

# Benchmark CMMI Appraisal Activities

## Virtual Method Considerations

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### Activities for which the MDDs permit virtual delivery

With the unprecedented circumstances surrounding the outbreak of the COVID-19 coronavirus, recent conversation with CMMI Partners has focused largely on the remote delivery of appraisals. Through this conversation, it has been identified that more work must be done to highlight those areas of the benchmark appraisal methods—SCAMPI V1.3b A and CMMI V2.0 Benchmark appraisals—that are permitted to be delivered via virtual methods. Additionally, on 17 March 2020, CMMI Institute approved remote delivery of all benchmark appraisal activities, including those that normally require the appraisal team to be on-site. Fully remote delivery is now permitted on a temporary pilot basis **through 30 September 2020**.

The below section contains a list of Phase 2 and 4 activities from each of the Method Definition Documents (MDDs) that are normally allowed to be performed remotely, as well as activities—highlighted in yellow—that are temporarily allowed to be performed remotely during the pilot period. Phase 1 and Phase 3 activities for all appraisals may be performed remotely at all times.

The key to a successful virtual appraisal is thorough and detailed planning, preparation, and testing. Mitigation, contingency, and work-around approaches must be identified and in place prior to the Conduct Appraisal phase. ATLs must analyze, plan for, and monitor activities where virtual delivery is allowed only during the temporary pilot. Virtual delivery requires *more* planning, not less.

### CMMI V2.0 Benchmark Appraisals

The below table provides MDD V2.0 Processes and Activities, as well as the virtual considerations for each.

#### MDD V2.0 Processes and Activities Overview with Virtual Considerations

Phase	Process	Activities	Virtual Considerations
1: Plan and Prepare for Appraisal	1.1 Analyze Requirements	1.1.1 Comply with CMMI Appraisal Method Requirements 1.1.2 Identify ATL 1.1.3 Determine Appraisal Objectives 1.1.4 Determine Appraisal Scope	All activities associated with 1.1 Analyze Requirements (1.1.1, 1.1.2, 1.1.3, 1.1.4, 1.1.5, and 1.1.6) may be conducted with virtual techniques. ATL is responsible for ensuring thorough

Phase	Process	Activities	Virtual Considerations
		1.1.5 Identify OE Adequacy and Sufficiency Criteria 1.1.6 Determine Appraisal Outputs	analysis of requirements.
	1.2 Develop Appraisal Plan	1.2.1 Tailor Method 1.2.2 Develop OE Collection Approach 1.2.3 Select Appraisal Team Members 1.2.4 Identify Resources, Cost, and Schedule 1.2.5 Identify and Manage Conflicts of Interest 1.2.6 Identify and Manage Risks 1.2.7 Obtain and Record Commitment to the Appraisal Plan	All activities associated with 1.2 Develop Appraisal Plan (1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.2.6, and 1.2.7) may be conducted with virtual techniques. ATL is responsible for ensuring the development of a comprehensive and complete appraisal plan.
	1.3 Ensure Readiness to Conduct the Appraisal	1.3.1 Prepare Team 1.3.2 Obtain, Inventory, and Verify OE 1.3.3 Perform Readiness Review 1.3.4 Conduct Participant Briefing	All activities associated with 1.3 Ensure Readiness to Conduct the Appraisal (1.3.1, 1.3.2, 1.3.3, and 1.3.4) may be conducted with virtual techniques. ATL is responsible for ensuring the readiness has been appropriately verified.
2: Conduct Appraisal	2.1 Collect and Examine OE	2.1.1 Collect and Examine Artifacts  2.1.2 Collect and Examine Affirmations	Activity: 2.1.1 - Virtual techniques may be used.  Activity: 2.1.2 – Virtual techniques may be used. <b>However, ATL must take measures to confirm confidentiality is maintained. These must be documented in the appraisal plan.</b>

Phase	Process	Activities	Virtual Considerations
		<p>2.1.3 Verify OE and Record Gaps</p> <p>2.1.4 Update OE Collection Approach</p>	<p>For example, having interviewees rotate a camera around an interview room to confirm attendees. The ATL should make all possible arrangements for the Appraisal Team to be co-located, even if virtual techniques are being used.</p> <p><b>Remote team only permitted during the pilot period.</b></p> <p>Activity: 2.1.3 - Virtual techniques may be used.</p> <p>Activity 2.1.4 – Virtual techniques may be used.</p>
	<p>2.2 Characterize Practices and Validate Preliminary Results</p>	<p>2.2.1 Characterize Model Practices</p> <p>2.2.2 Generate Preliminary Findings</p>	<p>Activity: 2.2.1 – Appraisal Team must be physically co-located onsite at one of the appraised OU locations.</p> <p><b>Virtual delivery only permitted during the pilot period.</b></p> <p>Activity 2.2.2 – Appraisal Team must be physically co-located.</p> <p><b>Virtual delivery only permitted during the pilot period.</b></p> <p>Activity 2.2.3 – Appraisal Team must</p>

