integrator decision will be finding an integrator that has experience with the selected COE and one that can support a PeopleSoft implementation.

Additionally, HUD needs a Systems Integrator that has the skills and ability to support transition to the Oracle/PeopleSoft Fusion platform in 2011. The Systems Integrator will also need to have the ability to attract and retain skilled and qualified staff to support HUD in its implementation efforts.

6.3.13 PAS Disposition

At the working sessions on August 2-3, 2005, HUD decided that the Program Accounting System (PAS) would be phased out during HIFMIP Stage II-1 and its functions would be incorporated into ICFS and/or LOCCS. HUD's desired goal is to incorporate PAS functions into

ICFS, and the *Roadmap* and *LSDP* have been prepared under the assumption that ICFS will incorporate PAS functions unless analysis by the SI shows that this cannot be done. The Gap Analysis Update task described in Chapter 7 will need to include a detailed review to determine whether or not PeopleSoft can support the existing PAS functionality such as tracking program balances from program inception, even if the program's life is ten or more years.

Depending on the results of this analysis, PAS functions could be incorporated into ICFS when ICFS is implemented for HUD OCFO-Managed Organizations, or PAS functions might be incorporated into LOCCS. It is also possible that PAS functions would be split between the two systems. Once the analysis is complete, additional information necessary for making a decision on how PAS will be retired should be gathered as soon as possible so that the appropriate planning steps can be taken in ICFS implementation planning and/or LOCCS maintenance and support. A target date for a decision on PAS disposition is set for June 30, 2006.

7.0 FUTURE HIFMIP ACTIVITIES

7.0 FUTURE HIFMIP ACTIVITIES

Chapter 7 outlines the detailed activities required for achieving the HIFMIP vision, beginning with HIFMIP Phase II. It includes a high level task plan for achieving the full IFMS described in Chapter 2 with more details provided for the initial ICFS implementation. The following sections are included in this chapter:

- Section 7.1 HIFMIP Timeline;
- Section 7.2 ICFS Implementation Activities for FY 2006 - 2007;
- Section 7.3 Key Milestones; and
- Section 7.4 Follow-on HIFMIP Phases.

7.1 HIFMIP Timeline

The HIFMIP timeline, included earlier in the Roadmap, is repeated in this chapter as an overview for the HIFMIP implementation activities discussed in the next section. Figure 7-1 illustrates the HIFMIP timeline.

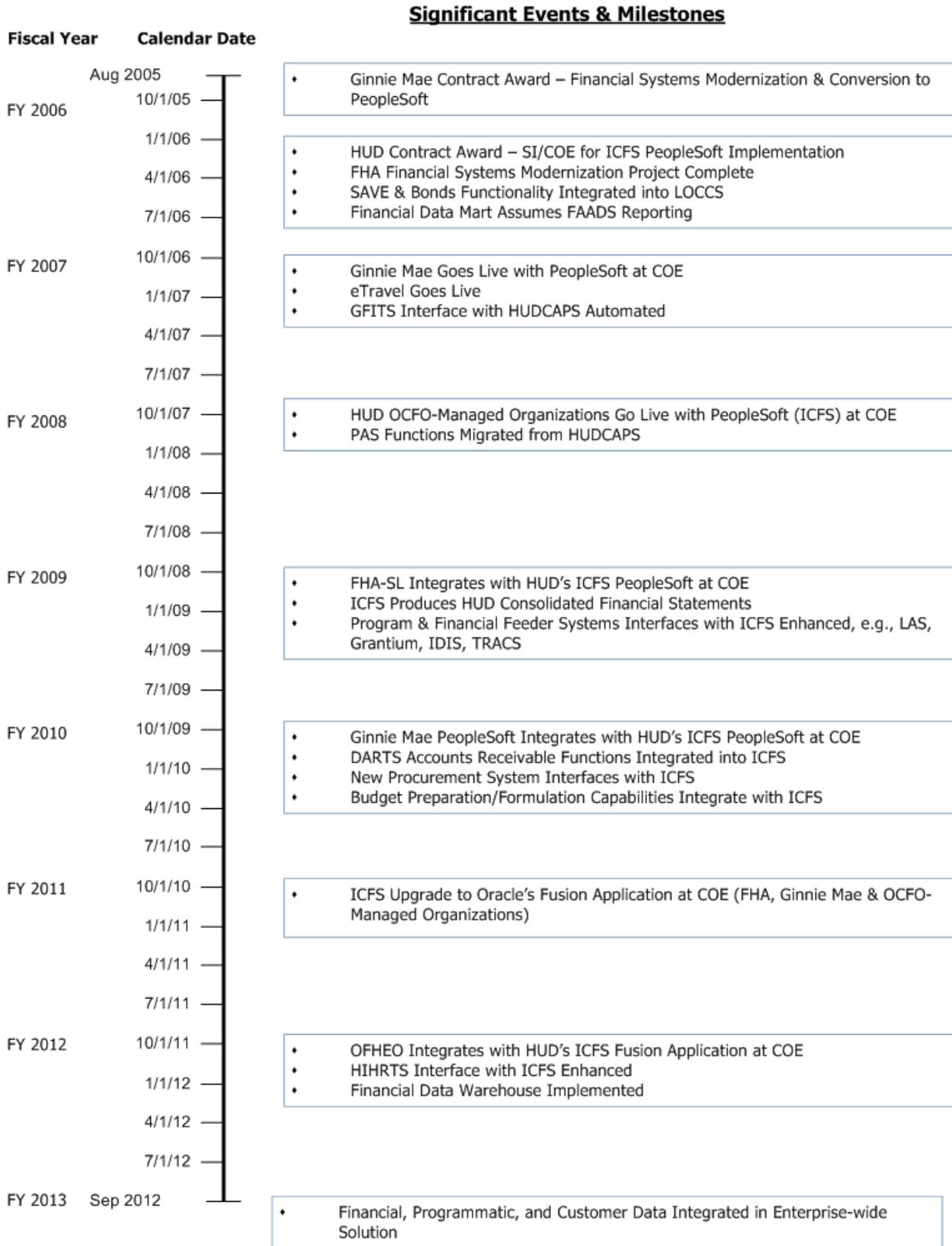


Figure 7-1. HIFMIP Timeline

7.2 ICFS Implementation Activities for FY 2006 - 2007

In the *Roadmap*, particular emphasis has been placed on the first stage of Phase II, implementation of ICFS for HUD OCFO-Managed Organizations. This approach to preparing the *Roadmap* was used for the following reasons:

- ICFS implementation for HUD OCFO-Managed Organizations is the first implementation in the overall HIFMIP vision; the remaining components of the vision depend upon the success of the initial implementation.
- The most information is known about ICFS as it will be implemented for the OCFO-Managed Organizations; FHA, Ginnie Mae, and OFHEO are all in the process of their own financial systems modernization efforts. The method of integrating each business area's core financial system with ICFS will have to be determined in conjunction with that business area at the appropriate time after ICFS has successfully gone live at the COE.

The initial ICFS implementation is likely to be the most difficult because it will be first, and because HUD will not have prior experience implementing the selected COTS for OCFO-Managed Organizations in the COE environment. There are a large number of other systems and interfaces that will be impacted by ICFS, and these systems changes and interfaces must be coordinated so that all the right pieces come together by October 1, 2007, HUD's planned go live date for ICFS.

This section describes the activities for FY 2006 and FY 2007 related to the initial ICFS implementation for OCFO-Managed Organizations. The detailed activities described in this section are included in the HIFMIP project plan in Appendix B. This plan was prepared using Microsoft Project 2003.

This section is sub-divided into two sections:

- Section 7.2.1 ICFS Implementation Approach and
- Section 7.2.2 Initial ICFS Implementation Activities.

7.2.1 ICFS Implementation Approach

There are a series of standard tasks that must be performed to implement any new software whether built in-house or acquired as a package. For ICFS, the goal is to acquire a COTS software package that can be used "out of the box" to support HUD's core financial management functions. However, interfaces to existing systems will need to be developed, as described in the LSDP. Thus, the tasks to be performed to support initial ICFS implementation will include a combination of SDM Design Phase and SDM Build Phase tasks for the interfaces (and any software package enhancements) and COTS implementation tasks, e.g., set-up and configuration, acceptance testing. These implementation tasks are described later in this chapter.

HUD's OCFO-Managed Organizations will be the first to implement ICFS. The HIFMIP project team decided to use a full-scale implementation approach. This means that all of HUD OCFO-Managed Organizations will go live in October 2007.

Pre-implementation activities will include a robust system test using HUD financial data prior to going live. The robust system test should encompass more than a month's worth of financial transactions. (HUD indicated that a year's worth of live data would be preferable.) The robust system test will be conducted with testing tools that can simulate data entry and posting of the

defined set of transactions to allow full testing of ICFS, including annual closing, prior to going live. The robust system test should include the following components:

- Online entry of transactions;
- Online, real-time interfaces;
- Batch loading of interfaces;
- Production of standard reports; and
- Annual closing.

The robust system test should address the question, “Does ICFS work?” and also the question, “Does ICFS work properly?” To answer the question of working properly, a comparison of results from the robust system test to actual results in HUDCAPS will be included as part of the testing process. Specific testing will be required by the SI/COE to test and establish processes prior to the October 1, 2007 go live date. HUD will need the system to be operational for the time periods specified in the SI/COE contract to support the FY 2008 go live date.

7.2.2 Initial ICFS Implementation Activities

Activities required to complete HIFMIP Phase I (scheduled to be completed on March 31, 2006) were described in the preceding chapter. A detailed discussion of the initial ICFS implementation (Stage II-1) activities planned for FY 2006 and 2007 follows. Detailed project plans and task descriptions for the activities that will occur after FY 2007 will need to be developed as more details become available following initial ICFS implementation.

The remainder of this section provides a description of the implementation activities planned for the FY 2006 and FY 2007 in conjunction with ICFS implementation. Figure 7-2 illustrates the roadmap for ICFS implementation for HUD OCFO-Managed Organizations. This roadmap graphic was created using Microsoft Visio.

