
Capital Planning and Investment Control Program Policy

Directive No: CIO 2120.5

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

Capital Planning and Investment Control Program Policy

1. PURPOSE

The Information Technology Management Reform Act of 1996 (Public Law 104-106, Clinger Cohen Act (CCA)) requires Federal executive departments and agencies (D/As), including the Environmental Protection Agency (EPA) to use a disciplined Capital Planning and Investment Control (CPIC) process to acquire, use, maintain, and dispose of information technology (IT) in alignment with their enterprise architecture planning processes. The Office of Management and Budget (OMB) Circular A-130, *Managing Information as a Strategic Resource*, affirms the importance of information and IT resources to the United States (U.S.) and requires Federal executive D/As to establish and maintain a CPIC process that links mission needs, information, and IT in an effective and efficient manner.

In accordance with these requirements, the EPA CPIC program integrates the planning, acquisition and management of capital assets into the budget decision-making process to improve asset management in compliance with results-oriented requirements. Capital planning is an essential part of the E-Government Strategy and assists project managers and Agency officials with managing their portfolio of technology projects so that Agency mission goals may be achieved, and citizens are better served.

This document outlines the EPA's CPIC policy, particularly reporting requirements throughout the capital programming lifecycle. CPIC reporting is intended to assist OMB and the EPA Chief Information Officer (CIO) with oversight and informed decision making while also providing transparency to the general public. The EPA's goal is to achieve optimal balance of Agency IT investments at the lowest cost with the least risk, while addressing the strategic needs of the Agency, optimizing scarce IT resources, identifying gaps and inaccuracies in IT spending, and ensuring mission and business goals are achieved.

This policy also addresses Federal Information Security Management Act (FISMA) compliance, which requires agencies to integrate IT security into their capital planning and enterprise architecture processes, conduct annual IT security reviews of all programs and systems and report the results of those reviews to OMB.

2. SCOPE

The EPA CPIC program's mission is to guide EPA IT investment managers effectively and efficiently through CPIC, ensuring optimal support to the EPA mission.

This policy applies to EPA IT investments and IT projects throughout their entire life cycle, regardless of funding source, whether owned and operated by EPA or operated on behalf of EPA. All EPA organizations are expected to manage their IT investments

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and portfolios in accordance with applicable EPA investment category requirements (e.g., Major, Medium, Lite, and Small/Other).

3. AUDIENCE

This policy applies to EPA federal and contractor personnel participating in the acquisition, development, management, and disposal of EPA IT investments.

4. AUTHORITY

The links to the documents listed below can be located:

<https://intranet.epa.gov/cpic/laws.htm>

- [Clinger-Cohen Act \(CCA\) of 1996](#) – (formerly the Information Technology Management Reform Act (ITMRA)) – requires the head of each agency to implement a process for maximizing the value and assessing and managing the risks of the agency's IT acquisitions.
 - [E-Government Act of 2002](#) – aims to enhance the management and promotion of Electronic Government services and processes by establishing a Federal Chief Information Officer (CIO) within the OMB, and by establishing a broad framework of measures that require using Internet-based information technology to enhance citizen access to government information and services, and for other purposes.
 - [EIA-748, Standard for Earned Value Management Systems](#) – provides guidelines for earned value management systems (EVMS).
 - [Paperwork Reduction Act of 1995 \(PRA\)](#) – requires agencies to use information resources to improve efficiency and effectiveness of their operations and fulfillment of their mission.
 - [Federal Acquisition Streamlining Act of 1994 \(FASA\)](#) – requires agencies to define cost, schedule and performance goals for federal acquisition programs and to ensure that these programs remain within prescribed tolerances.
 - [Government Performance and Results Act of 1993 \(GPRA\)](#) – requires agencies to set goals, measure performance, and report on their accomplishments.
 - [Chief Financial Officers \(CFO\) Act of 1990](#) – focuses on the need to significantly improve the financial management and reporting practices of the federal government. Having accurate financial data is critical to understanding the costs and assessing the returns on IT investments.
 - [Federal Information Security Management Act of 2002 \(FISMA\)](#) – requires agencies to integrate IT security into their capital planning and enterprise architecture processes, conduct annual IT security reviews of all programs and systems, and report the results of those reviews to the OMB.
 - [OMB Circular A-130, Management of Federal Information Resources](#) – incorporates the PRA and provides guidance concerning information dissemination and sharing, planning, training, security, standards, privacy, and records management.
 - [OMB Circular A-11, Preparation, Submission, and Execution of the Budget](#) –
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- provides unified budget guidance and emphasizes that estimates for information systems reflect the agency's commitment to planning and are consistent with the CCA.
- [OMB Circular A-123, Appendix D Compliance with the Federal Financial Management Improvement Act \(FFMIA\) of 1996](#)– defines new requirements for determining compliance with the FFMIA in order to transform a compliance framework so that it will contribute to efforts to reduce the cost, risk, and complexity of financial system modernizations by providing additional flexibility for Federal agencies to initiate smaller-scale financial modernizations as long as relevant financial management outcomes (e.g., clean audits, proper controls, timely reporting) are maintained.
 - [OMB Memorandum M-10-27, Information Technology Investment Baseline Management Policy](#) – provides policy on the establishment, management, and changes to investment baselines.
 - [Federal Information Technology Acquisition Reform Act \(FITARA\)](#) – requires CIO involvement in IT budget formulation, IT planning, IT acquisition, and IT delivery. As part of this new role, the CIO will conduct the annual FITARA IT Portfolio reviews (ITPRs) to ensure that all programs and the CIO are meeting FITARA requirements. Passed by Congress December 2014.
 - [Section 508 of the Rehabilitation Act of 1973](#) (29 U.S.C. § 794 (d)), as amended by the Workforce Investment Act of 1998 (P.L. 105-220), August 7, 1998.
 - [Information and Communication Technology \(ICT\) Final Standards and Guidelines](#) (36 CFR Part 1193 and 1194, January 18, 2017).
 - Section 255 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996 – 36 C.F.R. Part 1193
 - [Foundations for Evidence-Based Policymaking Act of 2018 \(Evidence Act\)](#) – broadly requires federal agencies to develop evidence to support policymaking.

