

# What is CMMI®?

## *CMMI® Frequently Asked Questions (FAQ) Answered by TECHSOFT*

### **WHAT IS CMMI?**

More and more people are hearing about CMMI® these days because many government organizations are now using CMMI® as a measure of world-class quality. It is used extensively worldwide in government, commerce, industry and software development organizations.

CMMI® stands for Capability Maturity Model Integration. It is a process improvement approach that was originally developed in the 1980s by a group of experts from industry, government, and Carnegie Mellon's Software Engineering Institute (SEI).

CMMI® provides organizations with the essential elements of effective processes that ultimately improve their performance. It can be used to guide process improvement across a project, a division, or an entire organization. CMMI® helps integrate traditionally separate organizational functions, set process improvement goals and priorities, provide guidance for quality processes, and provide a point of reference for appraising current processes.

Although its background is in the field of software development, CMMI® can be used to improve organizational processes in diverse areas, including: software engineering, system engineering, project management, software maintenance, risk management, information technology services, and general business processes.

### **WHAT IS AN SEI PARTNER?**

TECHSOFT is an SEI Partner and also a CMMI® Maturity Level 3 organization, so we really do practice what we preach!

SEI Partners are selected, trained, and licensed by the SEI to deliver authentic SEI services. When you receive services from an SEI Partner, you can be sure that the quality of those services is comparable to the quality you'd get from the SEI itself.

By becoming an SEI Partner, TECHSOFT has joined an elite group of SEI-trained organizations on the leading edge of software engineering processes and technologies.

The SEI maintains a current database of all SEI Partner organizations, including TECHSOFT (Technical Software Services, Inc.). To verify the status of any organization claiming to be an SEI Partner, please visit the SEI website at: <http://www.sei.cmu.edu/partners/directory/organization/index.cfm>

## WHAT ARE THE BENEFITS OF CMMI®?

TECHSOFT's clients have reported numerous benefits of CMMI®, including:

- Better control of cost and schedule
- Better ability to track progress, allowing projects to meet critical milestones
- Vastly improved definition and control of requirements
- A clear understanding of strengths and weaknesses
- Consistent processes across projects and throughout the organization
- Improved up-front planning and management of risk
- Early identification of problems
- Higher-quality deliverables
- Increased customer confidence and satisfaction

To download a copy of the SEI's 2010 presentation about the Benefits of CMMI® Within the Defense Industry, please click here: <http://www.sei.cmu.edu/library/abstracts/presentations/CMMI-Benefits-to-Defense-Industry.cfm>

## WHAT'S A MATURITY LEVEL?

Once an organization is successfully assessed by an SEI-Authorized Lead Appraiser, it will then be able to claim that it has been assessed as CMMI® Maturity Level "X", where "X" is from 1 to 5. For example, TECHSOFT is a CMMI® Maturity Level 3 organization. Another way to say this is that TECHSOFT has achieved a CMMI® Maturity Level 3 rating from the SEI.

The SEI maintains a publicly-available list of organizations assessed for CMMI® dating back to 2006.

There are five CMMI® Maturity Levels:

1. Initial - processes are chaotic and ad hoc. The organization depends on individual heroics for success.
2. Managed – projects plan and execute processes based on documented policies. Skilled people and resources are identified; stakeholders become involved; work products are controlled. Process discipline rapidly improves.
3. Defined – processes are well-defined and understood and are described in standards, procedures, tools, and methods. Processes have become standard business practices.
4. Quantitatively managed – the organization and projects establish quantitative objectives for quality and process performance and use them as criteria for managing processes.
5. Optimizing – the organization continually improves its processes based on a quantitative understanding of the common causes of variation inherent in processes.

## WHY CONDUCT APPRAISALS?

Many organizations find value in measuring their progress by conducting a CMMI® appraisal and earning a formal maturity level rating from the SEI. A formal maturity level rating is also now required by many federal entities of organizations that plan to bid on or provide products or services. CMMI® appraisals are held to:

- Determine how well the organization's processes compare to CMMI® best practices, and identify areas that need improvement.
- Inform external customers and suppliers about how well the organization's processes compare to CMMI® best practices.
- Meet contractual requirements of one or more customers.

Standard CMMI® Appraisal Method for Process Improvement (SCAMPI<sup>SM</sup>) appraisal methods are the generally accepted method used for conducting appraisals. The SCAMPI family of appraisals includes Class A, B, and C appraisal methods. A SCAMPI Class A is the most rigorous and the only appraisal that can result in a rating.

TECHSOFT's team includes SEI- Authorized Lead Appraisers and we have extensive experience preparing our clients for formal interviews, developing comprehensive asset libraries, and conducting SCAMPI A, B and C appraisals. To schedule an appraisal, please contact us at 850-469-0086.

## I HAVE A SMALL COMPANY. CAN I STILL DO CMMI®?

Yes! CMMI® applies to any organization that develops and delivers products and services, regardless of size. TECHSOFT's CMMI® clients range from small teams representing a single project to a large U.S. Navy engineering organization with many teams spread over a wide geographic area. CMMI® fits organizations of all sizes and complexities.

## CAN CMMI AND AGILE REALLY WORK TOGETHER?

Absolutely! Agile and CMMI® are both powerful approaches for effective software development. The SEI has conducted a study that debunks common misperceptions on both sides of the argument. Their findings on how CMMI® and Agile complement each other were released in a study titled "CMMI® or Agile: Why Not Embrace Both!" Download a copy here: <http://www.sei.cmu.edu/reports/08tn003.pdf>

## MY ORGANIZATION NEEDS TO REACH MATURITY LEVEL 3 IN SIX MONTHS. IS THIS POSSIBLE?

The short answer: yes, it is possible to reach Maturity Level 3 in six months. The caveat: it all depends on what progress your organization has already made toward implementing the best practices of CMMI®.

An organization that is just starting out will need more time, while an organization that has been practicing CMMI® for months or years may already have the groundwork in place to make rapid progress toward CMMI® maturity.

To benchmark your organization's progress, contact us to arrange for a gap analysis or appraisal: 850-469-0086.

For more information, please contact:

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