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HUD Policy for Information Technology Management

Handbook 3400.1

Version 1.0

April 2011

Version History

Version Number	Implemented By	Revision Date	Approved By	Approval Date	Description of Change
Draft 1.0	Jerry Williams	December 22, 2010			Initial Draft
Draft 1.1	Jerry Williams	March 9, 2011			Incorporated OCIO management comments
1.0	Jerry Williams	April 22, 2011			Incorporated Departmental non-concurrences; Finalized

Contents

1. Purpose

This document establishes the Department of Housing and Urban Development's (HUD) policy for the management of information technology (IT) through the Information Technology Management (ITM) Framework (Figure 1). The ITM Framework integrates a variety of related IT management methods, mandates, and practices into a full investment management life cycle approach. The essential components of the ITM Framework are defined through a suite of supporting policies, processes, standards, guidelines, and roles and responsibilities. The framework and its components will be continuously updated to reflect changes in IT management disciplines and lessons learned from their use by HUD organizations.[1]

The ITM Framework documentation describes the mechanisms through which HUD's IT portfolio, investments, and projects are made, and through which the investments and projects are executed, managed, and measured. As such, the ITM Framework represents an integrated management process for the planning, selection, control, and management of HUD's IT portfolio and is focused on achieving desired outcomes in support of HUD's mission, goals, and strategic objectives.

This is the first issuance of this policy. It overrides any conflicting policies that were published prior to its issuance.

2. Background

The Federal government has been evolving the management of IT capital assets in its agencies. The ultimate goal of this evolution, which can be seen in the continuing stream of congressional mandates and executive orders concerning IT management, is to provide more efficient and effective IT support to agency missions. (A list of applicable Federal mandates is provided in Appendix A.) The HUD ITM Framework integrates these Federal mandates and directives into a seamless management system that is focused on providing transparency, accountability, and responsibility throughout the entire IT investment life cycle.

ITM Framework Indicators of Success
The ITM Framework will be successful when HUD, by managing its IT assets within the framework, is able to:

1. Demonstrate and document clear alignment of the IT portfolio with HUD's mission and business objectives as set forth in the HUD Strategic Plan and with the strategic and tactical goals specified in the IT Strategic Plan

2. Ensure sufficient and appropriate business planning and management of the HUD IT portfolio to guarantee transparency, accountability, and coordination of IT portfolio management activities, from IT strategic planning through operations and maintenance, and eventually through final disposition of HUD IT capital assets

3. Ensure effective portfolio analysis and IT planning

4. Select IT investments that support migration of business services to the target corporate enterprise architecture (EA)

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[1] The ITM Framework materials are posted on HUD's intranet at this URL:
http://hudatwork.hud.gov/po/i/itm/index.cfm.

5. Implement a decision-making process, in accordance with governance policies, that appropriately balances investment benefits, costs, risks, and business priorities

6. Monitor IT project performance by measuring actual achievement of cost, schedule, and performance milestones against approved performance measurement baselines and by measuring the return on investment over the full Project Planning and Management (PPM) Life Cycle

7. Support timely and effective monitoring and reporting of initiatives' performance to established management and governance structures

Performance measures will be crafted for these indicators so that HUD management can demonstrate the benefits of the ITM Framework.

3. Scope

This policy applies to all HUD employees and contractors who use and work with HUD's IT portfolio, investments, and projects.

This policy does not apply to those IT projects related to GInnie Mae's secondary mortgage activities[2].

4. Policy

This policy mandates the use of the ITM Framework as the foundation for the overall management of IT investments at HUD. The elements of the ITM Framework are based on Office of Management and Budget (OMB) and Government Accountability Office (GAO) guidance and best practices. This policy requires that:

1. All HUD activities that involve planning, acquisition, management, and use of IT capital assets be conducted in accordance with the ITM Framework

2. All HUD IT stakeholders manage their IT assets in accordance with the ITM Framework

5. Overview of the HUD IT Management Framework

The ITM Framework is based on the "Architect, Invest, Implement" approach endorsed by OMB for effective management of IT resources (Figure 1). The ITM Framework addresses the organizational structures, processes, roles and responsibilities, and guidelines for HUD's adherence to Federal IT management laws and directives and for the effective management of the IT capital investments in HUD's IT portfolio. All HUD IT investments follow the ITM Framework.