5. POLICY

CPIC is the IT governance and management methodology at the EPA to Pre-select, Select, Control, and Evaluate the performance of EPA's IT investments. It also prescribes the roles and responsibilities for carrying out IT CPIC requirements. IT investments must proceed through the management approval process before being approved by CIO with recommendations from EPA's Investment Review Board (IRB). The EPA will conduct CPIC with particular focus on data quality in accordance with all applicable legislation and OMB guidance, incorporating best practices where possible.

OMB tracks five (5) types of IT investments, including Major, Non-Major, IT Migration, Funding Transfer, and Standard. Major IT investments are required to provide regular monthly performance updates via the Federal IT Dashboard (ITDB) so OMB can conduct management and operational performance assessments. Non-Major Investments typically report to OMB twice annually. The EPA further categorizes IT investments based on certain criteria, including annual expenditures, as Major, Medium, Lite, and Small/Other. Each of these categories has its own criteria, threshold, and reporting requirements, which are specified in Section 5.2.

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All IT investments must support the EPA's vision, mission, and goals, and must operate at acceptable costs within reasonable timeframes. Investment changes, such as creation, recategorization, or elimination (due to consolidation, decrease in funding, retirement, etc.) must proceed through the management approval process with recommendations from the EPA's IRB. EPA Offices may not request the reprogramming of any appropriated funds made available for IT programs and resources unless the CIO has reviewed and approved the request. The CIO is responsible and accountable for all IT investments and has final approval of all IT investments.

OMB mandates annual reports, including the Major IT Business Case (MITBC) and the Agency IT Portfolio Summary/Details (AITPS/D). The CPIC reporting cycle is made up of two (2) annual submissions of the AITPS/D to OMB: 1) Initial OMB Submission (typically occurs early fall, around September); and 2) President's Budget Submission (typically occurs winter/early spring). For EPA and OMB planning purposes, both submissions must include information regarding Prior Year (PY), Current Year (CY), and Budget Year (BY), as indicated in the table below.

Table 1. Annual Submissions

OMB Submission (i.e., Initial Submission)		BY2025 Example
PY	Enacted Budget	FY2023 Enacted Budget
CY	Previous BY President's Budget Submission (e.g., BY2024)	FY2024 President's Budget Submission
BY	OMB Submission (i.e., Agency Request)	FY2025 OMB Submission
President's Budget Submission		BY2025 Example
PY	Actual Obligations	FY2023 Actual Obligations (or FY2023 Enacted)
CY	President's Budget Submission for the Current Year (Likely/Enacted)	FY2024 President's Budget Submission (or FY2024 Enacted if Congress has appropriated funds more than 30 days prior to this submission)
BY	President's Budget Submission Request for the Budget Year	FY2025 President's Budget Submission

Additionally, OMB conducts monthly management and operational performance assessments of all Major investments. This policy directly supports OMB's requirements, which are typically communicated on an annual basis via Circular No. A-11, "Preparation, Submission, and Execution of the Budget" and the "IT Budget – Capital Planning Guidance" for that fiscal year (FY).

To meet OMB's requirements, the EPA utilizes the General Services Administration's (GSA's) IT Portfolio Management tool, Folio, to document and report its IT investment

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data to OMB. Folio was specifically developed in coordination with the Federal ITDB. The CIO provides final certification of all investment data before it is submitted to the Federal ITDB.

5.1 NEW IT INVESTMENTS

The proposed creation of new EPA Major, Medium, or Lite IT investments (or changes to existing investments) must be documented using the *CPIC Investment Request Form* and approved by the following personnel:

- Program/Project Manager (P/PM)
- P/PM's Office Director
- Information Management Officer (IMO)
- Senior Budget Officer (SBO)
- Senior Information Official (SIO)
- CPIC Team Lead
- Office of Mission Support (OMS) Office of Customer Advocacy, Policy and Portfolio Management (OCAPPM) Portfolio Management Division (PMD) Director

SIOs are responsible and accountable for reviewing all new investment proposals at the Responsible Program Implementation Office (RPIO) level. Upon IMO, SIO, and SBO approval, the new investment proposal must undergo an Applications Governance review to ensure there is no duplication with existing applications across EPA. If compliant, the proposal is forwarded to the CPIC Team Lead for review and coordination with the PMD Director who indicates concurrence or non-concurrence on the CPIC form.

Depending on the time of year and once the PMD Director concurs, the investment (either new or existing) may be reviewed by the CIO during the annual FITARA ITPR process. The CIO, along with SIOs, IMOs, and RPIOs, are responsible to ensure the agency's mission-related processed and administrative processes are analyzed and revised, as appropriate, before approving and making significant IT investments. All investment proposals are reviewed by the IRB and forwarded to the CIO for formal approval and inclusion into the Initial Submission to OMB with an additional opportunity for review and approval prior to President's Budget Submission.

5.2 IT INVESTMENT CATEGORIES

OMB tracks five (5) types of IT investments:

- **Major IT investments**
- **Non-Major IT investments**
- **IT Migration investment** – the portion of a larger asset and for which there is an existing Business Case for the overall asset.
- **Funding Transfer investments** – primarily used to indicate the partner contribution to a Lead Agency investment through inter- or intra-Agency (IAA) transfers.
- **Standard IT investments** – aligned to specific categories based on the commodity IT data they comprise. Standard IT investments may comprise spending across multiple IT Tower categories (e.g., a Network Standard may

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include Network and Delivery spending). Existing Mission Delivery and Mission Support Services IT spending should not be included.

