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M-10-27

MEMORANDUM FOR CHIEF INFORMATION OFFICERS

FROM: Vivek Kundra   Vivek Kundra
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SUBJECT: Information Technology Investment Baseline Management Policy

Investment in Information Technology (IT) enables efficient operation of agency missions by closing critical performance gaps. The ability to successfully develop and manage IT systems is essential to successful program outcomes and to the vitality of the Federal government's service of the American people. If IT investments are not planned well, then cost and schedule overruns occur and expected benefits are jeopardized. When plans change, it's critically important to understand and document the reasons for the change because of the potential mission impact.

This memorandum provides policy direction regarding development of agency IT investment[1] baseline management policies and defines a common structure for IT investment baseline management policy with the goal of improving transparency, performance management, and effective investment oversight. Diligently tracking the execution of well-crafted plans can provide early warning of potential problems and enable timely and effective mitigation before problems spiral out of control. Continual oversight of projects demonstrates financial and operational control. Baselined[2] plans act as a guide throughout the life of an investment to provide a basis for measuring performance, identify who is accountable for the deliverables, describe the implementation approach and interdependencies, identify key decisions, and embed quality assurance and reviews. Ultimately, baseline management demonstrates that a project is under financial and managerial control.

To provide a cohesive policy towards baseline management, this memorandum integrates the requirements in OMB Circular A-11, Part 7, and Federal Acquisition Regulation Subpart 34.202 with Federal IT Dashboard practices and guidance, and rescinds Memoranda 04-24 and 05-23.

This policy only addresses the establishment, management, and change to investment baselines. Agencies should reference other OMB requirements, including Circular A-130 and the Capital Programming Guide, to describe full lifecycle management of IT capital investments.

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[1] The term investment is generically used in this policy to include both major and non-major investments as defined by Circular A-11 unless the specific reference in the policy is to Major Investments.

[2] Baseline is defined as the approved work breakdown structure, costs, schedule, and performance goals for a given investment.

Agencies should create or update existing IT investment baseline management policies within 90 days of issuance of this policy and develop training plans for personnel with investment oversight and program management responsibilities that at a minimum address the policies outlined in Appendix A of this memorandum. Questions and feedback about this memorandum can be addressed to egov@omb.eop.gov and should have the term "Baseline Management Policy Feedback" in the subject line of the email.

Attachment

Appendix A

Per FAR Subpart 34.2 and OMB's Capital Programming Guide, a supplement to Circular A-11, Part 7, agencies shall implement an Integrated Baseline Review (IBR) or baseline validation process as part of an overall investment risk management strategy. As part of this process, requested adjustments to an existing investment baseline (i.e. "rebaselining") should only be made if the program manager can demonstrate a high probability of success and a benefit-cost result that justifies continued funding after comparison with the other alternatives in the portfolio and budget limitations.

Agency policy shall address: (I) establishing an investment baseline; (II) rebaselining an investment; (III) notifying OMB of new and changed baselines; (IV) managing and monitoring baselines via the use of performance management systems, (V) Federal IT Dashboard reporting requirements; and (VI) policy specific for Major IT Programs of the Department of Defense.

I. Agency policy shall address the following items for establishing a baseline:

1. Graduated requirements for establishing a baseline based on the size, scope, and development methodology of the investment.
2. Governance relationships including specific organizations and roles within the agency for establishment, approval, management and change of baselines.
3. A baseline shall cover a useful system component or capability, at a minimum[3]. Agencies should encourage investment lifecycles of manageable duration so that baselines remain relevant.
4. Baseline requests shall include, at a minimum:
    a. A description of the business need for the proposed baseline.
    b. A description of performance measures, including baseline performance and proposed target performance
    c. A product oriented work breakdown structure and cost estimate for proposed activities
5. A baseline validation and approval process or Integrated Baseline Review (IBR). In addition to the requirements in FAR Subpart 34.202, the process must include:
    a. Pre-defined decision criteria to be used by the decision authority to determine if the plan is valid
    b. A requirement for the proposed baseline to be well-documented, comprehensive, complete, and credible and consistent with industry and government best practices.
    c. Documentation of risks associated with cost, schedule, technical performance and management.

