



Software Acquisition Pathway Interim Policy & Procedures

USD(A&S) Memo – 03 Jan 2020

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OUSD(A&S) | Ms. Carmela Rice

Authority for Continuous Integration & Delivery of Software Applications & Upgrades to Embedded Systems

Subtitle A—Acquisition Policy and Management

SEC. 800. AUTHORITY FOR CONTINUOUS INTEGRATION AND DELIVERY OF SOFTWARE APPLICATIONS AND UPGRADES TO EMBEDDED SYSTEMS.

(a) SOFTWARE ACQUISITION AND DEVELOPMENT PATHWAYS.—The Secretary of Defense shall establish pathways as described under subsection (b) to provide for the efficient and effective acquisition, development, integration, and timely delivery of secure software. Such a pathway shall include the following:

(1) USE OF PROVEN TECHNOLOGIES AND SOLUTIONS.—A pathway established under this section shall provide for the use of proven technologies and solutions to continuously engineer and deliver capabilities in software.

(2) USE OF AUTHORITY.—In using the authority under this section, the Secretary shall consider how such use will—

(A) initiate the engineering of new software capabilities quickly;

(B) demonstrate the viability and effectiveness of such capabilities for operational use not later than one year after the date on which funds are first obligated to acquire or develop software; and

(C) allow for the continuous updating and delivery of new capabilities not less frequently than annually to iteratively meet a requirement.

(3) TREATMENT NOT AS MAJOR DEFENSE ACQUISITION PROGRAM.—Software acquired or developed using the authority under this section shall not be treated as a major defense acquisition program for purposes of section 2430 of title 10, United States Code, or Department of Defense Directive 5000.01 without the specific direction of the Under Secretary of Defense for Acquisition and Sustainment or a Senior Acquisition Executive.

(4) RISK-BASED APPROACH.—The Secretary of Defense shall use a risk-based approach for the consideration of innovative technologies and new capabilities for software to be acquired or developed under this authority to meet needs communicated by the Joint Chiefs of Staff and the combatant commanders.

Language example extracts:

“The SECDEF shall establish pathways ... for the efficient & effective acquisition, development, integration, and timely delivery of secure software.”

“Software acquisition or development conducted under the authority of this section **shall not be subject to the JCIDS**, except pursuant to a modified process ...”

“Software acquired or developed using the authority under this section **shall not be treated as a major defense acquisition program** for purposes of section 2430 of title 10, United States Code...”

