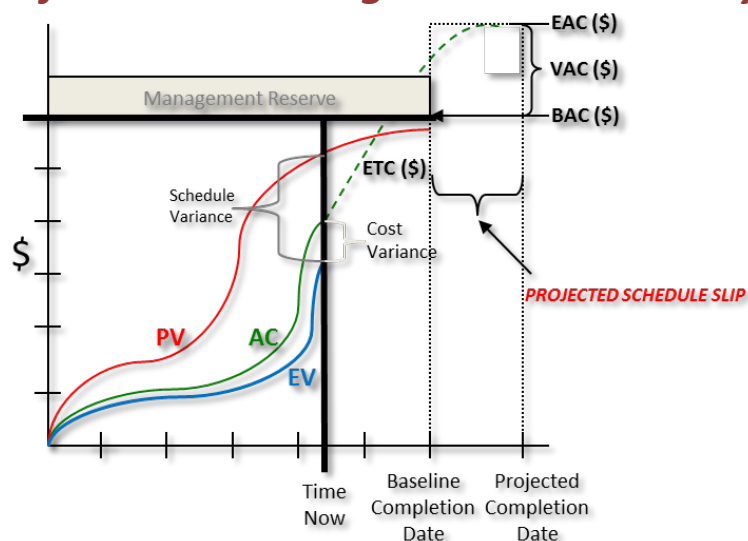


## IT Performance Management Key Terms

Acronym	Expansion	Formula	Translation
BAC	Budget At Completion	-	How much did you budget for the total job?
PV	Planned Value	-	What is the estimated value of the work planned to be done?
% WC	Percent Work Complete	-	How much work has been done on all tasks assigned within the reporting period?
AC	Actual Cost	-	What is the actual cost incurred?
EV	Earned Value	%WC * PV	What is the estimated value of the work actually accomplished?
SV	Schedule Variance	EV – PV	How much behind or ahead of schedule are we?
CV	Cost Variance	EV – AC	How much over or under budget are we?
CPI	Cost Performance Index	EV/AC	We are getting \$___ for every \$1 we spend.
SPI	Schedule Performance Index	EV/PV	We are progressing at a rate of ___% of the rate originally planned.
EAC	Estimate At Completion	BAC/CPI	What do we currently expect the total project to cost?
ETC	Estimate To Complete	EAC-AC	From this point on, how much MORE do we expect it to cost to finish the job?
VAC	Variance At Completion	BAC-EAC	How much over or under budget do we expect to be?

## IT Performance Management Trend Analysis



## IT Performance Management Definitions

**“Development, Modernization, and Enhancement (DME)”** describes introducing new IT solutions or modifying existing IT solutions to improve capability or performance, address legislative or regulatory requirements, or meet changing business requirements.

**“IT Portfolio Management (ITPfm)”** One of the CIO Programs, ITPfm refers to the centralized management of a collection of IT Programs to achieve strategic objectives. Portfolio management focuses on ensuring that programs and projects are reviewed to prioritize resource allocation, and that the management of the portfolio is consistent with and aligned to organization strategies.

**“IT Portfolio Review Board (ITPRB)”** is PBGC’s ITPfm governance body composed of representatives from across the Corporation. The ITPRB conducts a range of program review and deliberation duties to ensure the success and overall health of the PBGC IT Portfolio.

**“ITPfm Capital Planning and Investment Control (CPIC) Cycle”** Overseen by the ITPRB, this cycle includes the Prioritize, Control, and Evaluate reviews and is intended to ensure the success and overall health of the PBGC IT Portfolio.

**“Major IT Program”** is an IT program with total budgeted costs greater than or equal to \$10M per year or \$20M over a three-year period. Major Programs are reported to OMB in the form of Major IT Business Cases (formerly OMB Exhibit 300As) and Agency IT Portfolio Summary (formerly OMB Exhibit 53).

**“Operations & Maintenance (O&M)”** describes operating and maintaining an IT solution in a production environment per the last set of approved requirements. O&M includes activities associated with operation (service desk, backups, disaster recovery/COOP) and maintenance changes (patching, vendor-supported versions, and defect correction) needed to sustain the IT solution at the current capability and performance levels.

**“IT Program Planning”** includes activities that precede acquiring resources for execution that result in a defined approach. Planning activities include, at a minimum: define the problem, gaps, and projected outcomes; identify stakeholders, risks, benefits, alternatives, and impacts to other programs/business areas; and develop estimated milestones (schedule & costs) and qualitative and quantitative metrics to measure results.