The HUD ITM Framework employs a three-level view of HUD IT management responsibilities:

- **Portfolio Level.** HUD's IT portfolio comprises all IT investments, both existing and in development. The HUD portfolio is the enterprise-wide view of the history and future of HUD IT investments. Key ITM activities at this level are environmental scanning for new industry and Federal government developments, continuous technical and program-focused portfolio

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[2] Title III, Sec 309 of the National Housing Act exempts all systems that are leased, owned, or operated for or on behalf of Ginnie Mae.

analysis, the development of transition strategies to move HUD from the current state to the target state, and the compilation and submission of the HUD IT budget.

- **Investment Level.** IT investments are groups of activities that focus on achieving an interrelated set of organizational goals and objectives in support of HUD's mission and in accordance with the direction set by HUD's target architecture. Key activities at this level include:

    ο Identification, sponsorship, preparation, planning, and selection of IT investments within the context of the HUD transition strategy

    ο Development of investment business cases

    ο Updating and maintenance of IT investment documentation

    ο Monitoring of investment performance over the investment life cycle

- **Project Level.** Projects are temporary endeavors that make up investments. Projects cover a range of project types, including new development, operations and maintenance, service delivery, and organizational strengthening. Projects are managed according to the HUD PPM life cycle.
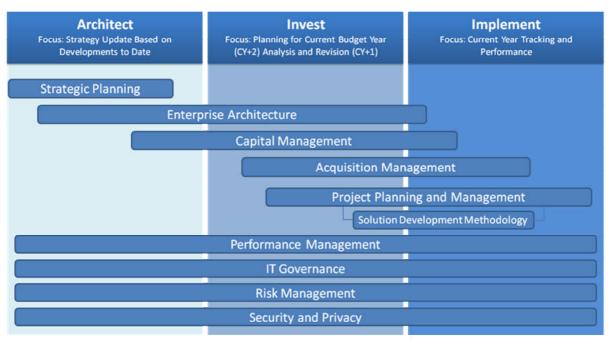

Figure 1 - IT Management Framework

ITM provides the framework for the integration of 10 key management components as depicted in the Figure 2 - Components of HUD's IT Management Framework.
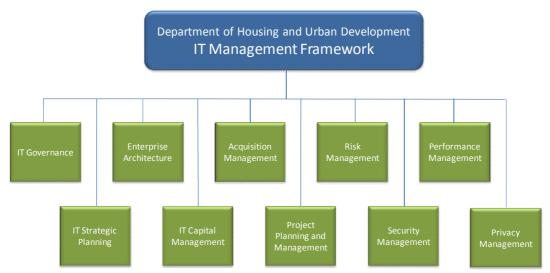
Figure 2 - Components of HUD's IT Management Framework

Each of these components may have a complement of policy, procedures, standards, and guidelines to assist HUD managers and employees in the effective management of HUD's IT portfolio.

IT Governance

Governance encompasses the structures, policies, procedures, standards, and guidelines that guide IT management decision making within the Department. Governance includes the roles and responsibilities of various HUD IT governance boards, including the Executive Information Board (EIB), the Technical Review Council (TRC), and the Investment Review Council (IRC).

IT Strategic Planning

The IT strategic planning process supports the HUD enterprise strategic planning process. The IT Strategic Plan that results from the process provides a description of IT goals, objectives, initiatives, and influences. The IT Strategic Plan describes the strategy for assuring the agency IT vision and goals are supported and that IT decisions are consistent with agency planning, budget, procurement, financial management, human resources management, and program decisions. OCIO updates the IT Strategic Plan annually.

Enterprise Architecture

EA is required by Clinger-Cohen Act of 1996 as a tool to strategically approach planning and managing IT investments. It consolidates HUD's architecture efforts by establishing overarching architectural guidance. All HUD IT investments must be consistent with the HUD EA.

