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Directive No: CIO 2122.3

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*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

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## Enterprise Architecture Policy

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### 1. PURPOSE

The Environmental Protection Agency (EPA) Enterprise Architecture (EA) Policy describes EPA's approach for establishing the principles<sup>1</sup>, policies, procedures and new technical infrastructure standards to manage EPA's EA program.

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### 2. SCOPE

This policy applies to EPA offices and persons in positions with responsibility for using and managing information technology (IT) to support EPA business and administrative responsibilities. This includes the following:

- Planning EPA's IT investments
  - Planning Enterprise Shared IT Services (ESS)
  - Developing budget requests
  - Developing transition plans and IT roadmaps
  - Acquiring IT resources
  - Designing and developing IT solutions that are vital to the Agency's mission to protect human health and the environment.
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### 3. AUDIENCE

The audience for the EA Policy includes EPA and contractor personnel who manage, plan, or oversee EPA's business, data, applications, technology, and IT investments. These individuals include, but are not limited to:

- Chief Information Officer (CIO)
  - Chief Financial Officer (CFO)
  - Chief Information Security Officer (CISO)
  - Chief Technology Officer (CTO)
  - Chief Acquisition Officer (CAO)
  - Chief Privacy Officer (CPO)
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<sup>1</sup> Refer to the [Application Development](#) and [Technology Infrastructure Portfolio and Standards](#) pages on the [IT/IM Architecture site](#) for more information about EPA's guiding principles for digital delivery and application development and EPA's guidance on IT selected by EPA to perform specific functions.

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Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

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- Chief Architect (CA)
- Chief Data Officer (CDO)
- Senior Information Officials (SIOs)
- Information Management Officers (IMOs)
- Information Security Officers (ISOs)
- Information System Security Officers (ISSOs)
- System Sponsors
- System and Product Owners
- System Managers
- Project Managers (PMs)
- Senior Information Technology Leaders (SITLS)

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## 4. AUTHORITY

- Clinger-Cohen Act of 1996 <https://www.govinfo.gov/content/pkg/USCODE-2011-title40/pdf/USCODE-2011-title40-subtitleIII.pdf>
- Office of Management and Budget Circular A-130 <https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a130/a130revised.pdf>
- Office of Management and Budget Circular A-11 [https://obamawhitehouse.archives.gov/omb/circulars\\_a11\\_current\\_year\\_a11\\_toc](https://obamawhitehouse.archives.gov/omb/circulars_a11_current_year_a11_toc)
- Office of Management and Budget Memorandum M-19-23 <https://www.whitehouse.gov/wp-content/uploads/2019/07/M-19-23.pdf>
- E-Government Act of 2002 <https://www.govinfo.gov/content/pkg/PLAW-107publ347/pdf/PLAW-107publ347.pdf>
- Interim E-Enterprise for the Environment Digital Strategy <https://e-enterprisefortheenvironment.net/wp-content/uploads/2019/08/Interim-E-Enterprise-Digital-Strategy-V-2.0.pdf>
- Federal Data Strategy 2020 Action Plan <https://strategy.data.gov/assets/docs/2020-federal-data-strategy-action-plan.pdf>
- Federal Information Security Modernization Act (FISMA) of 2014 <https://www.congress.gov/bill/113th-congress/senate-bill/2521/text>
- Federal Information Technology Acquisition Reform Act (FITARA) of 2014 <https://www.congress.gov/113/plaws/publ291/PLAW-113publ291.pdf#page=148%5D>
- Foundations for Evidence-Based Policymaking Act of 2018 <https://www.congress.gov/bill/115th-congress/house-bill/4174>
- 21st Century Integrated Digital Experience (IDEA) Act of 2018 <https://www.congress.gov/115/plaws/publ336/PLAW-115publ336.pdf>
- Government Paperwork Elimination Act of 1998 <https://www.congress.gov/bill/106th-congress/house-bill/439>
- Paperwork Reduction Act of 1995 <https://www.govinfo.gov/content/pkg/PLAW->



