SEI Bulletin

40 years

Cybersecurity Maturity Model Certification Rule Finalized for Defense Industrial Base

September 17, 2025 — The Department of Defense (DoD) on Sept. 10 published the rule requiring Cybersecurity Maturity Model Certification (CMMC) assessments in contracts with defense industrial base (DIB) suppliers. CMMC is a certification program that improves the security and cyber hygiene of the DIB supply chain. The SEI, alongside the Johns Hopkins University Applied Physics Laboratory, co-created the CMMC program for the DoD Chief Information Officer.

A cyber attack within the DIB supply chain could result in devastating loss of intellectual property and Controlled Unclassified Information, which increases risks to the warfighter. CMMC is intended to protect sensitive defense information from adversaries. The final rule's publication begins a three-year phased approach to protecting DoD information within the DIB.

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📰 SEI News

[Government, CMU, and SEI Leaders Celebrate 40 Years of Advancing Software for National Security](#)
Speakers at a September 4 event reflected on four decades of innovation in software, cybersecurity, and AI for defense—and what's to come.

[Generative AI Red-Teaming Can Learn Much from Cybersecurity Says SEI Study](#)
A recent report recommends 10 ways to address the growing need for robust security assessments of AI applications.

[See more news »](#)

🖥️ Latest Blogs

[A Call to Action: Building a Foundation for Model-Based Systems Engineering in Digital Engineering](#)
This blog post highlights a research agenda and calls to action for future work in MBSE and digital engineering from practitioners in the field.

[My AI System Works...But Is It Safe to Use?](#)
David Schulker, Matthew Walsh, and Emil Mathew introduce System Theoretic Process Analysis (STPA), a hazard analysis technique uniquely suitable for dealing with the complexity of AI systems.

[7 Recommendations to Improve SBOM Quality](#)
There is growing interest in using software bills of materials (SBOMs) to support software supply chain risk management. This post recommends seven ways to improve SBOM accuracy.

[See more blogs »](#)

🎙️ Latest Podcasts

The Benefits of Rust Adoption for Mission-and-Safety-Critical Systems
Vaughn Coates sits down with Joe Yankel to discuss the barriers and benefits of Rust adoption.

Threat Modeling: Protecting Our Nation's Software-Intensive Systems
Nataliya Shevchenko, Alex Vesey, and Timothy A. Chick explore how threat models can guide system requirements, system design, and operational choices to identify and mitigate threats.

See more podcasts »

📄 Latest Publications

A Semantics of AADL EMV2 and Its Application to Model-Based Fault Tree Generation
This technical report proposes a formal semantics for the Error Model Annex, Version 2 (EMV2) and shows how to leverage this semantics to generate fault trees from an Architecture Analysis & Design Language (AADL) model enriched with EMV2 information.

History of Innovation at the SEI
This book offers snapshots of the culture of innovation at the SEI from 1988 to 2025 as our researchers and engineers have worked to advance software for national security.

Report on the First MBSynergy Workshop
MBSynergy research focuses on ways of pursuing government equities using model-based systems engineering and digital engineering in DoD and intelligence community settings. This report describes the MBSynergy team's first working session.

See more publications »

📹 Latest Videos

[Quantum Computing Meets High Performance Computing Skills in the Class](#)
The SEI's Dan Justice and NVIDIA's Monica VanDieren discuss why high-performance computing (HPC) and AI skills are no longer optional for quantum professionals and how to prepare students for the reality of accelerated quantum supercomputing.

[Achieving Balance: Agility, MBSE, and Architecture](#)
Peter Capell addresses a practical vision for meeting stakeholder expectations of Agile implementation, highlighting the value of model-based systems engineering and architecture.

[Identifying AI Talent for the DoD Workforce](#)
Eric Keylor, Intae Nam, and Dominic Ross go beyond traditional knowledge and skill assessments as they introduce prototype tools that reveal key information about evaluating talent for AI and data positions.

[See more videos »](#)

📅 Upcoming Events

Webcast - [Using LLMs to Evaluate Code](#), October 1
Mark Sherman will summarize the results of experiments investigating whether various large language models (LLMs) could correctly identify problems with source code.

[AAAI Fall Symposium: Engineering Safety-Critical AI Systems](#), November 6-8, Arlington, Va.
As AI is increasingly applied to new and more high-risk settings, a mature safety engineering discipline for AI becomes ever more critical. Join the SEI to advance the discipline of engineering AI for safety.

[See more events »](#)

Upcoming Appearances

AFA Air Space Cyber Conference 2025, September 22-24, National Harbor, Md.
Visit the SEI at booth 116.

See more opportunities to engage with us »

Upcoming Training

Software Architecture Design and Analysis
October 14-17 (Live Online)

Risk Program Development - Governance and Appetite Workshop
October 15-16 (Arlington, Va.)

E-learning - CERT Artificial Intelligence (AI) for Cybersecurity Professional Certificate

E-learning - Introduction to Artificial Intelligence (AI) Engineering

E-learning - Effective Communication of Technical Concepts

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