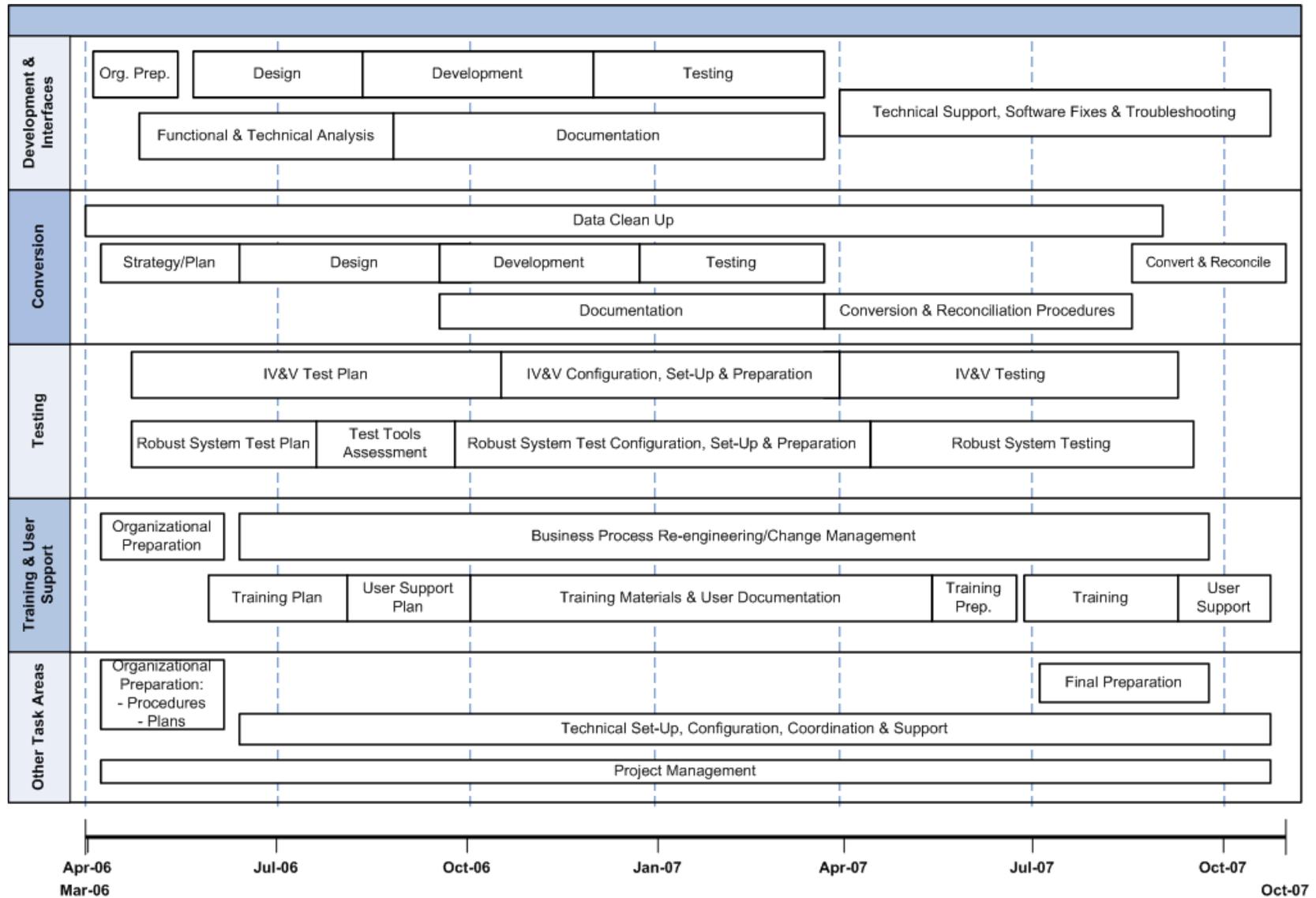


Figure 7-2. Roadmap for ICFS Implementation: OCFO-Managed Organizations

The project plan for the initial ICFS implementation is divided into the following major task areas:

- Organizational Preparation;
- Functional and Technical Analysis;
- Software Development:
 - Baseline Modifications;
 - Custom Enhancements; and
 - Interfaces;
- Conversion;
- User Preparation:
 - Training;
 - Documentation & Procedures; and
 - Support;
- IV&V Testing;
- Robust System Test;
- Final Preparation;
- Go Live and Support; and
- Project Management.

The major task areas for ICFS implementation are listed in Table 7-1 below.

Table 7-1. ICFS Implementation Major Tasks

Task Area	Implementation Tasks
Organizational Preparation	<ul style="list-style-type: none"> ▪ Legacy Systems Maintenance Contract Update Strategy & Plan ▪ Monitor Status of Legacy Systems Contract Updates & System/Interface Updates ▪ Legacy Systems Data Quality Review ▪ Data Clean Up Plan
Functional and Technical Analysis	<ul style="list-style-type: none"> ▪ Policy, Procedures, and Configuration Review ▪ Issue Analysis & Resolution ▪ Define Interface Standards ▪ Gap Analysis Update ▪ System Configuration & Set-up Plan
Software Development	<ul style="list-style-type: none"> ▪ Establish Systems Environments – Development & Testing ▪ Software Installation ▪ Interface Designs ▪ Modification Designs ▪ Interface Development & Testing ▪ System Modification Design & Testing ▪ Documentation

Task Area	Implementation Tasks
Conversion	<ul style="list-style-type: none"> ▪ Conversion Strategy & Plan ▪ Conversion Designs ▪ Conversion Development & Testing ▪ Documentation ▪ Conversion User & Reconciliation Procedures ▪ Data Clean Up
User Preparation	<ul style="list-style-type: none"> ▪ Training Plan ▪ User Support Plan ▪ Business process re-engineering ▪ Training Environment ▪ Training Set-Up & Configuration ▪ User Training ▪ User Documentation, Procedures, & Quick Reference Guides
IV&V Testing	<ul style="list-style-type: none"> ▪ IV&V Testing Environment ▪ IV&V Test Plan ▪ IV&V Test Cases & Test Scripts ▪ IV&V Testing ▪ IV&V Test Results
Robust System Test	<ul style="list-style-type: none"> ▪ Robust System Test Environment ▪ Robust System Test Plan ▪ Testing Tools Assessment ▪ Robust System Test ▪ Robust System Test Results Evaluation
Final Preparation	<ul style="list-style-type: none"> ▪ Execute Communications Plan ▪ Establish Production Environment ▪ Set-Up and Configure System ▪ Convert Data
Go Live and Support	<ul style="list-style-type: none"> ▪ User Support (Hotline, On-site, etc.) ▪ Production Support ▪ Normal Operations ▪ Troubleshooting
Project Management	<ul style="list-style-type: none"> ▪ Project Roadmap & Project Plan ▪ Communications Plan ▪ Change Management Plan ▪ Risk Analysis and Risk Mitigation Plan ▪ Project Reviews ▪ Risk Reviews ▪ Issue Tracking and Issue Management Plan ▪ Issue Management & Resolution ▪ Monitoring of Legacy Systems and Interfaces/HIFMIP Liaison ▪ Change Tracking Procedures

Task Area	Implementation Tasks
	<ul style="list-style-type: none"> ▪ Ongoing Communications (execute plan) ▪ Executive Reviews ▪ Contract Management ▪ Staffing Plan & Staff Management ▪ Budget Reviews & Management

The timeline for initial ICFS implementation is depicted in Figure 7-3. This timeline reflects the execution portion of each the major task area for ICFS implementation and indicates key internal milestones. Depicting only the execution portion of each task area illustrates the Stage II-1 critical path. Planning, preparation, and evaluation tasks are included in the project plan. For example, execution of the IV&V test is depicted in Figure 7-4 for the period from April through June 2007; however, tasks such as developing test plans and expected results, configuring software for testing, and follow-up after testing is completed are not shown though they are important parts of the overall IV&V task area. All tasks have been documented in the project plan.

HIFMIP Stage II-1 Timeline

ICFS Implementation for HUD OCFO-Managed Organizations

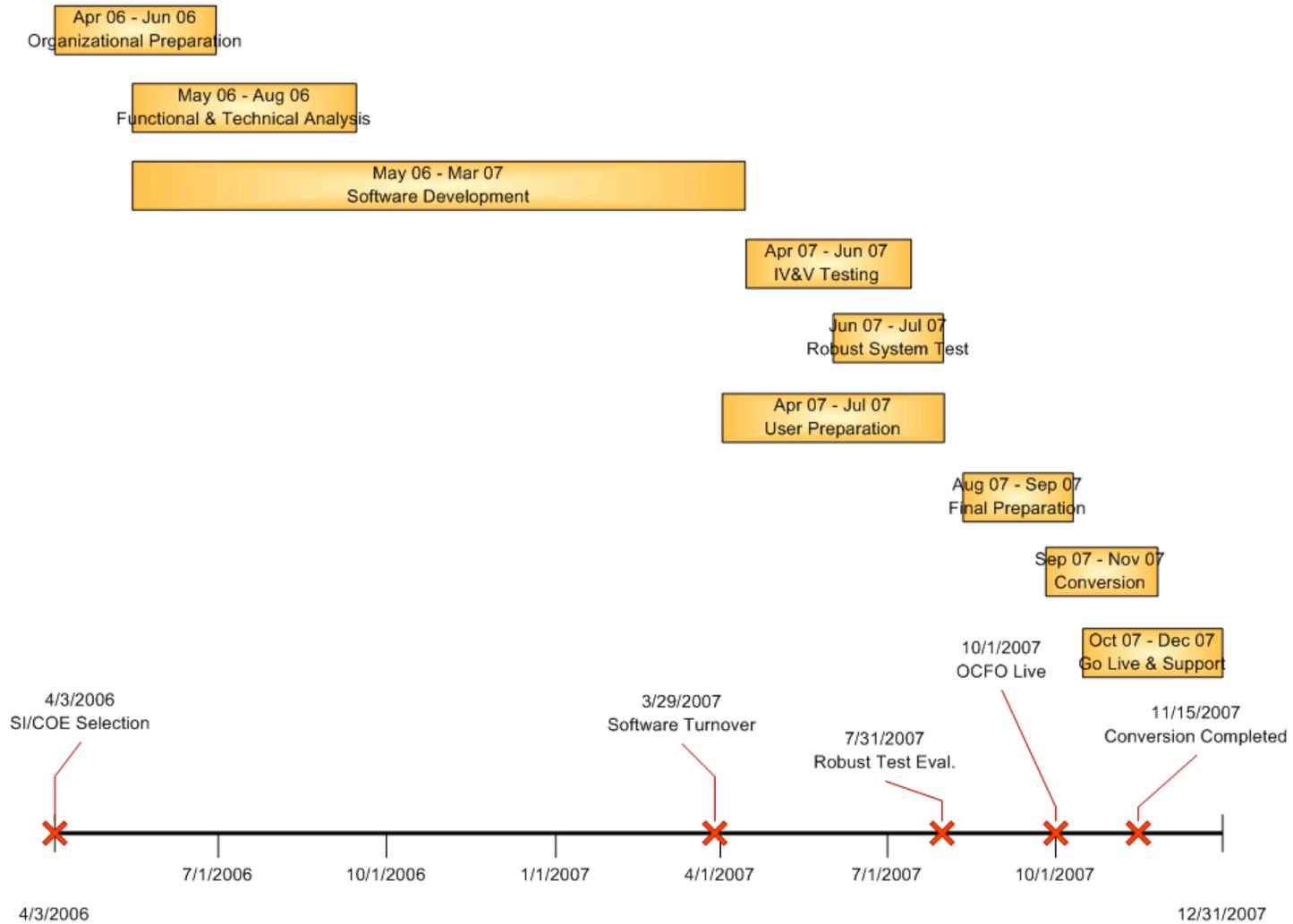


Figure 7-3. Initial ICFS Implementation Timeline: OCFO-Managed Organizations

The project plan periods and tasks are similar to the SDM Phases and tasks, but do not correlate one for one because ICFS is based on a COTS software package. The implementation tasks with packaged software differ from the traditional software development tasks outlined in HUD's SDM, particularly in the Design, Build, and Evaluate Phases.

Each of the major task areas in FY 2006 and 2007 related to the initial ICFS implementation is described briefly below.

7.2.2.1 Organizational Preparation

Prior to the implementation of ICFS, there are a number of preparation activities that must be executed. Specifically, the following tasks will need to occur prior to the implementation of the ICFS:

- Legacy Systems Maintenance Contract Update Strategy & Plan;
- Monitor Status of Legacy Systems Contract Updates & Systems/Interfaces Updates
- Legacy Systems Data Quality Review; and
- Data Clean Up Plan.

Each of these tasks is described below. These tasks can occur during the remaining timeframe for HIFMIP Phase I; however, they have been included in the discussion for FY 2006-2007 ICFS implementation in case they have not been completed or follow up work is required.

Legacy Systems Maintenance Contract Update Strategy & Plan, Legacy Systems Data Quality Review and Data Clean Up Plan

These tasks were described in Chapter 6 and are included here to ensure that they are addressed if they cannot be completed during the remaining months of HIFMIP Phase I.

Monitor Status of Legacy Systems Contract Updates and System/Interface Updates

Once the maintenance contract strategy and plan has been developed, the HIFMIP Project Manager or designee will need to monitor the plan to ensure that changes to the contracts are made in a timely fashion, and, once authorized, changes to the impacted systems remain on schedule to support the October 1, 2007 ICFS implementation.

