NDIA PMSC Services Subcommittee Status Update

January 2008

NDIA PMSC Services Sub-Committee - Overview

- **Problem Statement:**
  - EVMS is being applied to a variety of services type work scenarios and there is no consistent guidance or policy on how EVMS should be implemented

- **Charter for Subcommittee:**
  - To develop and recommend policy, process guidance, and/or training to support the implementation of EVMS on services type work

- **Targeted Exit Criteria:**
  - White Paper - "Guidance for Implementing EVMS on Services Work"

NDIA PMSC Services Sub-Committee - Volunteers

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Accomplishments to Date

- **Compiled list of "problems, issues, and/or challenges" with implementing EVMS on services work**
- **Developed a "Table of Contents" for the draft White Paper.**
    - The consolidated list provides a good spectrum of common aspects and factors involved in implementing EVMS in services work.
    - There are 12 Sections to the list
    - The list is at the end of the briefing
- **PMSC members completed a survey in April 2007**
    - EVM is feasible and has value on services work, with some reservations
- **Conducted a Workshop at the IPMC in November**
    - EVM is feasible and has value on services work, with some reservations
- **Identified list of topics for which guidance is needed**

Workshop Topics

- **Is traditional EVM appropriate in Services Work? What are some exceptions and issues associated with its use?**

- **Do the benefits of EVMS process discipline and measurement techniques add value?**

- **Are process changes needed to enable EVM to be applied more cost-effectively to manage services?**

- **How should work be organized for planning and control purposes?**

- **What other management techniques have been effectively employed for services work? Were they used in addition to EVMS? Were they integrated with EVMS?**

- **Where have you seen EVMS successfully employed to manage services?**

- **Are there any best practices?**

Workshop Issues

- **Organization**
  - End-product oriented WBS may not apply to <u>some types</u> of contracts, e.g., support contracts or IT services
  - ANSI Standard contains the necessarily flexibility to tailor the WBS
    - Process-oriented structure
    - Time-phased resource plans
  - Supplier EVMS may not provide the flexibility or allow WBS tailoring necessary to organize and plan services work

- **Planning, Scheduling and Budgeting**
  - Typical critical path scheduling often doesn't apply (or has little value) since services may be independent of other effort
  - Work scope and/or schedule often uncertain making PMB development difficult
  - Inability to accurately predict the volume and timing of some services can lead to overuse of LOE

Workshop Issues

- **Accounting Considerations**
  - Cost collection strategies necessary for services management and customer invoicing often different from WBS-oriented approach typically used in EVMS

- **Analysis and Management Reporting**
  - Work is often continuous, i.e., ongoing and repetitive, with no defined completion criteria, making it difficult to measure progress and estimate costs at completion[1]

- **Revisions and Data Maintenance**
  - Some contracts involve frequent changes in schedules, priorities, etc., requiring frequent replanning or shorter-term planning windows
  - Because services are more general in scope, it's less clear when a scope change is occurring

Comments from Services Workshop

- **Services contracts skew EVM Metrics**
  - Time sheets are unreliable source of data
  - Need to ensure people charge based on work they do, not on who they are
- **Use of apportioned effort is relevant and under utilized**
- **Be careful of EAC due to program changes**
  - Ensure all EAC increases are for in-scope effort
  - % complete can mask true EAC
- **Services can mask progress of true development work**
  - DO WE WANT TO RECOMMEND THAT SERVICES WORK NOT UNDER EVM (OR TREATED AS LOE) BE REMOVED FROM PMB FOR MANAGEMENT OVERSIGHT PURPOSES?

Comments from Services Workshop

- **FAA is applying EVM on staff augmentation at <u>Program Level</u> for both contractor and Government FTE**
  - FAA does not flow down EVM to service work
- **Come up with a standard service oriented WBS that covers various types of services**
  - There is a common WBS for Engineering Services
- **Need to balance the costs of implementing EV versus the value of having it.**
  - How much scalability?
  - What is level of risk in the scope of work?
- **Companies may not be willing to spend money to provide EVM on LOE-type services, however**
  - The value comes from EVM process discipline – it results in good program management
  - We cannot afford not to do it