NDAA FY20 Sec 800

<https://www.congress.gov/bill/116th-congress/senate-bill/1790/text>

Became Public Law 116-91 December 20, 2019



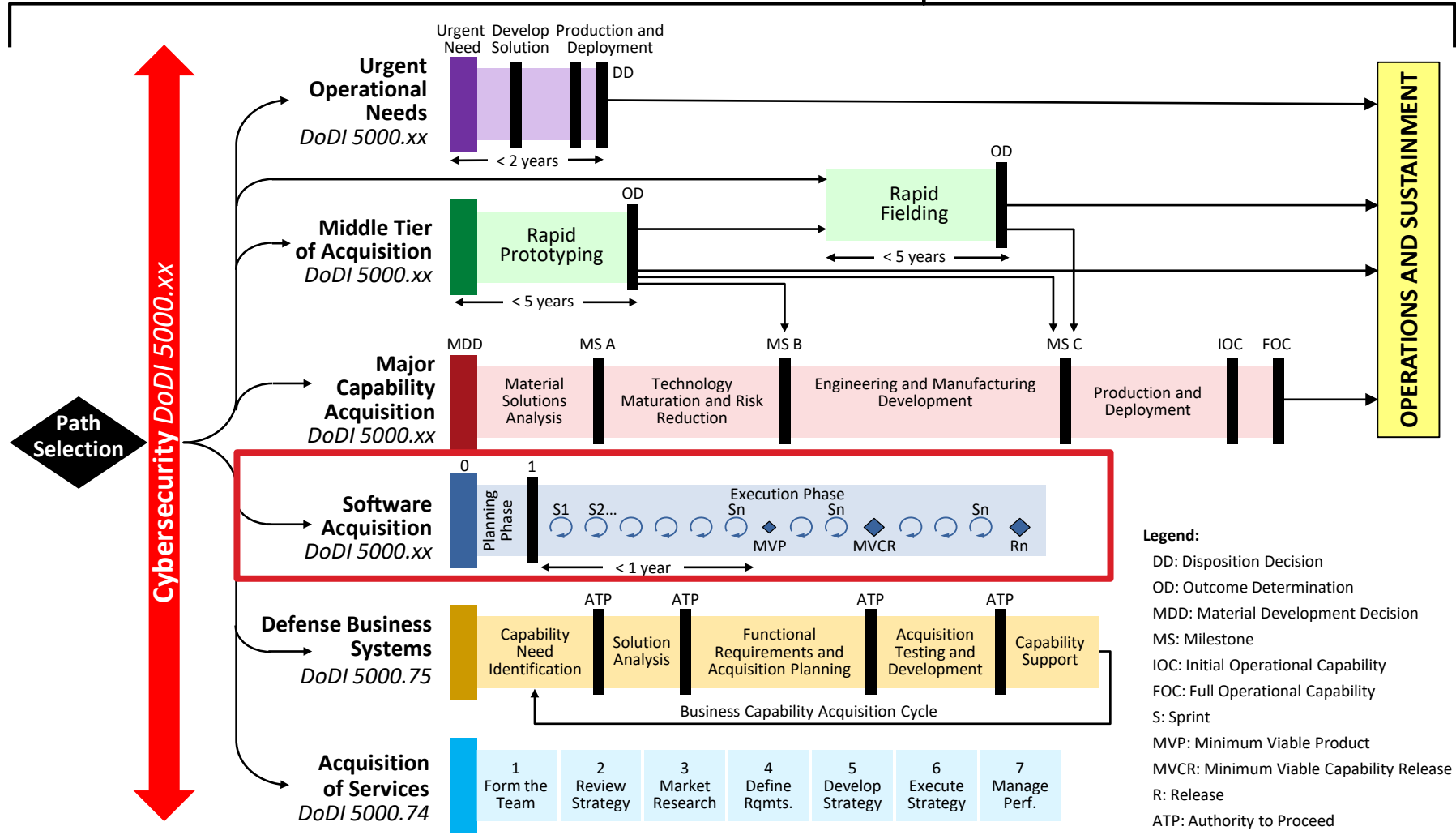
Adaptive Acquisition Framework

Enable Execution at the Speed of Relevance

Tenets of the Defense Acquisition System

1. Simplify Acquisition Policy
2. Tailor Acquisition Approaches
3. Empower Program Managers
4. Data Driven Analysis
5. Active Risk Management
6. Emphasize Sustainment

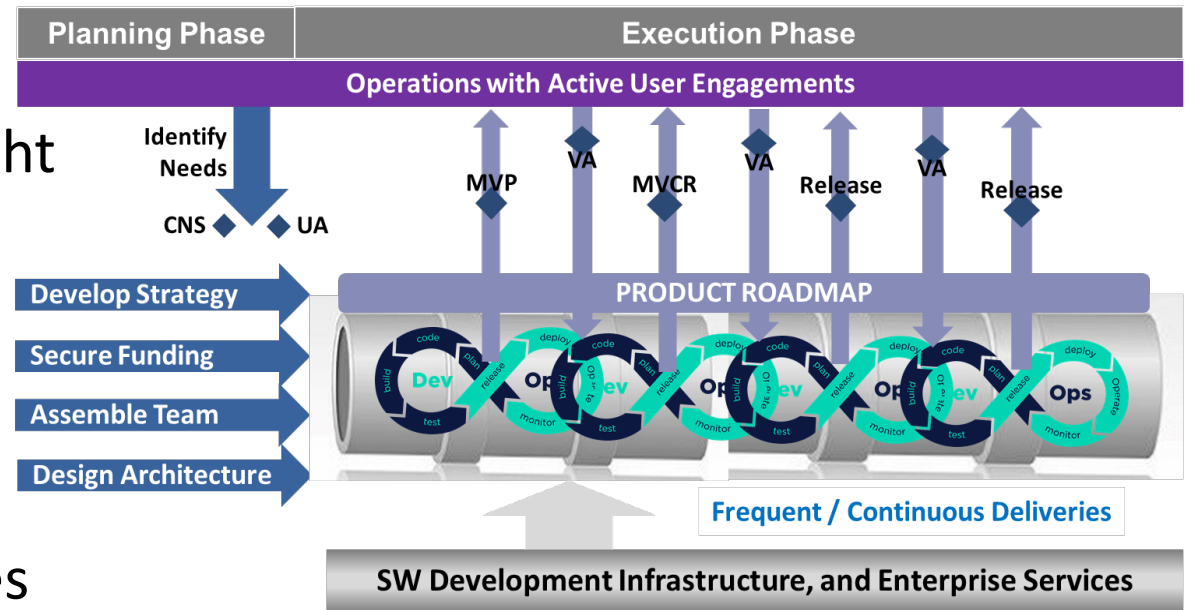
DoDD 5000.01: *The Defense Acquisition System*
 DoDI 5000.02: *Operation of the Adaptive Acquisition Framework*



Software Acquisition Pathway Interim Policy

Guiding Principles

- No Milestones
- Minimal OSD oversight
- Secure software
- Automated test
- User involvement
- Faster delivery
- Streamlined Activities
- Consistent with Agile Tenets
- Artifacts allow CAE to assess risk
- Establish a framework to assess risk for software
- Emphasis on leveraging Enterprise solutions and services



CNS: Capability Needs Statement; UA: User Agreement; MVP: Minimum Viable Product; MVCR: Minimum Viable Capability Release; VA: Value Assessment

Aligning User Needs and Software Development

Applicability: Software-Intensive Systems

Software-intensive systems include software-only systems, such as Command & Control (C2) software or applications; weapon system software, such as smart munitions, fire control systems, remote weapon stations, and/or networked munitions, Intelligence, Surveillance, and Reconnaissance (ISR) software, embedded mission planning software or embedded Situational Awareness software; and any other custom-developed software running on commercial or modified commercial hardware.