7.2.2.2 Functional and Technical Analysis

The Functional and Technical Analysis task area is essentially the segment of the systems implementation life cycle where ICFS will be defined in detail. Since a COTS software package will form the foundation of ICFS, this period will serve as the transition period from the HIFMIP requirements into a specific software configuration and functionality. Major tasks included in the Functional and Technical Analysis period include the following:

- Policy, Procedures & Configuration Review;
- Issue Analysis and Resolution;
- Define Interface Standards;
- Gap Analysis Update and
- System Configuration & Set-up Plan.

These tasks are described briefly below. Additional tasks and updates to existing analyses may be identified by the Systems Integrator and added at a later time.

Policy, Procedures and Configuration Review

All financial policies, processes, procedures and financial configuration settings will need to be reviewed and updated as necessary. Particular emphasis should be given to financial procedures that should be standardized HUD-wide in preparation for an agency-wide implementation. Standard policies and procedures will simplify implementation efforts. For example, HUD has already standardized its budget structure, which will simplify configuration of ICFS and conversion of existing budgetary data, but additional components of the accounting classification code structure may need to be standardized across business areas.

It is not necessary for HUD to have a standardized accounting classification code structure prior to the implementation of ICFS; however, a standard structure will be required for each business area as the business area is integrated with ICFS in future fiscal years. Therefore, up front identification of any issues or differences will allow time to analyze options, determine the best approach for HUD as a whole, and implement changes, where necessary. PeopleSoft may also provide flexibility by business area for added data elements and reporting requirements unique to a business area. These business area information requirements will not need to be standardized as long as they do not conflict with the standard components required for integrated financial accounting and reporting.

Since FHA and Ginnie Mae are also using PeopleSoft for their core financial systems, this review might be facilitated by obtaining the configuration guides and reference data used in establishing their PeopleSoft configurations to use as a starting point for the HUD OCFO-Managed Organizations' PeopleSoft implementation. This would facilitate the identification of issues and differences and allow them to be addressed prior to the planned integration of these business areas in FY 2009 and 2010, respectively.

This task will also need to address standards for financial data, standard data dictionaries, and standard interface formats. Clearly defined standards will facilitate communications between systems and simplify the requirements for systems maintenance.

HUD-specific procedures already developed should be enforced. Workforce alignment should also be reviewed during this task. The new system will provide standardized reports consistent across all business areas. Therefore, the financial reporting review that was included in earlier versions of the *Roadmap* has been removed. Additional program specific reports will be developed as needed.

Issue Analysis and Resolution

Issues can be identified from a number of sources and tasks during systems implementation. This task will allow identified issues to be assigned, analyzed, documented and presented for management review and decision-making in accordance with the defined Issue Management and Issue Resolution Procedures. Specific issues to be addressed at this time are documented in Chapter 8.

Define Interface Standards

Since HUD has decided to use PeopleSoft for the basis of ICFS, it should be possible to define the interface standards (e.g., file formats, data requirements) for all systems providing information to ICFS. PeopleSoft likely has a standard output file format(s) that can be provided to other systems, as well. These standards should be identified early in FY 2006 once the SI is on board so that the standards can be incorporated into systems maintenance contracts for impacted systems. If not, the burden of developing crosswalks of incoming or outgoing data will fall on ICFS.

Gap Analysis Update

A detailed review of HUD's requirements and procedures against the PeopleSoft baseline software has recently been completed. The results of this analysis identified functional areas that may need enhancement, modification, or changes in procedures to satisfy HUD's requirements. This task will update the initial PeopleSoft gap analysis using HUD's specific configuration and technical environment at the COE. Any gaps between HUD requirements and software package capabilities will need to be addressed through software modification, procedural changes, or other means.

System Configuration and Set-Up Plan

ICFS must be configured with the system options appropriate for HUD prior to testing and implementation. The System Configuration and Set-Up Plan will map HUD requirements and policy decisions to specific settings and configuration within the selected COTS software package. Set-up will include such items as HUD's appropriation symbols and organization codes, along with the general ledger accounts and posting models.

7.2.2.3 Software Development

Software Development includes development, unit, and system testing of any modifications, enhancements, and interfaces required for ICFS implementation. The following tasks have been identified:

- Establish Systems Environments – Development & Testing;
- Software Installation;
- Interface Designs;
- Modification Designs;
- Interface Development & Testing;
- System Modification Design & Testing; and
- Documentation.

These tasks are described below. Design, development, and unit testing for all categories have been combined in one section since the type of work to be done in each category is similar.

Establish Systems Environment

Specific environments will need to be established for software development, unit testing, system testing, training, etc. This task will identify the number, types, and requirements for each environment to be established along with the timeframes required to satisfy the implementation schedule. This will be the responsibility of the COE.

Software Installation

Once environments have been established for ICFS, the baseline COTS software will need to be installed. If initial installation is handled by the COE, software may already be installed and ready for use at the COE.

Design, Development, and Testing

Design, development, unit and system testing will need to be done for all software to be developed, including software enhancements and modifications, if any, as well as identified interfaces.

Based on the results of the gap analysis, enhancements may be developed for HUD's implementation of the ICFS, though it is HUD's goal to use the COTS package 'out of the box.' All of these design and development tasks will be tailored for the methodology and approach of the selected software vendor and its development tools.

A number of interfaces to and from ICFS will need to be developed for Stage II-1 implementation. The LSDP identifies the full set of interfaces by fiscal year, along with the planned disposition of each existing system within the HIFMIP scope. The required interfaces for FY 2006, 2007, and 2008 are identified in Table 7-2 below. Each will require design, development, and testing.

Table 7-2. HIFMIP Interfaces Required for FY 2006 - 2008

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
2006	A51	FAADS	Federal Assistance Award Data System	External	Census FAADS	Census Federal Assistance Award Data System	Replace with FDM to Census FAADS interface
	A43	SFIS	Single Family Insurance	A51	FAADS	Federal Assistance Award Data System	Replace with SFIS to FDM interface
	A67	LOCCS	Line of Credit Control System	A51	FAADS	Federal Assistance Award Data System	Replace with LOCCS to FDM interface
	P013	FHA-SL	FHA Subsidiary Ledger	A51	FAADS	Federal Assistance Award Data System	Replace with FHA-SL to FDM interface
	A75	HUDCAPS	HUD Central Accounting & Program System	A75R	FDM	Financial Data Mart	Add HUDCAPS program data to FDM to support FAADS reporting
	A65A	SAVE	Section 235 Automated Validation & Editing	A67	LOCCS	Line of Credit Control System	Eliminate – SAVE becomes part of LOCCS
	A65A	SAVE	Section 235 Automated Validation & Editing	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with LOCCS to PAS to HUDCAPS interface
	D08	Bonds	Bond Payment	D08	LOCCS	Line of Credit Control System	Eliminate – Bonds becomes part of LOCCS
	D08	Bonds	Bond Payment	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with LOCCS to PAS to HUDCAPS interface
	D67A	FIRMS	Facilities Integrated Resources Management System	A75	HUDCAPS	HUD Central Accounting & Program System	Automate interface from FIRMS to HUDCAPS
	P001	HTMS	HUD Travel Management System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with FedTraveler.com real-time interface with HUDCAPS
2007	P190	GFITS	Government Financial Information Tracking System	A75	HUDCAPS	HUD Central Accounting & Program System	Automate interface to HUDCAPS
	B16	MASS	Macola Accounting System Software	A39	Hyperion	HUD's Consolidated Financial Statement System	Replace with Ginnie Mae PeopleSoft to Hyperion interface for financial statement data

Section 7.0 Future HIFMIP Activities

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
2008	D67A	FIRMS	Facilities Integrated Resources Management System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with Interface to ICFS
	A35	HPS	HUD Procurement System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with Interface to ICFS (real-time)
	P162	HIHRTS	HUD Integrated Human Resources and Training System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with Interface to ICFS
	P162	HIHRTS	HUD Integrated Human Resources and Training System	A75I	PSCRS	Personal Services Cost Reporting Subsystem	Eliminate – not needed with new payroll interface to ICFS
	P035	SPS	Small Purchase System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with Interface to ICFS (real-time)
	A75R	FDM	Financial Data Mart	A39	Hyperion	HUD's Consolidated Financial Statement System	Replace with Interface from ICFS to Hyperion
	A67	LOCCS	Line of Credit Control System	A96	PAS	Program Accounting System	Replace with interface to ICFS
	A75	HUDCAPS	HUD Central Accounting & Program System	A35	HPS	HUD Procurement System	Replace with interface from ICFS to HPS (real-time)
	A75	HUDCAPS	HUD Central Accounting & Program System	A75R	FDM	Financial Data Mart	Replace with interface from ICFS
	A75	HUDCAPS	HUD Central Accounting & Program System	A96	PAS	Program Accounting System	Eliminate – PAS will be integrated with ICFS and/or LOCCS
	A75	HUDCAPS	HUD Central Accounting & Program System	P035	SPS	Small Purchase System	Replace with interface from ICFS to SPS (real-time)
	A75	HUDCAPS	HUD Central Accounting & Program System	External	Treasury	Treasury Disbursing System	Replace with interface from ICFS to Treasury
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	A67	LOCCS	Line of Credit Control System	Replace with interface from ICFS to LOCCS
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface from NFC to ICFS
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	A91	CCFF	Consolidated Cost & FTE Files	Replace with interface from ICFS to CCFF

Section 7.0 Future HIFMIP Activities

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
	A75I	PSCRS	Personal Services Cost Reporting Subsystem	D091	CAPS	OCFO WebFocus Corrective Action Plan Reports System	Replace with interface from ICFS to CAPS
	A96	PAS	Program Accounting System	A67	LOCCS	Line of Credit Control System	Eliminate – PAS will be integrated with ICFS and/or LOCCS
	A96	PAS	Program Accounting System	A75	HUDCAPS	HUD Central Accounting & Program System	Eliminate – PAS will be integrated with ICFS and/or LOCCS
	A96	PAS	Program Accounting System	A75R	FDM	Financial Data Mart	Eliminate – PAS will be integrated with ICFS and/or LOCCS
	A96	PAS	Program Accounting System	D65A	BOSS	Section 8 Budget Outlay Support System	Replace with interface from either ICFS or LOCCS
	A96	PAS	Program Accounting System	F24D	REMS	Real Estate Management System	Replace with interface from either ICFS or LOCCS
	A96	PAS	Program Accounting System	F87	TRACS	Tenant Rental Assistance Certification System	Replace with interface from either ICFS or LOCCS
	D21	DARTS	Departmental Accounts Receivable and Collections Tracking System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface with ICFS (manual)
	External	Bankcard	Chase Bank Bankcard System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS
	External	CCR	Central Contractor Registry	A75R	FDM	Financial Data Mart	Add interface from CCR to ICFS
	External	NFC	NFC Payroll System	A75I	PSCRS	Personnel Services Cost Reporting Subsystem	Replace with interface to ICFS
	External	SATO	Scheduled Airline Traffic Office System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS
	External	Treasury	Treasury Disbursing & Collections System(s)	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS
	F87	ARAMS/ TRACS	Automated Renewal and Amendment Management Subsystem/ Tenant Rental Assistance Certification System	A96	PAS	Program Accounting System	Replace with interface to either ICFS or LOCCS
	H18	IATS	Integrated Automated Travel System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface with ICFS (manual)

Section 7.0 Future HIFMIP Activities

Fiscal Year	From System ID	From System Short Name	From System Title	To System ID	To System Short Name	To System Title	Notes & Comments
	P001	eTravel	FedTraveler.com	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS (real-time)
	P190	GFITS	Government Financial Information Tracking System	A75	HUDCAPS	HUD Central Accounting & Program System	Replace with interface to ICFS

Documentation

Documentation of any system enhancements will need to be developed. In addition, interface documentation will be necessary to assist users with ICFS operations. The nature of the documentation will depend upon whether the enhancements will be incorporated into the software vendor's baseline (in which case, baseline user documentation should be updated), or whether the enhancements are customized for HUD (in which case, supplemental documentation may need to be prepared). Interface documentation will be necessary for both user and operations personnel.