IT Capital Management

The IT capital management component of the ITM Framework incorporates traditional IT capital planning and investment control aspects into an encompassing structure of processes, decisions, information flows, and controls that contribute fiscal transparency and accountability to the management of HUD's IT resources. Through IT capital management, all IT investments are to be included in the annual IT budget request, whether the investments are for new initiatives, for projects or systems in development, or for incremental increases for operational projects or systems.

Acquisition Management

In accordance with the Federal Acquisition Regulation, acquisition planning and management is a critical element for IT investments. OMB Circular A-11, Section 300 requires appropriate earned value management (EVM) clauses in all applicable solicitations and contracts. The Services Acquisition Reform Act also requires the Chief Acquisition Officer to ensure IT investments are in compliance with all acquisition laws and regulations in planning acquisitions. Through the ITM Framework, acquisition management is integrated with the IT capital management and performance management components.

Project Planning and Management (PPM)

PPM processes and guidelines identify the appropriate activities and deliverables throughout the Life Cycle of a project. Movement from one PPM phase to another is authorized through evidence-based control reviews of progress against the project baseline conducted by the appropriate level governance board (Executive Investment Board (EIB), Customer Care Committee (CCC), and Technical Review Sub-Committee (TRC). The outcome of these reviews is submitted to the CIO and Investment Review Sub-Committee (IRC) for use in investment selection, control, and evaluation decisions.

Privacy Management

The Privacy Act of 1974 established controls over what personal information is collected by the Federal Government and how it is used. The Act mandates that the Government informs citizens why information is being collected, how it is going to be used, and assures that information is accurate, relevant, complete and up-to-date before disclosing it to others. IT investments must demonstrate that they comply with the Privacy Act and that privacy controls are incorporated into the PPM Life Cycle. HUD employees and contractors shall ensure that personal information contained in system of records shall be protected so that the security and confidentially of the information shall be preserved.

IT Risk Management

Risk management addresses the policies, processes, standards, and guidance that help HUD IT stakeholders identify, assess, and prioritize risks throughout the IT portfolio. Risk management also includes the coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities. Risks can come from uncertainty in a wide range of areas including, but not limited to: funding, rapidly evolving technology, resource availability, and management commitment.

Security Management

The Federal Information Security Management Act of 2002 (FISMA) requires agencies to integrate security into the capital planning and EA processes, to have a security program to conduct annual self-assessments and audits of the program and its implementation. IT investments must demonstrate that costs of appropriate IT security controls are incorporated into the PPM Life Cycle planning of the overall system. IT security is one of the review criteria for IT investments.

IT Performance Management

Performance management comprises the policies, procedures, standards, and guidelines that govern the performance measurement of HUD IT investments throughout their life cycles. In the ITM Framework process, IT investments must demonstrate how they are aligned to HUD's strategic business goals and how they support the long-term and annual performance plan goals. Through the performance management component, project performance relative to budget, schedule, and scope is monitored and the value received from IT investments is measured.

6. Responsibilities

The Office of the Chief Information Officer shall:

- Maintain, update, and continuously improve the HUD ITM Framework and the policies, procedures, standards, and guidelines required for effective IT management based on HUD and other Federal experiences and the best practices of the IT industry

- Provide IT stakeholders with the training, implementation aids, and other support required to enable them to use the ITM Framework effectively

- Prepare an annual environmental scanning report and conduct an annual portfolio analysis to inform the planning for and selection of IT investment

Executive IT Investment Owners shall:

- Align IT Investments with HUD strategic and annual performance plans

- Structure IT investments to advance the target state of the HUD IT architecture to the maximum extent possible

- Adhere to HUD's security and privacy standards and policies

- Include costs to ensure that the security and privacy of the information is being actively and attentively managed

- Structure IT projects and related contracted support requests into segments with narrow scope and brief duration (six–nine months)

- Use the PPM Life Cycle to plan and execute projects

- Provide risk management plans that anticipate risks to the program and lay out potential mitigation responses

- Establish quantitative and qualitative estimates of the business value that will be realized from the investment and all supporting projects

- Measure and report progress against the quantitative and qualitative estimates of the business value at defined intervals for investments and projects

7. Effective Date/Implementation

This policy is effective immediately upon date of approval.

