



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Chief Information Officer

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Enterprise Architecture Policy

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Enterprise Architecture Policy

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1-1 Purpose

This policy supports a department-wide Enterprise Architecture (EA) Practice for the United States Department of Housing and Urban Development (HUD). Facilitated by the Office of the Chief Information Officer (OCIO), HUD's EA establishes a corporate blueprint for investing that connects strategic plans with individual programs and Information Technology (IT) solutions. It will guide and influence investments in a consistent, coordinated, and integrated fashion that will improve interoperability, reduce duplicative efforts and optimize mission operations. This policy establishes the basis for tactical direction, procedures, and standards defined within the HUD EA Practice and governance documentation, the updating of which will ensure iterative realignment as changes to federal EA guidance and management directives emerge. This policy supersedes the previous EA policy which is obsolete.

2-1 Scope

The Clinger-Cohen Act of 1996 mandates the implementation of an effective Enterprise Architecture policy and an associated Enterprise Architecture Practice. This act requires Federal Agency Chief Information Officers to develop, maintain, and facilitate sound and integrated IT architecture for the executive agency. Subsequently, the Office of Management and Budget (OMB), in its Circular A-130, issued explicit guidance that requires agency IT investments to be consistent with the Agency's Enterprise Architecture.

3-1 Enterprise Architecture (EA) Policy

It is the policy of the Department to define, maintain, and adhere to the approved HUD EA principles, procedures, standards, reference models, and guidelines that support HUD's mission, goals, and objectives.

HUD's EA policy is as follows:

1. The Department shall develop and maintain a single department-wide EA based on the Department's mission, strategies, goals, and objectives. EA enablement and maturity shall be achieved through segment development in support of HUD's programs and initiatives.
2. All HUD organizations shall comply with the principles, procedures, standards, and guidelines of the EA to support IT management, governance, and operations. This includes IT acquisitions, IT portfolio management, risk and security management, and project planning and management.
3. All HUD organizations shall support Departmental efforts to streamline business processes, improve communication with stakeholders, reduce information and capability 'stovepipes', and minimize duplication of effort, investments, systems/applications, and services through the use of HUD's EA Practice.
4. All HUD organizations shall participate in EA efforts to define and implement shared services, establish business and technical standards, and leverage technical capabilities across the Federal government, to reduce cost and maximize return-on-investments for IT products and services.

5. The HUD EA shall adopt data management best practices to ensure that HUD data are well-defined, relevant, reliable, complete, accurate, accessible, and secure, to ensure that HUD data effectively support HUD decision-making, performance improvement, information sharing and government transparency.”
6. The EA Practice shall be responsible for implementing and managing EA information in a central repository, accessible to HUD and authorized personnel to support strategic and project planning, decision-making, and reuse of assets and resources across the Department.
7. The HUD EA shall integrate security and privacy considerations into all of its architectural layers in compliance with Federal regulations and Departmental security standards to mitigate and reduce risk, and improve security management and operations across the Department.
8. The HUD EA shall assess all current and emerging technologies in support of HUD’s business needs in a way that reduces infrastructure complexity and costs. This ensures technical interoperability and continually enhances IT service delivery, scalability, and agility.
9. The HUD EA shall comply with all Federal regulatory mandates, executive directives, and oversight requirements. It shall be consistent with the Federal Enterprise Architecture and its approved reference models as prescribed by the Office of Management and Budget (OMB).
10. This HUD EA policy shall be incorporated into applicable contract language or memoranda of agreement between HUD and its IT service suppliers and contractors to define compliance directive.
11. Every HUD organization shall comply with Section 504 and Section 508 of the Rehabilitation Act. All electronic and information technology developed, procured, maintained, or used by the Department must be accessible to employees and members of the public with disabilities. All technology procured by the HUD shall be assessed, prior to purchase, to determine compliance with the accessibility standards published by the U.S. Access Board.
12. All HUD organizations shall provide reasonable accommodations for employees with disabilities in accordance with the requirements of Section 501 of the Rehabilitation Act. This includes, for example, providing an employee with a disability a different type of IT than others if needed as a reasonable accommodation - such as assistive technology, software that works more effectively with the employee’s screen reader or other assistive technology, or hardware - and making exceptions or modifications to policies that may be needed because of an individual’s disability.

4-1 EA Roles and Responsibilities

HUD’s Enterprise Architecture Practice is a department-wide mandate that involves the active participation of all program organizations. HUD’s EA is developed in a cooperative, managed and coordinated effort facilitated by the Office of the Chief Information Officer, with the participation of HUD Program Offices and technical experts from subject domains.