7.2.2.4 *IV&V Testing*

Independent Verification and Validation (IV&V) or system acceptance testing will be conducted by a test team that will consist of designated contractors and system stakeholders as designated by the HIFMIP team. The test team will prepare a test plan and will document any errors. Regression testing by the test team will be conducted to ensure corrections have been retested and resolved. The following tasks have been identified:

- IV&V Testing Environment;
- IV&V Test Plan;
- IV&V Test Cases & Test Scripts;
- IV&V Testing; and
- IV&V Test Results.

IV&V Testing Environment

IV&V testing should be conducted in its own independent environment. This task establishes an IV&V testing environment, and should be handled by the COE.

IV&V Test Plan

IV&V testers will need a plan to document what is to be tested, what methods will be used to test ICFS and its interfaces, how results will be communicated, and how re-testing and verification will be done. A test plan will be prepared at the start of the IV&V work, followed by test cases and expected results for each area to be tested. The IV&V test plan should also address conversion software and conversion testing.

IV&V Test Cases & Test Scripts

Once the test plan is developed, test cases and test scripts will need to be developed in accordance with the approved test plan. These test cases and test scripts should also be reviewed and approved prior to execution of the IV&V test.

IV&V Testing

IV&V testers will need to configure a version of ICFS that mirrors the planned production environment so that testing can simulate HUD's expected production environment as closely as possible. This task – execution of the test scripts - reflects the bulk of the IV&V work, which is

to conduct tests of the software and interfaces and compare actual results with those expected. Testing will be ongoing throughout the development cycle.

IV&V Test Results

Results of IV&V testing will be documented and communicated to the COE/SI and HIFMIP project management. Issues that are found in testing will need to be addressed and corrected. Testing issues and resolution of the software and other issues identified as a part of the IV&V process should be part of the overall issue management described in Chapter 6.

7.2.2.5 Robust System Testing

Earlier in this chapter the robust system test HUD plans to conduct as part of the implementation strategy for ICFS was described. This task area is the execution of the robust system test prior to the initial ICFS go live date. The following tasks have been identified:

- Robust System Test Environment;
- Robust System Test Plan;
- Testing Tools Assessment;
- Robust System Test; and
- Robust System Test Results Evaluation.

Robust System Testing Environment

Robust system testing should be conducted in its own independent environment. This task establishes the robust system testing environment, and should be handled by the COE.

Robust System Test Plan

The team conducting the robust system test will need a plan to document what is to be tested, what methods will be used to test ICFS and its interfaces, how results will be communicated, and how re-testing and verification will be done. A test plan and approach will be prepared at the start of the robust system test, followed by the development of test cases and expected results for each area to be tested. Since the robust system test should use production data from HUDCAPS and other subsidiary financial systems, expected results should be identified from existing system balances, postings, and transaction journals.

Testing Tools Assessment

To conduct a robust system test of the scope and magnitude desired by HUD, automated testing tools may be required. The robust test team will need to identify the most appropriate tools to simulate entry of the test data, including input data from HUDCAPS and other subsidiary financial systems

Robust System Testing

Robust system testers will need to configure a version of ICFS that mirrors the planned production environment so that testing can simulate HUD's expected production environment as much as closely as possible. This task – execution of the robust system test - represents the bulk

of the work, which is to conduct tests of the software and interfaces and compare actual results with those expected. The specific timing of the test will need to be determined once the scope of the testing and the status of the ICFS software and interfaces is known.

Robust System Test Results

Results of the robust system test will be documented and compared to expected results. The comparison will be facilitated through the use of the automated tools, where possible. Test results will need to be communicated to the COE/SI and HIFMIP project management. Issues that are found in testing will need to be addressed and corrected. Testing issues and resolution of the software and other issues identified as a part of the robust system test should be part of the overall issue management described in Chapter 6.

7.2.2.6 Conversion

Conversion is a critical part of any new systems implementation. Both financial and reference data conversion should be considered in this task area. The following conversion tasks have been identified:

- Conversion Strategy and Plan;
- Conversion Designs;
- Conversion Development & Testing;
- Documentation;
- Conversion User and Reconciliation Procedures; and
- Data Clean Up.

Conversion Strategy and Plan

HUD will need to develop a plan for converting legacy financial data to the new ICFS, as well as reference data such as object codes and vendor codes. The conversion strategy should address areas such as what financial data will be converted and at what level (e.g., open balances, open transactions, all transactions); what reference data will be converted; and any timing and procedural considerations such as pre-paying outstanding vendor invoices prior to conversion so that payments will not need to be converted.

The conversion strategy and plan should include an independent methodology for building an electronic version of the expected results and the tools to be used to electronically match expected to actual results. This will allow high volume and all nuances of the data to be tested and verified rapidly.

A data quality review may be conducted in Phase I or as a prelude to this task. Results of this data quality review will guide data clean up efforts and legacy system disposition planning.

Conversion Design, Development, and Testing

Design, development, unit and system testing will need to be done for all conversion software to be developed. The conversion design and development approach will be tailored for the methodology and approach of the selected software vendor and its development and conversion tools.

Documentation

Documentation for the conversion software will need to be developed for both user and operations personnel.

Conversion User and Reconciliation Procedures

For financial systems implementations, user procedures for converting and reconciling financial data are necessary. User documentation may not be sufficient to identify what balances or control totals should be verified. Detailed data mappings and reconciliation reports will need to be provided as part of the conversion process. The conversion and reconciliation procedures should explain how the data is mapped from the old system to ICFS, and how to use the reconciliation reports.

In addition, procedures with sign-offs will provide back-up for system audit. These procedures should be developed in conjunction with the conversion task area and used in the robust system test to validate their accuracy.

Data Clean Up

All data to be entered into the new ICFS must be verified prior to being converted. Since OCFO currently uses a COTS software package, the data is likely to be relatively clean; however, old funds or allotments, open obligations, and unreconciled or rejected transactions should be reviewed and cleared prior to conversion. The cleaner the financial data prior to conversion, the easier and more successful the data conversion will be.

Additionally, if table data will be converted, such as program codes, object codes, vendor codes, and other accounting strip values, a review of these tables should be undertaken to remove values no longer in use. This will avoid bringing over invalid or inactive codes and perpetuating problems in ICFS.

7.2.2.7 *User Preparation*

The User Preparation task area includes the tasks necessary to make sure users are adequately prepared to use ICFS. This task area includes training, procedures, and support as outlined in the following tasks:

- Training Plan;
- User Support Plan;
- Business process re-engineering;
- Training Environment;
- Training Set-Up and Configuration;
- User Training; and
- User Documentation, Procedures, and Quick Reference Guides.

Each task is described briefly below.

Training Plan

HUD needs to develop a training strategy and plan. The Training Plan will document the approach to user training, identify which users will be trained, and what type of training each user or category of user will need.

User Support Plan

HUD needs to develop a user support plan to determine a strategy for providing user support, and to determine what type of support each category of user will need. The User Support Plan will address how user support will be provided, e.g., hotline, onsite, quick reference guides and cheat sheets. It could also tailor user support by user category or office, should that be necessary. The User Support Plan should provide for web-enabled information sources where applicable and should be made available to HIFMIP stakeholders.

Business Process Re-engineering

This task follows from the review of policies and procedures that occurred during the Organizational Preparation period and the Gap Analysis performed during the Functional and Technical Analysis period. Changes to policies and procedures that can be communicated and implemented prior to ICFS implementation should be addressed during this task. Additional changes that must wait for the new system can be defined and scheduled during this task. These changes should be reflected in the user procedures that will be developed for ICFS.

Training Environment, Configuration and Set-Up

A specific environment will need to be established for training. This task will be the responsibility of the COE. ICFS will need to be configured with the system options appropriate for HUD. Reference data and training transactions will also need to be created in the training database as a part of this task.

User Training

This task is a key component of the overall user preparation task area. In this task, users will be trained using the training methods and materials developed in earlier user preparation tasks.

User Documentation

Documentation will be developed to assist users with ICFS. This documentation will include Users Manuals, Quick Reference Guides, Operational Documentation, and Procedures Documents as defined in the User Support Plan.

7.2.2.8 Final Preparation

Current systems will continue to operate until the new ICFS has been thoroughly tested, data conversion has been completed, staff has been trained, and contingency plans have been prepared. The following major tasks will occur in preparation for live ICFS operations:

- Execute Communications Plan;
- Establish Production Environment;
- Set-Up and Configure System;
- Develop Contingency Plan; and
- Convert Data.

Each of these tasks is discussed below.

Execute Communications Plan

Communications should occur throughout the implementation life cycle in accordance with the Communications Plan. During the final preparation period, however, the number and frequency of communications with users and others will increase. Communications with users are particularly important during this period to ensure that the users are aware of scheduled training, policy and procedural changes, support available, and other important project-related information.

Establish Production Environment

A specific environment will need to be established for production operations in accordance with the plan developed in the previous period for systems environments. This task will be the responsibility of the COE.

Set-Up and Configure System

ICFS must be configured with the system options appropriate for HUD prior to live operations implementation. This set-up should be done in accordance with the Configuration Set-Up Plan that was prepared as part of the Functional and Technical Analysis task area.

Develop Contingency Plan

With good planning and preparation, ICFS implementation should be able to proceed on schedule. However, HUD should develop a contingency plan in case everything is not ready on schedule. The contingency plan will provide a backup method of operations for HUD OCFO-Managed Organizations for FY 2008 if ICFS is not ready to go live. The plan should cover both short delays (e.g., an extra two weeks is needed for preparation) and longer term issues (e.g., software is not working properly, interfaces not developed).

During the final preparations, HUD should assess software and user readiness status and make a go/no go decision. If the decision is “no go,” the contingency plan will be activated.

Convert Data

During this task, data will be converted from the legacy systems to ICFS. A detailed, rigorous review of the converted data will need to be performed to ensure the data was converted appropriately.

7.2.2.9 *Go Live and Support*

Once testing, conversion, and training are complete, the cutover to the new ICFS will occur. This cutover may include a pilot implementation or pilot simulation, followed by full OCFO implementation. The Go Live and Support Period includes various activities including the following:

- User Support;
- Production Support;
- Normal Operations; and

- Troubleshooting.

User Support

During the initial period after ICFS goes live, it is likely that significant user support will be required while users gain familiarity with the new system. The User Support Plan will have defined the methods of providing this support. This task reflects execution of the support defined in that plan.

Production Support

Like new system users, system operations staff may need more extensive support at first. Since ICFS will be operated by a COE, COE staff will already be familiar with operation of the COTS package, but may need support in running and supporting conversion software and interfaces.

Normal Operations

This task represents the basic operation of ICFS once it is put into production. Normal operations should be the responsibility of the COE.

Troubleshooting

Troubleshooting and problem solving are always a component of normal system operations; however, this task is specified separately for the initial ICFS go live period because it is likely that more problems will be encountered in the initial weeks after the system begins live operations than under normal circumstances. It will be important to plan for on-site and on call support to ensure problems are dealt with rapidly and effectively from both a user and systems operations perspective. This will help to ensure a smooth cutover and gain more rapid user acceptance.

7.2.210 Project Management

Project management is an essential part of any systems implementation effort and runs throughout the entire systems development life cycle. The following tasks are included as part of overall project management:

- Project Plan Maintenance;
- Communications Plan;
- Change Management Strategy and Plan;
- Risk Analysis and Risk Mitigation Plan;
- Change Tracking Procedures;
- Project Reviews;
- Risk Reviews;
- Issues Tracking & Issues Management
- Issue Reviews & Resolutions;
- Ongoing Communications (execute plan);
- Executive Reviews;

- Contract Management;
- Staffing Plan and Staff Management; and
- Budget Reviews & Management.

