Implementing a Program Assessment Toolkit Using Interchange^{SE}

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Program management and assessment in the acquisition community is undergoing a few changes. These changes are being driven by two basic factors

- A move from the traditional specification type contracts with Statements of Work (SOW) to performance based contracts with Performance Work Statements (PWS)
- A requirement to more effectively manage and control programs using Earned Value Management (EVM)

These two factors are changing the nature of the role of the government program manager (PM) with respect to the type of control he or she has on the execution of the contract. In a more traditional role, the government would specify the requirements and the system specifications as an SOW in the Request for Proposal (RFP) and the selected contractor would execute the SOW using the work plan outlined in their proposal. In a performance based solicitation, the proposals include the system specifications and work plan to develop a solution that will meet the performance criteria in the PWS and the selected contractor executes according to their proposal.

This change requires that the PMs ensure that the system being developed meets the performance specifications and have less control over the actual system specifications. Given that technology changes rapidly and COTS products are being used to a greater degree, this approach can result in better performing systems, and faster development times.

Program management has also been undergoing changes. PMs are requiring more realistic assessments of progress in their programs and early identification of problems so that corrective actions can be taken. This is one of challenges in performance based contracting: sometimes it is hard to know if the system will work to specification until it is almost complete and by then it may be too late. Additionally, these program assessments need to be an integral part of the RFP and contract so that data calls and assessment processes are integral to execution. Finally, many programs are no longer stand alone entities. Systems developed in one program are designed to be integrated with other programs and therefore, changes to one will affect another.

Interchange^{SE} is an integrated environment that can solve these issues. It was designed as a complex systems engineering environment that associates technical performance and progress with cost, schedule and risk assessments.

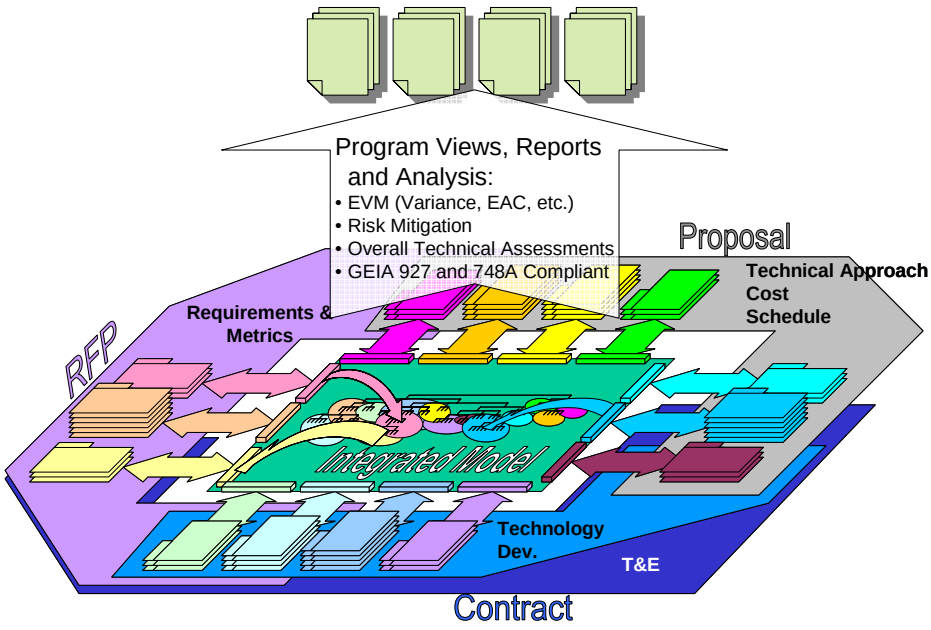

Figure 1: Program Assessment within Interchange

Figure 1 illustrates an example integration that is possible with Interchange^{SE}. The requirements, performance specifications and metrics are part of the RFP. The proposal includes the technical approach including the system specification, work breakdown structure (WBS), cost and schedule elements of the system. The contract will tie these together and include the test and evaluation as well as any other technical development or integration that might be needed.

The advantage to the Interchange^{SE} approach is that all the technical elements including the WBS as well as the cost and schedule elements become part of a central information repository. This repository is more than just a place to store the information. The Interchange^{SE} repository implements a fully integrated data model that is based on the GEIA-STD-927 standard data model for complex systems engineering and is compliant with the GEIA 748-A Earned Value Management standard. Because of this integration, the program manager is able to objectively assess progress toward milestones, which is a common challenge in EVM based program and project management.

In addition to a more effective EVM implementation, the Interchange^{SE} solution will also improve the technology tradeoff and insertion process and have a more effective and complete risk analysis and management capability. Technology capabilities and performance metrics can be measured against the requirements, the overall effect on the program with respect to budget and schedule can be assessed and more informed decisions can be made.