II. Agency policy shall address the following items for establishing a revised baseline (rebaseline):

1. Acceptable reasons for rebaselining include:

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[3] OMB Circular A-11, Part 7

a. Significant change in investment goals (scope, requirements, objectives) resulting from internal or external management decisions, or changes in funding level or availability of funds (e.g. extended continuing resolution), or contracting (including contractual protests)
   b. In the case where an incremental or iterative system development and planning lifecycle has been chosen for the investment, progressive elaboration may be necessary when transitioning from one iteration or increment to the next, as scope and objectives evolve. Such rapid evolution inherent to iterative development shall be approved by the Agency CIO.
   c. Current baseline is no longer useful as a management tool for realistic performance measurement as variances are so high that they lose meaning
2. Description of changes to performance goals and measures
3. Summary of the changes in the investment's scope and/or capabilities
4. Identification of contributing problems, why the current plan is not feasible, and remediation plans to prevent problem recurrence, if applicable
5. For major investments[4], updated Analysis of Alternatives of the chosen alternative's cost data at a minimum (or new analysis if any of the original alternatives are no longer valid) and related recommendation
6. Chronology of changes to an investment's work breakdown structure and cost estimate detailing variance from the most recently approved baseline
7. Description of any contract implications or necessary actions assuring that the baseline accurately reflects contracting constraints and risks

III. Agency policy shall address the following items for notification of baselines to OMB:

For major investments, once the agency has approved a new baseline or revision to an existing baseline, the agency CIO shall update the Federal IT Dashboard within 30 days with the current agency approved baseline. The following should be included in the update:
1. General baseline information
   a. Date of internal (agency) approval of the (re)baselining event (per the governance process)
   b. Updated cost and schedule information for remaining tasks and newly planned tasks
   c. Selection of reason for change to baseline, and brief summary of the rationale used for the (re)baselining event including changes to scope and/or capabilities
2. Additions/modifications/deletions of performance measures, as appropriate.

The update to the IT Dashboard will be considered notification to OMB, and agencies should begin to report against the submitted baseline.

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[4] Major IT Investment is defined as a system or acquisition requiring special management attention because of its importance to the mission or function of the agency, a component of the agency, or another organization; is for financial management and obligates more than $500,000 annually; has significant program or policy implications; has high executive visibility; has high development, operating, or maintenance costs; is funded through other than direct appropriations; or is defined as major by the agency's capital planning and investment control process.

IV. Agency policy shall address the following items for managing and monitoring a baseline:

1. Use of a performance management system
   a. Performance measurement shall occur at the investment level to be applied to both Government and contractor efforts, regardless of contract type.
   b. Agency performance management system(s) shall create the data necessary to populate the Federal IT Dashboard cost and schedule tables on a monthly basis.
   c. Earned value principles shall be used to plan and manage development activities for Major IT investments (including development efforts supporting a mixed-lifecycle investment) and project future impact of variance (e.g. Budget at Completion, Estimate at Completion).
   d. Agencies shall measure against both the current approved baseline and the original baseline.
   e. Agencies shall define the requirements for implementing Earned Value Management Systems (EVMS) in compliance with the ANSI/EIA-STD[5] 748 on both new and ongoing major acquisitions (contracts)
      i. Evidence should include contract language and/or project management documentation requiring the use of EVMS in compliance with the ANSI/EIA-STD[6] 748
      ii. For contracts requiring EVMS, Earned Value data and documentation certifying EVMS compliance with ANSI/EIA-STD 748 should be readily available to OMB upon request.
2. Creation, review and monitoring of corrective action or recovery plans
3. Agencies shall establish a policy for performing operational analysis on operational/steady state investments to measure how well the investment is achieving expected cost, schedule, and technical and customer performance goals.
4. New baselines shall not be requested due to general cost and/or schedule slippages.
5. Clear distinctions shall exist between rebaselining and replanning. The agency's policy shall identify that adding or modifying detail within the overall cost and schedule goals shall not require a new baseline.

V. Agency policy shall address the following items for open and transparent information technology management:

1. Transparency on the Federal IT Dashboard. The Federal IT Dashboard is not intended to be a replacement or substitution of agency or contract required EVMS. Rather, the Federal IT Dashboard collects and creates visualizations of aggregate cost and schedule data for Major IT investments, among other performance data. Analysis of data represented on the Federal IT Dashboard should supplement existing investment control mechanisms within the agency.
   a. Agencies are required to update cost and schedule data for major Investments on a monthly basis; performance measurement data when actual data has been

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[5] FAR Subpart 34.201
[6] FAR Subpart 34.201

measured (annually, at a minimum), and CIO Assessments and contract data when significant changes occur with the investment.

    b. Agencies are encouraged to report a transparent view of the investment baseline on the Federal IT Dashboard (Level 3 of the WBS has been communicated as a guideline). Levels 1 and 2 typically do not provide enough information to describe the work to be accomplished in short enough duration that early warnings of investment performance can be identified.