This policy will not be implemented in any recognized bargaining unit until the union has been provided notice of the proposed changes and given an opportunity to fully exercise its representational rights.

8. Approved

_____   _April 25, 2011_____

Jerry Williams, Chief Information Officer   Date

Appendix A:

Directive	Summary
EXTERNAL AUTHORITIES	
Chief Financial Officer (CFO) Act of 1990	Provides overview of the role of the Chief Financial Officer specific to developing and maintaining integrated accounting and financial management systems; directing, managing, and providing policy guidance and oversight of all agency financial management personnel, activities, and operations; approving and managing financial management systems design and enhancement projects; developing budgets for financial management operations and improvements; implementing agency asset management systems, including systems for cash management, credit management, debt collection, and property and inventory management and control; and monitoring the financial execution of the agency budget in relation to actual expenditures.
Clinger Cohen Act	The Clinger Cohen Act requires agencies to align IT resource planning to support their strategic missions; to implement a capital planning and investment control process that links to budget formulation and execution; and rethinking and restructuring the way they do their work before investing in information systems. ec 5125 (b) The Chief Information Officer of an executive agency shall be responsible for …(2) developing, maintaining and facilitating the implementation of a sound and integrated information technology architecture for the executive agency; and (3) promoting the effective and efficient design and operation of all major information resources management processes for the executive agency, including improvements to work processes of the executive agency.
Computer Fraud and Abuse Act of 1986 (PL 99-474)	This Public Law also codified in 18 US Code 1030 addresses fradulent and related activities in connection with computers.
Computer Matching and Privacy Protection Act of 1988	This Act amended the Privacy Act by describing the manner in which computer matching involving Federal agencies could be performed and by adding certain protections for individuals applying for and receiving Federal benefits.
Contingency Planning Guide for Information Technology Systems, NIST SP 800-34	Addresses specific contingency plans for seven IT platforms and provides strategies and techniques common to all systems. The document also defines the following seven-step contingency process that an agency may apply to develop and maintain a viable contingency planning program for their IT systems. These seven progressive steps are designed to be integrated into each stage of the system development life cycle (SLDC).
E-Government Act of 2002, as amended	Codifies the Presidents Management Agenda to expand EGovernment initiatives, sets new management, human resource management, program decisions. Codifies the Chief Information Officer Council.
Electronic Communications Privacy Act of 1986, (PL 99-58)	Provides a definition of electronic communications and prohibits unlawful access and disclosure to electronic communications.
Federal Acquisition Streamlining Act of 1994 (FASA)	The comprehensive acquisition reform legislation streamlines the federal government's $200 billion-a-year acquisition system and dramatically changes the way the government performs its contracting functions. A key provision in FASA is the strongly stated preference for buying commercial "off-the-shelf' items, rather than purchasing through the detailed bidding process for government-unique items.
Federal Financial Management Improvement Act (FFMIA) of 1996	Provides consistency of accounting by agencies from one fiscal year to the next and establishes uniform accounting standards throughout the Federal Government.
Federal Information Security Act (FISMA) of 2002	FISMA requires each federal agency to develop, document, and implement an agency-wide program to provide information security for the information and information systems that support the operations and assets of the agency, including those provided or managed by another agency, contractor, or other source. Reporting requirements supplemented by annual OMB Memoranda.
Federal Managers Financial Integrity Act, (PL 97-255)	Requires ongoing evaluations and reports of the adequacy of the systems of internal accounting and administrative control of each executive agency.
Federal Records Act of 1950 (as amended)	The Act establishes the framework for records management programs within Federal agencies.
Freedom of Information Act, (PL 93-502)	This act allows for full or partial disclosure of previously unreleased information and documents controlled by the United States Government.
Government Funding Transparency Act of 2008	S.2590 Sec 2 (b) …the Office of Management and Budget shall,…ensure the existence and operation of a single searchable website accessible by the public at no cost to access, that includes for each Federal award- (A) the name of the entity receiving the award; (B) the amount of the award; (C) information on the award including transaction type, funding agency, the North American Industry Classification System code or Catalog of Federal Domestic Assistance number (where applicable), program source and an award title descriptive of the purpose of each funding action; (D) the location of the entity receiving the award, and the primary location of performance of the award, including the city, State, congressional district, and county; (E) a unique identifier of the entity receiving the award and of the parent entity of the recipient, should the entity be owned by another entity; and (F) any other relevant information specified by the Office of Management and Budget.
Government Paperwork Elimination Act of 1998	The Act develops procedures for the use and acceptance of electronic signatures by executive agencies.
Government Performance and Results Act of 1993	Chapter 3 of title 5, United States Code, Section 306 (a) …the head of each agency shall submit to the Director of the Office of Management and Budget and to the Congress a strategic plan for program activities. Such plan shall contain-(1) a comprehensive mission statement covering the major functions and operations of the agency; (2) general goals and objectives, including outcome-related goals and objectives, for the major functions and operations of the agency; (3) a description of how the goals and objectives are to be achieved, including a description of the operational processes, skills and technology, and the human capital, information and other resources required to meet those goals and objectives.

