

CMMI Acquisition Handbook

Guidance for Addressing and
Verifying CMMI Requirements in
Contracts and Acquisition Efforts

January 2025 • Version 3.0



ISACA[®]

CMMI Performance Solutions

CMMI Acquisition

Handbook Introduction

This handbook provides the essential who, what, when, why, and how information about using CMMI in the Federal Contracting industry.

Intended Audience

Government Procurement: The audience for this handbook includes any contracting organization that is acquiring products and services based on **Capability Maturity Model Integration (CMMI®) best practices Model**.

This handbook contains **the most needed and frequently requested information** for:

- Government procurement officials
- Source Evaluation and Selection Boards
- Contracting Officers (CO)
- Contracting Officer's Representative (COR)
- Contracting Officer's Technical Representatives (COTR)
- Commercial contracting, acquisition, and supplier management personnel

To stay current with the latest techniques, content, technologies, and other trends, **continual improvement of this guidance is expected** with practical input from CMMI Partners and users—including government and contracting representatives.

Handbook Topics

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What is CMMI?

Capability Maturity Model Integration (CMMI) is a performance improvement Model for organizations and projects that want to solve business challenges by building capability and increasing performance.

Proven effective globally in business and government for over 24 years, CMMI is an **integrated framework of best practices** that can rapidly improve and sustain any organization's performance to elevate quality, profitability, productivity, cybersecurity resilience, and competitiveness. For more information, continue reading the Background section of this handbook and review the [CMMI Adoption Guide](#) in the [CMMI Resource Center](#).

How to Use CMMI

What to Ask For

A summary of what government solicitations should request from contractor proposals to verify CMMI appraisal rating and status

Requirements

Verification: To verify CMMI appraisal ratings, Requests for Proposals (RFPs) should ask the bidding organization to include the following four artifacts from their most recent appraisal in their proposal response.

- CMMI Appraisal Number, Mark, and expiration date
- CMMI Appraisal Disclosure Statement (ADS)
- CMMI Appraisal Final Findings Briefing
- CMMI Appraisal Performance Report

Sample Appraisal Mark



Naming Terminology: CMMI requirements include two naming components: **Domain + Maturity Level (ML)**.

- **Current Domains** (and abbreviations) include:
 - CMMI Data (CMMI-DATA)
 - CMMI Development (CMMI-DEV)
 - CMMI People (CMMI-PPL)
 - CMMI Safety (CMMI-SAF)
 - CMMI Security (CMMI-SEC)
 - CMMI Services (CMMI-SVC)
 - CMMI Suppliers (CMMI-SPM)
 - CMMI Virtual (CMMI-VRT)
- **Maturity Level (ML)** varies by domain, from ML1 to ML5

Version Numbering: The current version of CMMI is V3.0. There may be organizations who still have valid appraisals against 2.X. The ADS artifact contains the applicable CMMI version number for the appraisal.

Avoid Outdated Terminology: For example, RFPs should not use SW-CMM, Software-CMM, or versions prior to V2.0, such as V1.3, as they are no longer valid.

Relevance: Verify the applicability of the **appraisal artifacts** to the organizational division doing the actual work. Otherwise, an unrelated portion of the organization may have received the appraisal.

Requirement Examples

In each of the following examples of solicitation requirements, replace the (bold) domain, version, or maturity level as needed.

- Provider shall already be or reach **CMMI-DEV V3.0 Maturity Level 3** by the time of contract award.
- Prime contractor must be **CMMI Services V3.0 Maturity Level 5** for all contract work, and subcontractors supporting the effort must be at least **CMMI Services Maturity Level 3** for the life of the contract.
- Evaluation verification of primes and subcontractors require they provide the above **appraisal artifacts** as part of the proposal submission.
- Affirm that the **appraisal artifacts** are applicable to the portion/division and related projects and organizational support functions doing the actual work. Results from unrelated locations or divisions are not compliant for this requirement.

When Using CMMI

Online Resources

This page is a summary list of resources—part of the integrated CMMI Performance Solutions ecosystem, to aid organizations with adoption.

Procurement Resources

The following are key CMMI resources for Acquisition Officers evaluating contractors.

