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Transitioning Joint Requirements to Joint Acquisitions

Lessons and Recommendations for the U.S. Department of Homeland Security

To accomplish each of its six strategic goals, the U.S. Department of Homeland Security (DHS) needs to acquire materiel capabilities: aircraft, cameras, sensors, information technology systems, and more.[1] To determine the capabilities that users require to execute the mission and to manage the acquisition of these capabilities, DHS has established complementary processes for requirements development and acquisition. The Joint Requirements Integration and Management System (JRIMS) governs management of capability needs and requirements (DHS, 2018b). The Acquisition Lifecycle Framework (ALF), established by Acquisition Management Instruction 102 (MD102) (DHS, 2023a), governs acquiring and fielding those capabilities, alongside the Systems Engineering Life Cycle (SELC) framework (DHS, 2021).[2] The process steps and documentation for JRIMS intentionally phase into those discussed in MD102 to enable a smooth transition between the requirements development process and the acquisition process.

KEY FINDINGS

In assessing the U.S. Department of Homeland Security (DHS) policy guidance and reviewing the approaches and outcomes for four joint acquisition efforts, researchers identified three common challenges with the DHS guidance and approaches that frustrate DHS's ability to translate joint requirements into joint acquisitions:

- lack of timely acquisition planning

- need for additional guidance on jointness

- lack of sufficient executive leadership.

However, for efforts involving more than one DHS operational component,[3] considered *joint* per DHS policy,[4] the meshing of requirements with acquisitions can be more complicated. DHS's eight operational components are all different from each other and have different, although complementary, strategic goals. Determining joint requirements necessitates aligning the DHS components' divergent missions and authorities; implementing joint acqui-

sitions necessitates corralling differing funding and organizational structures. These tasks can be chal-

lenging to accomplish and can fray the interconnection of joint requirements with joint acquisitions.

DHS policy on requirements development and acquisition could help components seeking joint arrangements work through these challenges, but DHS has faced challenges with joint acquisitions aligning with jointly developed requirements (see, for instance, Rascona, 2023).

Study Objectives, Approach, and Limitations

In this research, we sought to understand where and why DHS had challenges translating joint requirements into successful acquisitions.

We sought to answer these questions by referencing both current DHS policy and the experiences of recent joint programs. We began by reviewing current DHS policies and processes to understand how they addressed transitioning joint requirements to joint acquisitions. We then reviewed four joint DHS acquisition efforts, each with its own approach to managing the challenges of jointness. We reviewed requirements development and acquisition documents from these programs, as well as government reviews of these programs from the U.S. Government Accountability Office (GAO) and the DHS Office of Inspector General (OIG). We also spoke with DHS officials familiar with these programs, from both the components and DHS headquarters. Informed by our document reviews and by discussions with DHS officials, we report here on our synthesis of common lessons from these cases in which current policies proved insufficient and, finally, recommend changes to current requirements development and acquisition policies to improve their alignment and help guide future joint efforts toward improved outcomes.

This approach is not without its limitations. Although we tried to review a representative sample of joint programs at DHS, other programs not included in our review could offer conflicting or additional lessons. Additionally, we chose to focus on recent programs to better assess changes in the DHS requirements development and acquisition processes since 2014, but this means that all the acquisition programs chosen as part of our review are still active,

with no final transition of capability out of the acquisition program and to the end user. This might have limited our ability to assess the ultimate outcome of these acquisitions.

Joint Policy on Requirements Development and Acquisition at the U.S. Department of Homeland Security

To understand how and to what extent DHS requirements development policies and acquisition processes provide guidance on the unique challenges of jointness, we reviewed the documents that implement and govern these processes, including the following:

- DHS Directive 101-01, revision 01: *Planning, Programming, Budgeting, and Execution* (DHS, 2019d)
- DHS Directive 102-01, revision 03.1: *Acquisition Management Directive* (DHS, 2019b)
- DHS Instruction 102-01-001, revision 2: *Acquisition Management* (DHS, 2023a)
- DHS Guidebook 102-01-003: *DHS Acquisition Management Lexicon Guidebook* (DHS, 2013)
- DHS Instruction 102-01-103: *Systems Engineering Lifecycle Guidebook* (DHS, 2021)
- DHS Guidebook 102-01-103-01: *Systems Engineering Life Cycle Guidebook* (Office of Program Accountability and Risk Management [PARM], 2016)
- DHS Directive 107-01, revision 00: *Joint Requirements Integration and Management System* (DHS, 2016)
- DHS Instruction Manual 107-01-001, revision 2: *Manual for the Operation of the Joint Requirements Integration and Management System* (DHS, 2018b).

The purpose of this review was to assess whether these documents provide adequate instruction to program managers and others to manage the processes for requirements development and acquisition and what, if any, specific guidance or policy these documents provide for joint efforts. We compared these documents with guidance on joint programs provided by the U.S. Department of Defense (DoD)
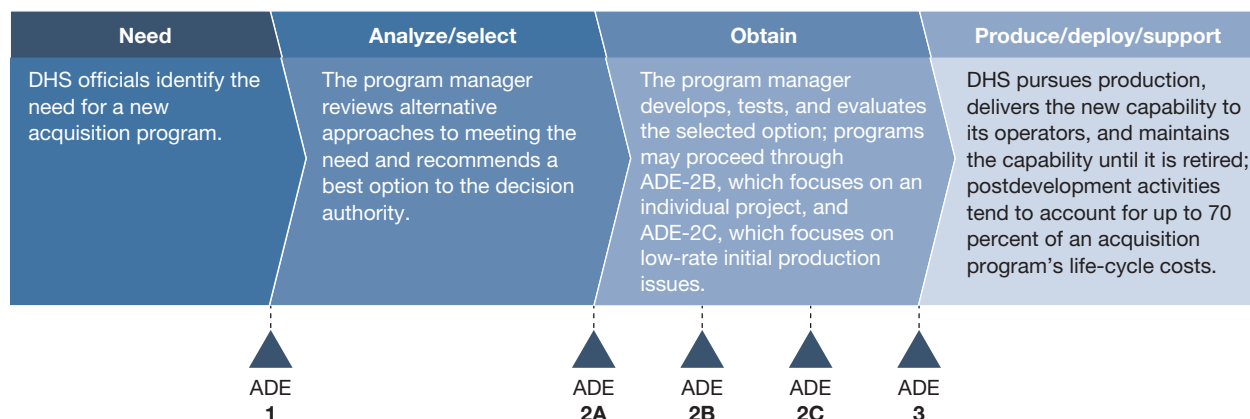
(for instance, Defense Acquisition University [DAU], 2004), with reports from GAO, and with reports on studies of managing acquisition and requirements development for joint programs.