- *IT Security and Compliance Standard IT Investment* – includes costs associated with IT security, compliance, disaster recovery, and the provisioning of security operations centers (SOCs).
- *Network Standard IT Investment* – includes costs associated with provisioning of an enterprise-wide wide-area network (WAN), local-area network (LAN), and metropolitan-area network (MAN) capabilities.
- *Data Center and Cloud Standard IT Investment* – for the provisioning of an enterprise-wide data center and/or cloud capability.
- *End User Standard IT Investment* – includes costs associated with the provisioning and support of an enterprise-wide end user capability.
- *Application Standard IT Investment* – includes costs associated with the acquisition, development, management, and operation of software and applications. This includes application resources shared across the enterprise (e.g., testing personnel, integrated development environments, testing software, etc.).
- *Delivery Standard IT Investment* – includes costs to monitor, support, manage, and run IT operations and includes IT Service Management (ITSM), except for ITSM costs associated with the End User Standard IT Investment.

In addition to these OMB categories, the EPA maintains an internal classification system in order to track its Major and Non-Major IT investments. The EPA's IT investment categories include:

- Major IT investments (annual expenditures equal to or greater than \$5M, or other criteria as outlined in Section 5.2.1)
- Medium IT investments (annual expenditures equal to or greater than \$2M, but less than \$5M; or other criteria as outlined in Section 5.2.2)
- Lite IT investments (annual expenditures equal to or greater than \$250K, but less than \$2M)
- Small/Other IT investments (annual expenditures less than \$250K)

The EPA also tracks aggregated "Mission" investments, which are outlined in Section 5.2.4.1.

5.2.1 MAJOR IT INVESTMENTS

EPA IT investments are placed in the "Major" category because they align with one (1) or a combination of the following criteria:

- Designated by the EPA CIO (i.e., CIO discretion) as critical to the EPA mission or to the administration of programs, finances, property, or other resources;
- Implemented for financial management and obligates more than \$500K annually;
- Requires special management attention because of its importance to the mission or function of the agency;
- Significant program or policy implications or Congressional interest;
- High executive visibility;

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- High development, operating and maintenance costs;
- Annual expenditure equal to or greater than \$5M; and/or
- Funded through other than direct appropriations.

Major IT investments must be reported to OMB as Major investments. Additionally, the EPA requires PMs supporting Major investments to attain [Federal Acquisition Certification for Program and Project Managers \(FAC-P/PM\)](#) at the Senior level. It is strongly recommended a back-up PM or POC supporting the same Major investment also attain this certification.

Note: The EPA's aggregated "Mission" investments are not considered Major IT investments based on annual expenditure dollar value alone.

5.2.2 MEDIUM IT INVESTMENTS

EPA IT investments are placed in the "Medium" category because they do not meet the criteria for other EPA IT investment categories but they do align with one (1) or a combination of the following:

- Annual expenditures equal to or greater than \$2M, but less than \$5M;
- Aggregated Mission investment with annual expenditures equal to or greater than \$2M;
- Less than \$2M annual cost in any current or future life cycle year when:
 - Investment is an enterprise wide investment or cross-cutting between programs; or
 - Investment is determined "High Risk" by the Program Office and/or the CIO.

EPA Medium IT investments are considered OMB Non-Major investments. They must be reported in the AITPS/D.

5.2.3 LITE IT INVESTMENTS

EPA IT investments are placed in the "Lite" category because they do not meet the criteria for the other EPA IT investment categories but they do have annual expenditures equal to or greater than \$250K, but less than \$2M. EPA Lite IT investments are considered EPA Non-Major investments. They must be reported in the AITPS/D.

5.2.4 SMALL/OTHER IT INVESTMENTS

EPA IT investments are placed in the "Small/Other" category because they do not meet the criteria for the other EPA IT investment categories, but they do have annual expenditures less than \$250K. Small/Other IT investments are considered OMB Non-Major investments. They must be reported in the AITPS/D.

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Table 2. CPIC IT Investment Category Criteria

Investment Category	Criteria
Major	Annual expenditure = or >\$5M
	<p>Or, the investment meets at least one of the following criteria:</p> <ul style="list-style-type: none"> • Designated by the EPA CIO as critical to the EPA mission or to the administration of programs, finances, property, or other resources (e.g., CIO discretion) • Requires special management attention due to its importance to the mission of EPA • Has a significant program or policy implication, or Congressional interest • For financial management purpose and obligates more than \$500K annually <p>Note: Aggregated Mission investments are not considered Major IT investments based on annual expenditure dollar value alone.</p>
Medium	Annual expenditure = or >\$2M, but <\$5M
Lite	Annual expenditure = or >\$250K, but <\$2M
Small/Other	Annual expenditure <\$250K

Note: Annual expenditure includes full-time equivalent (FTE), travel, contracts, Working Capital Fund (WCF), and personnel compensation and benefits.

Table 3. CPIC Investment Reporting Requirements

Investment Category	Monthly IT Dashboard (ITDB) Update	OMB MITBC	OMB AITPS/D
Major	X	X	X
Medium			X
Lite			X
Small/Other			X

5.2.4.1 MISSION INVESTMENTS

In October 2019, the CIO established “Mission Investments” tied to each National Program Manager (NPM) to provide increased clarity on small systems below the Small/Other annual expenditure threshold of \$250K.

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The IMO, SBO, and/or other NPM designee is responsible for:

- Submitting and managing IT investments under their respective Mission Investment for all small/non-investment systems within their NPM, as well as those systems funded with their NPM's resources in the regions;
- Ensuring all funding using their NPM code (regardless of EPA Headquarters or regional organization) in the Program Results Code (PRC) properly reflects small system spend;
- Reviewing the EPA's Registry of EPA Applications, Models, and Data Warehouses (READ) system to determine that all entries which require resources have resources coded to an IT investment or small system in the EPA's Budget Formulation System (BFS) for budget formulation and in Compass for budget execution; and
- Once resource levels are determined to capture all appropriate small system spend and reflect all READ entries, preparing an IT investment based on the appropriate CPIC IT investment category (see Table 2).

