

# 7

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

This report provides a comprehensive overview of the exploitation of digital environments within the Defense acquisition community. It concentrates on the development and benefits of an Acquisition Program's Digital Environment (APDE), a cross functional integrated digital environment that links all stakeholders within a particular acquisition program. This research describes the environment, discusses the benefits in terms of competitive advantage and process improvement, examines the experiences of industry and the Department of Defense (DoD), provides a methodology for developing an APDE, and addresses some of the many issues affecting the program manager (PM).

DoD acquisition programs will significantly benefit from the systematic development of an APDE. Such an undertaking is really a necessary precondition to achieving the optimistic goals of Acquisition Reform. Transition to a digital environment should not be considered an option. Clearly, from both commercial experience and Defense policy, the Defense acquisition community needs to embrace the in-

formation age, exploiting opportunities for process improvement and reengineering, if they intend to operate faster, better, smarter, and cheaper.

In order to fully exploit the digital environment, the Defense acquisition workforce needs proper organization, training, and top leadership support. An impediment to the development of a truly cross functional APDE is the apparent stove pipes that exist, precluding the clear articulation of a DoD *vision*. Current efforts to advance digital environments within the acquisition community are led independently along functional lines under Logistics (Continuous Acquisition and Life-cycle Support (CALSS)), Acquisition Reform (Electronic Commerce/Electronic Data Interchange (EC/EDI)), Office of Defense Procurement, and various Service and independent program management office (PMO) initiatives. With additional involvement by Defense Information System Agency (DISA), and other DoD and Government agencies, there is no *single face* to the acquisition community or industry. More importantly, by focusing on functional areas, none of the major initiatives truly address the information needs of the PM, and thus are

viewed as having little significance to the PMO. Further, education and training are also functionally based and generally considered inadequate, which exacerbates the problem.

Acquisition programs throughout DoD are using digital technology to varying degrees. However, there is still much that can be done to move the acquisition community into the information age and support efforts to exploit the benefits and potential of the digital environment.

## **Recommendations**

### **DoD and Service Acquisition Executives (SAEs)**

#### ***Single Face to the Acquisition Community***

DoD and the Services must develop an integrated approach to the digital environment and support it throughout the acquisition community. While current efforts led by the logistics, purchasing, and information technology communities are significant, there is a clear need to integrate these efforts in support of a common vision that is well understood throughout the acquisition community and industry. Responsibilities of the single voice or organization effort includes: (a) coordinating the different initiatives, in support of a common, well articulated vision; (b) having the direct or indirect authority to propagate the vision and ensure adherence; and (c) disseminating the word to PMOs in the field.

#### ***Guidance***

The PMOs need clear and definitive guidance with respect to developing an integrated digital environment. To achieve substantive increases in efficiency and productivity, requirements to simply access and receive digital data

are insufficient. Objectives and approaches should be defined at the DoD-level and widely disseminated throughout the acquisition community; PMs must be aware of what is expected of them, what is possible, and what is available today. Currently this is not the case, and the result is a collection of disparate approaches between the Services and PMOs that may or may not support the goals of the acquisition community into the next century.

#### ***Accountability and Incentives***

A PM should be held accountable for the total life cycle of the acquisition program, including long-term information requirements and the development of a digital environment to meet them. Milestone and review board decisions should require and assess the integrated digital information environment (i.e., APDE) developed to enhance the acquisition program and mitigate long-term costs. Incentives to reward near term innovation and improvements, particularly those that result in long-term benefits that are realized after the PM departs the PMO, are necessary. Funding to support digital initiatives is essential; efforts to affect long-term cost savings through the development of an APDE should not cause short-term budgetary hardships. Likewise, disincentives should be diminished. Reducing long-term costs should not result in a commensurate reduction in a PMO budget.

#### ***Metrics***

Lessons learned and metrics that depict genuine benefits in cost, cycle time, efficiency, management, productivity, and life cycle support need developing and wide dissemination. These metrics underscore what is achievable within DoD acquisition programs: PMs require such metrics in order to validate the utility of an APDE and conduct realistic cost-benefit

analyses. Industry examples, while useful and more available, are of lesser value because of operating environments, options, and restrictions that differ between the commercial and Defense acquisition communities.

### ***Interoperability and Standards***

Continuing to identify national, international, and industry standards which can be applied to the acquisition process makes sense for DoD. The Services and DoD implementations should clarify requirements, capabilities and restrictions; enable widespread use within DoD; and facilitate interoperability between functional areas and across process boundaries. Further, the Services and DoD actions should not limit the flexibility of the PM, but must support interoperability between the PMO and the information requirements of the larger Service and/or DoD digital infrastructures.

### ***CITIS as a Single Process Initiative***

The Defense “single process initiative” is being implemented to reduce the number of government-imposed processes on existing contracts. The DoD needs to consider a similar initiative addressing contractor integrated technical information service (CITIS). The DoD can examine Defense contractors providing multiple CITIS environments to government programs, requiring common CITIS implementations per site or per contractor. There appears to be considerable opportunities for increased program efficiency and bilateral cost avoidance that works to the benefit of both the Government and industry. Requirements generation and CITIS acceptance will improve as CITIS implementations become more standard and capabilities become more widely understood.

