CMMI for Services, V1.3

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Capability Levels

1 — CAPABILITY LEVEL 1 (PERFORMED)

2 — CAPABILITY LEVEL 2 (MANAGED)

3 — CAPABILITY LEVEL 3 (DEFINED)

GENERIC GOALS AND PRACTICES

GG1 Achieve Specific Goals
The specific goals of the process are supported by the process by transforming identifiable input work products into identifiable output work products.

GP1.1 Perform Specific Practices
Perform the specific practices of the process area to develop work products and provide services to achieve the specific goals of the process area.

GG2 Institutionalize a Managed Process
The process is institutionalized as a managed process.

GP2.1 Establish an Organizational Policy
Establish and maintain an organizational policy for planning and performing the process.

GP2.2 Plan the Process
Establish and maintain the plan for performing the process.

GP2.3 Provide Resources
Provide adequate resources for performing the process, developing the work products, and providing the services of the process.

GP2.4 Assign Responsibility
Assign responsibility and authority for performing the process, developing the work products, and providing the services of the process.

GP2.5 Train People
Train the people performing or supporting the process as needed.

GP2.6 Control Work Products
Place selected work products of the process under appropriate levels of control.

GP2.7 Identify and Involve Relevant Stakeholders
Identify and involve the relevant stakeholders of the process as planned.

GP2.8 Monitor and Control the Process
Monitor and control the process against the plan for performing the process and take appropriate corrective action.

GP2.9 Objectively Evaluate Adherence
Objectively evaluate adherence of the process and selected work products against the process description, standards, and procedures, and address noncompliance.

GP2.10 Review Status with Higher Level Management
Review the activities, status, and results of the process with higher level management and resolve issues.

GG3 Institutionalize a Defined Process
The process is institutionalized as a defined process.

GP3.1 Establish a Defined Process
Establish and maintain the description of a defined process.

GP3.2 Collect Process Related Experiences
Collect process related experiences derived from planning and performing the process to support the future use and improvement of the organization's processes and process assets.

MATURITY LEVELS

2 — MATURITY LEVEL 2 (MANAGED)

3 — MATURITY LEVEL 3 (DEFINED)

4 — MATURITY LEVEL 4 (QUANTITATIVELY MANAGED)

5 — MATURITY LEVEL 5 (OPTIMIZING)

PROCESS AREAS

Maturity Level 2:
- CONFIGURATION MANAGEMENT
- MEASUREMENT AND ANALYSIS
- PROCESS AND PRODUCT QUALITY ASSURANCE
- REQUIREMENTS MANAGEMENT
- SUPPLIER AGREEMENT MANAGEMENT
- SERVICE DELIVERY
- WORK MONITORING AND CONTROL
- WORK PLANNING

Maturity Level 3:
- CAPABILITY AND AVAILABILITY MANAGEMENT
- DECISION ANALYSIS AND RESOLUTION
- INCIDENT RESOLUTION AND PREVENTION
- INTEGRATED WORK MANAGEMENT
- ORGANIZATIONAL PROCESS DEFINITION
- ORGANIZATIONAL PROCESS FOCUS
- ORGANIZATIONAL TRAINING
- RISK MANAGEMENT
- SERVICE CONTINUITY
- SERVICE SYSTEM DEVELOPMENT*
- SERVICE SYSTEM TRANSITION
- STRATEGIC SERVICE MANAGEMENT

Maturity Level 4:
- ORGANIZATIONAL PROCESS PERFORMANCE
- QUANTITATIVE WORK MANAGEMENT

Maturity Level 5:
- CASUAL ANALYSIS AND RESOLUTION
- ORGANIZATIONAL PERFORMANCE MANAGEMENT

PURPOSE

Configuration Management (CM) is to establish and maintain the integrity of work products using configuration identification, configuration control, configuration status accounting, and configuration audits.

Measurement and Analysis (MA) is to develop and sustain a measurement capability used to support management information needs.

Process and Product Quality Assurance (PPQA) is to provide staff and management with objective insight into processes and associated work products.

Requirements Management (REQM) is to manage requirements of the project's products and product components and to ensure alignment between those requirements and the project's plans and work products.