5.3 INVESTMENT CHANGES

Throughout the life cycle of every IT investment, changes occur (e.g., Major downgraded to Non-Major IT investment, eliminated, retired, consolidated, split, etc.). For the purposes of internal EPA portfolio management as well as OMB reporting requirements, change in investment status must be tracked, along with a description of the rationale for the change and associated impacts. Any change to investment status requires coordination with the CPIC Team and completion/approval of the *CPIC Investment Request Form*.

5.4 DATA CALLS AND ASSESSMENTS

The CPIC Team issues monthly and annual data calls to the EPA IT investment community to ensure all data is compliant and up to date in Folio to meet the required OMB submission(s).

After each Major IT investment team updates their data in Folio to address the given data call, the investment's SIO is responsible for reviewing the data to ensure all required updates are complete and accurate. The SIO must communicate this to the CPIC Team in writing, recommended language below:

"This email is [*insert Program Office name*] official response to the [*specify ITDB or annual submission type*] Data Call. We confirm that all required updates: PM Name, Investment-Level Risks, Projects, Project Activities, Operational Performance Metrics, SIO Evaluation Factors, Rating, SIL, and Contract Report have been completed in Folio."

The CPIC Team subsequently performs data validations and assessments on Major IT investment data and provides this information along with any concerns or recommendations to the CIO prior to submitting EPA's data to the Federal ITDB. Upon reviewing the data and the CPIC Team's recommendations, the CIO will either approve the submission as-is or request additional information/changes before the submission can be made to OMB.

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5.4.1 INCREMENTAL DEVELOPMENT

OMB requires CIOs to certify that IT investments are adequately implementing incremental development. The EPA documents the following Project information in Folio's "Development Methodology" tab:

- Whether or not the project is primarily for software development or deployment
- Whether or not the project utilizes incremental development methodologies
- The unit of incremental development iteration (in days, weeks, months, or years)
- The frequency of development iterations
- Description of the iterative development methodology being employed

As part of the data assessment process, the CPIC Team confirms that all software development projects report usable functionality within six (6) months of their actual start date to ensure alignment with OMB requirements.

5.5 EARNED VALUE MANAGEMENT (EVM)

EVM is a project management tool and critical component of risk management that provides a standard method for measuring progress and reporting project performance. It is used to monitor and control project resources and compile results into a single set of metrics to measure project performance and progress.

While IT investment submissions in recent years have not specifically required EVM data, OMB Circular A-11 requires that cost, schedule, and performance goals must be controlled and monitored using an EVM system, and if progress toward those goals are not met, they should be formally reviewed to evaluate whether the acquisition should continue or be terminated. OMB Memorandum M-10-27, dated June 2010, requires agencies to define requirements for implementing EVM Systems (EVMS) in compliance with the National Defense Industrial Association (NDIA) / Electronic Industries Alliance (EIA) Standard (STD) 748 on both new and ongoing major acquisitions.

EVM is required for those parts of a Major IT investment in the development, modernization, enhancement (DME) phase, for both government and contract personnel efforts. Major investments in the "Preliminary Design" (or "Planning") phase must have an established baseline with the appropriate Work Breakdown Structure (WBS) and use EVM when prototyping and testing to select the alternative. Major investments with any resources allocated to the "Development" (or "Acquisition") phase must document EVM and be prepared to provide upon request.

EVM is not tied to any specific development methodology and does not prevent the use of other risk management techniques.

5.6 TECHNOLOGY BUSINESS MANAGEMENT (TBM)

TBM is an IT value-management framework that implements a standard way to categorize IT cost sources, technologies, IT resources (i.e., towers), applications, and solutions to align IT spending into consistent categories (Finance, IT, and Business) to provide CIOs with a detailed understanding of their organization's IT costs. OMB requires agencies to utilize the current version of the TBM Taxonomy to facilitate CPIC reporting.

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Figure 1. Technology Business Management (TBM) Taxonomy V4.0

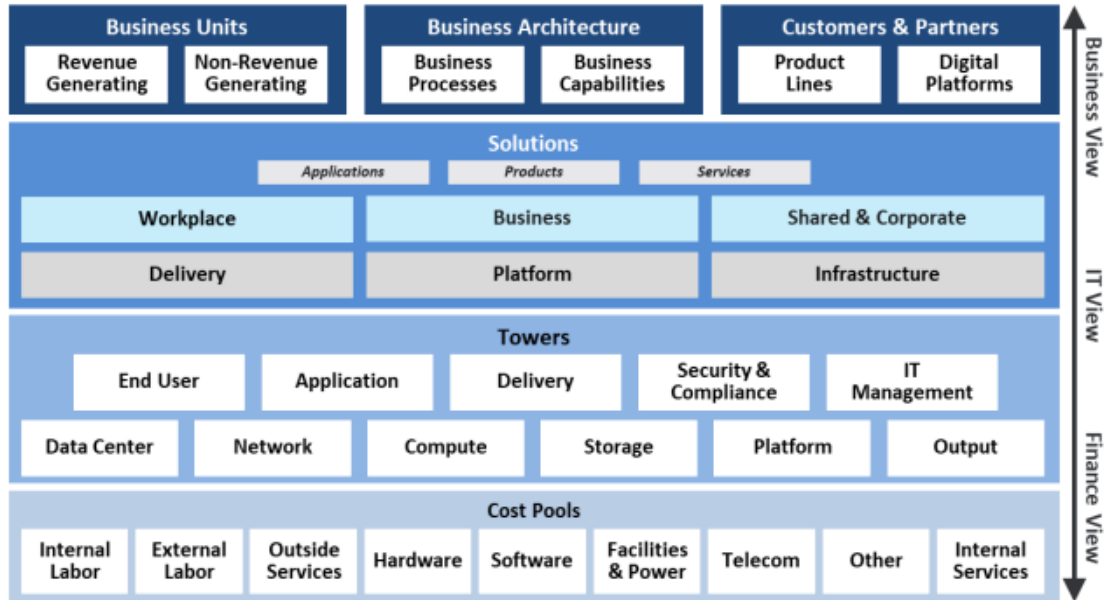


Figure 1: The TBM Taxonomy (Summary View)

The EPA captures IT-related costs and components of TBM through elements of the accounting string. Accurate accounting, including IT cost coding in budget formulation and execution is essential for accurate reporting and helps senior leaders better understand IT investments, allowing for more informed decision making. This is a joint responsibility among budget, IT, and acquisition personnel to effectively manage resources from planning through execution. Communication between all responsible staff is key for effective TBM and IT resource management overall.