- [CMMI Published Appraisal Results \(PARS\)](#): Organizations that wish to publish the results of their Benchmark or Sustainment appraisal types may do so on the ISACA's CMMI PARS webpage. Benchmark Appraisal ratings are valid for three years. Sustainment Appraisal ratings are valid for two years. This website publishes the CMMI level achieved by organizations appraised using the Benchmark or Sustainment appraisal types.
- [ISACA's Customer Support Center](#): This site provides individuals and organizations with support and solutions to questions. You can review the [Frequently Asked Questions \(FAQs\)](#) or submit a support request at support.isaca.org.
- [CMMI Technical Report – Performance Results](#): This report reflects actual appraisal results since 2019.
- [CMMI Website](#): The CMMI website provides resources and information about ISACA's offerings to support capability and performance improvement.
- [CMMI Resource Center](#): The CMMI Resource Center is a collection of every CMMI digital resource in one place. Browse through the collection of presentations, webinars, articles, case studies, whitepapers, and more.
- [CMMI Model Quick Reference Guide](#): This guide is a condensed look at the complete CMMI Model, including a summary of Capability Areas, Practice Areas, and practice group levels. This summary provides a helpful overview of the Model content areas and what you can expect to see within a full Model Viewer Subscription.

Other CMMI Adoption Resources

- [CMMI Adoption Guide \(AG\)](#): Contains everything an organization needs to know about adopting CMMI best practices. Includes a comprehensive list of common business problems and their CMMI resolution (AG Appendix C) and Typical CMMI Adoption Roles (AG Appendix D).
- [CMMI Tech Talks](#): These provide a variety of microlearning to assist in CMMI adoption. They cover a variety of areas including Model interpretation, training, appraisals, CMMI and other frameworks, and more.
- [CMMI Training Resources](#): Find CMMI and CMMI Partner training resources, class schedules, and information about training and certification options on the CMMI Training Resources page.
- [CMMI Policies](#): The CMMI Policies page provides access to appraisal, certification, partner, quality, and training policies.
- [CMMI Partner Directory](#): The CMMI Partner Directory is a searchable database of highly trained individuals in organizations trusted to deliver quality, leading-edge CMMI services and technologies throughout the global business community. Organizations looking to get an appraisal, obtain training, or receive consulting on implementing CMMI processes in their organization can find a CMMI Partner to help.

Resource Links

Select and click the blue underlined links on this page to visit the CMMI online resources.

Why Use CMMI?

Capability Maturity Model Integration (CMMI)

The CMMI Performance Solutions Ecosystem includes five components.

CMMI offers an integrated product suite consisting of five components, that when used together provide a clear and proven path to achieving your business objectives.

Model:

- Open architecture that easily integrates with and enables other standards and methodologies and tools
- Built-in value statements for Practice Areas and practices to target performance improvement
- CMMI Model addresses domains for Data, Development (DEV), People (PPL), Safety (SAF), Security (SEC), Services (SVC), Suppliers (SPM), Virtual (VRT)
- Core content plus context specific and example activities and work products to enable adoption; and links to external material
- Pathway to improvement built-in through evolutionary practices and Practice Groups

Appraisal Method:

- Standard assessment process that enables consistent, reliable, and cost-effective benchmarking results
- Includes independent validation of performance through the Performance Report template

Training and Certification:

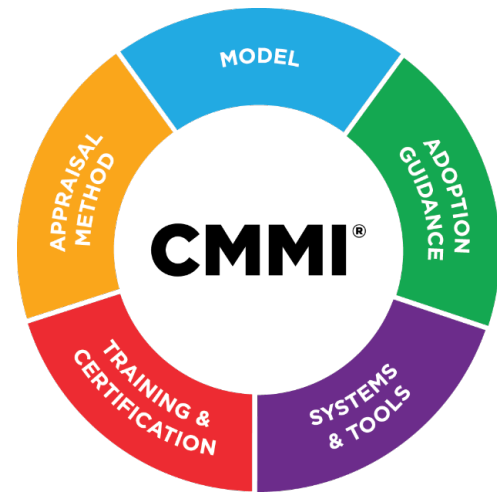
- Enhanced training and certification program includes learner-centric focus, performance-focused content and practical exercises, and virtual and in-person options

Systems and Tools:

- Integrated systems providing interactive user experience with Model, appraisal method, learning management, and performance reporting and results resources
- Published appraisal results for use in verification of maturity and capability levels achieved and performance outcomes

Adoption Guidance:

- Resources, examples, guidance on performance improvement, and support for new adopters to get started with CMMI Performance Solutions
- Standardized adoption process and method that enables achievement of consistent, reliable, and repeatable results



CMMI helps an organization understand its capability and performance level.