This HUD EA policy outlines organizational roles and responsibilities for ensuring compliance with legislative and executive level guidance on Enterprise Architecture (EA). The following describes the roles and responsibilities for organizations that contribute to the development, implementation, and the operational integration of HUD's EA Practice across the Department.

A. Chief Information Officer (CIO)

The Chief Information Officer (CIO) establishes HUD's EA Practice and manages the development, implementation, and maintenance of HUD's enterprise architecture. The Office of the Chief Information Officer (OCIO) shall also create EA advisory and collaboration groups to support the OCIO and governance framework.

Responsibilities

- a. Establish HUD's EA Practice and appoint the Chief Architect to lead the EA Practice in the development, implementation, maintenance, and usage of HUD's EA across the Department.
- b. Ensure compliance with HUD EA policy, principles, procedures, standards, and guidelines, in collaboration with HUD Program Office staff, OCIO functional areas, and communities of practice.
- c. Ensure availability and management of resources and training opportunities sufficient to fulfill EA responsibilities of the HUD EA Practice, HUD program offices and other OCIO functional areas.

B. Chief Architect

The HUD Chief Architect leads the EA Practice in developing, maintaining, governing, and evolving the Department's EA.

The HUD Chief Architect manages the EA Practice under authority delegated by HUD's CIO. The Chief Architect establishes, plans, and directs the HUD EA Practice and oversees the construction, verification, and adoption of the EA. The Chief Architect (or designee) is the HUD representative to intra- and inter-governmental advisory bodies on EA-related matters.

Responsibilities

- a. Develop, maintain, and disseminate HUD's EA policy, procedures, standards, and guidelines to promulgate EA foundational principles and best practices throughout the Department.
- b. Develop the HUD EA framework which aligns with the Federal EA (FEA) reference models, describing HUD's performance, business, data, systems, technology, and security components.
- c. Ensure the integrity of HUD's enterprise architectural processes and work products, which include ensuring compliance with HUD EA requirements practice on IT investments, systems, and projects.
- d. Assist business and technical managers in identifying cost-saving alternatives for existing (legacy) systems, and for new applications or systems, identifying solutions to meet business needs.

- e. Ensure the integration of the HUD EA within the capital planning and investment control (CPIC), IT governance, and the project planning and management (PPM) processes of the Department.
- f. Collaborate with HUD acquisition managers to ensure that contractors and vendors are informed of their responsibilities to comply with the HUD EA, providing EA documentation as applicable.
- g. Ensure the adherence to EA performance and compliance mandates from Government review and policy organizations, including the Government Accountability Office (GAO), OMB, and Office of the Inspector General (OIG).

C. Chief Technology Officer (CTO)

The HUD CTO leads developing and managing the strategic plans and programs for current and emerging technologies under the authority delegated by HUD's CIO.

Responsibilities

- a. Manage the Information Technology infrastructure Library (ITIL) for service delivery in collaboration with IT Operations.
- b. Establish and approve technical standards in collaboration with EA.
- c. Identify and implement technical enterprise solution architectures in collaboration with EA.
- d. Identify technology capabilities based on business requirements and needs in collaboration with EA and IT Operations.

5-1 Getting Help/Responsible Office

Additional resources and information about the EA Practice are available at <http://hudatwork.hud.gov/po/i/ea/resources/index.cfm>.

Contact the Department's Chief Architect in the OCIO Enterprise Architecture at (202) 708-1821 for interpretations, resolution of problems, and special situations.

6-1 Authorities and References

Federal Regulations

- A. **The Clinger-Cohen Act of 1996 (CCA)** requires agencies to use a disciplined capital planning and investment control (CPIC) process to acquire, use, maintain, and dispose of information assets. OMB policy for management of federal information resources is in Circular A-130, Management of Federal Information Resources, and section 53 of A-11. The CCA aims to improve the productivity, efficiency, and effectiveness of federal programs through improved acquisition, use, and disposal of IT resources.