2. Agencies are required to provide Earned Value reports on contracts requiring EVMS to the Federal IT Dashboard on a monthly basis to include the following data elements at a minimum[7]:

    a. Associated Unique Project Identifier

    b. FPDS Contract Identifier

    c. Planned Start and End Dates

    d. Budget At Completion

    e. Cumulative to Date: Budgeted Cost of Work Schedule, Budgeted Cost of Work Performed, Actual Cost of Work Performed

    f. Cost Variance, Cost Performance Indicator

    g. Schedule Variance, Schedule Performance Indicator

VI. Major Information Technology Programs of the Department of Defense (DoD):

1. Sections I through V of this memo are not applicable to the Department of Defense (DoD). Where applicable, DoD will follow the requirements of title 10, United States Code and corresponding DoD acquisition policy regarding the establishment of, and revisions to, baselines for IT investments.

2. DoD policy shall address the following items for Performance Management Systems:

    a. DoD shall establish Earned Value (EV) measurement policy to guide the development of DoD major[8] IT investments.

    b. DoD is required to update investment performance data on the Federal IT Dashboard, specifically cost and schedule data, for DoD major IT investments, on a monthly basis; performance measurement data when actual data has been measured (annually, at a minimum), and CIO Assessments and contract data when significant changes[9] occur with the investment.

    c. DoD is encouraged to report a transparent view of the investment baseline on the Federal IT Dashboard. Level 3 of the WBS has been communicated as a guideline as Levels 1 and 2 typically do not provide enough information to describe the work to be accomplished in short enough duration that early warnings of investment performance can be identified.

    a. DoD shall be able to provide EV measurement reports upon request to OMB to certify compliance with this policy using the standard template attached in

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[7] Data elements are defined in Appendix B

[8] A DoD major IT system, per Circular A-11 guidance is an IT system defined as major by the DoD's capital planning and investment control process

[9] A significant change for DoD major IT system is a change that meets or exceeds the definition of Significant Change in section 2445c of title 10, United States Code.

Appendix B and may propose an alternative reports approved by the Agency CIO, to OMB using concepts similar to that used in Appendix B.
d. DoD shall provide OMB with copies of the Selected Acquisition Report (SAR) and MAR annual congressional reports.

Appendix B

Unique Project Identifier (UPI): Unique Investment Identifier as reported in the Exhibit 300 and 53

Federal Procurement Data System (FPDS) Contract Identifier: contract number reported in the Exhibit 300 supporting the Major Investment.

As Of Date: Date when all data was measured. Metrics would be current 'as of' the date entered.

Planned Start Date: Enter the start date as defined by the Performance Measurement Baseline (PMB). The date should be consistent with budget submissions and the Federal IT Dashboard.

Planned End Date: Enter the completion date as defined by the PMB. The date should be consistent with budget submissions and the Federal IT Dashboard

Budget at Completion (BAC): The data should be consistent with reports generated by the EVMS. The sum of all performance budgets established for the contract.

Budgeted Cost of Work Scheduled (BCWS): or Planned Value (PV). The data should be consistent with reports generated by the EVMS. The sum of the performance budgets for all work scheduled to be accomplished with a given time period. This includes detailed work packages, planning packages, and LOE packages.

Budgeted Cost of Work Performed (BCWP): or Earned Value (EV). The data should be consistent with reports generated by the EVMS. The value of completed work expressed as the value of the performance budget assigned to that work. This is equal to the sum of the budgets for completed work packages, completed portions of open work packages, apportioned effort earned on the base accounts, and the value of LOE activities.

Actual Cost of Work Performed (ACWP): or Actual Costs (AC). The data should be consistent with reports generated by the EVMS. The costs actually incurred and recorded in accomplishing the work performed within a given time period. ACWP reflects the applied costs.

Cost Variance (CV): The difference between earned value and actual cost (cost variance = BCWP - ACWP.) A positive value indicates a favorable condition and a negative value indicates an unfavorable condition.

Cost Performance Index (CPI): BCWP divided by ACWP

Schedule Variance (SV): The difference between earned value and the budget (schedule variance = BCWP – BCWS). A positive value is a favorable condition while a negative value is unfavorable.

 Schedule Performance Index (SPI): BCWP divided by BCWS