CMMI practices can **guide improvement to elevate and optimize performance**. Focusing on benefits and performance drives process improvements to better serve the organization and customer needs.

CMMI's performance improvement Model has helped thousands of companies—including Fortune 500 organizations.

CMMI benefits include:

- A positive return on performance and process improvement investments
- Meeting commitments that result in: more timely delivery, fewer last-minute crunches, enhanced cost control, increased quality
- Management visibility, resulting in: rapid responses, reduced complaints and rework, better solutions

Maturity Levels

Understanding an organization’s maturity level (ML) is key to performance expectations. See **chart with ML1 to ML5**, below. “High Maturity” (ML4 and ML5) represents a fundamental shift in process understanding, management, and improvement. High Maturity organizations demonstrate a deeper commitment to improving capabilities with a focus on continuous performance improvement. They also anticipate change and constantly evolve, enabling rapid pivoting and responding to opportunities.

CMMI is the government and commercially recognized framework for measuring organizational maturity, capability, and performance. CMMI “wrote the book” on what maturity levels mean.

Performance

CMMI Performance Solutions demonstrate consistent performance for quality, cost, and schedule management—with productivity improvements in any organization or industry. Highlights include:

- **Maximizing Potential: Performance Data Overview**, including the Success Rate Statistics
- **CMMI’s Consistency in Driving Performance**, including the Performance Report Categories Box and Whisker Chart for measurement categories

Refer to pages 9 and 10 for these excerpts from the online [CMMI Technical Report – Performance Results](#) with appraisal results statistics from recent years.



Learn More

Background

This handbook section underscores CMMI's value in Federal contracting, highlighting its ability to enhance organizational performance, efficiency, and strategic goal attainment.

Who Uses CMMI?

As of the 2021-22 Federal budget, CMMI requirements are in over \$378M worth of contracts, or \$1.7T across the entire life of these contracts.

Large Systems Integrators (LSIs)

Based on 2022-23 federal budget, the top 20 Large Systems Integrators currently have 99+ sites around the US supporting federal programs with CMMI-based infrastructure already in place.

GAO uses the CMMI Model Viewer for reproduction and distribution in GAO audit reports and leverages the CMMI best practices solely to provide Congress and agencies recommendations that address the audit/report findings. GAO

provides recommendations based on CMMI frameworks for risk management, controls, planning and requirements management to agencies which allow them to document, manage and assess their software practices and maturity.

FDA Case for Quality Collaborative Community Voluntary Improvement Program, also known as the Medical Device Discovery Appraisal Program (MDDAP) helps Class I, II, and III device makers design, build, and deliver safer products to patients, faster. The FDA's case for quality initiative identifies process inefficiencies and helps device makers implement best practices that accelerate medical device improvements. Outcomes include increased speed to market, improved production capacity, and more.



Looking Back

CMMI History

Since 1987, the US Federal government, Department of Defense (DoD), and their top-tier prime suppliers and systems integrators—such as

BAE, the Boeing Company, Booz Allen Hamilton, Lockheed Martin, Northrop Grumman, Raytheon Technologies, and their Tier 1-n subcontractors have been relying on and requiring Capability Maturity Model Integration (CMMI) for CMMI-based **continuous performance improvement** to train their people to use processes and systems to address the government’s requirements in mission-critical contracts and procurements.