## IT/IM DIRECTIVE POLICY

---

Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

---

- [104publ13/html/PLAW-104publ13.htm](https://www.104publ13/html/PLAW-104publ13.htm)
- Privacy Act of 1974, as amended <https://www.justice.gov/opcl/privacy-act-1974>
- Government Performance and Results Act of 1993  
<https://www.congress.gov/bill/103rd-congress/senate-bill/20>
- Digital Government Strategy, 2012  
<https://obamawhitehouse.archives.gov/sites/default/files/omb/egov/digital-government/digital-government-strategy.pdf>
- Federal Cloud Computing Strategy, 2019 <https://www.whitehouse.gov/wp-content/uploads/2019/06/Cloud-Strategy.pdf>
- Section 508, Rehabilitation Act, 1973  
<https://www.govinfo.gov/content/pkg/USCODE-2011-title29/html/USCODE-2011-title29-chap16-subchapV-sec794d.htm>
- Section 255, Communications Act, 1996 [https://www.access-board.gov/ict/guide/2555\\_guide.md.html](https://www.access-board.gov/ict/guide/2555_guide.md.html)

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### 5. POLICY

EPA's EA involves the active participation of EPA program and regional office stakeholders involved in managing, planning, or overseeing EPA's business, data, applications, technology and IT investments. EPA's Office of Digital Service and Technical Architecture (ODSTA) within the Office of Mission Support (OMS) is responsible for leading efforts to establish and manage EPA's EA program. ODSA collaborates and coordinates with internal and external stakeholders.

EPA program and regional offices must work with ODSA and other offices within OMS throughout the systems development lifecycle, to ensure new systems/applications and modernizations are reviewed for alignment with Agency EA principles and IT/IM Technical Infrastructure Portfolio Standards. EPA uses its [IT/IM Architecture Program site](#) as its primary resource for documenting EPA's EA strategic vision, principles, guidelines and standards to help EPA program offices effectively manage their IT/IM resources. Specifically, the IT/IM Architecture site describes the following:

- [EPA Technical Infrastructure Portfolio Standards](#) - Provides a current list of IT products, services and technical specifications approved for enterprise-wide use.
- [Application Architecture](#) - Provides guidance on applications within EPA's portfolio, how they are developed and deployed, and how to determine the best platforms for an application solution.
- [Data/Information Architecture](#) - Provides guidance for gathering, storing and disseminating data.



# IT/IM DIRECTIVE POLICY

---

Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

---

Per OMB Circular A-130 and EPA IT/IM Information Directives, EPA approaches the design and use of its EA as follows:

- Ensures the Agency's EA supports the business needs and priorities expressed through EPA's Strategic Plan and CIO Directives.
- Complies with Agency policies and applicable federal statutes, regulations, National Institute of Standards and Technology (NIST) guidance and other applicable federal or Agency security and privacy requirements.
- Aligns with EPA [System Lifecycle Management \(SLCM\)](#), [Capital Planning and Investment Control \(CPIC\)](#), [Federal Information and Technology Acquisition Act \(FITARA\)](#), and [Section 508](#) policies and procedures.
- Emphasizes the use of an enterprise shared solutions (ESS) approach when practicable.
- Facilitates the transition from the Agency's current EA to EPA's target architecture.
- Integration of federal information security and privacy requirements and security and privacy controls into the enterprise architecture.

EPA information systems (new, modernizations and terminations) must be vetted by the Agency's CA, Architecture Review Committee (ARC) or SIO (or delegated authority) to ensure they align with the EA requirements and standards eliminate redundancies, leverage ESS, and ensure cost effectiveness. Refer to EPA's [SLCM Procedure](#) for more information on system/application vetting processes.