Supplier Agreement Management (SAM) is to manage the acquisition of products and services from suppliers.

Service Delivery (SD) is to deliver services in accordance with service agreements.

Work Monitoring and Control (WMC) is to provide an understanding of the ongoing work so that appropriate corrective actions can be taken when the performance deviates significantly from the plan.

Work Planning (WP) is to establish and maintain plans that define work activities.

Capability and Availability Management (CAM) is to ensure effective service system performance and ensure that resources are provided and used effectively to support service requirements.

Decision Analysis and Resolution (DAR) is to analyze possible decisions using a formal evaluation process that evaluates identified alternatives against established criteria.

Incident Resolution and Prevention (IRP) is to ensure timely and effective resolution of service incidents and prevention of service incidents as appropriate.

Integrated Work Management (IWM) is to establish and manage the work and the involvement of relevant stakeholders according to an integrated and defined process that is tailored from the organization's set of standard processes.

Organizational Process Definition (OPD) is to establish and maintain a usable set of organizational process assets, work environment standards, and rules and guidelines for teams.

Organizational Process Focus (OPF) is to plan, implement, and deploy organizational process improvements based on a thorough understanding of current strengths and weaknesses of the organization's processes and process assets.

Organizational Training (OT) is to develop skills and knowledge of people so they can perform their roles effectively and efficiently.

Risk Management (RSKM) is to identify potential problems before they occur so that risk handling activities can be planned and invoked as needed across the life of the product or work to mitigate adverse impacts on achieving objectives.

Service Continuity (SCON) is to establish and maintain plans to ensure continuity of services during and following any significant disruption of normal operations.

Service System Development (SSD) is to analyze, design, develop, integrate, verify, and validate service systems, including service system components, to satisfy existing or anticipated service agreements. *addition (optional)

Service System Transition (SST) is to deploy new or significantly changed service system components while managing their effect on ongoing service delivery.

Strategic Service Management (STSM) is to establish and maintain standard services in concert with strategic needs and plans.

Organizational Process Performance (OPP) is to establish and maintain a quantitative understanding of the performance of selected processes in the organization's set of standard processes in support of achieving quality and process performance objectives, and to provide process performance data, baselines, and models to quantitatively manage the organization's work.

Quantitative Work Management (QWM) is to quantitatively manage the work to achieve the established quality and process performance objectives for the work.

Causal Analysis and Resolution (CAR) is to identify causes of selected outcomes and take action to improve process performance.

Organizational Performance Management (OPM) is to proactively manage the organization's performance to meet its business objectives.

SPECIFIC GOALS AND PRACTICES

Configuration Management (CM)
- **CM.SG1** Establish Baselines — CM.SP1.1 Identify Configuration Items; CM.SP1.2 Establish a Configuration Management System; CM.SP1.3 Create or Release Baselines
- **CM.SG2** Track and Control Changes — CM.SP2.1 Track Change Requests; CM.SP2.2 Control Configuration Items
- **CM.SG3** Establish Integrity — CM.SP3.1 Establish Configuration Management Records; CM.SP3.2 Perform Configuration Audits

Measurement and Analysis (MA)
- **MA.SG1** Align Measurement and Analysis Activities — MA.SP1.1 Establish Measurement Objectives; MA.SP1.2 Specify Measures; MA.SP1.3 Specify Data Collection and Storage Procedures; MA.SP1.4 Specify Analysis Procedures
- **MA.SG2** Provide Measurement Results — MA.SP2.1 Obtain Measurement Data; MA.SP2.2 Analyze Measurement Data; MA.SP2.3 Store Data and Results; MA.SP2.4 Communicate Results

Process and Product Quality Assurance (PPQA)
- **PPQA.SG1** Objectively Evaluate Processes and Work Products — PPQA.SP1.1 Objectively Evaluate Processes; PPQA.SP1.2 Objectively Evaluate Work Products
- **PPQA.SG2** Provide Objective Insight — PPQA.SP2.1 Communicate and Resolve Noncompliance Issues; PPQA.SP2.2 Establish Records