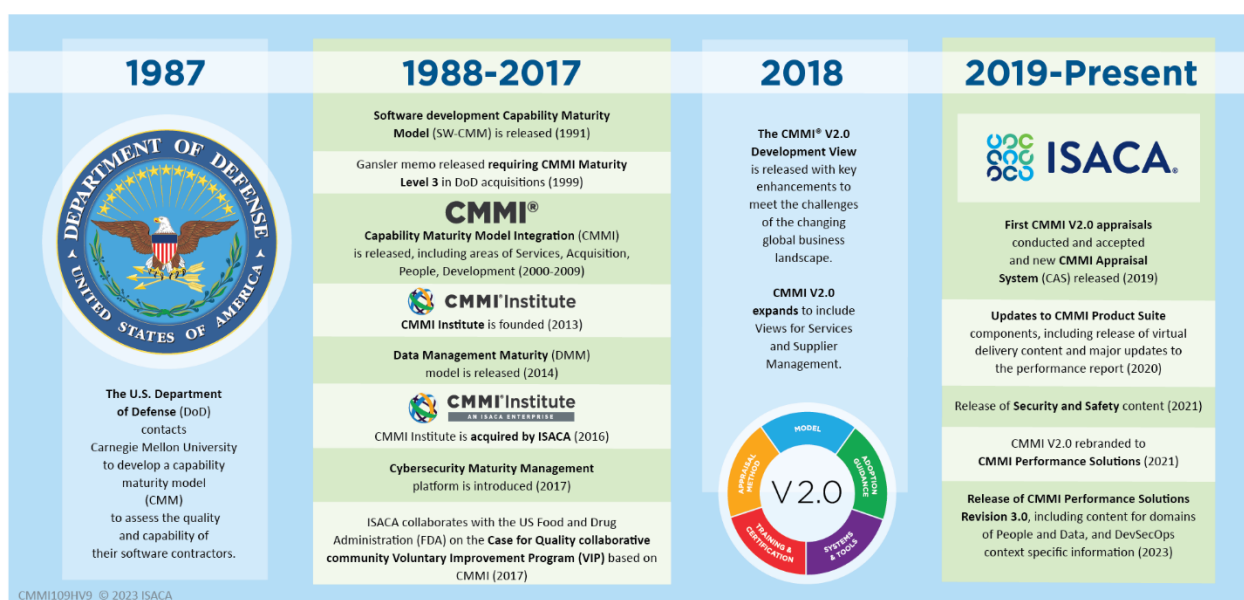
In recent years, government acquisition officers in the DoD and civilian agencies continue to put CMMI Maturity Level requirements in their most critical contracts to increase performance, reduce risk, and ensure consistency in contractor work and deliverables. While the original “SW-CMM” no longer exists, it was essential to address contract performance issues related to quality, schedule, and cost of software development programs.

As of 2023, CMMI V3.0 now broadens organizational performance improvement beyond product

development, service operations, and supplier management—to now include **security, safety, data management, people management, and managing virtual workforce best practices** across these 8 domains—all integrated into a single, customizable Model of best practices for building a new capability or improving an existing one.

History Highlights

- 1999: The “Gansler Memo” required DoD Software Evaluations for ACAT I Programs. It stated, “At a minimum, full compliance with (CMMI) **Capability Maturity Model Level 3**, or its equivalent level in an approved evaluation tool, is the Department’s goal.” Refer to **Appendix page 11** for the full Gansler Memo.
- 2016: ISACA bought CMMI Institute, who owns CMMI and all related intellectual property.
- 2024: The CMMIInstitute.com website is in the process of transitioning to ISACA.org.



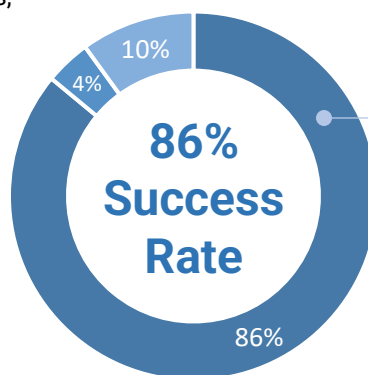
Goal Achievement

Maximizing Potential: Performance Data Overview

Over 14,000 appraised Organizational Units (OUs) affirm the proven results achieved by leveraging CMMI to set, meet, and exceed organization goals.

Background: For **over 24 years**, high-performing organizations have achieved clear, sustainable business results with ISACA's Capability Maturity Model Integration (CMMI). Originally created for the U.S. Federal Government to assess the quality and capability of software contractors, CMMI has expanded beyond software engineering to help organizations **in any industry** better understand their current level of capability and performance, offering comprehensive guides to **optimize business results**.

