Being a *Smart Buyer*

All of us want to be *smart buyers* whether we are spending our own money or we are guardians of taxpayer dollars. One of the articles in this month's issue compares buying a car to acquiring software or software development services. This is an excellent analogy. Today, most people are very competent car shoppers. They use tools such as the Internet, car magazines, buying guides, and lessons learned from others. People have a much better understanding of financing, options, fuel economy, predicted reliability, and so forth, in spite of all the models available.

Acquiring software intensive systems (SIS) for large tactical weapons or information systems is, of course, much more difficult than buying a car. For one thing, software is part of a system (we usually acquire systems, not software) and this system is often part of a larger system. As our systems become more complex, we see the bulk of the functionality being implemented in software rather than hardware. Another aspect affecting the complexity of acquiring an SIS is that not all system functionality is known at time of contract award.

Despite complexity and uncertainty, acquirers of an SIS must be *smart buyers* in order to deliver products that meet user requirements, that are delivered on time, and that are within budget. For the acquisition of an SIS program, office personnel must be skilled in the following areas:

*   **Recognizing and selecting a competent supplier.** The response to a Request for Proposal (RFP) allows potential suppliers to describe their experience and expertise with software development. The acquirer must know how to craft the RFP to ask for the right information and then analyze that information once it is supplied to select the *best* source.
*   **Defining software requirements and managing changes.** The early and unambiguous definition of system requirements is key to any acquisition. If the scope of requirements changes are not consistently tracked, assessed, controlled, and applied to revised software estimates, then the likelihood of program failure (cost/schedule/quality) increases significantly.
*   **Accurately predicting cost and schedule and managing the risk associated with those predictions throughout the various phases of the program, especially when unrealistic cost and schedule constraints are imposed on a program.** An excellent article in this month's issue (*Controlling Software Acquisition Costs with Function Points and Estimation Tools*) addresses the use of function points and other estimating tools to better evaluate cost and schedule bids from offerors.
*   **Using Earned Value Management (EVM) as applied to software consistently and correctly, to determine status of the development.** A useful EVM system is closely tied to good estimating and an accurate, detailed work breakdown structure.

Within the Navy, a renewed emphasis is being placed on improved acquisition office processes by instigating awareness, education, training, cultivation of competent leaders/managers who understand software, adherence to rigorous processes, and consolidated, clear-cut guidance. For this to be successful, senior leadership is critical. In May 2006, Dr. Delores Etter, Assistant Secretary of the Navy for Research, Development, and Acquisition kicked off a Software Process Improvement Initiative. Key elements of this initiative include required training for Navy senior acquisition personnel, use of a process model as a tool in software developer source selections, and more consistent processes for RFP preparation and contractor selection.

In this issue, the United States Army Program Executive Offices provide a unique perspective on software acquisition in *Software Acquisition in the Army*, noting the similarities and differences in the issues programs face. Key aspects of software assurance are addressed in *Software Assurance: Five Essential Considerations for Acquisition Officials*. The added complexity and interdependencies inherent in joint program acquisition is presented in *The Acquisition of Joint Programs: The Implications of Interdependencies*. Finally, four key recommendations in *Defense Acquisition Performance Assessment – The Life-Cycle Perspective of Selected Recommendations* are discussed from the perspective of their implementability.

Just as with buying a car, being a smart buyer doesn't eliminate the risk of getting gouged. But being a smart buyer does maximize your chances of success. As you read through this month's CROSSTALK articles, I hope you will become a smarter buyer.

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