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## 6. ROLES AND RESPONSIBILITIES

**Assistant Administrators, Chief Financial Officer (CFO), General Counsel (GC), Inspector General (IG), Deputy Chief of Staff to the Administrator, Associate Administrators, Regional Administrators and Laboratory Directors:**

Ensuring that their organizations actively engage with their Chief Information Officer – Strategic Advisory Committee (CIO-SAC) representative, SIO and EPA's CA to ensure comply with the EA Policy

**Chief Information Officer (CIO):**

- Approving the EA Policy and EA IT Standards Procedure
- Reviewing and approving EPA information systems/investments and acquisitions.
- Ensuring Agency compliance with Agency policies and procedures by providing guidance and tools to senior level managers for program oversight.
- Conducting reviews of the Agency's IT portfolio (IT Portfolio Reviews (ITPRs), CPIC IT Dashboard (ITDB) submissions, PortfolioStat/TechStat sessions) to ensure effective



## IT/IM DIRECTIVE POLICY

---

Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

---

IT and risk management processes.

- Overseeing Agency governance and Investment Review Boards (IRBs) to ensure IT investments align with program objectives.
- Establishing and promoting effective approaches to developing and procuring, deploying and sharing new Agency applications.

**Chief Technology Officer (CTO):**

- Maintaining the EA Policy, Enterprise Architecture IT Standards Procedure, SLCM Policy, and SLCM Procedure and supporting documents and tools.
- Reviewing and approving EPA IT investment requests per EPA's Procedures.

**Chief Acquisition Officer (CAO):**

- Ensuring that IT services contracts and mission support contracts contain requirements for compliance with the EA Policy and EA IT Standards Procedure.

**Chief Architect (CA):**

- Serving as the technology and business leader for Agency IT system development efforts.
- Ensuring systems development efforts are properly aligned with business requirements, EPA's IT Strategic Plan, Agency architecture principles, current Agency IT Technical Infrastructure Portfolio Standards and future enterprise architecture requirements, EPA's Digital Strategy, and other Agency and federal IT management requirements.
- Promoting communication between EPA offices to assess whether they have similar needs and identifying opportunities for collaborating to avoid system duplication and use of shared services.
- Reviewing and approving SLCM Control Gate 2 for Major Systems and Non-Major Systems as appropriate and certifying and providing guidance for compliance of solution architectures during EA reviews.

**Chief Data Officer (CDO):**

- Leading the Agency's data management and governance efforts throughout full lifecycle data from collection through records management, using data management best practices.
- Leading the development of the Agency's Open Data Plan.
- Leading the Agency's Data Governance Council, including facilitating collaborative activities among stakeholders with responsibilities and needs for data within the Agency.



## IT/IM DIRECTIVE POLICY

---

Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

---

- Reviewing the impact of the Agency's infrastructure on data asset accessibility and coordinating with the EPA CIO to improve such infrastructure to reduce any barriers.

**Chief Information Officer – Strategic Advisory Committee (CIO-SAC):**

- Reviewing and recommending enterprise IT strategic direction and criteria for making IT investment decisions.
- Advising on IT annual budget as it relates to IT strategic direction.
- Advising CIO on requests for new IT solutions, system modernizations and terminations.

**Information Management Officers (IMOs) and Information Resources Management Branch Chiefs (IRM BCs):**

- Supporting the SIO or delegated authority in ensuring compliance with the EA Policy, and EA IT Standards Procedure for systems within their office.
- Reviewing and concurring on waiver requests to the EA Policy and EA IT Standards Procedure, as applicable.

**Investment Review Board (IRB):**

- Advising and assisting the CIO on all matters pertaining to IT investment management.
- Supporting the CIO in making recommendations on the appropriateness of information investments.

**Chief Information Security Officer (CISO):**

- Providing oversight to the Agency's security assessment and authorization process status.
- Reviewing authorization packages and making authority to operate (ATO) decision recommendations to the CIO.

**Chief Privacy Officer (CPO):**

- Reviewing and supporting EA as it relates to privacy and personally identifiable information (PII).
- Identifying and advising on the management of privacy risks and complying with applicable requirements.

**Information Security Officers (ISOs):**

- Reviewing and supporting the development of SLCM security documentation, as appropriate, and ensuring adherence to IT Technical Infrastructure Portfolio Standards.
- Assigning security responsibilities throughout the system life cycle.

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Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

---

**Information System Security Officers (ISSOs):**

- Maintaining the operational security of the information system.
- Assisting in the planning and execution of security-related SLCM documentation and ensuring adherence to IT Technical Infrastructure Portfolio Standards.