Report Basis: The information in this presentation is based on an analysis of the performance improvement results from over **14,000 approved appraisals** from 2019 to 2023.



Data Sources: These appraised OUs reported their “before and after” improvement intentions, which included a total of **50,666 objectives** across the **13,925 organizations** appraised, in the required CMMI Performance Report template. The result of this was an astounding **86% achievement success rate** for their accomplished improvement objectives; this is a 1.7% increase over the cumulative data from the 2022 report. Another 4% was “soon to be achieved” for a **total of over 90%** across key areas—including quality, cost & schedule performance, productivity, and more. The remaining 10% reflects improvements in progress or objectives not yet achieved.

Validation: Each of these results was identified and achieved by the organizations being appraised against CMMI, with the performance improvements **independently validated** by CMMI Appraisal teams.

Appraisal Years:

2019-2023

Appraised Organizations:

13,925

Approved Appraisals:

14,673

Objectives Reported:

50,666

Performance Achieved:

90%

Performance Across Ecosystems

CMMI's Consistency in Driving Performance

This chart demonstrates that the adoption of the CMMI ecosystem consistently yields significant improvements, regardless of the specific performance objectives that organizations opt to address.

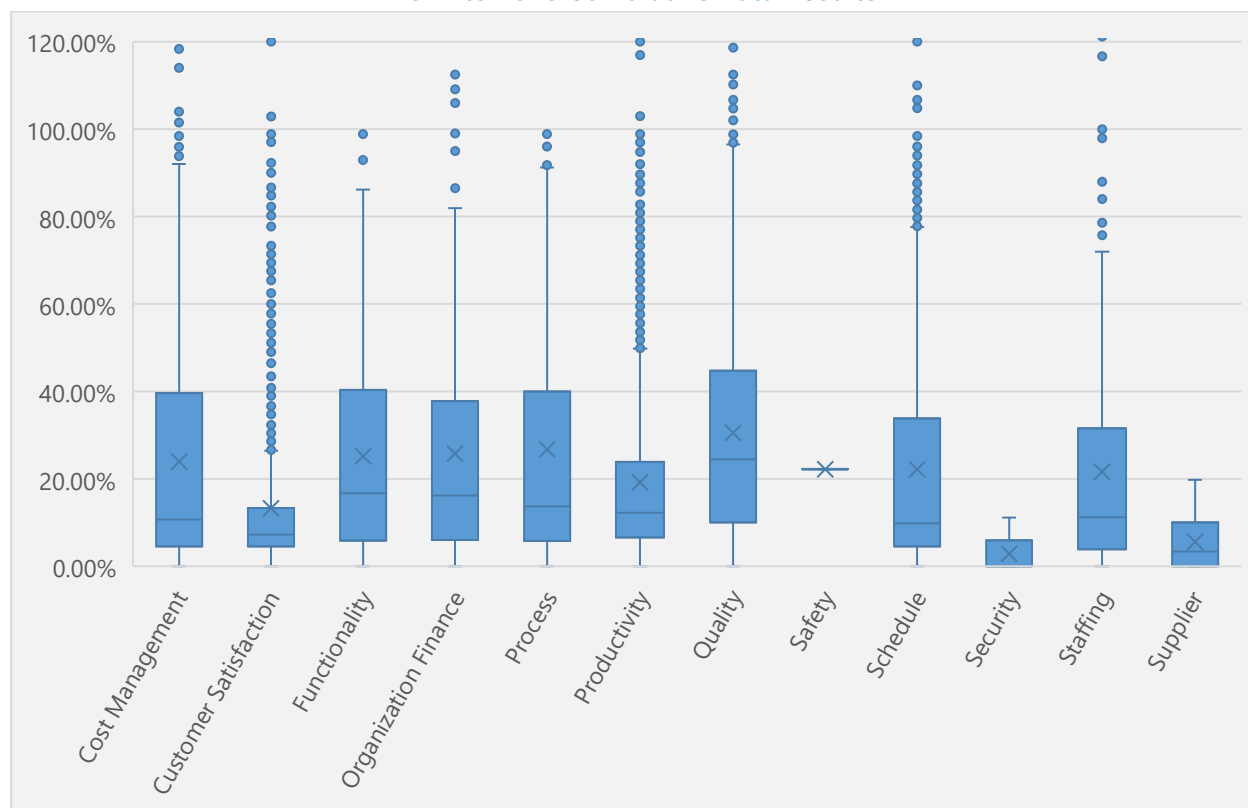
Comparing Category Improvements: Analysis* for this performance report has identified that when companies **target specific enhancements**—such as defect reductions, productivity increments, or leveraging CMMI to improve their processes; organizations experience **substantial advancements across the board**, with improvements of up to 42%.