5.6.1 FINANCE VIEW: COST POOLS

The lowest layer of the TBM Taxonomy begins with the general ledger as the financial source of truth but may include other cost sources (e.g., payroll system). This provides a standard set of cost pools which make cost allocations easier and they can be traced to reveal the composition of costs and allow comparability of composition (e.g., amount of internal labor in one service). When determining cost pools, think about what is being purchased (e.g., software, external labor, etc.).

Cost pools include both operating and capital expenditures. Standard cost pools:

- Internal and external labor, respectively
- Internal and outside services, respectively
- Hardware
- Software
- Facilities and power
- Telecommunications (telecom)

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- Other

5.6.2 IT VIEW: TOWERS

The middle layer includes a standard set of towers (i.e., domains or functions) which are common amongst most organizations and can be viewed as the resources or basic building blocks of solutions. This view assists IT leaders assess the cost-effectiveness of IT technology and service delivery.

Towers and sub-towers typically reflect the direct costs of solution teams, while the consumed and indirect costs are included at the solution layer of the mode. When determining towers, think about what IT function uses it. Standard towers include:

- End user
- Application
- Delivery
- Security and compliance
- IT management
- Data center
- Network
- Compute
- Storage
- Platform
- Output

The towers hierarchy is grouped by tower, sub-tower, and sub-tower element (specific to the organization to represent mode of delivery). The EPA collects this information as the two (2) character Tower (Cost Area) portion of the IT Code accounting string for each lifecycle phase of a system.

For more detailed information about towers and sub-towers, see the current version of the TBM Taxonomy: <https://www.tbmcouncil.org/learn-tbm/tbm-taxonomy/>.

5.6.3 BUSINESS VIEW: SOLUTIONS

The highest layer of the TBM Taxonomy provides a standard, generic set of solutions, which are what IT delivers to consumers (e.g., business leaders, customers, partners, etc.). Solutions are organization-specific and are delivered in three (3) possible classes:

- **Applications (apps)** – software tools to complete a task, execute a process, or deliver an outcome
- **Services** – work performed on behalf of a business or technology consumer using a combination of labor, software-based automation, and/or third-party providers to execute a process or otherwise facilitate a business or technical outcome. They essentially deliver value to business partners and consumers.
- **Products** – this term is generally used when an organization has adopted agile development methodologies or has otherwise made a “project-to-product” shift in the way they develop, enhance, and deliver software and software-enabled business capabilities.

Solutions should convey business value to business leaders, users, or other stakeholders. The solution hierarchy is grouped by type and name. Offerings often include different service level packages or product packages.

Standard solution types:

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- Workplace
- Business
- Shared & Corporate
- Delivery
- Platform
- Infrastructure

When determining solutions, think about what is being delivered (i.e., apps, services, products, etc.) and who is delivering or utilizing it.

5.7 **TECHSTAT**

The U.S. Chief Information Officer's Council defines a TechStat as a face-to-face, evidence-based accountability review between OMB and a covered agency of an IT program with that agency's leadership. TechStat sessions are a tool for getting ahead of critical problems in an investment, turning around underperforming investments, or terminating investments if appropriate. Agencies report the outcomes of all TechStat sessions through the quarterly Integrated Data Collection (IDC) process.

The EPA also implements internal TechStat (may also be referred to as "T-Stat") meetings between the IT program and the EPA CIO and other senior leadership, as necessary, to resolve potential issues or concerns before rising to the level where an external, OMB-led TechStat is required. While anyone can recommend establishing an internal, EPA-led TechStat for an IT investment, the CIO has the final authority to implement the TechStat, change the frequency of recurring meetings, and end the TechStat. The CIO will review and implement a TechStat for investments that are assessed as high-risk.

6. **ROLES AND RESPONSIBILITIES**

Assistant Administrators and Regional Administrators, General Counsel, and Inspector General: Shall ensure, in their areas of responsibility, compliance with this policy.

Chief Information Officer (CIO):

- Reviews all cost estimates of IT related costs and ensures all acquisition strategies and acquisition plans that include IT apply adequate incremental development principles.
- Certifies that investments are adequately implementing incremental development consistent with OMB capital planning guidance.
- Reviews and approves reprogramming requests of funds made available for IT programs and resources (i.e., shifting funds within an appropriation fund or account).
- Approves CPIC Policy and Procedures, ensuring Agency compliance with CPIC standards by providing guidance and tools to senior managers for program oversight. Assists senior agency officials with complex IT issues.
- Develops and maintains an Agency-wide information security program.
- Develops and maintains risk-based information security policies, procedures, and control techniques.
- Designates a Chief Information Security Officer (CISO) to carry out CIO directives as

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- required by FISMA.
- Ensures training for agency staff and oversees IT security personnel. Annually assesses requirements for agency personnel regarding IT management knowledge and skills, as well as the extent to which personnel meet IT knowledge and skill requirements.
 - Designs, implements, and maintains processes for maximizing the value and managing the risks of IT acquisitions.
 - On the advice of the IRB, the CIO shall review and select the investments to be funded, present proposed IT portfolios to the IRB, provide final portfolio endorsements and recommend proposals to the CFO for investment consideration during the Agency's budget formation process.
 - Coordinates with the Agency head and CFO to ensure financial systems are effectively implemented.
 - The CIO, in consultation with the CFO, Senior Procurement Official (SPE), CISO and senior program officials on IRB, shall provide the appropriate review, monitor compliance with this policy, present and recommend control, and evaluate decisions and recommendations.
 - The CIO will review the requests for waivers from this policy and grant the policy waivers whenever appropriate.

