



TECHNICAL BRIEF · BASED ON GAO-25-108211 · DOW

5 OF 7 GAO SOFTWARE MODERNIZATION RECOMMENDATIONS OPEN AT DOW

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GAO RECOMMENDATIONS ON DOW SOFTWARE MODERNIZATION REFORMS THAT WERE OPEN AS OF GAO'S AUGUST 2024 UPDATE

GAO made seven recommendations to help DoW (formerly DoD) carry out its software modernization strategy, and five were open as of GAO's August 2024 update. The ones on performance measures and data ask how DoW will show the reforms are working.

THE FINDING

GAO's May 2025 letter, [Chief Information Officer Open Recommendations: Department of Defense](#) (GAO-25-108211), lists 54 open recommendations to DoW (formerly DoD). One asks the department to take steps to carry out its planned software modernization and acquisition reforms.

The source is [Software Acquisition: Additional Actions Needed to Help DOD Implement Future Modernization Efforts](#) (GAO-23-105611, April 2023). GAO found DoW had at least partially implemented all 17 Defense Science Board and Defense Innovation Board recommendations, but for 13 of the 17 it had yet to take certain actions. GAO then made seven recommendations of its own.

As of GAO's August 2024 update, five were open. They cover performance measures, the resources to lead the reforms, roles and responsibilities, data collection against the goals, and a software workforce plan. The two on implementation plans with milestones had closed. This brief takes the measurement recommendations, numbers 1 and 6, because they are the ones a contractor's delivery data can help answer.

WHY IT KEEPS HAPPENING

DoW set the goal before the measures. In a February 1, 2022 memo, the Deputy Secretary of Defense approved the [Software Modernization Strategy](#), and a steering group was to develop performance metrics against meaningful operational outcomes. Metrics, targets, and baselines are not specified in the document.

GAO's notes show how far that got. DoW's March 2023 implementation plan aligned some metrics with GAO's attributes of successful performance measures, but more were still in development, and GAO had asked for the

metrics documentation. On data, DoW said it planned to collect and normalize metrics in its enterprise data platform and brief progress monthly to the Deputy Secretary. GAO had asked for that documentation too.

The programs hold the data. In [IT Systems Annual Assessment: DOD Needs to Strengthen Software Metrics and Address Continued Cybersecurity and Reporting Gaps](#) (GAO-24-106912, July 2024), GAO reviewed 21 IT business programs planning \$9.1 billion from FY 2022 through FY 2024. Four of the 10 programs developing software with Agile approaches did not use metrics and management tools DoW requires. That recommendation was open as of January 2025.

WHY IT MATTERS TO YOUR BID

These recommendations go to the steering group of the DoW CIO and two Under Secretaries, not to contractors. They still decide what DoW asks of the software work it buys. The department's FY 2025 and 2026 implementation plan, as [ExecutiveGov reported in May 2025](#) in a non-GAO account, groups tasks under cloud, software factories, and speed with resilience, and again calls for measures of progress on adoption and impact.

That reaches software factory support, DevSecOps platform, and application modernization task orders at DoW components. An evaluator reading a technical volume looks for a baseline and a way to show change. An offeror who promises faster delivery without saying how it will be measured, from what data, and who owns the definition offers the gap GAO describes.

Recompetes sharpen it. An incoming team that baselines delivery in its first weeks gives the component a number to hold the next contract against.

TECHNICAL APPROACH

The method below comes from Avalon's [CI/CD Pipelines service](#), with baseline and decommission work drawn from its Application Modernization service. It is scoped as one assignment at a time with one to three pilot applications, on agency-furnished environments and licenses, for unclassified work.

- 1. Baseline from the pipeline.** Trace one to three named pilot applications from code commit to production in a current-state assessment, and measure lead time, deployment frequency, change failure rate, and time to restore. These are the [DORA delivery metrics](#); DORA's current guide adds a fifth, rework rate. Record where releases actually stall: approvals, environment waits, manual testing, and security review.
- 2. Write the measure definitions.** Start from the metrics and tools DoW already requires of its programs, and use interviews and pipeline review to record which each program really uses. For every measure, document the definition, data source, owner, refresh rate, and baseline, and test each against the attributes GAO used to judge performance measures.
- 3. Feed the measures from the pipeline.** Route pipeline event logs, scan results, and approval records to the agency's log store, and build the measures and a dashboard in agency tooling from those events, so numbers come from builds and deployments and not from hand-entered status reports. Where the customer is a DoW component, map the pipeline pattern to the DoD Enterprise DevSecOps Reference Design.
- 4. Baseline the modernization outcomes.** For each application in scope, record run cost, interfaces, and a disposition (retain, rehost, replatform, refactor, rearchitect, rebuild, or replace and retire) with its evidence. Write a decommission plan covering data retention, license termination, and infrastructure retirement, so a retired legacy system counts as a result and stops accruing run cost.
- 5. Close out with before and after.** Deliver a report with the baseline and current figures side by side, a prioritized backlog, and runbooks and training so agency and incumbent teams keep the measures running.

Avalon builds the measurement. DoW's steering group sets the goals, assigns roles, and resources the reforms, and the workforce plan sits outside this work, as do cATO program design, security tool selection, and running the

pipeline after handoff. The measures show progress; they do not guarantee it, and they are not an independent verification or an authorization.

WHAT "FIXED" LOOKS LIKE

GAO closed the two implementation-plan recommendations when DoW published plans with milestones and deliverables. For measures and data, GAO's notes say what it still wants to see: documentation of the metrics and of the processes that collect the data.

For GAO-24-106912, DoW's corrective action plan described reviewing its documentation and policies to find where Agile metrics and tools help most, and gathering data on how many programs use them.

Practical targets, written as targets:

- Measures that carry a written definition, a baseline, a data source, and an owner.
- Data collected from the programs' pipelines on a stated schedule.
- Programs using the metrics and tools DoW requires, confirmed in configuration.

STATUS CHECK

MIXED As of GAO's August 2024 update, recommendations 1 and 3 of GAO-23-105611 were open and partially addressed, 2, 6, and 7 were open, and 4 and 5 were closed. The GAO-24-106912 metrics recommendation was open as of January 2025, with DoW estimating completion in September 2025. The May 2025 CIO letter lists the reform recommendations among DoW's open items.

TEAMING FIT

NAICS	541512, 541511
AVALON'S SUB ROLE	Delivery baseline and measure definitions, a pipeline-fed measurement dashboard, and application disposition and decommission plans under the prime's software factory, DevSecOps, or modernization task order, in unclassified environments
SMALL-BUSINESS STATUS	Small business; HUBZone (in progress)
LIKELY VEHICLES	GSA MAS (SIN 54151S IT Professional Services); GSA Alliant 3

If software factory, DevSecOps, or application modernization work at a DoW component is in your capture plan, Avalon teams as the sub that baselines delivery from the pipeline and turns it into measures the component can report.

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This brief analyzes publicly released oversight reports. It does not describe work Avalon performed for any agency named.