Requirements Management (REQM)
- **REQM.SG1** Manage Requirements — REQM.SP1.1 Understand Requirements; REQM.SP1.2 Obtain Commitment to Requirements; REQM.SP1.3 Manage Requirements Changes; REQM.SP1.4 Maintain Bidirectional Traceability of Requirements; REQM.SP1.5 Ensure Alignment Between Project Work and Requirements

Supplier Agreement Management (SAM)
- **SAM.SG1** Establish Supplier Agreements — SAM.SP1.1 Determine Acquisition Type; SAM.SP1.2 Select Suppliers; SAM.SP1.3 Establish Supplier Agreements
- **SAM.SG2** Satisfy Supplier Agreements — SAM.SP2.1 Execute the Supplier Agreement; SAM.SP2.2 Accept the Acquired Product; SAM.SP2.3 Ensure Transition of Products

Service Delivery (SD)
- **SD.SG1** Establish Service Agreements — SD.SP1.1 Analyze Existing Agreements and Service Data; SD.SP1.2 Establish the Service Agreement
- **SD.SG2** Prepare for Service Delivery — SD.SP2.1 Establish the Service Delivery Approach; SD.SP2.2 Prepare for Service System Operations; SD.SP2.3 Establish a Request Management System
- **SD.SG3** Deliver Services — SD.SP3.1 Receive and Process Service Requests; SD.SP3.2 Operate the Service System; SD.SP3.3 Maintain the Service System

Work Monitoring and Control (WMC)
- **WMC.SG1** Monitor the Work Against the Plan — WMC.SP1.1 Monitor Work Planning Parameters; WMC.SP1.2 Monitor Commitments; WMC.SP1.3 Monitor Risks; WMC.SP1.4 Monitor Data Management; WMC.SP1.5 Monitor Stakeholder Involvement; WMC.SP1.6 Conduct Progress Reviews; WMC.SP1.7 Conduct Milestone Reviews
- **WMC.SG2** Manage Corrective Action to Closure — WMC.SP2.1 Analyze Issues; WMC.SP2.2 Take Corrective Action; WMC.SP2.3 Manage Corrective Actions

Work Planning (WP)
- **WP.SG1** Establish Estimates — WP.SP1.1 Establish the Service Strategy; WP.SP1.2 Estimate the Scope of the Work; WP.SP1.3 Establish Estimates of Work Product and Task Attributes; WP.SP1.4 Define Lifecycle Phases; WP.SP1.5 Estimate Effort and Cost
- **WP.SG2** Develop a Work Plan — WP.SP2.1 Establish the Budget and Schedule; WP.SP2.2 Identify Risks; WP.SP2.3 Plan Data Management; WP.SP2.4 Plan the Resources; WP.SP2.5 Plan Needed Knowledge and Skills; WP.SP2.6 Plan Stakeholder Involvement; WP.SP2.7 Establish the Work Plan
- **WP.SG3** Obtain Commitment to the Plan

Capability and Availability Management (CAM)
- **CAM.SG1** Prepare for Capability and Availability Management — CAM.SP1.1 Establish a Capability and Availability Management Strategy; CAM.SP1.2 Select Measures and Analytic Techniques; CAM.SP1.3 Establish Service System Representations
- **CAM.SG2** Monitor and Analyze Capacity and Availability — CAM.SP2.1 Monitor and Analyze Capacity; CAM.SP2.2 Monitor and Analyze Availability; CAM.SP2.3 Report Capacity and Availability Management Data

Decision Analysis and Resolution (DAR)
- **DAR.SG1** Evaluate Alternatives — DAR.SP1.1 Establish Guidelines for Decision Analysis; DAR.SP1.2 Establish Evaluation Criteria; DAR.SP1.3 Identify Alternative Solutions; DAR.SP1.4 Select Evaluation Methods; DAR.SP1.5 Evaluate Alternative Solutions; DAR.SP1.6 Select Solutions