Chief Financial Officer (CFO):

- Shall provide, in consultation with the CIO and other senior program officials, the appropriate review and selection of investments to be funded and monitored for compliance with this policy.
- Coordinates with the Agency head and CIO to ensure financial systems are effectively implemented.

Investment Review Board (IRB): Advises and assists the CIO on all matters pertaining to IT investment management. The IRB supports the CIO in making recommendations on the appropriateness of IT investments and monitors the agency's IT investments from inception to completion throughout the CPIC program's Pre-Select, Select, Control, and Evaluate phases.

Senior Procurement Executive (SPE): Ensures that acquisition strategy considerations for each project are appropriate, investment proposals are consistent with EPA acquisition policies and procedures, and acquisition/procurement/contract management ensure optimal results.

Chief Architect (CA): The CA is responsible for leading the development, alignment, and maintenance of the agency's target Enterprise Architecture in conjunction with the System Life cycle Management (SLCM) Policy. EPA's SLCM Framework facilitates the identification, planning, and implementation of IT systems by integrating Enterprise Architecture (EA), CPIC, SLCM, and Security life cycles (See Figure 1 in the [System Life Cycle Management Procedure](#)). The CA shall certify that Solutions Architectures required for IT projects are compliant with the EA. EA is the discipline that synthesizes key business and technology information across the organization to support better decision-making. EA provides useful and usable information products and governance services to the end-user while developing and maintaining the current and target (to-be) architectures and transition plan for the organization. The information in the EA includes: results of operations, business functions and activities, information requirements, supporting

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applications and technologies, and security.

Senior Information Officials (SIO): SIOs shall work with IMOs, P/PMs, and other support staff to coordinate the development of IT investment proposals within their respective offices, monitor the implementation of IT investments to ensure the IT utilized and managed by their organization supports the business needs and mission to achieve EPA's strategic goals, and review and concur on waiver requests to the CPIC Policy and the CPIC Procedure. For a current listing of SIOs, refer to the EPA's [IT/IM Governance Membership: CIO SAC, SIOs, IMOs & SITLs](#).

Information Management Officers (IMO): IMOs shall work with SBO(s), P/PM(s), and other support staff to support the SIO(s) with development of the IT investment proposals within their respective offices and monitor the implementation of IT investments and review and concur on waiver requests to the CPIC Policy and the CPIC Procedure. For a current listing of IMOs, refer to the EPA's [IT/IM Governance Membership: CIO SAC, SIOs, IMOs & SITLs](#).

Chief Information Security Officer (CISO): The CISO is responsible for: a) carrying out the CIO responsibilities under this policy and relevant information security laws, Executive Branch policy, and other directives; and b) maintaining professional qualifications required to administer the functions of the EPA Information Security Program and carry out the CIO's security-related responsibilities under this policy and relevant information security laws, Executive Branch policy and other directives.

Information Security Officer (ISO): ISOs shall conduct detailed information security analyses, review CPIC business cases for security requirements within their respective offices, and support Senior Information Officials (SIOs), investment owners (P/PMs), Information Management Officers (IMOs), and system owners in developing and maintaining CPIC information security documentation.

Senior Budget Officers (SBO): SBOs shall support the IMO(s) and SIO(s) in the process of development of IT investment proposals within their respective offices and monitor the implementation of IT investments. The SBOs shall coordinate with all relevant parties (e.g., SIOs, IMOs, FCOs, program office management, and acquisition staff, etc.) to ensure alignment of resources between IT investment business cases and the budget process from formulation through execution. This role may also pertain to the Regional Comptroller based on ownership of CPIC/IT resources.

Program/Project Manager (P/PM):

- Work with IMO(s), SBO(s), and other support staff to support the SIO(s) with IT investment development and monitoring.
- Develop and maintain viable, appropriate, and achievable CPIC business cases that support EPA's goals for information management, thereby supporting Agency senior management in the process of selecting, reviewing, and evaluating IT investments.
- Ensure the investment's goals and objectives are aligned with those of the Agency through the CPIC process.
- Attain and maintain qualifications in accordance with federal and Agency requirements for IT project management as well as possess documented knowledge and skills as prescribed by the qualification's guidance.

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- PMs supporting Major investments must attain [Federal Acquisition Certification for Program and Project Managers \(FAC-P/PM\)](#) at the Senior level. It is strongly recommended a back-up PM or POC supporting the same Major investment also attain this certification.
- P/PMs shall work with the ISO within their respective offices to ensure that products developed incorporate security and meet user requirements and provide performance measures to evaluate the security of the delivered IT initiative.

Portfolio Management Division (PMD) Director: The PMD Director shall oversee and manage the CPIC program on behalf of the CIO.

CPIC Team Lead: The CPIC Team Lead shall coordinate CPIC Team efforts to support the EPA IT investment community and ensure the EPA is compliant with all internal and external reporting requirements.