FAR Part 37 – Service contracting

- **Use performance based acquisition methods to the maximum extent practicable, except for—**
  - (i) Architect-engineer services
  - (ii) Construction
  - (iii) Utility services or
  - (iv) Services that are incidental to supply purchases.
- **Use the following order of precedence (Public Law 106-398, section 821(a));**
  - (i) A firm-fixed price performance-based contract or task order.
  - (ii) A performance-based contract or task order that is not firm-fixed price.
  - (iii) A contract or task order that is not performance-based.
- **All service contracts require a Quality Assurance Plan**
  - Methods to evaluate achievement of the performance standards

Performance –Based Service Contract Guidance

- **Use a WBS to develop the requirements, cost and schedule for the contract**
- **Tell contractor what the Government wants not "How To" do the work**
- **Define clear measurable performance standards for all the work**
- **Develop a Quality Assurance Surveillance Plan**
  - Clearly define the method of measuring performance
  - Establish good and poor performance parameters
- **Require re-performance of unsatisfactory work, if feasible**
- **Take appropriate action if work is not delivered**
  - Past Performance rating
  - Reduction in price or fee

- **Not much difference in how service and capital contract should be developed.**

T&M and LOE Contracts Not Meant to be Long-Term – FAR 16.6

- **T&M contract may only be used when it is not possible at the time of placing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence.**

  - T&M contract provides no positive profit incentive to the contractor for cost control or labor efficiency. Appropriate Government surveillance of contractor performance is required to give reasonable assurance that efficient methods and effective cost controls are being used.

- **T&M contract may be used only if—**

  - The CO prepares a Determination and Findings that no other contract type is suitable – Approved by the Head of the Contracting Activity

- **The Contract includes a ceiling price that the contractor exceeds at its own risk. CO must justify changes in ceiling price.**

- **A LOE contract is a variation of a T&M contract without materials**

- **Same application and limitation provisions for T&M apply."**

- **These type of contracts are many times used inappropriately**

Near-Term Sub-Committee Activities

- Determine if and how industry uses EVM to manage its long-term T&M and LOE contracts

    Is EVM used at the contract or program level?

- Determine if we can define a standard WBS for Services (How is it being done in your companies?)

  - Mike O'Neill looking at Raytheon

  - John Duval is drafting an outline for guidance for the development of a service contract WBS and plans to use a WBS for a Software Maintenance contract as an example.

- Look at how EVMS is being used on Managed Services type contracts

Proposed Guidance Topics

- **Integration of EVMS and PBA (guidance for using EVMS in support of performance based acquisition/performance based payments)**
- **Practical application of EVM to services work**
  - Organizing work, e.g., guidance for developing work breakdown structures for services (is a standard WBS for services feasible?)
  - Planning techniques
  - Accounting for services (cost collection considerations)
  - Analysis and management reporting, e.g., EV techniques suitable for measuring progress on services work, analysis and forecasting techniques, other useful metrics/indicators that should be used in conjunction with EVM
  - Revisions and data maintenance, e.g., how to maintain a flexible PMB without incurring constructive changes

Proposed Guidance Topics (Continued)

- **Applying EVMS at the Program Level (supplement the EVMS Application Guide)**

- **Guidelines for applying EVM to services portion of a development contract, e.g., avoid excessive use of LOE when services work is significant so as not to mask progress of development effort**

- **Expanded guidance for contracting officers to enable correct contract type selection (to avoid misapplication of EVMS, e.g., to T&M contracts)**

- **In the near-term, we plan to focus on the practical application of EVM to services work**

Potential Guidance Content

- **Need to identify the criteria for the application of EVM to services using one of two approaches**
  - **By sub-process, e.g.,**
    - **Organizing work, e.g., guidance for developing work breakdown structures for services (is a standard WBS for services feasible?)**
    - **Planning techniques**
    - **Accounting for services (cost collection considerations)**
    - **Analysis and management reporting, e.g., EV techniques suitable for measuring progress on services work, analysis and forecasting techniques, other useful metrics/indicators that should be used in conjunction with EVM**
    - **Revisions and data maintenance, e.g., how to maintain a flexible PMB without incurring constructive changes**
  - **Or, by type of service**
    - **On what type of service contracts do we think EVM can be applied?**
    - **On what type of service contracts should EVM not be applied?**
    - **Identification of a dollar/time/risk threshold?**
- **We still need to agree on a common approach and format for our guidance**

Potential Formats for Guidance

- **White Paper(s)**
- **Add to existing NDIA PMSC Guides**
- **Create a new guide for the application of EVM to services contracts**
- **Training materials**
- **Other?**