**“Rebaselining”** is the process of obtaining approval to revise a baseline as the result of a change to performance, scope, cost, and/or schedule.

## Additional Resources

The references below provide additional details :

- [OMB Circular A-11](#), Part 7 – Capital Programming Guide, “Planning, Budgeting, and Acquisition of Capital Assets,” Section I.I.2.4
- [OMB Memorandum M-04-24](#), Expanded E-Gov PMA Scorecard Cost, Schedule and Performance Standard for Success
- [OMB Memorandum M-05-23](#), Improving IT Project Planning and Execution
- [OMB Memorandum M-10-27](#), IT Investment Baseline Management Policy
- [Federal Acquisition Regulation](#), Subpart 34.2. “EVM System”
- [PBGC ITPfm Intranet Site](#)
- [PBGC PMO Intranet Site](#)
- [PBGC Directive IM 05-07](#)

For additional information, please contact: [AskPMO@pbgc.gov](mailto:AskPMO@pbgc.gov).

Updated September 29, 2014



# IT Performance Management

Office of Information Technology

## What is IT Performance Management?

**“IT Performance Management”** describes the ongoing measurement and modifications to an IT Program/Project to ensure continued achievement of expected performance. IT Performance Management provides early warning to program managers, project managers and executives in order to take corrective actions throughout the program or project’s life cycle.



In addition, it helps agencies comply with the Federal Acquisition Regulation and Office of Management and Budget (OMB) requirements. Two critical components of IT Performance Management are establishment of a Baseline and Earned Value Management.

**“Baseline”** refers to the accepted and approved plans and related documents used to measure and control activities related to performance, scope, cost, and schedule.

**“Earned Value Management (EVM)”** is a method for integrating the “triple constraint” (**scope, schedule, and cost**) to measure project performance. It compares the planned amount of work with what has actually been completed to determine if the cost, schedule, and work accomplished are progressing as planned. Other considerations that may impact the “triple constraint” include **resources, quality, and risk**.

## IT Performance Management Benefits

- ✓ **Effective Program Oversight** – Timely and effective mitigation of risks and issues relating to scope, schedule, or cost to ensure financial and operational control.
- ✓ **Transparency** – Clear communication of decisions and justification from the program level down to individual projects.
- ✓ **Data Driven Decision-Making** – Decisions are based on auditable, traceable, and performance-based information.
- ✓ **Reporting and Compliance** – Ability to meet all internal and external reporting requirements quickly and accurately.

## IT Performance Management at PBGC

**Business and IT Program Managers are accountable for accurately managing, tracking, documenting, and reporting IT Performance and making the necessary corrections to IT Programs and Projects.**

- IT Performance Management applies to all Development, Modernization, and Enhancement (DME) Programs/Projects.
- Operations and Maintenance (O&M) tasks or maintenance releases are typically small in size or are reactive; thus requiring a lesser degree of IT Performance Management—baselining, but not full EVM.

# PBGC's Three-Step IT Performance Management Process

## 1. Establish Baseline

### 1. Establish Baseline

#### IT Project

Business and IT Project Managers must establish a Baseline for all projects by entering a detailed schedule in PBGC's project management tool. The PMO will assess the baseline for ITSCLM compliance and alignment with best practices. IT Project Baselines are approved by the IT and Business Program Managers (with consultation and/or approval by the CIO and sponsoring CXO).

#### IT Program

OMB requires Business and IT Program Managers to establish a Program Baseline. The Baseline is entered into PBGC's program management tool and reported to OMB (per OMB guidelines). The Baseline is categorized into Planning, DME, O&M and Managed Services. IT Program Baselines must be approved by the CIO and sponsoring CXO.

Program Baseline Components	Project Baseline Components
<b>Cost Baseline</b>	
Costs for DME, O&M, and Managed Services as indicated in the TCO section of IT Program Plan	Detailed budget derived from the IT Program Plan obligated to the project and entered into PBGC's program & project management tool
<b>Schedule Baseline</b>	
High-level timeline for the program as indicated in the IT Program Plan	Approved timeline for acquiring, implementing, operating, and/or disposing of the systems or services
<b>Scope Baseline</b>	
Configuration of systems and functionalities established by IT Program Plan	Establish scope and/or requirements

## 2. Monitor & Report

### 2. Monitor & Report against Baseline

#### IT Project

Monitor and report CPI, SPI, CV, SV, and EV for individual IT Projects, including relationship and dependencies between other projects to the IT and Business Program Managers.

