“Taking a ‘One Team’ Approach to EVMS”

Lessons Learned during an EVMS Implementation

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Introductions

- Janet Griskonis, PMP
  - EVMS Specialist for 2 years
  - EVMS Experience for 8 years
Topics

- Program Overview and EVM Requirements
- Approach to EVM
- Program Management Engagement
- Customer Relationship
- Summary of Lessons Learned
Program Overview

- 8 Task Orders
- Contract Types: 1 CPFF & 7 T&M
- Period of Performance
  - Staggered start and finish dates, task orders already in progress for at least a year or two before EVM requirement was instituted.
- Total Contract Value
  - Over $20 million at the investment level, which includes several contractors
Objective and Scope

- Software Development
- Data Source Implementation for hospitals and other medical facilities
Program Organization

- Program Manager
  - Project Manager TO#1
  - Project Manager TO#2
    - Project Manager TO#2
  - Project Manager TO#3
    - Project Manager TO#4
  - Project Manager TO#4
    - Project Manager TO#4
    - Project Manager TO#4
    - Project Manager TO#4
EVMS Project Control Team

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Microsoft Scheduler

Project Controller
Task Order #1

Project Controller
Task Order #2-7

Project Controller
Task Order #8
EVMS Requirements

- Proposed “tailored” and “full” Earned Value Management on already existing projects in progress
- Customer accepted the “Full” EVM proposal
- Full Earned Value Management included:
  - Contract Performance Reports: (Formats 1-5)
  - Process Documentation for each 9 process areas
  - Integrated Baseline Review
Approach to EVM

- EVM provides a discipline to manage cost, schedule and technical performance
- The development and establishment of the performance measurement baseline provides the plan to accomplish the work.
- The Work Breakdown Structure (WBS) is the backbone to accomplishing the work
EVMS Overview

- All EVMS requirements are aligned with the EVMS Standard (ANSI/EIA 748-B-1998 (R2007)), which defines:
  - The primary goal for an EVMS
  - The seven principles of an EVMS
  - The 32 guidelines of an EVMS

- Primary Goal and purpose of an EVMS
  - “An EVMS…will effectively integrate the work scope…with the schedule and cost elements for optimum program planning and control.
  - The primary purpose of the system is to support program management.
Seven Principles of an EVMS (from the EVMS Standard)

- Plan all of the work scope
- Assign a responsible person for control of the technical, schedule and cost objectives, called a Control Account Manager (CAM)
- Integrate the program work scope, schedule, and cost objectives into a performance measurement baseline (PMB)
- Accumulate the actual costs to the accomplished work.
- Objectively assess accomplishments (Schedule Status)
- Analyze significant variances (Variance Analysis)
- Use EVMS information in the company’s management processes. (Report to management)
What goes into the Performance Measurement Baseline (PMB)?

- **Inputs:**
  - Proposal
  - Contract
  - Statement of Work

- **Outputs:**
  - Work Breakdown Structure (WBS)
  - Organization Breakdown Structure (OBS)
  - Integrated Master Schedule
  - WBS Dictionaries and Basis of Estimates
  - Responsibility Assignment Matrix
The WBS provides “The Foundation”

- Scope of the project is detail planned
- Traceable to the Statement of Work (SOW)
- Identifies the Control Accounts, planning and work packages
- The WBS is the basis for creating WBS dictionaries, cost estimating, work authorization, and status.
- Forms the structure of the integrated master schedule.
When to begin an EVMS Implementation?

- As soon as possible…
- An implementation takes a considerable amount of work, preparation and development
- Education is key to team members helping with the implementation
- Integrating EVM as part of managing a program requires flexibility on the part of the project manager.
Who is involved in an EVMS Implementation?

- **Project Manager**
  - Ideally, the PM should have some EVM experience on past projects

- **Project Control**
  - Helpful if PC has had some EVM experience

- **Customer**
  - Helps with “buy-in” on the WBS and expectations of the contractor.
Tools

- Scheduling Tool
  - Provides a layout of work to be accomplished with resources assigned to the work

- Cost/Schedule Integration Tool
  - Integrates the schedule into provides a time-phased cost baseline to measure on a monthly basis to provide the earned value metrics necessary for analysis.
Issues to be addressed:

- Delegation of business management responsibility to Project Managers and then to Control Account Managers
  - Business management responsibility is often new to the technical leads
  - Having PMs/CAMs work within the disciplined nature of EVMS.
- Find time to train both the PM and the customer
Issues to be addressed: (continued)

- Define baseline change authorities
  - PMs/CAMs need to understand the change process
  - Is the customer involved in the approvals?
- What will be the timekeeping requirements by employees, temporary employees, and subcontractor employees.
- Is there a need for Management Reserve?
- How will material/odc’s/travel be managed?
Program Management Engagement

- The PM/CAM drives the planning process and should be engaged every step from the development of the WBS, resource loading the work packages, defining relationships, schedule status, and providing variance analysis.
Establishment of a Solid PC Organization is Important

- Project Control support on the first day of the project, is essential
  - They provide the consistency needed to support the project management functions.
  - If possible, try and find EVMS resources with experience on other programs with EVM requirements to help augment your team
- It is imperative that there are no single points of failure
  - Cross train other team members and everyone on the team should have access to files
Engage your Customer!

