Resource Management Decision 700

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Abstract

This paper provides a very brief overview of a long-standing research agenda that seeks to isolate the programmatic success factors of joint capability initiatives. In attempting to conduct the research one very critical DoD acquisition data shortfall was discovered. At the same time, the data shortfall was also recognized by AT&L’s AV SOA initiative. The recognition led to the issuance of Resource Management Decision directive 700 (RMD 700). RMD 700 directs AT&L, Comptroller, and CAPE to improve MDAP resource data transparency. The discussion below focuses on the goals and activities of the RMD 700 effort to improve the quality and use of data within the DoD. The discussion also highlights how these improvements can serve a wide range of immediate operational decisions as well as longer term strategic and management levels of decision.
Background

The transformation to a Joint Capabilities paradigm at the Department of Defense is now in its 10th year. The goals and objectives are well understood and the transformation continues across the armed forces. At its roots is the desire to enhance coordination among sister services, allies, and all levels of government (coalition, federal, state, and local). In addressing the need for interagency cooperation, Vice Chairman of the Joint Chiefs of Staff Admiral Giambastiani (2004) claimed that the integrated force had to become interdependent. That is, it must be capabilities-based, collaborative, and network centric. At the 2010 Acquisition Symposium, Jacques Gansler underscored the importance of the shift to Joint Capabilities, and stated that multiagency and multinational operations were needed to achieve maximum military flexibility and responsiveness.

While the transformation continues, the acquisition arena has remained largely program centric. Historically, acquisition investments at DoD had been proposed as individual materiel solutions, typically championed by the armed service for which the product was to be obtained. This gave rise to discrete systems designed in accordance with the individual service requirements. When called upon to operate in a joint, multi-service environment, these systems exhibited problems interacting effectively with other service systems. Despite the fact that many MDAPs are identified as explicitly joint in their selected acquisition reports, the DAES process, milestone reviews, and most oversight functions focus on the program entity to the exclusion of the joint space that allows MDAPs to leverage and share resources. Almost no attention is given to the risks of the critical interfaces and interdependencies that underlie the formation of joint capabilities.

Although several business modernization activities are underway, and WSARA has mandated several changes in the acquisition arena, little attention is devoted to understanding the nature of interdependencies and their potential consequences. Much of the reason for this may be due to the fact that managers lack the methods and tools to observe the risks that occupy the joint space. Furthermore, they often lack the time and resources to explore new and unproven methodologies. While DoD agencies are expected to embrace joint capabilities, literature findings regarding the risks and best practice mechanisms of joint interdependent activities lag far behind. The study of interdependency and its effects on program performance have yielded too few tangible results. There are few tested and proven tools for program managers and acquisition executives to assess the joint space or gauge the cascading consequences, or domino effects, that the joint space might trigger.

This research examines DoD acquisition from the context of a network of interrelated programs that exchange and share resources for the purpose of establishing joint capabilities. The research focuses on the joint space of MDAP programs, the space where transactions form interdependencies among MDAP programs. This research breaks from past approaches that discussed programs as system-of-systems or family-of-systems. System-of-systems and family-of-systems operated from the context that boundaries could be defined. A plot of the critical interdependencies that MDAP programs exhibit reveals the arbitrariness of this approach (see figure 1). Instead this research examines the MDAPs in light of first order, second order and n-order interdependencies. Moreover, it allows observation at multiple units of analysis, the effects on one program, the effects on n-ordered programs, and the network wide effects.
For this research, jointness, interdependency, exchange, and partnerships all refer to a similar concept: the notion that autonomous organizations build relationships to provide capabilities that, when looked at in totality, form network structures. At the individual pairwise level, these exchanges exist as explicit transactions for the transfer of data, labor, capital, or materials. The research also relies on the distinction between complex and complicated as put forth in the works of Alberts and Hayes (2007) and Rosen (1999). These researchers argue that complicated situations have many moving parts and are highly dynamic. However, the cause and effect relationships are generally well understood and the consequences predictable. Alternatively, complex situations have multiple interdependent chains of command where goals can conflict, perceptions differ in important ways, and the effects of the behaviors are often opaque (Albert and Hayes, page 4). In 1999 Rosen argued that the uncertainty that arises from a relationship is the definition of "complexity." And that "complexity" can only be understood by examining the links that bind. If Rosen is correct, DoD acquisition is reaching unprecedented complexity. Referring back to Figure 1, the network analysis of MDAP data interdependencies with other MDAPs, and ACAT II programs reveal unprecedented complexity.

The questions that drive this research agenda are:

RQ1: What resources are being exchanged that act as the basis of the interdependency and the joint capability?
RQ2: Who is involved in the exchange?
RQ3: What mechanisms are employed to conduct the exchange?
RQ4: When and how often are the exchanges occurring?
RQ5: What are the cost, schedule, and performance risks of the exchange?
RQ6: What resources are needed to insure the success of the exchange?
RQ7: What outcomes derive from the exchange?

