Primary Recommendation A2
New Appropriation Category

Line of Effort	Refactor statutes, regulations, and processes for software.
Recommendation	**Create a new appropriation category for software capability delivery that allows (relevant types of) software to be funded as a single budget item, with no separation between RDT&E, production, and sustainment.**
Stakeholders	A&S, HAC-D/SAC-D, HASC/SASC, USD(C), CAPE, SAE, Service FM & PA&E, FASAB, OMB
Background	Current law, regulation, and policy treat software acquisition as a series of discrete, sequential steps; accounting guidance treats software as a depreciating asset. These processes are at odds with software being continuously updated to add new functionality, and they create significant delays in fielding user-needed capability.
Desired State	Appropriations for software and software-intensive programs use a Major Force Program (MFP) category that provides a single budget to support full life cycle costs of software, including development, procurement, assurance, deployment, and continuous improvement. Programs are better able to prioritize how effort is spent on new capabilities versus fixing bugs/vulnerabilities, improving existing capabilities, etc. Such prioritization can be made based on warfighter/user needs, changing mission profiles, and other external drivers, not constrained by available sources of funding.
Role of Congress	This should become the primary pathway that Congress uses to fund software and software-intensive programs and should provide Congress with the insight required to oversee software projects that move at a much faster pace than traditional HW programs, with traditional metrics and milestones replaced by more software-compatible measures of progress.

	Draft Implementation Plan	Lead Stakeholder	Target Date
A2.1	(optional) Submit legislative proposal using Sec 805 to create a new appropriations category for software and software-intensive programs.	USD(A&S), with USD(C) and CAPE	Q3 FY19 for FY20 NDAA
A2.2	Create new appropriation category for software-intensive programs, with appropriate reporting and oversight for software (based on Action A2.1 or Appendix B.1).	HAC-D, SAC-D, with OSD, HASC, SASC	FY20 NDAA, FY20 budget
A2.3	Select initial programs using DevSecOps to convert to or use new SW Appropriation in FY20.	USD(A&S), with Service Acquisition Executives	Q4 FY19
A2.4	Define budget exhibits for new SW appropriation (replacement for P- and R-Forms; see Appendix C).	USD(A&S), with USD(C), CAPE, HAC-D, SAC-D	Q4 FY19

A2.5	Change audit treatment of software with these goals: (1) separate category for software instead of being characterized as property, plant, and equipment; (2) default setting that software is an expense, not an investment; and (3) "sustainment" is an integrated part of the software life cycle.	FASAB, with USD(A&S) and USD(C)	End FY20
A2.6	Make necessary modifications in supporting PPB&E systems to allow use and tracking of new software appropriation.	USD(C) and CAPE	Q1 FY21
A2.7	Ensure programs using new software appropriation submit budget exhibits in the approved format.	SAE with USD(C), CAPE	FY 22 POM

SWAP concept paper recommendations related to this recommendation

10C	Budgets should be constructed to support the full, iterative life cycle of the software being procured with amount proportional to the criticality and utility of the software.
Visits	Construct budget to support the full, iterative life cycle of the software.

SWAP working group inputs (reflected in Appendix F) related to this recommendation

Acq	Revise 10 USC 2214 to allow funding approved by Congress for acquisition of a specific software solution to be used for research and development, production, or sustainment of that software solution, under appropriate conditions.
App	A new multi-year appropriation for Digital Technology needs to be established for each Military Defense Department and the Fourth Estate.
App	Components will program, budget, and execute for information and technology capabilities from one appropriation throughout life cycle rather than using RDT&E, procurement, or O&M appropriations—often applied inconsistently and inaccurately—allowing for continuous engineering.
Con	Congress establishes new authority for contracting for SW development and IT modernization.
M&S	Revise 10 USC 2460 to replace the "software maintenance" with "software sustainment" and use a definition that is consistent with a continuous engineering approach across the life cycle.
M&S	A DoD Working Group should be established to leverage ongoing individual Service efforts and create a DoD contracting and acquisition guide for software and software sustainment patterned after the approach that led to creation of the DoD Open Systems Architecture Contracting Guide.
M&S	Acquisition Strategy, RFP/Evaluation Criteria, and Systems Engineering Plan should address software sustainability and transition to sustainment as an acquisition priority.
Con	Manage programs at budget levels, allow programs to allocate funds at project investment level.
Con	Work with appropriators to establish working capital funds so that there is not pressure to spend funds sooner than when you're ready (iterative contracts may produce more value with less money).

Related recommendations from previous studies

GAO15	When assigning resources to all activities, the schedule should reflect the resources (labor, materials, travel, facilities, equipment, and the like) needed to do the work, whether they will be available when needed, and any constraints on funding or time.
GAO17	Hold suppliers accountable for delivering high-quality parts for their products through activities including regular supplier audits and performance evaluations of quality and delivery.

GAO17	Prioritize investments so that projects can be fully funded and it is clear where projects stand in relation to the overall portfolio.
CSIS18	Performance Based Logistics (PBL) contracts should have a duration that allows for tuning and re-baselining with triggered options and rolling extensions.
Sec809	Rec. 41: Establish a sustainment program baseline, implement key enablers of sustainment, elevate sustainment to equal standing with development and procurement, and improve the defense materiel enterprise focus on weapon system readiness.
Sec809	Rec. 42: Reduce budgetary uncertainty, increase funding flexibility, and enhance the ability to effectively execute sustainment plans and address emergent sustainment requirements.