Software programs that meet the definition of a Defense Business System (DBS) and primarily acquire Commercial-Off-The-Shelf (COTS) components will follow DoDI 5000.75 procedures but may elect to use this pathway for custom developed software.

Policy Purpose

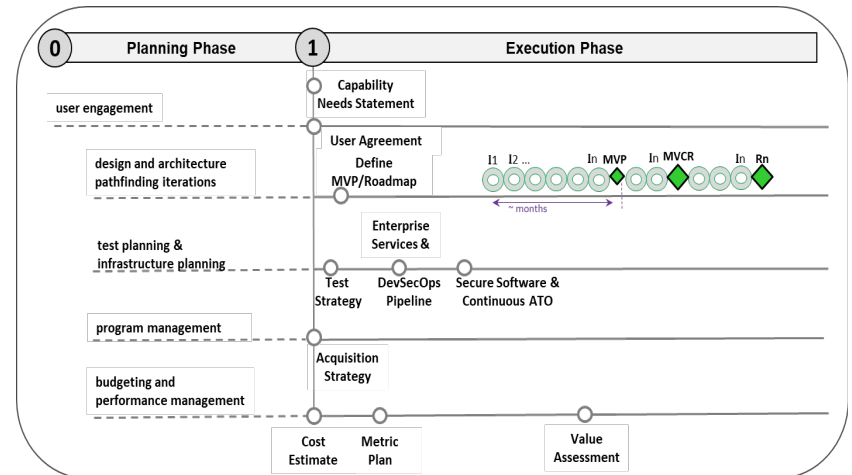
THIS INTERIM POLICY, IN ACCORDANCE WITH THE AUTHORITY IN DOD DIRECTIVE 5134.01, DEPSECDEF Memo (Jul 13, 2018), and Section 800 of the National Defense Authorization Act for FY20 establishes direction, responsibilities, and procedures for the management of the Software Acquisition Pathway. It will be replaced by issuance of a DoD Instruction within a year of signature of this memo.

- 1 Simplifies the acquisition model to enable continuous integration and delivery of software capability on timelines relevant to the Warfighter/end user.
- 2 Establishes the Software Acquisition Pathway as the preferred path for acquisition and development of software-intensive systems.
- 3 Establishes business decision artifacts to manage risk and enable successful software acquisition and development.

TWO-PHASE PATHWAY:

PLANNING focuses on understanding the users' /systems' needs and planning the approach to deliver capabilities to meet those needs .

EXECUTION focuses on scoping, developing and deploying an MVP and MVCR to the Warfighter/end-user as quickly as possible.



MVP= Minimum Viable Product. MVCR= Minimum Viable Capability Release

Artifacts

PLANNING PHASE

Assess the needs of users and system capabilities and develop a Capability Needs Statement, User Agreement, Acquisition Strategy, and Cost Estimates

1 Capability Needs Statement

2 User Agreement

3 Acquisition Strategy

4 Cost Estimates

EXECUTION PHASE

Define, develop, and deploy a Minimum Viable Product (MVP) & a Minimum Viable Capability Release (MVCR) to the Warfighter/end-user with subsequent releases to add further sets of capabilities

5 Enterprise Services and DevSecOps Pipeline

6 Minimum Viable Product (MVP), Minimum Viable Capability Release (MVCR), and Product Roadmap

7 Test Strategy

8 Secure Software & Cyber Security Plan

9 Metrics Plan

10 Value Assessment

PATH FORWARD

- Pilot the Policy for the next 6-8 months
 - Some programs are considering adoption
- Conduct Forums with all of the services to resolve concerns
 - Vignette Walk-thrus
 - Wargames
- Collect lessons learned from early adopters
 - Publish Agile Guidebook
 - Keep website current with lessons learned
- Refine policy and Draft DoD Instruction
 - Collaborative development with Services and OSD Functionals
 - Collaboration with industry

Issue DoD Instruction By December 2020

NDAA FY20 Sec 800 – Report to Congress

- (1) IN GENERAL.—Not later than October 15, 2020, the Under Secretary of Defense for Acquisition and Sustainment, in consultation with the secretaries of the military departments and other appropriate officials, shall report on the use of the authority under this section using the initial guidance issued under subsection (d).
- (2) ELEMENTS.—The report required under paragraph (1) shall include the following elements:
 - (A) The final guidance required by subsection (d)(2), including a description of the treatment of use of the authority that was initiated before such final guidance was issued.
 - (B) A summary of how the authority under this section has been used, including a list of the cost estimate, schedule for development, testing and delivery, and key management risks for each initiative conducted pursuant to such authority.
 - (C) Accomplishments from and challenges to using the authority under this section, including organizational, cultural, talent, infrastructure, testing, and training considerations.
 - (D) Recommendations for legislative changes to the authority under this section.
 - (E) Recommendations for regulatory changes to the authority under this section to promote effective development and deployment of software acquired or developed under this section.

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