- B. **The Government Performance Modernization of 2010 (GPRAMA)** is an amendment to the GPRA Act of 1993 that updates the Government Performance and Results Act of 1993 to establish a stronger foundation for strategic planning, performance management and budgeting in support of agency missions and priority goals. GPRAMA strengthened requirements for agencies to address performance challenges and improve management function in five areas: financial, human capital, information technology, procurement and acquisition, and real property.
- C. **The Government Performance and Results Act of 1993 (GPRA - 1993)** establishes the foundation for budget decision-making to achieve strategic goals in order to meet agency mission objectives. Instructions for preparing strategic plans, annual performance plans, and annual program performance reports are provided in Part 6 of this Circular (see section 220).
- D. **The Federal Acquisition Streamlining Act of 1994, Title V (FASA V - 1994)** requires agencies to establish cost, schedule, and measurable performance goals for all major acquisition programs, and achieve, on average, 90 percent of those goals. OMB policy for performance-based management is also provided in this section. If a project falls out of tolerance (failure to meet 90 percent of cost, schedule, or performance goals), FASA gives the Agency head the authority to review and, if necessary, terminate the project.
- E. **The Government Paperwork Elimination Act of 1998** develops procedures for the use and acceptance of electronic signatures by executive agencies.
- F. **The Government Information Security Reform Act (GISRA - 2000)** focuses on the project management, implementation, and evaluation of systems security. It requires federal agencies to assess the information security control techniques of their systems. Specifically, agencies must support the cost-effective security of federal information systems by promoting security as an integral component of each Agency's business operations.
- G. **The Federal Information Security Management Act (FISMA - 2002)** requires agencies to integrate IT security into their capital planning and enterprise architecture processes at the agency, conduct annual IT security reviews of all programs and systems, and report the results of those reviews to OMB.
- H. **The E-Government Act of 2002 (P.L. 107-347)** requires agencies to develop performance measures for implementing E-Government. The Act also requires agencies to support Government-wide E-Government initiatives and to leverage cross-agency opportunities to further E-Government. In addition, the Act requires agencies to conduct, and submit to OMB, Privacy Impact Assessments for all new IT investments administering information in identifiable form collected from or about members of the public.
- I. **The Rehabilitation Act of 1973** requires access to programs and activities that are funded by Federal agencies and to Federal employment. The law also established the Access Board

OMB Regulations and Guidance Documents

- A. **OMB Circular A-11, Part 7 - Capital Planning Budget Reporting, Exhibits 53 and 300.** The OMB Capital Programming Guide provides guidance on the principles and techniques for effective capital programming. The Capital Programming Guide integrates the various Administration and statutory asset management initiatives (including GPRA, Clinger/Cohen Act, FASA, and others)

into a single, integrated capital programming process to ensure that capital assets contribute to the achievement of agency strategic goals and objectives.

- B. **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.
- C. **OMB Circular A-123**, Management Accountability and Control, provides guidance to Federal managers on improving the accountability and effectiveness of Federal programs and operations by establishing, assessing, correcting, and reporting on management controls.
- D. **OMB Circular A-127**, Financial Management Systems, prescribe policies and standards for executive departments and agencies to follow in developing, operating, evaluating, and reporting on financial management systems.
- E. **Circular A-130**, Management of Federal Information Resources, establishes policies for the management of federal information resources to include procedural and analytical guidelines for implementing specific aspects of the circular.
- F. **OMB Circular A-130, Section 8b**, establishes additional requirements for enterprise architectures, planning and control of information systems and technology investments and performance management. Agencies must develop, implement, and use a capital programming process to develop their capital asset portfolio.
- G. **OMB memorandum M-00-07** dated February 28, 2000, 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.
- H. **Common Approach to Enterprise Architecture** dated July 2012 provides guidance on the practice and delivery of business value throughout the Executive Branch of the U.S. Federal Government. Federal law and policy require Agency leaders to develop and maintain an agency-wide enterprise architecture that integrates strategic drivers, business requirements, and technology solutions.
- I. **Federal Enterprise Architecture (FEA)** reference models dated January 2013 are taxonomies used to classify and inventory identified aspects of any segment. These classifications and inventories are used in the planning and design of various segment aspects. The aggregation of data through the use of these taxonomies enables enterprise architects to establish *lines of sight* between business and technology as well as identify gaps, redundancies and opportunities for organizational design and performance improvement. It comprises a framework for describing important elements of the FEA in a common and consistent way.
- J. **OMB – Improving Agency Performance Using Information and Information Technology**, dated June 2009 focuses on the role of the EA to achieve target performance improvements. It also addresses other practice areas, such as strategic planning, capital planning and investment control (CPIC), and program and project management. These processes must be fully integrated with an agency EA Practice. It prescribes the development of a results-oriented architecture within the context of the Performance Improvement Lifecycle.

- K. **OMB FEA Practice Guidance** dated December 2006 is an OMB guidance to assist architects to develop and use segment architecture in describing the current and future state of the agency and its segments; defining the desired results for each segment; determining what resources are used for an agency's core mission areas and common or shared services; leveraging resources across the agency; and developing a transition strategy to achieve the desired results.
- L. **OMB - 25 Point Implementation Plan to Reform Federal Information Technology Management** dated December 2010 is an action plan to deliver more value to the American taxpayer. It addresses many of the most pressing, persistent challenges of the federal government in IT management. The plan is divided into two sections: Achieving Operational Efficiency and Managing Large-Scale IT Programs Effectively. The first section outlines the steps being taken to adopt cloud solutions and leverage shared services. The second section covers the structural areas that impact the success rates of large IT programs across government.