Incident Resolution and Prevention (IRP)
- **IRP.SG1** Prepare for Incident Resolution and Prevention — IRP.SP1.1 Establish an Approach to Incident Resolution and Prevention; IRP.SP1.2 Establish an Incident Management System
- **IRP.SG2** Identify, Control, and Address Individual Incidents — IRP.SP2.1 Identify and Record Incidents; IRP.SP2.2 Analyze Individual Incident Data; IRP.SP2.3 Resolve Incidents; IRP.SP2.4 Monitor the Status of Incidents to Closure; IRP.SP2.5 Communicate the Status of Incidents
- **IRP.SG3** Analyze Selected Incidents — IRP.SP3.1 Analyze Selected Incidents; IRP.SP3.2 Establish Solutions to Respond to Future Incidents; IRP.SP3.3 Establish and Apply Solutions to Reduce Incident Occurrence

Integrated Work Management (IWM)
- **IWM.SG1** Use the Defined Process for the Work — IWM.SP1.1 Establish the Defined Process; IWM.SP1.2 Use Organizational Process Assets for Planning Work Activities; IWM.SP1.3 Establish the Work Environment; IWM.SP1.4 Integrate Plans; IWM.SP1.5 Manage the Work Using Integrated Plans; IWM.SP1.6 Establish Teams; IWM.SP1.7 Contribute to Organizational Process Assets
- **IWM.SG2** Coordinate and Collaborate with Relevant Stakeholders — IWM.SP2.1 Manage Stakeholder Involvement; IWM.SP2.2 Manage Dependencies; IWM.SP2.3 Resolve Coordination Issues

Organizational Process Definition (OPD)
- **OPD.SG1** Establish Organizational Process Assets — OPD.SP1.1 Establish Standard Processes; OPD.SP1.2 Establish Lifecycle Model Descriptions; OPD.SP1.3 Establish Tailoring Criteria and Guidelines; OPD.SP1.4 Establish the Organization's Measurement Repository; OPD.SP1.5 Establish the Organization's Process Asset Library; OPD.SP1.6 Establish Work Environment Standards; OPD.SP1.7 Establish Rules and Guidelines for Teams

Organizational Process Focus (OPF)
- **OPF.SG1** Determine Process Improvement Opportunities — OPF.SP1.1 Establish Organizational Process Needs; OPF.SP1.2 Appraise the Organization's Processes; OPF.SP1.3 Identify the Organization's Process Improvements
- **OPF.SG2** Plan and Implement Process Actions — OPF.SP2.1 Establish Process Action Plans; OPF.SP2.2 Implement Process Action Plans
- **OPF.SG3** Deploy Organizational Process Experiences — OPF.SP3.1 Deploy Organizational Process Assets; OPF.SP3.2 Deploy Standard Processes; OPF.SP3.3 Monitor the Implementation; OPF.SP3.4 Incorporate Experiences into Organizational Process Assets

Organizational Training (OT)
- **OT.SG1** Establish an Organizational Training Capability — OT.SP1.1 Establish Strategic Training Needs; OT.SP1.2 Determine Which Training Needs Are the Responsibility of the Organization; OT.SP1.3 Establish an Organizational Training Tactical Plan; OT.SP1.4 Establish a Training Capability
- **OT.SG2** Provide Training — OT.SP2.1 Deliver Training; OT.SP2.2 Establish Training Records; OT.SP2.3 Assess Training Effectiveness

Risk Management (RSKM)
- **RSKM.SG1** Prepare for Risk Management — RSKM.SP1.1 Determine Risk Sources and Categories; RSKM.SP1.2 Define Risk Parameters; RSKM.SP1.3 Establish a Risk Management Strategy
- **RSKM.SG2** Identify and Analyze Risks — RSKM.SP2.1 Identify Risks; RSKM.SP2.2 Evaluate, Categorize, and Prioritize Risks
- **RSKM.SG3** Mitigate Risks — RSKM.SP3.1 Develop Risk Mitigation Plans; RSKM.SP3.2 Implement Risk Mitigation Plans

Service Continuity (SCON)
- **SCON.SG1** Identify Essential Service Dependencies — SCON.SP1.1 Identify and Prioritize Essential Functions; SCON.SP1.2 Identify and Prioritize Essential Resources
- **SCON.SG2** Establish Service Continuity Plans — SCON.SP2.1 Establish Service Continuity Plans; SCON.SP2.2 Establish Service Continuity Training; SCON.SP2.3 Provide and Evaluate Service Continuity Training
- **SCON.SG3** Verify and Validate the Service Continuity Plan — SCON.SP3.1 Prepare for the Verification and Validation of the Service Continuity Plan; SCON.SP3.2 Verify and Validate the Service Continuity Plan; SCON.SP3.3 Analyze Results of Verification and Validation of the Service Continuity Plan