Furthermore, these **interrelated enhancements exhibit synergy**, where improvements in one area often positively influence others. For instance, elevating quality standards can bolster customer satisfaction, while enhanced staffing can result in heightened productivity.

Key Takeaways:

- CMMI proves to be effective in driving significant growth for organizations, regardless of the performance objectives they choose to focus on.
- By targeting both specific enhancements and comprehensive improvements, organizations using CMMI can expect a wide range of advancements.
- Even when CMMI contractual requirements expire, organizations maintain their CMMI-based performance improvement program for competitive advantage.

2019 to 2023 Cumulative Data Results



“The Gansler Memo”

Software Evaluations for ACAT I Programs

26 Oct 1999

**The Under Secretary of Defense
3010 Defense Pentagon
Washington, DC 20301-3010**

Acquisition and Technology

Memorandum For: Component Acquisition Executives
Director of Ballistic Missile Defense Organization

Subject: Software Evaluations for ACAT I Programs

It is DoD policy that software systems be designed and developed based upon software engineering principles. This includes the selection of contractors with the domain experience in developing comparable software systems, a successful past performance record, and a demonstrable mature software development capability and process. It also requires a software measurement process to plan and track the software program, and to assess and improve the development process and associated software product.

Software development and performance is an integral component of advanced defense systems. Accordingly, it will be a technical requirement for contract that each contractor performing software development or upgrade(s) for use in an ACAT I program will undergo an evaluation, using either the tools developed by the Software Engineering Institute (SEI), or those approved by the DoD Components and the DUSD(S&T).

At a minimum, full compliance with SEI Capability Maturity Model Level 3, or its equivalent level in an approved evaluation tool, is the Department’s goal. However, if the prospective contractor does not meet full compliance, a risk mitigation plan and schedule must be prepared that will describe, in detail, actions that will be taken to remove deficiencies uncovered in the evaluation process and must be provided to the Program Manager for approval. The Deputy Under Secretary of Defense (Science & Technology) will define Level 3 equivalence for approved evaluation tools. The evaluation will be performed on the business unit proposed to perform the work. The reuse of existing evaluation results performed within a two year period to the date of the government solicitation is encouraged.

This policy is effective immediately and will be incorporated into the current DoD 5000 series rewrite.

/Signed/
J. S. Gansler

About ISACA

ISACA® (www.isaca.org) is a global community advancing individuals and organizations in their pursuit of digital trust. For more than 50 years, ISACA has equipped individuals and enterprises with the knowledge, credentials, education, training, and community to progress their careers, transform their organizations, and build a more trusted and ethical digital world. ISACA is a global professional association and learning organization that leverages the expertise of its more than 165,000 members who work in digital trust fields such as information security, governance, assurance, risk, privacy, and quality. It has a presence in 188 countries, including 225 chapters worldwide.



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The Role of ISACA: ISACA is the owner and steward of the CMMI Performance Solutions ecosystem; including the Model, appraisal method, courses, certifications, systems, and associated intellectual property

Learn More: If elements in this handbook describe your organization's goals, or if you have questions about how to get started, contact ISACA by visiting Customer Support at support.isaca.org, which provides general help information and the ability to submit a support request.

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Document Change History

Version	Date	Description
3.0	6 January 2025	<ul style="list-style-type: none"> Statistics updated to match most recent Technical Report: Goal Achievement page and Performance Across Ecosystems page Minor changes for general formatting, clarity, simplification, & consistency with the CMMI Style Guide and CMMI Performance Solutions ecosystem
2.0	1 August 2023	Background section: client logos updated. Minor clarification edits overall.
1.0	1 May 2023	Initial release