What is CMMI?

CMMI is a Process Model Framework for process-improvement developed by Software Engineering Institute (SEI), Carnegie Mellon University (CMU), Pittsburgh, USA. Now CMMI Institute is the steward of CMMI. CMMI, standing for Capability Maturity Model Integration, is a structured and systematic collection of best practices for process-improvement. The CMMI process model framework is currently available in three constellations – CMMI for Development, CMMI for Services, and CMMI for Acquisition. These three constellations cover the entire spectrum of industries including Software Engineering, Manufacturing, Financial, Aerospace, Computer hardware, Defense, and Telecommunications, etc.

Characteristics of the Maturity levels

- **Level 1: Initial**
  - Processes unpredictable, poorly controlled and reactive

- **Level 2: Managed**
  - Processes characterized for projects and is often reactive.

- **Level 3: Defined**
  - Processes characterized for the organization and is proactive.
  - (Projects tailor their processes from organization's standards)

- **Level 4: Quantitatively Managed**
  - Processes measured and controlled

- **Level 5: Optimizing**
  - Focus on process improvement
CMMI Level 2

CMMI Level 2 refers to an organization in which a good performance is repeatable. A project management system is in place, and planning and management of new projects is based on experience with similar earlier ones. Successful practices from those earlier projects can be repeated. Such an organization has established policies for managing a project and procedures to implement those policies, i.e. effective management processes for projects are institutionalized. Key process areas of this level are management activities like requirements management, project planning, project tracking and oversight, quality assurance, and configuration management.

Maturity Level 2 in CMMI

Managed

CM - Configuration Management
MA - Measurement & Analysis
PPOA - Process & Product Quality Assurance
REQM - Requirements Management
SAM - Supplier Agreement Management
SD - Service Delivery
WMC - Work Monitoring & Control
WP - Work Planning