**Office of Mission Support/Office of Digital Services and Technical Architecture (OMS/ODSTA):**

- Defining and maintaining EPA's IT/IM Architecture.
- Ensuring that the technologies acquired and deployed by EPA, individually and in the aggregate, are effective, well integrated, and properly support the business needs of the Agency.
- Leading application and digital services architecture development and implementation in the Agency.

**ODSTA's Digital Services Division (DSD):**

- Managing and supporting the EA consultation during the SLCM Pre-Definition and Definition Phases of EPA software applications and providing project management capabilities for Agency development and deployment projects.
- Providing enterprise systems engineering capabilities to Agency offices through contracts, development platforms and methodologies, and guidance.
- Providing agile systems engineering capability for OMS and Agency-wide use that ensures compliance with Agency architecture.
- Providing technology transfer for new solutions and capabilities (e.g., Agile) including contracts management to Agency stakeholders.
- Performing project management oversight, solution architecture, and business analysis support for select priority Agency development and deployment projects.

**ODSTA's Technical Architecture and Planning Division (TAPD):**

- Responsible for the architecture and future directions of EPA's IT mission support.
- Identifying technologies and support capabilities in response to EPA's Approach to Implementing Shared Services.
- Establishing and maintaining Agency technology strategies, roadmaps and standards.
- Providing leadership for developing technical architecture strategies, plans, roadmaps, guidelines and standards.
- Conducting and consulting on pre-award contracting activities for select priority IT/IM functions.



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Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

---

**Program Office and Regional Architects:**

- Serving as the technology and business leader for their organization's IT systems development efforts.
- Ensuring the development processes align with the enterprise and local architecture principles and the EA Policy, EA IT Standards Procedure, SLCM Policy, and SLCM Procedure.
- Formulating recommendations for local system lifecycle activities that are informed by technology planning, mission/business planning, capital planning, security planning, infrastructure planning, human capital planning, performance planning, and records planning best practices and requirements.
- Ensuring local systems development efforts are properly aligned with local business requirements and other Agency and federal IT management requirements.
- Promoting communication between their organization and with other offices (including IT and non-IT staff) to assess whether they have similar needs and identify opportunities for collaborating to avoid system duplication and use of shared services.

**Senior Information Official (SIO):**

- Ensuring compliance with the EA Policy and EA IT Standards Procedure for systems within their offices.
- Ensuring that the IT developed, used and managed by their organizations supports their business needs and missions and helps to achieve strategic goals.
- Reviewing, concurring on, advising on and/or submitting requests to waive EA Policy and IT/IM Technical Infrastructure Portfolio Standards requirements, as applicable.
- Meeting with business owners and system owners to ensure development and management activities are completed in compliance with Agency policy.
- Reviewing and approving SLCM Procedure Control Gate 2 for systems/solutions that are less than \$250,000.
- Providing feedback and input on implementing the EA Policy, EA IT Standards Procedure, SLCM Policy and Procedure and related review processes.

**Senior Information Technology Leaders (SITLs):**

Within own organization:

- Providing day-to-day management of system lifecycle process and products within their programs.
- Recommending and preparing written justification for waiver requests and documenting them as part of the Project Management Plan.
- Preparing SLCM Control Gate and Project Level Reviews.
- Implementing internal policies or procedures to review proposed systems or applications.



## IT/IM DIRECTIVE POLICY

---

Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

---

- Reviewing proposed system applications and either denying the proposal internally or forwarding the proposal to the larger SITL group for review.

As part of the SITL group per the Application Review Process (ARP):

- Reviewing proposed applications and discussing compliance with the procedures as documented at the [ARP SharePoint site](#).
- Escalating proposals with unresolved issues to the CIO for resolution.
- Providing feedback and input on the implementation of the SLCM Policy and Procedure, EA Policy, and EA IT Standards Procedure and related review processes.