## **Defense Acquisition University (DAU)/Defense Systems Management College (DSMC)**

### ***Learn From Industry***

Industry has identified and demonstrated significant benefits and cost savings achievable by exploiting information through integrated digital environments (i.e., APDE). The acquisition workforce should be cognizant of these benefits and understand how they can be applied to Defense acquisition programs. Examining the lessons learned from industry, understanding how they are applicable to the Defense acquisition process, and ensuring this knowledge is captured in the education of the acquisition workforce falls upon the shoulders of DAU/DSMC. All PMs and staffs need to understand the potential of a digital environment and have an appreciation of how to exploit such potential within their respective organization.

### ***Center for Excellence***

With responsibility for DoD acquisition education and training, DAU needs to become proactive in compiling, reconciling, applying, and disseminating information pertaining to the acquisition process. Development and exploitation of cross functional integrated digital environments can potentially yield significant benefits and help to achieve the objectives of the acquisition reform initiative. DAU, particularly DSMC, needs to become a center for excellence in this area, leading the acquisition workforce into the information age and providing a comprehensive repository of information on requirements, standards, applications, lessons learned, metrics, initiatives, pilot programs, funding, etc.

*Tools:* Technology and implementations supporting an APDE are evolving at a rapid pace,

making it extremely difficult for PMOs to perform qualitative and quantitative evaluations. Information is needed on products and technology innovations, along with methods in which to conduct evaluations when faced with competing alternatives.

*Training the acquisition workforce:* The requirements and benefits of APDEs need inclusion in education and training processes. This will both improve understanding and stimulate commitment throughout the acquisition workforce. Training should NOT be confined to functional areas or conducted as a separate process. Rather, incorporate it throughout the programs—stressing the cross functional and integrated nature of a digital environment and how the exploitation of information supports massive process improvements and reengineering.

*Simulations and hands-on:* DSMC should consider developing a simulated APDE which utilizes many of the tools (i.e., CITIS, workflow manager, integrated databases, cross functional decision making) and clearly demonstrates the potential of such an environment. Reading the books and hearing the words is insufficient. The acquisition workforce needs to see, feel, and fully appreciate how a digital environment can be used to truly realize significant benefits. Team exercises that go through processes involving geographically and functionally separate groups are options. As one group employs an APDE, enabling parallel processing and integrated product team (IPT)-like decision making, the other group steps through using current acquisition methods. As team members identify and examine the differences in process time, paper generation, coordination, efficiency, and cost, the possibilities of an APDE become evident.

*Symposiums:* The dynamic character of this environment dictates working to remain current and constantly looking forward. DAU should consider sponsoring symposiums and expositions to keep abreast of this emerging field and support the exchange of ideas. DAU sponsorship could ensure that the focus is on the acquisition process as a whole, is relevant to PMs, and includes various DoD and Service initiatives which cross functional and program boundaries. By working with the SAEs, DAU can also ensure that appropriate cross section of the acquisition community is targeted, invited, and in attendance.

## **Industry**

### ***Recognize Goals of Acquisition Reform***

Many in commercial industry have created integrated digital environments and become significantly more efficient, more competitive, less bureaucratic, and more profitable. Learning from these examples and trying to realize many of the same benefits is at the heart of the current Defense Acquisition Reform movement. Acquisition managers have greater flexibility and the focus is on faster, better, smarter, and cheaper. The Defense industry is in an excellent position to recognize those DoD requirements which no longer make sense, add bureaucratic burden, reduce efficiency, and jeopardize performance outcomes. To better serve the Defense acquisition community, industry must re-examine historical ways of working with DoD and identify opportunities that may be available to improve the way in which we all do business.

### ***Win-Win Opportunities***

Many ideas, particularly with respect to APDEs, offer substantive win-win possibilities. Proactive industry identification of these

opportunities brings them into the acquisition process. Industry needs to share the possibilities of an APDE, demonstrate capabilities to PMOs, and be an active player in the development process. While Government cost reduction is an objective of the PM, new regulations and reform initiatives promote contractor incentives and benefit sharing.

### ***CITIS***

CITIS provides a mechanism for information creation, management, access, and use. It is potentially an excellent tool for the PMO, and a source of competitive advantage and revenue for the contractor. Every effort should be made to assist PMOs in recognizing the benefits and potential of a CITIS, but PMO-unique CITIS implementations should be resisted. Multiple CITIS implementations at a contractor facility, or even within an organization, results in duplication of effort, increased cost, and lower overall quality service. Dividing CITIS personnel and technology resources within an organization does not benefit the organization or its Government customer. Perhaps, industry should explore common CITIS environments wherever possible, using a “single process ini-

tiative” approach. A recommendation is to start at the facility level and potentially migrate to the corporate level. As CITIS requirements and environments mature, standardization across corporate boundaries may also be feasible.

### ***Standards***

As the acquisition community pushes toward a DoD-wide integrated data environment (IDE) vision, the need for standardization and data interoperability becomes imperative. Information and digital data must be able to cross functional, organizational, and corporate boundaries seamlessly. The days of proprietary hardware and software restrictions, data formats, and communication protocols are numbered. Industry, for the most part, has recognized the inherent benefits of standardization, and can further facilitate this process. They should actively pursue the development and use of international, national, and industry standards that facilitate data sharing, exchange, and reuse. Not only will this support Defense acquisition goals, but also organizations at the forefront of this effort will be more attractive and competitive in Defense contract selections and in the global international marketplace.

