

# Project Management

## Operational Analysis

An Operational Analysis (OA) is a method of examining the ongoing performance of an operating asset investment and measuring that performance against an established set of cost, schedule, and performance goals. It should trigger considerations of how the investment's objectives could be better met, how costs could be reduced, and whether the organization should continue performing a particular function. While great emphasis is often placed on meeting the budget, scope, schedule and goals during the requirements, design, development, test and implementation phases of an investment's life cycle, these costs are only a fraction of the asset's total life-cycle costs. Ownership costs, such as operations and maintenance, including service contracts and disposition, can easily consume as much as 80 percent of the total life-cycle costs. As such, the periodic, structured assessment of the cost, performance, and risk trends over time is essential to minimizing costs in the operational life of the asset.

The OA is conducted to determine: an investment's continued effectiveness in supporting mission and stakeholder requirements; evaluate the cost of continued maintenance support; manage risk; assess technology opportunities; and consider potential retirement or replacement. The results of this analysis are recommendations as to the asset's continued use, modification, or termination/replacement.

The following reflect the high-level activities performed in executing an OA. It is important to note, that while the OA report is produced on an annual basis (in accordance with the EPLC methodology), performance monitoring and data collection is an ongoing activity. Additionally, these are high-level activities. When performing them, OPDIVs should leverage existing, tactical/operational level processes and tools to the extent appropriate.

**Define Performance Metrics** - The Performance Critical Partner and Project Manager, together with the appropriate IT governance mechanisms, identify

and define the specific metrics that will be used to measure investment performance. These metrics should align with four performance areas. Metric definitions, at a minimum, should include:

- Name
- Description (what does it measure)
- Data elements needed to calculate the metric
- Data collection methodology (describe how the data elements are collected)

**Set Performance Targets** - Baseline performance levels are measured and recorded for each metric defined; and desired performance levels for each metric are developed. Target levels should be informed by the current baseline, any applicable peer benchmarks, what is documented in the business case (if available), previous Exhibit 300s, and the Operations & Maintenance Plan.

**Record Performance Data** - Actual performance data is collected and recorded on an ongoing basis during the course of normal investment operations and maintenance and PM activities. The frequency of recording is driven by the specific metric data being collected. Independent of how often performance data is captured and recorded, the most important factor is that the data is captured and recorded in some type of repository so that it can be easily collected and analyzed at the time of reporting.

**Analyze and Report System Performance** - Performance data is collected and analyzed to determine actual performance levels. Additionally, qualitative assessments of project team activities are performed to gauge the extent to which innovation is occurring. After the analysis is performed, results are published in the OA report and in any other reporting tools that the OPDIV uses. When performing this analysis and preparing the Annual Operational Analysis deliverable, the following activities should be considered:

- Perform Mission Analysis. Describe how the investment supports the OPDIV's and the

Department's Mission, Goals, and Objectives. Establish the level of functionality and performance provided by the existing investment. Describe how this investment continues to close, in part or in whole, identified performance gaps.

- Analyze Customer Satisfaction. Develop a strategy to solicit and document customer or user feedback and new requirements. The results of periodic surveys, focus groups, or user group meetings are often assessed. Also examine usage trends, system reports, and change order requests – these can give insight into emerging requirements. Summarize and categorize the information into either performance needs or new functional requirements.
- Perform Operational Analysis. Identify solutions that might provide the needed functionality or performance (or indicate that the investment is already scheduled for replacement or retirement). Alternative solutions may include designing new processes, implementing systems and technologies compliant with the OPDIV's and Department's Enterprise Architecture (to-be, transition, and as-is), or collaborating with other initiatives within the federal government. Recommend if the existing system should be a) continued with no additional investment, b) enhanced, c) terminated, or d) migrated to a similar system and retired.
- Perform Gap Analysis. Report Performance Goals and Measures and Cost and Schedule Performance variances based on information provided in the project planning documents such as the Business Case. Explore the root causes of any gaps so they can be corrected. Identify what, if any additional functionality or performance is required. If the investment is already scheduled for replacement or retirement, name the investment(s) that will support the requirements in the future.

**Support Decision Making** - OA results are provided to the appropriate IT governance bodies via current IT governance mechanisms. These results should include an assessment and decision recommendations from an objective stakeholder. It is common practice to further analyze the performance of those investments that exceed pre-specified performance thresholds.

For more information and tools related to Operational Analysis, the CDC Unified Process, or the Department of Health and Human Services Enterprise Performance Life Cycle, please visit the CDC UP website at <http://www.cdc.gov/cdcup/>. ■

## Project Management Community of Practice

- **March 19, 2010**  
*2010 Project Management Summit*
- **March 26, 2010**  
*Marrying Project Management & Scrum*
- **April 30, 2010**  
*Value of Project Management to CDC Goals*
- **May 28, 2010**  
*Managing Project Scope and Risk*
- **June 25, 2010**  
*Controlling Project Execution*
- **July 30, 2010**  
*Microsoft Project (Desktop & Server)*
- **August 27, 2010**  
*EPLC Tailoring*
- **September 24, 2010**  
*Effective Stakeholder Communication*
- **October 29, 2010**  
*Leadership and Mentoring*
- **December 10, 2010**  
*Managing Projects in a virtual World*

For more information on the Project Management Community of Practice visit the PMCoP website at <http://www2.cdc.gov/cdcup/library/pmcop/> ■

## CDC Unified Process Presentations

The CDC UP offers a short overview presentation to any CDC employee and/or contractor group, upon your request. Presentations are often performed at your facility, on a day of the week convenient for your group, and typically take place over lunch structured as 1-hour brown bag/lunch-and-learn style meeting.

Contact the CDC Unified Process at [cdcup@cdc.gov](mailto:cdcup@cdc.gov) or visit <http://www.cdc.gov/cdcup> to arrange a short overview presentation for your group. ■

## Contact the CDC Unified Process

The *CDC Unified Process Project Management Newsletter* is authored by Daniel Vitek MBA, PMP and published by the National Center for Public Health Informatics.

For questions about the CDC UP, comments regarding this newsletter, suggestions for future newsletter topics, or to subscribe to the CDC UP Project Management Newsletter please contact the CDC UP Team at [cdcup@cdc.gov](mailto:cdcup@cdc.gov)

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