The Project Plan has been discussed earlier in this *Roadmap*. The other planning and procedures development tasks listed above are described briefly below.

Communications Plan

HUD needs to develop a communications plan. The Communications Plan will specify the methods used to communicate with users about relevant ICFS information such as training schedules, policy changes, and overall project status. The Communications Plan should identify categories of individuals within HUD and external to the agency that should be provided with HIFMIP information, the nature of the information required, and the frequency of communications.

Change Management Strategy and Plan

HUD will need to develop a strategy for managing change since there will be a number of changes that will occur throughout the HIFMIP life cycle. Once a strategy has been developed, a comprehensive Change Management Plan will need to be developed and implemented to follow through on the strategy. Attention to change management will ensure that users, customers, and organizations are effectively transitioned to the new ICFS.

Risk Analysis and Risk Management Plan

An initial analysis of risks and a risk management plan were developed by the Initiate Stage Project Team. These documents are in the process of being updated during the SDM Define Phase and should be completed by early September 2005. Roadmap-specific risks are described in Chapter 6.

Change Tracking Procedures

Change tracking procedures are important for controlling scope and staying on schedule and within budget. Changes can include design changes, software changes, or larger scope changes such as which interfaces are to be included in Stage II-1. HUD will need to develop or update its change management process for ICFS implementation. This will include a method for prioritizing and tracking changes, approving their inclusion in the project plan, and providing funding and tasking to ensure that they are addressed once approved.

Issue Tracking and Issue Management Plan

The need for issue tracking procedures and a method for managing identified issues was discussed in Chapter 6. HUD will need to develop or update its issue tracking procedures for ICFS implementation. This will involve a method for identifying, tracking, and categorizing issues. Of particular relevance for project management, a process for escalating and resolving issues must be in place to ensure that ICFS stays on schedule. Guidelines for the development of issue management procedures were documented in Chapter 6.

It is likely that the SI will have its own issues management methodology that can be reviewed and substituted or added to HUD's existing issues management tools and methodology. Regardless of issue tracking tools and procedures, HUD will need to address the procedures for resolving identified issues in a timely fashion.

Staffing Review & Staffing Plan

HIFMIP in its entirety is a large undertaking, involving most HUD business areas and significant numbers of personnel. To date, most of the work has focused on strategic planning, requirements definition, and COTS, COE, and Systems Integrator selection. These tasks, while extremely important to the overall success of HIFMIP, have involved a limited number of HUD personnel to provide direction, oversight, and contract management. Once implementation efforts begin, additional staff with the right mix of management, functional, and technical skills, experience, and HUD expertise will be needed to ensure successful implementation.

The Staffing Review and Staffing Plan will identify roles and responsibilities necessary to ensure the successful execution of the HIFMIP vision. The review should include the following components:

- Numbers and types of HUD staff required;
- Staff skills required;
- Roles and responsibilities of HUD staff involved in HIFMIP efforts;
- Suggested staff alignment/realignment; and
- Revisions to the HIFMIP IPT organization and structure.

Guidelines for determining roles for HUD staff, skills required, and resource levels were provided in Section 6.2, "Organizational Activities." HUD will need to use this information to assess current staff roles and the need for additional resources.

7.3 Key Milestones

In its HIFMIP Plan (submitted to OMB in January 2005 (*HIFMIP Plan Align with FM LoB 03.03.2005.R*)), HUD identified several key milestones and dates associated with the HIFMIP project in general and ICFS implementation, specifically. These external milestones are listed in Table 7-3 below. Completed activities are shaded in the table.

Table 7-3. HIFMIP External Milestones and Delivery Dates

ID	Acquisition Activity	Activity	Status	Start	Finish	Duration
FY 2003/FY 2004						
1.0	Competition	Procurement-Vision/Planning Support	Completed	1/1/2003	6/30/2003	6 months
1.1		Planning & Visioning	Completed	7/1/2003	12/31/2003	6 months
3.0		SDM Initiate Phase	Completed	1/1/2004	6/30/2004	6 months
3.1	Competition	Procurement-System Define	Completed	4/1/2004	9/30/2004	6 months
FY 2005						
5.0		High Level Requirements Definition	Completed	10/1/2004	4/30/2005	7 months
7.0		Detail Definition Requirements	Completed	10/1/2004	7/31/2005	10 months
9.0		Evaluate/Select COTS System	Scheduled/Option	1/1/2005	9/30/2005	9 months
9.1	Commercial Acquisition	Procurement-COTS System ¹⁴	In Process	5/1/2005	10/31/2005	6 months
11.0	Competition	Procurement-System Integrator/COE		7/1/2005	3/31/2006	9 months
FY 2006						
11.1		Select System/Integrator/COE		10/1/2005	3/31/2006	6 months
13.0		System Transition/Migration Activity	Scheduled/Option	10/1/2005	9/30/2006	12 months
15.0	Task Order (OCFO IV&V IDIQ contract)	Procurement-IV&V Support		4/1/2006	9/30/2006	6 months
15.1		Select IV&V Services		4/1/2006	9/30/2006	6 months
17.0		System Design & Configuration		4/1/2006	9/30/2006	6 months
FY 2007						
19.0		System Testing & Evaluation		10/1/2006	3/31/2007	6 months
21.0		Pilot & Implement System ¹⁵		4/1/2007	9/30/2007	6 months
23.0		Integration with Subsidiary		10/1/2006	9/30/2007	12 months

¹⁴ Since making the decision to go with a COE, HUD may no longer need to procure the COTS software package.

¹⁵ HUD has decided not to use a pilot as part of the Stage II-1 implementation strategy; this task will reflect full-scale implementation of HUD OCFO-Managed Organizations.

Section 7.0 Future HIFMIP Activities

ID	Acquisition Activity	Activity	Status	Start	Finish	Duration
		Systems				
FY 2008						
25.0		FHA/Ginnie Mae/OFHEO Transition to System		10/1/2007	9/30/2008	12 months
27.0		Long-Term Business Improvements		10/1/2007	9/30/2009	24 months
FY 2009						
29.0		Close-Out Existing Systems		10/1/2008	9/30/2009	12 months

These dates have been revised based on the recent review of the HIFMIP Phases, stages, and implementation timeline as documented in Figure 7-2 (HIFMIP Timeline) to reflect the FY 2008 ICFS implementation date for the OCFO-Managed Organizations at the COE. Remaining HIFMIP activities have been adjusted accordingly.

The dates shown on the HIFMIP timeline in Figure 7-2 are considered key milestones. These dates are summarized in Table 7-4 by HIFMIP Phase and Stage.

Table 7-4. HIFMIP Phases and Stages by Fiscal Year

HIFMIP Phase	Stage	Stage Description	Target Implementation Timeframe
Phase I – Organizational Preparation	N/A	Planning and preparation for ICFS Implementation	FY 2006
Phase II – Implementation of Core Financials	II-1	Implement ICFS for HUD OCFO-Managed Organizations at COE	FY 2008
	II-2	FHA ICFS Integration at COE	FY 2009
	II-3	Ginnie Mae ICFS Integration at COE	FY 2010
	II-4	Upgrade to Fusion at COE	FY 2011
	II-5	OFHEO ICFS Integration at COE	FY 2012
Phase III - Operational Systems Enhancements	III-1	Subsidiary Financial Systems Enhancements and Interfaces (e.g., LAS, LOCCS, IATS)	FY 2006 – 2009
	III-2	Program Systems Enhancements and Interfaces (e.g., IDIS, TRACS, Grantium)	FY 2007 - 2011
	III-3	Budget Formulation/Budget Preparation System Integration	FY 2010
	III-4	New Procurement System Integration/ HPS, SPS Interface Replacement	FY 2010
	III-5	DARTS Integration into ICFS	FY 2010
Phase IV - Financial and Program Performance	IV-1	Financial Data Warehouse (FDM replacement)	FY 2012 - 2013
	IV-2	Customer Relationship Management System Implementation/ Integration	FY 2012 - 2013
	IV-3	Decision Support System Implementation/ Integration	FY 2012 - 2013
	IV-4	Enterprise Performance Management System Implementation/ Integration	FY 2012 - 2013

For the initial ICFS implementation, however, lower level milestones have been identified and are listed in Table 7-5. These milestones were included in Figure 7-4 on the Stage II-1 implementation timeline as well. Additional milestones are likely to be identified and developed as the PWP is developed. Dates and durations are preliminary and may be changed when the more detailed PWP is developed.

Table 7-5. ICFS Implementation for OCFO-Managed Organizations: Internal Milestones and Delivery Dates

FY	Activity	Status	Start	Finish	Duration
FY 2005					
	Go/No Go for PeopleSoft	Complete	3/1/2005	8/31/2005	7 months
	Select COTS System	Complete	9/1/2005	9/30/2005	1 month
FY 2006					
	Select System/Integrator/COE	In Process	10/1/2005	3/31/2006	6 months
	Initial COTS Configuration		5/1//2006	6/30/2006	2 months
FY 2007					
	Software Turnover (including software enhancements, interfaces, and conversion programs)		5/1/2006	3/31/2007	11 months
	Robust System Test		6/1/2007	7/31/2007	2 months
FY 2008					
	Data Conversion & Reconciliation		9/15/2007	11/15/2007	2 months
	HUD OCFO-Managed Organizations Fully Operational on ICFS		10/1/2007	9/30/2008	12 months

7.4 Follow-on HIFMIP Phases

The preceding sections focused on the activities necessary to implement ICFS for the OCFO-Managed Organizations. The other HIFMIP stages that follow initial ICFS implementation will require similar activities. This section describes the high level activities for each fiscal year specific to the remaining HIFMIP stages. These activities are also included in the HIFMIP project plan in Appendix B.

7.4.1 FY 2008

HIFMIP-related activities during FY 2008 will include preparation for FHA integration (to occur on October 1, 2008); consolidation of disbursing functions for OCFO-Managed Organizations; and production of consolidated financial statements directly from ICFS. In addition, ongoing support will be required for the newly implemented ICFS operations.

- **FHA Integration**—Integration of FHA into ICFS at the COE will require tasks and activities similar to those described in Section 7.2. Since FHA is currently operating PeopleSoft 8.8 with its own independent configuration, and the OCFO-Managed Organizations will likely go live with a newer version of PeopleSoft (e.g., version 8.9 or 9.0), FHA will need to upgrade in advance of the integration with ICFS or as part of the integration process. If the upgrade will occur prior to integration with ICFS, it should occur during FY 2007 concurrent with the initial ICFS implementation for the HUD OCFO-Managed Organizations.

The initial Organizational Preparation and Functional and Technical Analysis tasks will be important to detailed planning and scheduling for integration. Early assessment of differences between FHA's PeopleSoft and HUD's standard ICFS configuration will need to be done.

This assessment will need to review areas such as FHA configuration options and settings, reference codes, posting models and required financial transactions. In addition, any custom software enhancements or special procedures should be identified. The method of conversion and integration will need to be determined by the SI/COE based on the results of this analysis.

- **Disbursing Function Consolidation**—Consolidation of disbursing functions into ICFS may require configuration of PeopleSoft, but should not require software enhancements to the COTS package. However, several interfaces will need to be revised to provide the required payment voucher information directly to ICFS and provide the confirmation information back from ICFS to the systems initiating the payments, e.g., IDIS (C04). The interface with LOCCS (A67) will also need to be revised since LOCCS interfaces directly with Treasury to initiate disbursements in the current environment. The interface revisions will need to include the standard software development, testing, training and documentation tasks described previously in this chapter.
- **Financial Statement Preparation**—ICFS will contain the capability to produce the consolidated financial statements for submission to Treasury that are currently produced from Hyperion. During FY 2008, configuration of ICFS will be required to support production of the FY 2008 consolidated financial statements. In addition to configuring the software, interfaces from FHA, Ginnie Mae and OFHEO for the required general ledger balances and other information will need to be developed. Since FHA and Ginnie Mae will both be using PeopleSoft at this time, and OFHEO is using Oracle, it is likely that these extracts or interfaces will be straightforward to produce and load into ICFS; however, development and testing will need to occur prior to the end of FY 2008.