Directive	Summary
EXTERNAL AUTHORITIES	
OMB Circular A-11	Provides overview of the budget process and detailed instruction on Exhibit 53 (Part 2) & Exhibit 300 (Part 7). Mandates that all major IT investments must align with the Federal Enterprise Architecture (FEA). Directs agencies to use the FEA Performance Reference Model. Part 7 also contains the Capital Programming Guide.
OMB Circular A-76, Performance of Commercial Activities	Requires that activities performed by the Federal government that are identified as commercial in nature will be subject to competition.
OMB Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs	Provides general guidance for conducting benefit-cost and cost effectiveness analyses and specific guidance on the discount rates to be used in evaluating Federal programs whose benefits and costs are distributed over time. Discount rates supplemented by annual OMB Memoranda.
OMB Circular A-109, Major Systems Acquisitions	Establishes policies for acquiring major systems. Major systems are defined as those programs that are critical to fulfilling an Agency mission, entail the allocation of relatively large resources, and warrant special management attention.
OMB Circular A-123	Mandates that each agency will design management structures that ensure accountability for results and cost effectiveness. Supplemented by OMB Memoranda.
OMB Circular A-127, Financial Management Systems	Prescribes policies and standards for executive departments and agencies to follow in developing, operating, evaluating, and reporting on financial management systems.
OMB Circular No. A-130	Mandates that agencies must plan in an integrated manner for managing information throughout its life cycle. Further mandates that agencies integrate planning for information systems with plans for resource allocation and use, including budgeting, acquisition and the use of information technology. Directs agencies to establish a capital planning and investment control process that links mission needs, information and information technology in an effective and efficient manner. The process will guide both strategic and operational IRM, IT planning, and the Enterprise Architecture by integrating the agency's IRM plans, strategic and performance plans. The capital planning and investment control process includes all stages of capital programming, including planning, budgeting, procurement, management and assessment.
OMB Memorandum M-97-02, Funding Information Systems Investments	Establishes the decision criteria with respect to the evaluation of major information system investments.
OMB Memorandum M-00-07, Incorporating and Funding Security in Information Systems Investments	Reminds agencies of OMB's principles for incorporating and funding security as part of agency information technology systems and architectures and of the decision criteria that will be used to evaluate security for information systems investments.
OMB Memorandum, M-03-22, OMB Guidance for Implementing the Privacy Provisions of the E-Government Act of 2002	Provides guidance on implementing the privacy provisions of the E-Government Act of 2002.
OMB Memorandum M-04-19, Information Technology (IT) Project Management (PM) Qualification Guidance	Identifies IT investment systems requiring qualified Project Managers and requirements for certification of Project Managers.
OMB Memorandum, M-05-23, Improving Information Technology (IT) Project Planning and Execution	Identifies steps agencies must take for all new major IT investments, on-going major IT developmental investments, and high-risk IT investments to better ensure improved execution and performance as well as to promote more effective oversight.
OMB Memorandum, M-10-23, Guidance for Agency Use of Third-Party Websites and Applications	Provides guidance on an agency's use of third-party web sites and applications.
OMB Memorandum, M-10-27, IT Investment Baseline Management Policy	Provides policy direction regarding development of agency IT investment1 baseline management policies and defines a common structure for IT investment baseline management policy with the goal of improving transparency, performance management, and effective investment oversight.
OMB Memorandum, M-11-15, Guidance on Implementing the Plain Writing Act of 2010	The Plain Writing Act of 2010 (the Act) (Public Law 111-274), which the President signed into law on October 13, 2010, calls for writing that is clear, concise, and well-organized.
OMB Memorandum, M-11-24, Implementing Executive Order 13571 on Streamlining Service Delivery and Improving Customer Service	Provides guidance on improving customer service using innovative technology, improving on-line services, and use of customer service plans.