Service System Development (SSD)
- **SSD.SG1** Develop and Analyze Stakeholder Requirements — SSD.SP1.1 Develop Stakeholder Requirements; SSD.SP1.2 Develop Service System Requirements; SSD.SP1.3 Analyze and Validate Requirements
- **SSD.SG2** Develop Service Systems — SSD.SP2.1 Select Service System Solutions; SSD.SP2.2 Develop the Design; SSD.SP2.3 Ensure Interface Compatibility; SSD.SP2.4 Implement The Service System Design; SSD.SP2.5 Integrate Service System Components
- **SSD.SG3** Verify and Validate Service Systems — SSD.SP3.1 Prepare for Verification and Validation; SSD.SP3.2 Perform Peer Reviews; SSD.SP3.3 Verify Selected Service System Components; SSD.SP3.4 Validate the Service System

Service System Transition (SST)
- **SST.SG1** Prepare for Service System Transition — SST.SP1.1 Analyze Service System Transition Needs; SST.SP1.2 Develop Service System Transition Plans; SST.SP1.3 Prepare Stakeholders for Changes
- **SST.SG2** Deploy the Service System — SST.SP2.1 Deploy Service System Components; SST.SP2.2 Assess and Control the Impacts of the Transition

Strategic Service Management (STSM)
- **STSM.SG1** Establish Strategic Needs and Plans for Standard Services — STSM.SP1.1 Gather and Analyze Data; STSM.SP1.2 Establish Plans for Standard Services
- **STSM.SG2** Establish Standard Services — STSM.SP2.1 Establish Properties of Standard Services and Service Levels; STSM.SP2.2 Establish Descriptions of Standard Services

Organizational Process Performance (OPP)
- **OPP.SG1** Establish Performance Baselines and Models — OPP.SP1.1 Establish Quality and Process Performance Objectives; OPP.SP1.2 Select Processes; OPP.SP1.3 Establish Process Performance Measures; OPP.SP1.4 Analyze Process Performance and Establish Process Performance Baselines; OPP.SP1.5 Establish Process Performance Models

Quantitative Work Management (QWM)
- **QWM.SG1** Prepare for Quantitative Management — QWM.SP1.1 Establish the Work Objectives; QWM.SP1.2 Compose the Defined Process; QWM.SP1.3 Select Subprocesses and Attributes; QWM.SP1.4 Select Measures and Analytic Techniques
- **QWM.SG2** Quantitatively Manage the Work — QWM.SP2.1 Monitor the Performance of Selected Subprocesses; QWM.SP2.2 Manage Work Performance; QWM.SP2.3 Perform Root Cause Analysis

Causal Analysis and Resolution (CAR)
- **CAR.SG1** Determine Causes of Selected Outcomes — CAR.SP1.1 Select Outcomes for Analysis; CAR.SP1.2 Analyze Causes
- **CAR.SG2** Address Causes of Selected Outcomes — CAR.SP2.1 Implement Action Proposals; CAR.SP2.2 Evaluate the Effect of Implemented Actions; CAR.SP2.3 Record Causal Analysis Data

Organizational Performance Management (OPM)
- **OPM.SG1** Manage Business Performance — OPM.SP1.1 Maintain Business Objectives; OPM.SP1.2 Analyze Process Performance Data; OPM.SP1.3 Identify Potential Areas for Improvement
- **OPM.SG2** Select Improvements — OPM.SP2.1 Elicit Suggested Improvements; OPM.SP2.2 Analyze Suggested Improvements; OPM.SP2.3 Validate Improvements; OPM.SP2.4 Select and Implement Improvements for Deployment
- **OPM.SG3** Deploy Improvements — OPM.SP3.1 Plan the Deployment; OPM.SP3.2 Manage the Deployment; OPM.SP3.3 Evaluate Improvement Effects