7.4.2 FY 2009

HIFMIP-related activities during FY 2009 will include preparation for Ginnie Mae integration (to occur on October 1, 2009); development of interfaces with the new procurement system; integration of budget formulation functions; integration of accounts receivable functions; and automation of the IATS (18) interface to ICFS. In addition, ongoing support will be required for ICFS operations.

- **Ginnie Mae Integration**—Integration of Ginnie Mae into ICFS at the COE will require tasks and activities similar to those described in Section 7.2. Since Ginnie Mae will be operating PeopleSoft at a COE by this time, the nature of the integration will depend upon which COE is supporting ICFS. If the COE selected for ICFS implementation is IBM/Corio (Ginnie Mae's selected COE) and Ginnie Mae is using the same version of PeopleSoft as ICFS, the integration may be a primarily technical operation at the COE.

If Ginnie Mae and ICFS are using different COEs, different versions of PeopleSoft and/or different system configuration options, analysis of the differences will be required prior to integration. This analysis would be similar to the analysis described in the preceding section for FHA integration. The remaining integration tasks and activities will be similar to those described in Section 7.2.

- **Procurement System Interface**—The schedule for interface/integration with HUD's new procurement system may vary depending on when the new procurement system is actually scheduled for implementation. Whenever implementation occurs, the level of effort to integrate ICFS and procurement will vary depending upon what procurement system is

selected. If an Oracle product is selected, it is likely that the integration points and interfaces with PeopleSoft Financials will already exist and will need to be configured and tested. If another procurement product is selected, more traditional software design and development tasks may be required.

- **Budget Formulation Integration**—The planned integration of budget formulation with ICFS will require an initial analysis of Oracle/PeopleSoft products available to support the required budget formulation functions and their ability to integrate with ICFS. If existing software modules or compatible products exist, this task will focus on acquisition, configuration and testing of the required capabilities. If no satisfactory PeopleSoft capabilities are identified, this task will look at automating the interface with the selected budget formulation system to submit budgets to OMB and to record the OMB-authorized budget.
- **Accounts Receivable Integration**—HIFMIP plans call for accounts receivable and collection functions currently handled by DARTS (D21) to be integrated into ICFS if possible. This will require an analysis of DARTS requirements and a comparison to available PeopleSoft/ICFS capabilities. If ICFS is able to support the required functions, the remainder of the tasks required for the DARTS integration will include the activities described in Section 7.2. If ICFS cannot support the required DARTS functions, an automated interface between ICFS and DARTS or the system that replaces DARTS will need to be developed.
- **Automation of IATS Interface**—The existing manual interface between IATS and ICFS will be automated for implementation in FY 2010. The standard development tasks, described previously, will be conducted to accomplish the automation of the interface.

7.4.3 FY 2010

Preparation for the upgrade to Oracle's Fusion platform and the then-current version of Oracle Financials is the primary activity that will occur in FY 2010 in preparation for the planned FY 2011 Fusion upgrade. Ongoing support for ICFS will also be required during this time.

If ICFS remains very close to the PeopleSoft baseline configuration, the upgrade will primarily focus on testing Oracle's conversion programs to ensure the accuracy and validity of HUD's financial and reference data, training users to operate the new version of ICFS and updating interfaces to support the new technical environment. These areas will require a similar set of tasks and activities as those described in Section 7.2.

If, however, ICFS includes a large number of custom software enhancements, the Fusion upgrade becomes more difficult because custom enhancements will have to be incorporated into the new version of the software or new procedures developed to handle the custom requirements. If there are significant custom software enhancements, an initial analysis of the custom software and comparison to the Fusion software will need to be undertaken prior to beginning upgrade development and implementation.

7.4.4 FY 2011

HIFMIP-related activities during FY 2011 will include preparation for OFHEO integration (to occur on October 1, 2011); enhancement of interfaces with HIRTS; and implementation of a new financial data warehouse. In addition, ongoing support will be required for ICFS operations.

- **OFHEO Integration**—Integration of OFHEO into ICFS at the COE will require tasks and activities similar to those described in Section 7.2. Since OFHEO operates its FIMS using Oracle Financials, the nature of the integration will depend upon whether or not OFHEO has customized FIMS and what version of Oracle is then in use.

Prior to FY 2011, OFHEO should plan to upgrade to a version of Oracle that will allow it to integrate with the Fusion platform, or the upgrade and integration will occur in FY 2012. The HIFMIP project manager will have to coordinate with OFHEO regarding which approach will be used.

An analysis of the differences between OFHEO’s system configuration and functions and those supported by ICFS will be required prior to integration. This analysis would be similar to the analysis described for FHA integration. The remaining integration tasks and activities will be similar to those described in Section 7.2.

- **HIHRTS Interface Enhancements**—HIHRTS (P162), HUD’s human resource system, and ICFS will both be based on Oracle (PeopleSoft) products. Once ICFS has been implemented and operational for several years, enhanced interfaces/integration of the products should be explored. The possible enhanced integration activities are scheduled for FY 2012. Areas that will require analysis for possible enhancement include T&A reporting and cost management. If the combined capabilities of HIHRTS and ICFS can provide better personnel time and cost information, several other HUD systems may no longer be needed, and better integration of program, performance, and financial data will begin to occur. Any identified enhancements or new integration points would require tasks similar to those previously described in Section 7.2
- **Implementation of New Financial Data Warehouse**—The level of effort and nature of the specific tasks to implement a new Financial Data Warehouse will vary depending upon what warehouse product is selected. If an Oracle product is selected, it is likely that the integration points and interfaces with its financials package will already exist and will need to be configured and tested. If another warehouse product is selected, more traditional software design and development tasks may be required. In either case, interfaces or integration points to load financial data on an ongoing basis will need to be designed and developed, and conversion of existing financial data will likely need to occur.

7.4.5 FY 2012

HIFMIP-related activities during FY 2012 will include preparation for the implementation of products and tools to provide DSS, CRM and EPM functions. These capabilities and currently available products were described in Chapter 3. Review of available products, including those available at that time from Oracle, and analysis of those that will provide the best fit with HUD’s program and performance integration requirements will need to occur. For any products selected, tasks similar to those described in Section 7.2 will need to occur. In addition, ongoing support will be required for ICFS operations.

7.4.6 FY 2013

All HIFMIP-related activities are scheduled to be completed by FY 2013. Ongoing maintenance and support will continue to be required. Changes in requirements, technology and software capabilities will need to be reviewed regularly to assess their impact on HUD’s financial environment; these changes may be incorporated into HIFMIP at a later time.

8.0 ASSUMPTIONS, ISSUES, AND PROBABLE RISKS

8.0 ASSUMPTIONS, ISSUES, AND PROBABLE RISKS

The successful implementation of the ICFS will be a challenge for HUD. Despite necessary planning and resources, problems will inevitably arise. This section addresses key assumptions, identifies known issues, and describes probable risks associated with HIFMIP and Phase II, in particular. Proper planning for and management of these areas throughout the project lifecycle will provide a greater likelihood of overall project success. Sections 8.1, 8.2, and 8.3 address assumptions, issues, and risks, respectively.

8.1 Assumptions

The following assumptions apply to the overall HIFMIP initiative:

- **Visible Senior Level Leadership and Support Will Be Provided.** Senior level leadership and support from HUD business line management are critical factors in the successful implementation of the ICFS. Sponsorship and active involvement by the Secretary, along with cooperation from HUD Executives, are vital in bringing together the many organizational elements that are critical to the success of the project. Through this leadership and support, as well as a complete understanding of the Department's culture, management will be better prepared to bring about the required organizational changes and gain the necessary cooperation from Department staff members.
- **Reengineering of Business Processes Will Occur.** In a Department-wide effort, HUD must be prepared to reengineer its current business processes. This reengineering begins with a Department-wide analysis of current business processes that will allow the Department to identify differences between similar processes, and make and enforce the changes needed to ensure efficient and standardized procedures HUD-wide. It is vital that these new processes, and any additional changes to them that might occur, are documented thoroughly. These documented processes will become a critical tool in identifying and selecting the ICFS that best fits the Department's business needs. This activity will also help the Department set up its new business rules when implementing the ICFS.
- **Stable, Competent Project Management Will Remain in Place.** The leadership provided by an experienced project management team is a critical success factor in the implementation of ICFS. The ability to plan the project, to coordinate its various tasks, to anticipate and recognize potential problems, to resolve conflicts, to communicate progress and status, and to maintain the project schedule, are vital to a successful conclusion of the project. These abilities are required in the management of both contractor(s) and HUD staff working in a closely aligned, cooperative effort. A stable project management team must remain in place throughout the project to limit learning curve issues and provide continuity and direction. A stable team provides a basis for maintaining momentum and productivity during the course of performing project tasks and attaining project milestones.
- **Planning and Plan Updates Will Occur on a Consistent Basis.** Project planning must be done on a continual and consistent basis. For a plan to be valuable, the proper time, attention, and resources must be devoted to developing, updating, and

acting-on the planning knowledge base throughout the HIFMIP project life-cycle. A detailed plan should be prepared prior to the formal roll-out of the project. Input should be sought from key stakeholders in the implementation process. The scope of the plan should include items such as SDM tasks, Change Management, a Communication Plan, and an Integration Plan. A well-defined plan, used throughout the project, will keep the project on track, identify potential pitfalls, and will help team members make adjustments as needed. The Project Plan should be a living document that is monitored and updated as the project becomes better defined.

- **Sufficient Resources Will Be Available to Complete the ICFS Implementation.** The success of the implementation depends on identifying and committing sufficient monetary and personnel resources. The people component includes both internal HUD employees and external contractor staff. Internally, both OCFO and program area staff need to be identified and assigned to the project. The project team must be staffed with HUD personnel who are committed to the project and possess the required institutional knowledge. Senior management must remain mindful that internal personnel may have other demands on their time in connection with other projects and responsibilities. This will become a point of stress despite the admitted long-term benefit to the Department. In some cases, staff members will need to be relieved of their day-to-day responsibilities for a period of time.

Additional external resources may be required to ensure that specific needed skill sets are brought to the project. There should be a proper balance of functional and technical resources. Both play a critical role in ensuring that the diverse interests and aspects of the project are properly represented, and that the end product is suited to the Department's needs.

The monetary resources must be committed by developing a realistic budget that includes all costs associated with the project, not just the initial software purchase. Close monitoring of the budget, the project timeline, and the completion of project tasks will help keep the project within budget.

- **Adequate Training Will Be Provided.** Training is one of the most critical and multifaceted aspects of system implementation. Training includes, but goes well beyond, teaching a user how to access and enter data into the new system. It also ensures that the user understands how the new system fits into the larger picture of the Department, as well as how it impacts and changes his or her individual responsibilities and tasks. Training is not a one-time occurrence: there must be a plan for refresher classes. Basic training should be offered to new staff, and advanced training provided to more experienced system users.

In addition to the HIFMIP assumptions described in the preceding paragraphs, there are additional assumptions specific to the implementation of ICFS as planned and the development of the Roadmap. These assumptions include:

- HUD will select PeopleSoft for its ICFS foundation.
- HUD's business areas use baseline versions of their COTS core financials software.
- HUD will find a COE that can operate PeopleSoft satisfactorily.