7. RELATED INFORMATION**DOCUMENTS / REFERENCES**

- 40 United States Code (U.S.C.) 11319: [Resources, planning and portfolio management](#)
- EOP OMB [FY22 IT Budget Capital Planning Guidance](#)
- EOP OMB Memorandum M-15-14, [Management and Oversight of Federal Information Technology](#)
- EPA [Section 508 Policy](#)
- EPA [Section 508 Acquisition Procedure](#)
- EPA [Section 508 Testing Procedure](#)
- EPA [Section 508 Exceptions Procedure](#)
- EPA [Data Standards Policy](#)
- EPA [Enterprise Architecture IT Standards Procedure](#)
- EPA [Acquisition Regulation \(EPAAR\)](#)
- [EPA IT/IM Architecture Program](#)
- EPA [IT/IM Governance Membership: CIO SAC, SIOs, IMOs & SITLs](#)
- [EPA READ Data Call](#)
- EPA [Records Management Policy](#)
- FIPS 199 – [Standards for Security Categorization of Federal Information and Information Systems](#)
- General Accountability Office (GAO) [Cost Estimating and Assessment Guide](#)
- GAO Information Technology Investment Management (ITIM) Framework [Information Technology Investment Management \(IT/IM\) Framework](#)
- [Information Security Policy](#)
- [Privacy Policy](#)
- [Systems of Records Notices \(SORN\) Privacy Act Procedure](#)
- [Security and Privacy Controls for Information Systems and Organizations - NIST SP-800- 53 Rev. 5](#)
- [EPA System Life Cycle Management \(SLCM\) Policy](#)
- [Program and Project Managers \(FAC-P/PM\)](#)

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PROCEDURES, STANDARDS AND GUIDANCE

- [EPA System Life Cycle Management Policy](#)
- [EPA System Life Cycle Management Procedure](#)
- [System Life Cycle Management \(SLCM\) Requirements Guidance](#)
- [Information Security - Roles and Responsibilities Procedures](#)

8. DEFINITIONS

Adequate Incremental Development: For development of software or services, planned and actual delivery of new or modified technical functionality to users occurs at least every six (6) months.

Budget Year (BY): In the context of the CPIC process, “BY” refers to the “Agency Request” for the Initial Submission and “President’s Budget Request” for the President’s Budget Submission. These amounts should only reflect budgetary resources (unless specifically indicating “Budget Authority”) by year and include appropriations, borrowing authority, contract authority, spending authority from offsetting collections, transfers from other accounts, and carryover of unobligated balances.

Capital Planning and Investment Control (CPIC) Process: It is a process to acquire, implement, maintain and dispose of IT. The CPIC process is a dynamic process in which IT investments are selected and then continually monitored and evaluated to ensure each chosen capital investment is well managed, cost effective and supports the mission and strategic goals of the government organization. The process integrates strategic planning, budgeting, procurement, and the management of IT in support of agency missions and business needs, as defined in the 1996 CCA.

Control Phase (of CPIC Process): IA process to ensure that IT initiatives are developed and implemented in a disciplined, well-managed, and consistent fashion; that project objectives are being met; that the costs and benefits were accurately estimated; and that spending is in line with the planned budget. This promotes the delivery of quality products and results in initiatives that are completed within scope, on time, and within budget.

Current Year (CY): CY is defined as the prior year’s President’s Budget for the Initial Submission and the “Likely/Enacted” for the President’s Budget Submission. These amounts should only reflect budgetary resources by year and include appropriations, borrowing authority, contract authority, spending authority from offsetting collections, transfers from other accounts, and carryover of unobligated balances.

Enterprise Architecture: A set of products and integrations with platform services that support the enterprise mission, strategic goals, business practices, data assets and technologies. The EPA uses its [IT/IM Architecture](#) program site as its primary resource for disseminating information to Agency stakeholders about EPA’s EA, including principles, guidelines, standards, and current and future visions to help EPA offices effectively implement and use IT.

Lite IT Investment: Has development, operating, or maintenance annual expenditure

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costs equal to or greater than \$250K, but less than \$2M.

Medium IT Investment: Has development, operating, or maintenance annual expenditure costs equal to or greater than \$2M, but less than \$5M.

Earned Value Management (EVM): A project (investment) management tool that effectively integrates the investment scope of work with schedule and cost elements for optimum investment planning and control. The qualities and operating characteristics of EVMS are described in American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard –748–1998, Earned Value Management Systems, approved May 19, 1998. It was reaffirmed on August 28, 2002.

Evaluate Phase (of CPIC Process): This phase provides processes and guidance for comparing actual to expected results once an IT investment has been implemented. Also, this phase provides an understanding of how to evaluate “mature” systems and their continued effectiveness in supporting mission requirements. It evaluates the cost of continued support or potential retirement and replacement.

External Labor (cost pool): External contractor fees, travel, and expenses.

Facilities and Power (cost pool): Data center space, power, security, and other operating expenses.

Hardware (cost pool): Expenses or lease of non-capitalized hardware purchases (e.g., spare parts, consumables, or equipment below capitalization threshold).

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

Information Technology (IT):

Information technology (IT) is defined by the Clinger-Cohen Act of 1996 to be:

- Any equipment or interconnected system or subsystem of equipment, used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the executive agency, if the equipment is used by the executive agency directly or is used by a contractor under a contract with the executive agency that requires the use— (i) of that equipment; or (ii) of that equipment to a significant extent in the performance of a service or the furnishing of a product.
- 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 support services), and related resources.

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Within EPA, IT is defined to be any activity, procurement, service, or costs that align with the Technology Business Management (TBM) Taxonomy Towers, Subtowers, and Cost Pools (with the caveat that the IT Management Tower is exclusive to OMS). TBM reporting is required by the Office of Management and Budget (OMB) in the annual IT Budget – Capital Planning Guidance.

Any activity, procurement, service, or cost that is not aligned within the TBM taxonomy is not considered IT and should not be captured as such in Agency financial management systems or reported as part of the Agency's IT Portfolio Summary (AITPS) or IT Dashboard (ITDB) requirements.

Internal Labor (cost pool): Employee wages, benefits, expenses.

IT Cost: Full time equivalent (FTE) and personnel compensation and benefits as well as services, equipment, and software/licenses (contracts, IAs, WCF, bank card purchases, etc.) that are primarily used in the management, operation, acquisition, disposition, transformation, or other activity related to the life cycle of IT.