Requirements Development and Acquisitions at the U.S. Department of Homeland Security

Requirements development and acquisitions at DHS are structured into an ALF divided into four phases punctuated by three acquisition decision events (ADEs) in which members of senior leadership assess whether a program is ready to proceed to the next phase (see Figure 1) (DHS, 2023a, p. 41). Requirements development happens primarily in the first (need) and second (analyze and select) phases and is overseen by the Joint Requirements Council (JRC) alongside the component requirements executive.[5] Acquisition planning and analysis occur throughout the ALF, with additional, more-detailed planning occurring after ADE-1, and is overseen by PARM alongside the component acquisition executive.

Although the ALF formally begins with capability analysis, current policy assumes that acquisition planning occurs in parallel with this step. Figure 2 details the distribution of documentation from the processes of requirements development and acquisition across the ALF. Capability analysis is documented in the capability analysis study plan and capability analysis report (CAR) as part of the JRIMS process. A CAR should conclude with presenting materiel or nonmateriel solution approaches for each capability gap it identifies (DHS, 2018b, p. 15). A component or set of components must then decide whether to proceed with each materiel solution approach. The JRIMS manual considers this step to be ADE-0, even though there is no formal ADE-0 in the acquisition documentation (DHS, 2018b, p. 6). The acquisition management instruction states solely that, "once a need is identified, the need phase begins" (DHS, 2023a, p. 42). The SELC guidebook alludes to an acquisition decision following the CAR requiring consideration of technical maturity, schedule, budgets, and feasibility but does not provide guidance on how this decision should be

FIGURE 1

The U.S. Department of Homeland Security Acquisition Lifecycle Framework

Need	Analyze/select	Obtain	Produce/deploy/support
DHS officials identify the need for a new acquisition program.	The program manager reviews alternative approaches to meeting the need and recommends a best option to the decision authority.	The program manager develops, tests, and evaluates the selected option; programs may proceed through ADE-2B, which focuses on an individual project, and ADE-2C, which focuses on low-rate initial production issues.	DHS pursues production, delivers the new capability to its operators, and maintains the capability until it is retired; postdevelopment activities tend to account for up to 70 percent of an acquisition program's life-cycle costs.

ADE 1   ADE 2A   ADE 2B   ADE 2C   ADE 3

SOURCE: Adapted from Mak, 2019, p. 6.

made or what analysis should inform it (PARM, 2021, p. 21). This analysis may be partially documented in the mission need statement (MNS), but it requires acquisition planning and decisionmaking (not just requirements analysis) and necessarily happens at what JRIMS considers to be ADE-0.

Additional acquisition planning must occur in parallel with the MNS in preparation for ADE-1. The MNS requires conducting a rough-order-of-magnitude (ROM) cost estimate for the acquisition, which, in turn, requires scoping the bounds, time frame, personnel, and quantities needed. This acquisition planning is documented only in the CDP, which is the first acquisition planning document, produced immediately before ADE-1. The acquisition management instruction, the SELC guidebook, and the JRIMS manual provide no guidance on how to conduct this pre-MNS acquisition planning. Indeed, the SELC guidebook treats the MNS as an input to the solution analysis planning, which is documented in the CDP (PARM, 2021, p. 21).

After ADE-1, a complex interplay of acquisition planning and requirements development continues, but the relevant guidance provides more support to program managers on how to handle this complexity. Requirements documents, such as the CONOPS and ORD, document analysis needed for the acquisition-focused AoA and vice versa. The AoA relies on scenarios and metrics defined in the CONOPS and ORD, respectively, and the ORD and CONOPS ref-

erence the specific solution approach chosen in the AoA. To manage this conundrum, the JRIMS manual recommends that each component draft a preliminary CONOPS and ORD to support the conduct of the AoA, then update these documents following its completion (DHS, 2018b, pp. 5, 15). Likewise, the SELC guidebook recommends developing the CONOPS "concurrent[ly] with the operational requirements development process and AoA execution" (PARM, 2021, p. 28).

After ADE-2, operational requirements development fades out and the development of functional requirements is integrated directly into the overall acquisition planning and management effort (PARM, 2021, pp. 73–123). However, as the capability exits the ALF and enters the field, the next round of requirements development and acquisition planning ideally begins. Operational analysis of the fielded capability, performed by the end user in conjunction with the acquisition program, is a key input to the capability analysis for future needs (PARM, 2021, p. 167).

In reviews of DHS guidance, the interplay between requirements development and acquisition planning is well acknowledged, with the exception of acquisition planning assumed to occur early pre–ADE-1. Although the CDP is developed late in the needs phase and primarily describes the program's plan for solution analysis into the future, current policy assumes that acquisition planning begins