- FHA will complete its financial systems modernization initiatives as planned by April 2006.
- Ginnie Mae will complete its implementation of PeopleSoft as scheduled by September 2007.

These are key assumptions that, if incorrect, will have a significant impact on the overall project plan and schedule. Therefore, each of these assumptions is described in more detail below.

8.1.1 Selection of PeopleSoft

HUD's approach to HIFMIP and specifically the ICFS implementation is predicated on the selection of PeopleSoft as the basis for ICFS. The HIFMIP project plan and schedule are based upon the assumption that PeopleSoft will satisfy HUD's requirements and be selected for HUD-wide implementation.

HUD has recently completed an evaluation of PeopleSoft capabilities against its known business requirements. No show stoppers were found during the Gap Analysis. The results of this evaluation and HUD's subsequent go/no go decision have shown that PeopleSoft will be satisfactory to support HUD's needs. Therefore, this assumption is valid and should not impact the project plan and schedule.

8.1.2 Use of Baseline Software

All four HUD business areas are using (or planning to implement) COTS financial management software. One of the benefits of COTS packages is the standardization they enforce across an agency. COTS standards encourage consistency across all parts of an agency, and simplify the processes of integrating agency components and upgrading to new software versions.

The HIFMIP timeline and project plan discussed in Chapter 7 is based upon the assumption that all HUD's business areas will be using PeopleSoft (or Oracle for OFHEO) in its baseline form, or "out of the box." If any of the business areas have made significant enhancements to the PeopleSoft baseline to meet its requirements or has developed custom add-ons, and those enhancements are not part of a future PeopleSoft baseline, HUD's approach and timeframe for HIFMIP may be compromised.

8.1.3 Satisfactory COE Can Be Found

HUD's decision to use a COE to support its ICFS implementation was described earlier in this *Roadmap*. This decision was in response to new government-wide policies with regard to financial systems implementations and may provide operational benefits and cost savings for HUD over the long run. Since HUD had already taken the initial steps toward modernizing its financial systems environment with its selection of PeopleSoft to provide the ICFS foundation, HUD will need to find a COE that can operate PeopleSoft.

There are no federal agency COEs that currently support PeopleSoft; existing federal COEs operate Oracle Financials and/or AMS's Momentum. HUD is looking to commercial COEs with PeopleSoft experience for its support. If a COE with satisfactory

PeopleSoft experience cannot be found, the project plan, schedule, and approach will have to be revised. This will put the key implementation dates at risk.

8.1.4 FHA Systems Modernization Initiative Completed on Schedule

The HIFMIP implementation plan has identified integration of FHA into ICFS for FY 2009, following the initial ICFS implementation at a COE. FHA was selected as the first business area to integrate with ICFS after its initial implementation because FHA has been using PeopleSoft for several years now. Phase III of FHA's systems modernization initiative is scheduled to be completed in April 2006. If FHA completes the systems modernization initiatives as scheduled, FHA-SL and its program and feeder systems will have stabilized operations for two years prior to integrating with ICFS at the COE. If there are delays in completing the independent systems modernization initiative, the overall HIFMIP schedule could be affected.

8.1.5 Ginnie Mae Systems Modernization Initiative Completed on Schedule

The HIFMIP implementation plan has identified integration of Ginnie Mae into ICFS for FY 2010, following integration of FHA. Ginnie Mae is scheduled to implement PeopleSoft through its independent systems modernization initiative by September 2007. If Ginnie Mae completes its PeopleSoft implementation as scheduled, Ginnie Mae will have two years of PeopleSoft operation prior to integrating with ICFS at the COE. If there are delays in completing the PeopleSoft implementation, the overall HIFMIP schedule could be affected.

8.1.6 Other Assumptions

Additional assumptions about activities that will provide a sound foundation for the HIFMIP implementation effort for an ICFS include:

- Other system implementation projects will be linked to the comprehensive HUD plan for an enterprise-wide single vendor/single instance solution;
- Comprehensive communications and training programs will be implemented to ensure that HUD staff members are trained in the higher order skills they will need;
- HUD will develop well-defined rules for classifying/recording its many financial events;
- A standard financial business model to ensure common definitions and use of fiscal data across HUD will be established; and
- HUD will develop a plan that defines progress in identifiable, manageable segments.

8.2 Issues

ICFS is not the first OCFO COTS system implementation. Some issues have been identified in other systems implementations and can be anticipated for ICFS as well. Other issues are common among federal agency financial systems implementations, and can also be identified early on in the project life cycle.

At this stage, not many significant issues have been identified. ICFS-specific issues are most likely to be identified as a result of the Gap Analysis update and system configuration tasks scheduled to occur once the SI is on board. Other issues will arise with respect to integration, coordination, and timing of interfaces with ICFS. Regardless of the source or nature of the issues, the HIFMIP Project Team will need a method and process for identifying, tracking, and resolving issues in a timely fashion to keep the project moving forward. The need to develop and implement an issue tracking and resolution methodology and to assign issues for analysis was addressed in Chapter 6.”

The following HIFMIP issues have been identified:

- Fund Conversion;
- FHA Budgetary Accounts;
- Budget/Funds Distribution Structure; and
- Account Code Classification Structure.

Each of these issues is described below.

8.2.1 Fund Conversion

HUD receives a large amount of funding for various programs. Oftentimes, the funds are provided with limitations within an appropriation as well as varying time periods of funds availability. These limitations must be separately tracked within the core financial system. In HUDCAPS, these fund limitations are set up as separate funds using the FFS 6-character fund code field.

In the PeopleSoft gap analysis, an issue arose because PeopleSoft has only a 5-character fund or appropriation field. This initially posed a problem due to HUD’s budgetary tracking and reporting requirements below the appropriation level. However, further analysis showed that PeopleSoft had a separate limitation field that would support HUD’s requirement. Therefore, a potential showstopper issue was resolved. However, HUD will need to analyze the downstream impact of these changes, including the impact on lower budget levels and reporting.

This example has been provided to illustrate the kinds of issues that may arise during the Gap Analysis and the importance of timely identification and resolution.

8.2.2 FHA Budgetary Accounts

Currently FHA’s budgetary accounts are maintained in HUDCAPS, and not in FHA-SL. When ICFS is initially implemented for OCFO-Managed Organizations, a decision will need to be made as to whether the FHA budgetary accounts should be converted to ICFS or moved to FHA-SL. This issue will need to be addressed early in the ICFS Functional and Technical Analysis tasks since its outcome will affect the ICFS conversion strategy. One factor to consider in making a determination as to how to convert the FHA budgetary accounts is what it would take to configure them in FHA-SL if it is not currently configured to handle these budgetary accounts.

8.2.3 Budget/Funds Distribution Structure

A common issue in federal financial system implementations is the establishment of a standard budget/funds distribution structure that can be supported by the selected COTS package. The budget or funds distribution structure refers to the way an agency budgets and formally distributes its appropriated funds. HUD has already defined a standard agency-wide budget structure that is configured in HUDCAPS. However, HUD needs to review to determine if budget structures are actually in use within OFHEO, Ginnie Mae, and FHA and, if so, that they comply with the established standard. If budget/funds distribution capabilities are not in use or not in compliance with HUD standards, the HIFMIP Project Team will need to work with these business areas to achieve compliance with a supportable standard that can be carried forward to ICFS. This is an area that should be addressed as part of the Policy, Procedures and Configuration Review.

8.2.4 Account Code Classification Structure

Like the standard budget/funds distribution structure described in the preceding section, determining and enforcing a standard account code classification structure for an entire agency is often a complex and time-consuming step in implementing COTS software. The account code classification structure refers to the standard set of reference codes used on obligations and payments (sometimes called an accounting strip) and is usually broader than the budget/funds distribution structure.

HUD will need to review its account code classification structure and how it is being used across the agency in a manner similar to that described in the preceding section about the budget structure. It is not necessary that each business area use exactly the same account code classification structure. There may be areas that HUD wants to have standardized agency-wide and areas that are reserved for business area needs. The important points are that all business areas use the same fields to represent the same things and that the same codes are used when referring to the same items. For example, project codes are used within HUDCAPS to track IT projects and spending against the project budgets. If OFHEO does not use project budgeting, they may be using a FIMS “project” field for another data element. FHA may use its own set of project codes, but some of the projects may be the same as those being tracked in HUDCAPS. This lack of consistency will complicate integration and reporting.

The same points about consistency may apply to HUD’s standard general ledger accounts and posting models. This is another area that should be addressed as part of the Policy, Procedures and Configuration Review.

8.3 Risks

Undertaking an effort of the scope and complexity of HIFMIP will be a significant challenge for HUD. The Department has experienced challenges in the past related to the management and completion of large-scale, multi-year projects. Management discipline and support is imperative. Today HUD personnel are often hindered and frustrated by inconsistent and inaccurate information; a tendency to focus on compartmentalized problems rather than integrated solutions; and the presence of supporting systems and operations that are often inefficient, outdated, and conflicting. Despite these problems,

the HUD workforce demonstrates a thorough understanding of HUD's business and systems and a commitment to improvement.

The foremost challenge HUD leadership will face in implementing ICFS will be organizational alignment – the ability to align resources (people, process, knowledge capital, finances, technology, and sponsorship) in a cooperative, focused manner that directly correlates to the timeline for implementing HIFMIP. In support of this challenge, there is a need to establish a project infrastructure for HIFMIP that includes rigorous planning, project management, change management, communications, and timely decision-making.

Key conditions that constrain HUD are as follows:

- Lack of a capability to obtain and retain technical expertise to develop and manage a project throughout its lifecycle;
- Requirement to respond to continuous changes to Treasury and OMB reporting requirements for financial systems;
- Timeliness of project initiation and follow through in conjunction with budget development and audit activities each fiscal year; and
- Requirement to respond to future budget development and audit recommendations.

A risk analysis has already been completed for HIFMIP, and a risk management plan has been developed. These documents were initially prepared during the SDM Initiate Phase and were updated during the HIFMIP Design Phase. The HIFMIP Project Team will need to establish procedures for regularly reviewing risk status and taking needed actions, where possible and necessary.

Tools and procedures for managing risks are addressed in the *Risk Management Plan*. The SI is likely to have its own risk management methodology and risk mitigation approach. The SI's risk management methodology and tools can supplement the risks and risk mitigation strategies identified below and more fully in the *Risk Management Plan*.

The remainder of this section focuses on risks specific to the Roadmap itself and to HIFMIP Phase II, ICFS Implementation. Risks common to the overall HIFMIP Initiative have not been repeated here. The starting points for the risks included in Table 8-1 were the HUD 330B memo dated 5/27/2005 and the HIFMIP Plan to Implement an Integrated Financial Management System at HUD revised 4/6/2005.

The current status for each of these risk areas is included in Table 8-1.