Directive	Summary
EXTERNAL AUTHORITIES	
Paperwork Reduction Act (PRA)	Establishes a broad mandate for agencies to perform their information resources management activities in an efficient, effective and economical manner. The PRA requires that the Director of OMB develop and implement uniform and consistent information resources management policies; oversee the development and promote the use of information management principles, standards and guidelines; evaluate agency information resources practices to determine their adequacy and efficiency; and determine compliance of such practices with the policies, principles, standards and guidelines promulgated by the Director.
Presidential Initiatives-Federal Enterprise Architecture	Led by OMB, the purpose of this effort is to identify opportunities to simplify processes and unify work across the agencies and within the lines of business of the Federal government
Privacy Act of 1974, (PL 93-579, as amended)	The Privacy Act mandates that each United States Government agency shall have in place an administrative and physical security system to prevent the unauthorized release of personal records.
Workforce Investment Act of 1998, Section 508	Requires agencies to give disabled employees and members of the public access to information that is comparable to the access available to others.
HUD annual appropriations language	Annual appropriations may direct, constrain or otherwise affect IT expenditures.
OTHER EXTERNAL GUIDANCE	
GAO IT Investment Management Maturity Framework	This GAO maturity framework serves as the guide for IT investment management process improvement throughout the Federal government.
National Institute of Standards and Technology (SP 800 series and FIPS)	NIST issues special publications (SP) and Federal Information Processing (FIPS) standards. SP 800 series applies to cybersecurity.
OMB Federal Segment Architecture Methodology (FSAM)	Led by OMB, FSAM provides guidance for developing and using segment architectures across Federal agencies. Use of the FSAM should result in more complete and consistent segment architecture products and will result in greater reuse of segment architectures by providing key information that informs downstream processes for capital planning, security (e.g. certification and accreditation), and the system development life cycle.
Project Management Book of Knowledge (PMBOK)	PMBOK reflects the standards for project management.
ITIL	ITIL provides the standards for service planning and delivery.
HUD SPECIFIC GUIDANCE (not all inclusive)	
HUD Strategic Plan	The strategic plan relfects HUD's strategic goals and objectives reltive to mission delivery.
HUD IT Management Framework Policy	Policy providing overarching direction for IT management at HUD.
HUD Project Planning and Management Policy	Policy providing for project planning and management at HUD.
HUD IT Strategic Planning Policy	Policy providing IT strategic planning at HUD.
HUD IT Risk Management Policy	Policy addressing IT risk management at HUD.
HUD IT Performance Management Policy	Policy addressing IT performance management at HUD.
HUD IT Governance Policy	Policy addressing governance of IT at HUD.
HUD IT Capital Management Policy	Policy addressing IT capital management at HUD.
HUD IT Enterprise Architecture Policy	Policy providing IT enterprise architecture at HUD.
HUD Integrated Baseline Review (IBR) Guide 2008	This guide details HUD's approach to completing Integrated Baseline Reviews adhering to OMB Memorandum M-05-23.
HUD Baseline Change Control Process Guide 2009	Specifies HUD's implementation of OMB Memorandum M-10-27, Information Technology Investment Baseline Management Policy