#### IT Program

Monitor and report CPI, SPI, CV, SV, and EV for the overall IT Program to the Executive Steering Committee, CIO and sponsoring CXO, as well as the ITPRB and OMB.

#### IT Performance Management Calculation Guidelines

- Calculating **Cost Performance Index (CPI)**:  $CPI = EV/AC$   
 ➤ We are getting \$\_ for every \$1 we spend.
- Calculating **Schedule Performance Index (SPI)**:  $SPI = EV/PV$   
 ➤ We are progressing at a rate of\_% of the rate originally planned.

	CPI	SPI	Reporting Guidelines
Green	Between 0.95 and 1.05	Between 0.95 and 1.05	A normal project status report is provided.
Yellow	Between 0.91 and 0.94 OR 1.06 and 1.09	Between 0.91 and 0.94 OR 1.06 and 1.09	A verbal explanation is required.
Red	≤ 0.90 or ≥ 1.10	≤ 0.90 or ≥ 1.10	A written corrective action plan is required.

Careful consideration must be given when analyzing IT Performance Management data. Budget and schedule variances must be evaluated to identify and resolve underlying problems.

#### Variance Analysis Reveals:

- Problem
- Cause
- Impact
- Potential corrective action(s)
- Get well date

#### Typical Causes:

- Poor initial planning or estimating
- Weak risk identification and management
- Technical breakthroughs or problems
- Load imbalance (e.g., front-end loading)
- Inflation or change in labor rates

Project Managers report on their project's performance quarterly at the **ITPRB Project Review**, and Program Managers report on their program's performance semi-annually at the **ITPRB Program Control Review**. However, they should be monitoring CPI, SPI, CV, SV, and EV on a continual basis.

## 3. Rebaseline

### 3. Rebaseline (if needed)

Monitoring and Reporting may reveal the need to consider rebaselining an IT Project or the overall IT Program. The following are acceptable reasons for making a request to rebaseline:

- Significant change in goals** for the IT Program or Project (e.g., scope or objectives) resulting from internal or external management decisions (e.g., directed change to schedule), changes in availability of funds (e.g., continuing resolution), or contracting (including protests)
- Current baseline is no longer useful** as a management tool for realistic performance measurement (e.g., too many changes to the project and the variances are too high)

Iterative implementation approaches allow for incremental updates to the baseline as scope and objectives evolve. These incremental updates, commonly referred to as progressive elaboration, are considered a good practice and do not warrant rebaselining (i.e., "re-planning" vs. "rebaselining"). In this case, a rebaseline should only be requested if a change is expected to significantly impact one or more planned high-level outcomes.

IT Project rebaselining must be approved by the IT and Business Program Managers (with consultation and/or approval by the CIO/sponsoring CXO).

IT Program rebaselining must be approved by the CIO/sponsoring CXO.

#### Rebaselining Criteria:

- Reason for rebaselining
- Description of changes to performance goals and measures
- Description of changes in IT Program's scope and/or capabilities
- Chronology of changes and re-baselining
- CPI and SPI trend analysis
- Current EV Performance prior to rebaselining
- Updated IT Risk Matrix
- Impact to OMB reporting
- Other information critical to decision-making

**IT Performance Management data is used throughout the ITPfM CPIC process** to assess program and project performance and recommend whether to proceed (continue funding), monitor, initiate corrective actions, or stop work. The ITPRB conducts a range of review and deliberation activities to facilitate this process, including:

- Semi-Annual **Program Control Review**
- Quarterly **Project Control Review**
- Annual **Evaluate Review**

For information on IT performance management criteria for ITPRB reviews, see the [ITPRB Intranet page](#).



## Start Here IT Performance Management – Key Concepts

Business and IT Managers are required to follow a **three-step process** for IT Performance Management. Each of the three steps may differ slightly in execution for an **IT Program vs. IT Project**. IT Projects are required to track individual performance, and the Program Managers track impacts to the overall IT Program.

IT Programs that are considered "Major" based on ITPRB guidelines and have a DME portion are required to manage and track EVM. These performance statistics are especially important during the **ITPRB Program and Project Control Reviews**.

All O&M portions of an IT Program, regardless of size, are required to conduct an annual operational analysis to justify continued existence and use.