Table 8-1. HIFMIP Roadmap Risks

Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status Assessment
<p>Overemphasis on Software Selection</p>	<p>Failure to consider and plan for the entire project due to focusing on the software acquisition may result in an under-scoped and under-funded project.</p>	<p>Medium</p>	<p>Develop a project approach that includes system integration services and application service provider roles in addition to software acquisition.</p>	<p>Good. HUD has adopted a broad approach to project planning as evidenced by this Roadmap and planned procurement of SI/COE services in the spring of 2006.</p> <p>The biggest risk in this area at present is not that HUD has over-emphasized software selection, but that HUD has based its project plan and schedule on the selection of a specific software package. If this package will not be acceptable for any reason, the impacts to the schedule and project plan will be significant.</p> <p>HUD is currently taking the appropriate steps to validate the PeopleSoft selection. No additional action is recommended at this time. Further assessment and updates to the Roadmap and PWP may be necessary depending on the outcome of the PeopleSoft analysis.</p>
<p>Separation of Financial Processes</p>	<p>Inappropriate inclusion of programmatic processes within the integrated core financial system may lead to unnecessary and costly customization of the COTS solution. If financial processes are not separated from the many unique organizational business processes and needs, the configuration of the core financial system will result in a system that does not function as intended.</p>	<p>High</p>	<p>Develop and implement a formal Change Management Strategy and Plan. Manage system features by a formal configuration management process.</p> <p>Ensure that all proposed changes to the designed system are formally reviewed and accepted.</p> <p>Ensure that all financial transactions are processed and recorded in a uniform and standardized manner.</p> <p>Delineate between Financial and Programmatic Processes.</p> <p>Establish a method that provides separation of the business needs of program managers from financial data need by the CFO.</p>	<p>Good. To date HUD has clearly defined requirements (documented in the FRD and DRD). A recent decision to migrate the Section 8 Housing Subsidies from HUDCAPS prior to ICFS implementation illustrates the distinction between financial and programmatic processes and the delineation that will be maintained in ICFS.</p>

Section 8.0 Assumptions, Issues, and Probable Risks

Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status Assessment
Project Scope Change	Project scope changes because of an agreed upon solution change, organizations agree to be involved in the project after the requirements are identified, or the change control system is insufficient, resulting in schedule slippage, additional costs, and additional complexities that threaten project success. Project scope change will put the project's direction, timelines, goals, cost, and ultimately its success at risk.	Medium	<p>Conduct comprehensive requirements analysis.</p> <p>Ensure the capture of all business processes and requirements for system configuration and successful implementation.</p> <p>Develop a comprehensive system implementation plan.</p> <p>Develop issue resolution procedures to allow for proactive action by HUD management when handling complications or issues that might arise during the implementation.</p>	<p>Moderate. Requirements are clearly defined in FRD and DRD. Scope of systems to be included has changed several times during the Initiate and Define Stages; however, the Legacy Systems Disposition Plan clearly outlines the scope and plan for legacy systems impacted by HIFMIP. If this Plan (delivered August 22, 2005) is reviewed and approved, scope of the project will be clearly defined moving into Phase II.</p> <p>Change management process should be clearly defined, and HUD should plan for updates to the Roadmap whenever scope changes significantly.</p>
FHA Project Dependency	The lack of continued coordination and support from FHA, as a major HUD entity, would jeopardize achieving HIFMIP goals and objectives.	High	<p>To minimize early impact on FHA and to improve the chances of project success, implement HIFMIP's solution in phases: first select the best software for HUD's overall needs; install just a core capability that interfaces to the FHA subsidiary ledger; then, building on the success of the initial implementation, integrate FHA needs into the single HUD-wide solution.</p> <p>Gain visible commitment to HIFMIP from the Secretary, Deputy Secretary, and CFO.</p>	<p>Good. PeopleSoft Gap Analysis for HUD requirements is currently underway and on track. Planned approach for Phase II includes an interface between FHA-SL and ICFS.</p>
FHA Cooperation	If determined that COTS software other than PeopleSoft is a better fit for the technical requirements of the CFO and CIO, it may be difficult to sustain cooperation from FHA and achieve HIFMIP's goals.	High	<p>Gain visible commitment to HIFMIP from Secretary, Deputy Secretary, and CFO. Develop a communication plan. Ensure strong project management.</p>	<p>Good. Since outcome of PeopleSoft Gap Analysis shows that PeopleSoft is acceptable for HUD OCFO-Managed Organizations, this risk is lowered.</p>

Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status Assessment
<p>FHA & Ginnie Mae Configuration Plans</p>	<p>FHA, Ginnie Mae will not share systems configuration plans, accounting classification code structures (ACCS) and all system-related information with OCFO. Not sharing this information across business areas will hinder the three separate conversions to the PeopleSoft (FHA, Ginnie Mae, and OCFO-Managed Organizations) from being well-positioned to migrate to the integrated core financial system. Failure to provide the relevant information will threaten HUD’s ability to complete the project on time and within budget.</p>	<p>Medium</p>	<p>Gain visible commitment to HIFMIP from Secretary, Deputy Secretary, and CFO. Develop a communication plan. Ensure strong project management. Obtain copies of the configured software to use as a starting point in configuring the OCFO-Managed Organizations’ PeopleSoft.</p>	<p>N/A. Analysis cannot begin until the COE has been selected and the SI is on board.</p>
<p>Data Conversion Issues</p>	<p>Data in legacy system cannot be converted to the new system because it has not been reconciled, is incomplete, or is otherwise faulty.</p>	<p>Medium</p>	<p>Ensure accurate data prior to conversion. Develop and use a comprehensive conversion strategy and plan (also called a data migration plan). Audit converted data. Validate the accuracy of the beginning balances established in the new core financial system.</p>	<p>N/A. Work has not yet begun on conversion; however HUD has defined some general guidelines for a conversion approach. The Roadmap contains suggested tasks for data clean up prior to ICFS implementation, and the PWP will reflect this task. Use of existing COTS software also mitigates this risk.</p>

Section 8.0 Assumptions, Issues, and Probable Risks

Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status Assessment
<p>Coordination among Project Partners</p>	<p>Failure to coordinate activities among project partners may result in time delays and added expense due to rework. Contractor personnel are not on site. Contractor personnel are not familiar with HUD business. Contractor has high turnover rate. Contractor personnel provide inadequate level of support. Communication between project partners is lacking.</p>	<p>High</p>	<p>Coordinate work and information among contractor teams. Use an experienced project management team. Conduct Organizational and Staffing review, and implement recommended changes.</p>	<p>Good. At present, number of contractors and HUD staff involved is small, and communications are occurring regularly. Risk will increase in Phase II with the addition of the SI/COE contractors.</p> <p>Strong HUD project management will be needed to coordinate the activities of all the contractor staff within the master project plan. The Project Manager must ensure that all players are functioning as a team with the single goal of achieving a successful ICFS implementation. This will be a challenge and a significant risk. Strong project management tools, project reviews, and working relationships will be necessary to facilitate the team-building and efficient functioning of all players involved in the project.</p> <p>Selection of a Systems Integrator with extensive experience in managing large, complex projects with multiple contracts can help in managing this effort; so can the early development of a comprehensive project plan with clearly defined roles and responsibilities. The PWP will develop an initial version of this plan.</p>
<p>Required Technical Skills</p>	<p>Failure to assess required skill sets and obtain and/or train qualified personnel to accomplish the tasks associated with HIFMIP will risk project delay or failure.</p>	<p>Medium</p>	<p>Develop a formal training and/or hiring plan for HUD personnel. --Ensure that personnel with the required skill sets are in place to support the system. --Provide sufficient rewards and recognition to maintain high level of morale.</p>	<p>Moderate. The Roadmap identifies staffing requirements for Phase II. If HUD does not begin to develop a Phase II Staffing Plan, however, the risk in this area will increase significantly.</p>

Section 8.0 Assumptions, Issues, and Probable Risks

Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status Assessment
Interfaces between core system and HUD legacy systems.	Failure to identify and manage, and properly design and test needed interfaces with legacy systems and feeder systems may cause system implementation delay and additional cost for rework.	High	Develop a detailed assessment of interface requirements. Develop interface justifications. Document interface requirements. Test interfaces sufficiently. Maintain a skilled technical staff. Complete a HIFMIP master project plan.	Moderate. LSDP identifies plan for interfaces by phase, and DRD identifies data requirements for some identified interfaces. Additional work will be required in this area in Phase II. The number of interfaces to be developed for Stage II-1 indicates that this area will remain high risk in Phase II.
Dependencies and Interoperability Between This and Other Investments	The success of the project is directly linked to the success, implementation, and ongoing maintenance of other systems.	Medium	The HIFMIP Vision for Integrated Financial Management will require a comprehensive analysis of HUD's financial systems requirements and will include all relationships with other Federal and non-Federal constituents. All potential impacts to existing interfaces/integration processes will be identified and a plan established to either support existing systems or replace them with new OFFM certified COTS software.	Moderate. The LSDP identifies other known HUD system initiatives that may impact HIFMIP. In most areas, ICFS success is not directly linked to their progress since existing systems interfaces can be maintained until their new systems are ready for interface or integration. An area of exception is the migration of Section 8 Housing Subsidies from HUDCAPS prior to ICFS implementation. The success of ICFS implementation is directly linked to this transition since ICFS will not accommodate this programmatic function.
Complexity of Integration/ Interface Issues	The integration/interface requirements for feeder systems and legacy systems are numerous and complex. Failure to identify and manage, and properly design and test needed interfaces with legacy systems and feeder systems may cause system implementation delay and additional cost for rework.	High	Develop a detailed assessment of interface requirements. Perform an assessment of the data fields that must be populated by legacy and external systems. Identify all interface requirements prior to core financial system implementation. Develop interface justifications. Ensure that a detailed interface plan is available prior to implementation. Anticipate accepted and known interface complexities.	Moderate. LSDP identifies plan for interfaces/integration by phase, and DRD identifies data requirements for some identified interfaces. Additional work will be required in this area in Phases II and III. The number and/or the complexity of interfaces/system integration to be developed indicates that this area will remain high risk throughout all HIFMIP Phases.

Section 8.0 Assumptions, Issues, and Probable Risks

Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status Assessment
<p>Scope of Responsibility for Feeder Systems</p>	<p>HIFMIP will require changes in existing feeder systems; however, the owning organization will be responsible for funding and implementing those changes, not HIFMIP. This could cause project delays if not planned for and managed correctly.</p>	<p>Medium</p>	<p>Implement HIFMIP's solution in phases with the first deployment having minimal impact on feeder systems, then build on the success of the initial installation; review each feeder and determine if upgrades to the feeder system are required to achieve the total goals of HIFMIP.</p> <p>Develop HIFMIP's segment architecture and fully participate in HUD's IT portfolio management process.</p> <p>Complete a HIFMIP master project plan.</p> <p>Ensure that other system implementations throughout HUD are accounted for and integrated as necessary into the integrated core financial system project plan.</p>	<p>Moderate. The LSDP identifies ICFS feeder systems that and the planned interaction with HIFMIP by Phase. This Roadmap recognizes the need to maintain and possibly modify these feeder systems to support ICFS interface/integration. However, HUD has missed the window to modify existing contracts for FY 2006 to allow for contract support for ICFS in these feeder systems. HUD will need to review existing maintenance contracts as they are modified, and may need to initiate contract modifications if changes are identified to key feeder systems for Stage II-1. This is not likely for most systems, however, due to the planned implementation approach for Stage II-1.</p> <p>HUD can further mitigate this risk through the designation of a liaison from the HIFMIP project team to other feeder systems to coordinate and monitor the status of any required changes or interface files.</p>
<p>Projects External to OCFO</p>	<p>Programmatic systems are created or feeder systems are implemented resulting in new requirements or faulty interface with HIFMIP, ultimately resulting in added cost and rework. Failure to align HIFMIP with other HUD IT projects may cause unforeseen/unbudgeted costs at a later date and may run counter to Federal Enterprise Architecture guidelines.</p>	<p>Medium</p>	<p>Develop a comprehensive system implementation plan allowing for proactive action and tracking of other implementations by HUD management when handling complications or issues that might arise during the implementation. Maintain support of Stakeholder WG and IPT; develop common goals so they maintain support during difficult stages; provide continued support to encourage decisions with an enterprise perspective. Communicate and listen to all stakeholder concerns and issues.</p>	<p>Good. Working Sessions to prepare the LSDP identified other initiatives that may impact HIFMIP, particularly in Phases III and IV. Known initiatives have been incorporated into the LSDP. This area will continue to be a risk, however, due to the large number of HUD systems modernization initiatives and the potential for changes in external requirements.</p>

APPENDIX A. HIFMIP ROADMAP EXECUTIVE SUMMARY

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APPENDIX B. HIFMIP PROJECT PLAN

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