### **Product Owners:**

- Monitoring compliance to the EA Policy and EA IT Standards Procedure for products within their purview.
- Coordinating SLCM development activities with those of the EA; Agency IT Investment Management, including FITARA and CPIC procedures; and information security processes.
- Concurring on waiver requests to the EA Policy and/or Enterprise Architecture IT Standards Procedure, as applicable.
- Approving completed SLCM Control Gate and Project Level Reviews.
- Ensuring submission of System or Application Concept Proposals as described in the SLCM Procedure.
- Working with the reviewers of the System or Application Concept Proposal and others to explain the proposed applications and, as necessary, consider alternate approaches.

### **System Sponsors:**

- Authorizing, approving and ensuring adequate funding and resources during the system life cycle of their information systems.
- Appointing System Owners and authorizing those individuals to initiate system development.
- Reviewing waiver requests, as applicable.

### **System Owners:**

- Adhering to the EA Policy and EA IT Standards Procedure for all systems and component products within their purview.
- Overseeing product owner activities for component products of systems within their purview.



# IT/IM DIRECTIVE POLICY

---

Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

---

**System Managers:**

- In coordination with the System Owner, ensuring compliance to the EA Policy and EA IT Standards Procedure.
  - Preparing SLCM Control Gate and Project Level Reviews.
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## 7. RELATED INFORMATION

- Capital Planning and Investment Control (CPIC) Program Policy:  
<https://www.epa.gov/irmpoli8/capital-planning-and-investment-control-program-policy-and-procedure>
- Capital Planning and Investment Control (CPIC) Procedures:  
<https://www.epa.gov/irmpoli8/capital-planning-and-investment-control-program-policy-and-procedure>
- Enterprise Architecture IT Standards Procedure:  
<https://www.epa.gov/irmpoli8/enterprise-architecture-policy-and-procedure>
- Section 508 Policy: <https://www.epa.gov/irmpoli8/section-508-policy-and-procedures>
- Section 508 Procedures: <https://www.epa.gov/irmpoli8/section-508-policy-and-procedures>
- Data Standards Policy: <https://www.epa.gov/irmpoli8/policy-and-procedures-epas-data-standards#datastandards>
- EPA Acquisition Regulation (EPAAR): [https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title48/48cfrv6\\_02.tpl](https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title48/48cfrv6_02.tpl)
- Records Management Policy: <https://www.epa.gov/irmpoli8/records-management-policy-procedures-and-standards>
- Information Security Policy: <https://www.epa.gov/irmpoli8/information-security-policy-procedures-and-standards#information>
- Privacy Policy: <https://www.epa.gov/irmpoli8/privacy-policy-and-procedures>
- Procedures for Preparing and Publishing Privacy Act Systems of Records Notices:  
<https://www.epa.gov/irmpoli8/privacy-policy-and-procedures>
- EPA System Lifecycle Management Policy: <https://www.epa.gov/irmpoli8/policy-procedures-and-guidance-system-life-cycle-management-slcm>
- EPA System Lifecycle Management Procedure:  
<https://www.epa.gov/irmpoli8/policy-procedures-and-guidance-system-life-cycle-management-slcm>