- Engaging the customers is important for the success of any EVMS implementation
  - It saves a great deal of work, re-work and/or explanation later.
- Assess your customer’s understanding of EVMS
  - Discuss joint training
  - What about training or educating your customer prior to contract award?
    - If you train them, they will know EVMS the way you do.
- Understand your customer’s EVMS requirement to OMB (Office of Management and Budget)
Communication with your Customer

- Do not assume that the customer will be lenient; this leads to complacency
  - If you bid EVMS, then you must implement it or jeopardize any credentials your company has earned.
  - Customers are becoming more savvy about EVMS and hiring EVMS experts, or new customers may have different agendas; therefore, be sure to pursue compliance with EVMS requirements on contracts.
- Identify and develop relationships with the customer EVMS point-of-contacts and advocates.
General Lessons Learned

- Have an open mind about EVMS and learn what the current environment is doing
  - Leveraging already existing program management practices augments the EVMS discipline, so the PM/CAM feels they are “a part” of the process of implementation.

- EVMS implementation necessitates the engagement of “Upper” management as well as functional leaders
  - Most senior management are already in oversight roles, so they will need to be trained and educated on the EVM discipline and how it can be used to meet their goals while supporting the needs of the customer and the project.
General Lessons Learned (continued)

- EVMS tends to highlight existing broken management processes
- What are the contract requirements and focus on them.
- Engage the customer early and throughout the process.
- Assess your customer’s understanding of EVMS
- Understand your customer’s EVMS requirement to OMB.
General Lessons Learned (continued)

- Use EVMS as a program management communications tool
  - Think about analyzing the data in the same way as your customer will
- Engage “Upper” Management and functional experts early
- Identify who your customer EVMS focal points are and develop a relationship with them.
- Having a solid project controls organization in place with some EVMS experience or training is key on the first day of the project
General Lessons Learned (continued)

- Establish and maintain a solid technical, cost, and schedule baseline
  - Involve key technical members in the PMB development
  - The PMB must tie and map back to the statement of work (SOW)
  - EVMS process compliance becomes meaningless if the data is not reliable
General Lessons Learned (continued)

- The argument that you have too much change to perform EVMS is not logical since EVMS is designed to support the management and control of change.
  - Implement a change control process that keeps the accountability of baseline change.
- Do not over commit, leverage your existing and business rules to help meet the intent of your EVMS.
- Adequate tool support and training is critical
  - Tools are important in automating report generation
  - No tool is compliant with the EVMS standard; by definition, tools cannot be. Any vendor who claims its tools are compliant with the EVMS standard is, at best, unknowledgeable about the subject.
  - The standup, support, and use of tools continues to be a significant challenge with every implementation.
General Lessons Learned (continued)

- The result of an EVMS is not data and reports, but good project management and analysis and use of that analysis.
- Horizontal and vertical traceability through the entire program is important.
  - SOW>Contract>WBS>Integrated Master Schedule>Control Account Plan
- CAMs are critical to a successful EVMS
  - A key aspect of EVMS is the formal flow down and delegation of traditional project management responsibility and authority to CAMs.
  - Requires ownership of the management processes, and the cost/schedule responsibilities in addition to their technical skills.
  - During a CAM interview which takes place during an Integrated Baseline Review, it is revealed how the program is really managed.
General Lessons Learned (continued)

- Establish subcontractor flow-down requirements during the proposal phase and institutionalize them
  - The approach in which management of subcontractors greatly impacts the success of the EVMS implementation
  - Require subcontractors to report time that ties back to the WBS, so costs are accumulated at the customer reporting levels.
Findings...

- Knowledge and education of the 9 process areas and Earned Value System Description and how these documents relate to the execution of their programs.
- Knowledge and use of the EVM artifacts that are developed and created from the 9 process areas.
- Use of an established Work Authorization process that authorizes the employee to charge for the work accomplished.
- The use of two different schedules, one that the PM/CAM uses to manage and the other for EVM baseline integration.
- EV techniques and methodologies used for performance measurement not consistent with work being performed.
- Customer was not engaged in the EVMS implementation and therefore it was not a priority.
Questions/Answers???