Acquisition Cost Data Quality

This paper focuses on one aspect of RQ1 -- “What resources are being exchanged that act as the basis of the interdependency and the joint capability?” Joint capabilities are predicated on sharing, exchanging, or transferring resources or assets to improve agility and performance. In most situations, the shared resources take the form of capital, data (to include information, knowledge, or expertise), materiel, or labor. In many of the DoD initiatives, program networks are established to facilitate the transfer of data. However, others exist to share capital. For example, JSTARS was a joint Air Force-Army initiative that was predicated on sharing financial capital. The U.S. Congress refused to authorize the initiative unless both services pooled their financial resources and developed the capability jointly. Still others will share or trade critical materiels, labor or expertise. Under most situations, a given program network will
actually involve the trading, sharing, and transferring of all of these assets (capital, data, materiel, and labor).

One step of this research was to examine how monetary resources are exchanged among the MDAPs. Research showed that the establishment of a given joint capability was often reliant on cost sharing. In fact, a longitudinal study revealed that the extent of cost sharing among various MDAPs has escalated throughout the past 10 years. Figure 2 shows the growth in cost sharing activities among the MDAPs. Cost sharing activities are traced through the program element (PE) budget exhibit. All Select Acquisition Reports identify the PE(s) that fund their respective programs. The tracing of the fund allocations through the PE’s provided a way to isolate the cost sharing activities for RDT&E, Procurement, MILCON, and O&M appropriations.

Figure 2: Increasing Density Among Certain DoD Acquisition Programs and their Funding Sources

In an attempt to drill down further in the budget exhibits, it became evident that the quality of the cost data among the select acquisition reports, PB, FYDP, and J-Books were
incomplete, inconsistent, and largely inaccurate. One study revealed a 95 percent error rate among the four data sources. Of utmost concern was the finding that the quality shortfalls could not be explained by aggregation procedures. As a consequence, it was impossible to isolate the true cost of a given MDAP initiative.

The AV SOA investigation into the scope of the problem revealed:

1. Two Separate Cost Related Databases
2. SARs are prepared with MilDep Acq Community participation and not coordinated with Comptroller
3. Shared funding lines across MDAPs and non-MDAPs obscures ability to track funds between SAR and PB/FYDP exhibits
4. SARs capture financial details of all years of MDAPs, PB and FYDP do not
5. Unclear and confusing POM/BES guidance on submission of SAR MDAP data in PRCP produced inconsistent and erroneous data results
6. Lack of understanding of MDAP data requirements
7. Need for better definitions and guidance
8. The SAR, PRCP, and J-Book processes are not in synch
9. PRCP/J-Book/SAR collect data at different levels of detail

The consensus was that there is a need for a greater focus on data standards, data transparency, and data visibility.

**RMD 700**

As a consequence, in July of 2010, OSD issued a memorandum mandating the adoption of integrated program and budget submission data requirements. Spearheaded by the AV SOA initiative, in partnership with the Comptroller and CAPE, RMD 700 seeks to address the cost data quality issue. The goals of the reconciliation effort are to:

1. Create a consistent program data structure for the Budget, FYDP, and SARs for Milestone A/Initial Milestone for all new MDAPs and all current MDAPs that are Section 2366 certified.
2. Migrate to new approach in time to support POM FY 12-17

Ideally, the data quality issues should be rectified by December 2010. Below is a schedule of the steps they are taking to address the quality problem.

<table>
<thead>
<tr>
<th>Task</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>Update SAR guidance to include a requirement to ensure that information is consistent with the PB, FYDP, and J-Book</td>
<td>Feb 2010</td>
</tr>
<tr>
<td>Assess, fix and report out on J-Book/Dec 2009 SAR disconnects as part of the SAR review process</td>
<td>Apr 2010</td>
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<td>Task</td>
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<tr>
<td>Assess and report out on J-Book/PB11 disconnects</td>
<td>Apr 2010</td>
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<tr>
<td>Update and improve MDAP related guidance for POM/PB 12</td>
<td>Apr 2010</td>
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<tr>
<td>Determine business rules that need to be changed, training required, impacted systems, and timeline for implementation</td>
<td>May 2010</td>
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<tr>
<td>Redesign database schemas for DAMIR, PRCP system, and Comptroller system</td>
<td>Aug 2010</td>
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<tr>
<td>Redesign GUIs for DAMIR, PRCP system, and Comptroller system</td>
<td>Aug 2010</td>
</tr>
<tr>
<td>Assess and Rectify POM12/DAMIR POM disconnects</td>
<td>Sept 2010</td>
</tr>
<tr>
<td>Modify DAMIR screens to compare PB 12/SAR at a rolled up level and provide consistent funding data.</td>
<td>Dec 2010</td>
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In closing, the inability to identify accurate and consistent cost figures for DoD’s MDAPs has severe implications in a number of areas. The threat to the joint capability study is significant but trivial when considering the larger accountability ramifications. The ability to provide consistent cost and funding information can serve a wide range of immediate operational decisions as well as longer term strategic and management levels of decision. It will in fact provide an accurate and true reflection of DoD expenditures. The ability to understand accurate expenditures addresses not only budgetary needs, but will also help in forecasting future DoD needs.

The success of a democratic society depends on transparent information, especially in the arena of expenditures of tax-payer dollars. Of utmost interest is the question of how many other government databases are equally inconsistent. New technologies have, for the first time, allowed investigation into the data quality issues of government activities. DoD’s willingness to confront the problem and their aggressive stance in dealing with the data quality issues should be both lauded and serve as an example to other Federal agencies.
References