# IT/IM DIRECTIVE POLICY

---

Directive No: CIO 2122.3

---

*Issued by the EPA Chief Information Officer,  
Pursuant to Delegation 1-19*

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- Security and Privacy Controls for Information Systems and Organizations – NIST 800-53 Rev 5: <https://csrc.nist.gov/publications/detail/sp/800-53/rev-5/final>
- OMB Memorandum M-19-18, Federal Data Strategy: <https://www.whitehouse.gov/wp-content/uploads/2019/06/M-19-18.pdf>
- OMB Memorandum M-19-21, Transition to Electronic Records: <https://www.archives.gov/files/records-mgmt/policy/m-19-21-transition-to-federal-records.pdf>
- OMB Memorandum M-19-16, Centralized Mission Support Capabilities for the Federal Government: <https://www.whitehouse.gov/wp-content/uploads/2019/04/M-19-16.pdf>
- OMB Memorandum M-21-06, Guidance for Regulation of Artificial Intelligence Applications: <https://www.whitehouse.gov/wp-content/uploads/2020/11/M-21-06.pdf>
- OMB Memorandum M-22-01, Improving Detection of Cybersecurity Vulnerabilities and Incidents on Federal Government Systems through Endpoint Detection and Response: <https://www.whitehouse.gov/wp-content/uploads/2021/10/M-22-01.pdf>
- OMB Memorandum M-22-09, Moving the U.S. Government Toward Zero Trust Cybersecurity Principles: <https://www.whitehouse.gov/wp-content/uploads/2022/01/M-22-09.pdf>
- OMB Memorandum, Strategic Plan for Improving Management of Section 508 of the Rehabilitation Act: <https://obamawhitehouse.archives.gov/sites/default/files/omb/procurement/memo/strategic-plan-508-compliance.pdf>
- Information and Communication Technology (ICT) Final Standards and Guidelines: <https://www.access-board.gov/ict/>
- CIO Memorandum: EPA's Approach to Implementing Shared Services

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## 8. DEFINITIONS

**Application:** A system for collecting, saving, processing and presenting data by means of a computer. The term application is generally used when referring to a component of software that can be executed. The terms application and software application are often used synonymously. [NIST Interagency Report 7695]

**Collaboration:** A process in which different parties work together to achieve a goal.

**Capital Planning and Investment Control (CPIC) Process:** The process to acquire,



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Directive No: CIO 2122.3

---

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implement, maintain, and dispose of IT investments. This process integrates strategic planning, budgeting, procurement, and IT management to ensure IT investments support the appropriate missions and business needs, as defined in the Clinger-Cohen Act (CCA) of 1996.

**Enterprise-wide:** Available to, used or consumed by all EPA organizational units and their employees.

**Enterprise Architecture (EA):** A set of products and integrations with platform services that support the enterprise mission, strategic goals, business practices, data assets and technologies. EPA uses its [IT/IM Architecture Program site](#) as its primary resource for disseminating information to agency stakeholders.

**Enterprise Shared IT Service (ESS):** A centrally provided IT service with defined service levels, costs, and methods of integration that is designed to be used or consumed by any part of the enterprise with a business requirement or need. EPA's centrally provided shared technical infrastructure services include email and collaboration tools, data center hosting, and network management. EPA shared applications services include access to payroll and other enterprise applications. EPA plans to expand its ESS portfolio into software delivery services and shared data services in the future.

**Enterprise Target Architecture (ETA):** See Target Architecture.

**Federal Enterprise Architecture:** A business-based framework for government-wide improvement developed by the OMB that is intended to facilitate efforts to transform the federal government to one that is citizen-centered, results-oriented and market-based. (Source: NIST 800-18)

**Federal Information Technology Acquisition Reform Act (FITARA) Review:** Agency processes for reviewing and approving information technology acquisitions in accordance with FITARA, which states that agencies "may not enter into a contract or other agreement for information technology or information technology services, unless the contract or other agreement has been reviewed and approved by the Chief Information Officer."

**Information and Communication Technology:** IT and other equipment, systems, technologies, or processes, for which the principal function is the creation, manipulation, storage, display, receipt, or transmission of electronic data and information, as well as any associated content. Examples of ICT include but are not limited to: computers and peripheral equipment; information kiosks and transaction machines; telecommunications equipment; customer premises equipment;

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Directive No: CIO 2122.3

---

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Pursuant to Delegation 1-19*

---

multifunction office machines; software; applications; Web sites; videos; and electronic documents.

**Information Technology (IT):** Per OMB Memorandum M-15-14<sup>2</sup>, IT includes the following:

- Any services or equipment, or interconnected system(s) or subsystem(s) of equipment, that are used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the agency; where
- such services or equipment are 'used by an agency' if used by the agency directly or if used by a contractor under a contract with the agency that requires either use of the services or equipment or requires use of the services or equipment to a significant extent in the performance of a service or the furnishing of a product.
- The term "information technology" includes computers, ancillary equipment (including imaging peripherals, input, output, and storage devices necessary for security and
- surveillance), peripheral equipment designed to be controlled by the central processing unit of a computer, software, firmware and similar procedures, services (including provisioned services such as cloud computing and support services that support any point of the lifecycle of the equipment or service), and related resources.
- The term "information technology" does not include any equipment that is acquired by a contractor incidental to a contract that does not require use of the equipment.