Examples include:

- FTE directly spent developing requirements; system testing; developing and performing operations and maintenance (O&M) on a system.
- Contractor time spent configuring/developing and maintaining system/applications/architecture.
- Acquisition of network connected equipment, including servers and networked printers.
- Acquisition of licenses, software, etc.
- IT training specific to a system.

IT Investment: The expenditure of resources on selected information technology or IT-related initiatives with the expectation that the benefits from the expenditure will exceed the value of the resources expended (*GAO-04-394G, IT Investment Management, A Framework for Assessing and Improving Process Maturity*, March 2004, v.1.1). The acquisition and management of an IT asset through its life cycle.

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

IT Project: A temporary planned endeavor funded by an approved information technology investment, thus achieving a specific goal and creating a unique product, service or result. A project has a defined start and end point with specific objectives that, when attained, signify completion.

Life Cycle: The duration of all activities associated with the investment from initiation through the disposal of assets.

Major IT Investment: An IT investment that meets at least one of the criteria listed below:

- Is designated by the CIO as critical to the EPA mission or to the administration of

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- programs, finances, property, or other resources (e.g., CIO discretion).
- Is for financial management and obligates more than \$500K annually;
- Requires special management attention because of its importance to the mission of EPA;
- Has a significant program or policy implication, or Congressional interest;
- Has high executive visibility; and
- Has high development, operating, or maintenance annual expenditure costs equal to or greater than \$5M.

Mission Investment: Internal EPA category which aggregates small systems below the CPIC Small/Other annual expenditure threshold of \$250K at the NPM level to provide increased clarity regarding small system resources and spend. Alignment to NPM is determined by the PRC in EPA financial systems (e.g., BFS and Compass). These aggregated investments are not considered Major IT investments based on annual expenditure dollar value alone.

Other (cost pool): Other IT-related expenses not addressed by the other cost pool categories.

Outside Services (cost pool): External consulting project-based services, managed service provider, and cloud service providers.

Performance Management Baseline: A primary tool to measure IT investment, IT project or IT contract performance and to identify risk. The baseline identifies the work that will be accomplished and defines the cost and schedule to accomplish that work. The Performance Measurement Baseline, which consists of the cost, schedule and scope baseline, is derived from the scope of work described in a hierarchical Work Breakdown Structure (WBS) and the associated WBS dictionary. The WBS, in turn, decomposes the entire project into a logical structure of tasks and activities tied to deliverables and to assigned responsibilities. The Performance Measurement Baseline comprises:

- The cost baseline – defines the approved, projected, time-phased, life-cycle costs for acquiring, operating and disposing of the physical and/or logical system represented by the scope baseline.
- The schedule baseline – approved timeline for acquiring, operating and disposing of the physical and/or logical IT asset/system.
- The scope baseline – represents the configuration of the product of the project as developed and described in the project’s technical documentation.

The Performance Measurement Baseline is integrated so that the time-phased cost baseline is consistent with the schedule baseline and the costs related to acquiring, operating and disposing of the physical and/or logical IT asset represented by the scope baseline.

Prior Year (PY): PY is defined as “Likely/Enacted” for the Initial Submission and “Actual” for the President’s Budget Submission. These amounts should only reflect budgetary resources by year and include appropriations, borrowing authority, contract authority, spending authority from offsetting collections, transfers from other accounts, and carryover of unobligated balances.

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Select Phase (of CPIC Process): The process to ensure that IT investments chosen are the best to support the Agency's mission and align with EPA's approach to enterprise architecture.

Software (cost pool): Expense or lease of non-capitalized software purchases.

Standard Investment: IT goods and services common to all agencies. Standard IT investments are aligned to specific categories (IT Security and Compliance, Network, Data Center and Cloud, End User, Application, Delivery). It is expected these investments will comprise spending across multiple categories (e.g., a Network Standard IT investment may include Network and Delivery spending). Existing Mission Delivery and Mission Support Services IT spending should not be included in Standard IT investments. Standard Investments are reported to OMB bi-annually.

System (Information System): The National Institute of Standards and Technology (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 Life Cycle: Complete time span of an IT system from the origin of the idea that leads to the creation of the system to the end of its useful life. The life cycle is divided into discrete phases with formal milestones established as points of management control.

Technology Business Management (TBM): A value-management framework instituted by CIOs, CTOs, and other technology leaders, which is founded on transparency of costs, consumption, and performance to give technology leaders and their business partners the facts they need to collaborate on business aligned decisions. Those decisions span supply and demand to enable the financial and performance tradeoffs that are necessary to optimize run-the-business spending and accelerate business change. To gain alignment between IT, Finance, and Business unit leaders, TBM provides a standard taxonomy to describe cost sources, technologies, IT resources, and solutions.

TechStat: A face-to-face, evidence-based accountability review between OMB and a covered agency of an IT program with that agency's leadership. TechStat sessions are a tool for getting ahead of critical problems in an investment, turning around underperforming investments, or terminating investments if appropriate. Agencies report the outcomes of all TechStat sessions through the quarterly Integrated Data Collection (IDC) process.

The EPA may also implement internal TechStat (also referred to as "T-Stat") meetings as

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a measure to address risks/issues before rising to the level where an OMB TechStat would be required.

Telecom (cost pool): Voice and data network connectivity expenses, including circuit and usage expenditures.

9. WAIVERS

Waivers to the requirements of this policy must be submitted by an SIO to the CIO for final approval. All waivers to the CPIC Policy and Procedure must be approved by the CIO.

10. DIRECTIVE(S) SUPERSEDED

The policy supersedes EPA Information Directive: CIO 2120.4, Capital Planning and Investment Control Program Policy, approved on February 22, 2022.

11. CONTACTS

For further information about this policy, please contact the Office of Mission Support – Environmental Information (OMS-EI), OCAPPM, PMD.

Vaughn Noga
Deputy Assistant Administrator for Environmental Information
and Chief Information Officer
U.S. Environmental Protection Agency