**IT Portfolio:** The collection of the Agency's IT investments.

**Major IT Investment:** Refer to [EPA's CPIC Program Policy](#).

**Non-Major IT Investment:** Refer to [EPA's CPIC Program Policy](#).

**Product:** Product is a commonly used term in Agile development. [Scrum.org](#) defines a Product in [The Scrum Guide](#) as "...a vehicle to deliver value. It has a clear boundary, known stakeholders, well-defined users or customers. A product could be a service, a physical product, or something more abstract.

**Repositories and Tools:** A collection of databases, architectural and modeling tools, and

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<sup>2</sup> OMB M-15-14, *Management and Oversight of Federal Information Technology*:  
<https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2015/m-15-14.pdf>

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Directive No: CIO 2122.3

---

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Pursuant to Delegation 1-19*

---

other electronic support for developing, modeling, managing, analyzing, and publishing the enterprise baseline architecture, and enterprise target architecture (ETA). Collectively, the EA repositories and tools comprise the strategic information asset base of the EA.

**Service:** From an enterprise perspective, a service describes the systematic utilization of distributed business/technology capabilities managed and synchronized across the enterprise for the purpose of delivering the results from well-defined tasks or for expediting business transactions that address the needs of customers and attain defined business outcomes. A service-oriented approach to doing business allows a task to be defined so it can be accomplished by others as a mutually agreed or contractually provided assistance or support a business/technology capability.

**Small and Other IT Investment:** Refer to [EPA's CPIC Program Policy](#).

**Solution:** An information technology system or application.

**System (Information System):** NIST defines an information system as "A discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information" (NIST SP 800-18 Rev. 1). Federal guidance gives agencies flexibility in constituting an information system, and system managers must establish system boundaries to define the information resources allocated to the system. A single system may consist of several subsystems (a component of a system that performs specific functions). These subsystems fall under the governance of the overall system and should be included in the system documentation, but they do not require separate documentation. A system or subsystem may include information resources (e.g., applications, web pages, databases or spreadsheets). On their own these resources are not considered an information system, but once combined with other resources to perform a specific function or process they become a system or subsystem.

**System Lifecycle Management (SLCM):** EPA's SLCM is the Agency's approach and practices in the definition, acquisition, development, implementation, operations and maintenance, and termination of EPA IT systems and applications. System owners and project managers must maintain required documentation for each phase, step, and activity during the lifecycle of an IT system or application. Each system must fit within the EA of the Agency, and thus the System Lifecycle includes control gates where management can review and approve EA, security, and system requirements before the system may proceed to the next phase of its lifecycle.

**Target Architecture:** A high-level master blueprint describing the optimal state of the



## IT/IM DIRECTIVE POLICY

---

Directive No: CIO 2122.3

---

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Pursuant to Delegation 1-19*

---

Agency, or an individual segment, in terms of strategic goals, business practices, data assets, IT services, and technical infrastructure. Commonly referred to as the “to-be” architecture. The Enterprise Target Architecture (ETA) is a target architecture for the Agency.

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### 9. WAIVERS

Compliance with this policy, the SLCM, EA IT Standards Procedure, and Agency IT/IM Architecture principles and IT/IM Technical Infrastructure Portfolio Standards shall be mandatory. Requests for any exceptions or waivers from the policy, procedures, and/or technical standards shall be addressed to the CIO or their designee. The procedures will include the right of any office to appeal a CIO decision to the Deputy Administrator.

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### 10. DIRECTIVE(S) SUPERSEDED

Enterprise Architecture Policy (CIO Policy 2122.2)

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### 11. CONTACTS

For more information on this policy, please contact the Office of Mission Support, Office of Digital Services and Technical Architecture.

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***Vaughn Noga, Chief Information Officer and Deputy Assistant Administrator  
for Information Technology and Information Management***