Phase	Process	Activities	Virtual Considerations
		2.2.3 Validate Preliminary Results	<p>be physically co-located.</p> <p><b>Virtual delivery only permitted during the pilot period.</b></p> <p>Appraisal Participants (i.e. interviews) can participate through virtual techniques, <b>however, ATL must take measures to confirm confidentiality is maintained. These must be documented in the appraisal plan.</b> For example, having appraisal participants rotate a camera around a conference room to confirm attendees.</p>
	2.3 Generate Appraisal Results	2.3.1 Derive Final Findings 2.3.2 Determine Practice Group Ratings 2.3.3 Determine Practice Area and Maturity Level or Capability Level Profile Rating 2.3.4 Record Appraisal Results	<p>For all activities associated with 2.3 Generate Appraisal Results (2.3.1, 2.3.2, 2.3.3, and 2.3.4), the Appraisal Team must be physically co-located onsite at one of the appraised OU locations.</p> <p><b>Virtual delivery only permitted during the pilot period.</b></p>
3: Report Results	3.1 Deliver Appraisal Results	3.1.1 Deliver Final Findings 3.1.2 Conduct Optional Follow-up Activities	<p>All activities associated with 3.1 Deliver Appraisal Results (3.1.1 and 3.1.2) may be conducted with virtual techniques. ATL is responsible to ensure appraisal results are</p>

Phase	Process	Activities	Virtual Considerations
	3.2 Package and Archive Appraisal Assets	3.2.1 Submit Appraisal Results Package 3.2.2 Provide Feedback to CMMI Institute 3.2.3 Archive or Dispose of Key Artifacts	properly delivered to the appraisal sponsor.  All activities associated with 3.2 Package and Archive Appraisal Assets (3.2.1, 3.2.2, and 3.2.3) may be conducted with virtual techniques.
4: Conduct Action Plan Reappraisal (APR)	4.1 Plan and Conduct APR, If Eligible	4.1.1 Determine Eligibility to Perform APR  4.1.2 Plan APR  4.1.3 Conduct APR	Activity: 4.1.1 - Virtual techniques may be used.  Activity: 4.1.2 - Virtual techniques may be used.  Activity 4.1.3 - The Appraisal Team must be physically co-located onsite at one of the appraised OU locations.  <b>Virtual delivery only permitted during the pilot period.</b>

MDD Excerpt, 1.1.1 Comply with CMMI Appraisal Method Requirements, Virtual Appraisal Delivery Constraints

Benchmark Appraisals and Sustainment Appraisals shall not be 100% virtual and must follow the requirements below. 100% virtual organizations are defined as organizations with no physical OU address or facility, and where all staff work remotely. OUs that are geographically disbursed with any physical address or facility do not qualify as a virtual organization.

- Given the current state of technology and recognizing that organizations may be 100% virtual, appraisal activities must strike a balance between the cost and business constraints of virtual organizations against the requirements for fidelity and quality of CMMI-based appraisals. For critical activities in Benchmark Appraisals and Sustainment Appraisals, the ATL and appraisal team must be physically co-located for all full team consensus activities at the OU site, beginning with practice characterization at the OU level. Refer to below from the MDD, Figure 7: Team Consensus Requirements for Characterizations and Ratings.

- If the OU is 100% virtual, then the ATL must coordinate with the Appraisal Sponsor to identify a suitable physical location for the appraisal team that will enable effective and efficient communication and coordination with each other and with the OU.
- In situations where the OU is geographically disbursed, the ATL must coordinate with the Appraisal Sponsor to identify a base of operations for the appraisal team which is, at a minimum, at one of the OU physical sites.
- If the appraisal has a scenario that does not fit the above, the ATL must submit a written request with detailed rationale to the Quality Team at [quality@cmmiinstitute.com](mailto:quality@cmmiinstitute.com), and obtain approval before proceeding.

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Type of Consensus	
Maturity Level or Capability Level Profile Ratings	FULL TEAM
Practice Group and Practice Area Ratings	FULL TEAM
Practice Characterizations (Organizational Unit Level)	FULL TEAM
Practice Characterizations (Project Level)	MINI-TEAM or individual ATM

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### SCAMPI V1.3 A Appraisals

The below table provides MDD V1.3 Processes and Activities, as well as the virtual considerations for each.

MDD V1.3 Processes and Activities Overview with Virtual Considerations

<b>Phase</b>	<b>Process</b>	<b>Activities</b>	<b>Virtual Considerations</b>
1: Plan and Prepare for Appraisal	1.1 Analyze Requirements	1.1.1 Determine Appraisal Objectives 1.1.2 Determine Data Collection Strategy 1.1.3 Determine Appraisal Constraints 1.1.4 Determine Appraisal Scope 1.1.5 Determine Appraisal Outputs 1.1.6 Obtain Commitment to Initial Appraisal Plan 1.1.6 Determine Appraisal Outputs	All activities associated with 1.1 Analyze Requirements (1.1.1, 1.1.2, 1.1.3, 1.1.4, 1.1.5, and 1.1.6) may be conducted with virtual techniques. ATL is responsible for ensuring thorough analysis of requirements.
	1.2 Develop Appraisal Plan	1.2.1 Tailor Method 1.2.2 Identify Needed Resources 1.2.3 Develop Data Collection Plan 1.2.4 Determine Cost and Schedule 1.2.5 Plan and Manage Logistics 1.2.6 Document and Manage Risks 1.2.7 Obtain Commitment to Appraisal Plan	All activities associated with 1.2 Develop Appraisal Plan (1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.2.6, and 1.2.7) may be conducted with virtual techniques. ATL is responsible for ensuring the development of a comprehensive and complete appraisal plan.
	1.3 Ensure Readiness to Conduct the Appraisal	1.3.1 Identify Appraisal Team Leader 1.3.2 Select Team Members 1.3.3 Document and Manage Conflicts of Interest 1.3.4 Prepare Team	All activities associated with 1.3 Ensure Readiness to Conduct the Appraisal (1.3.1, 1.3.2, 1.3.3, and 1.3.4) may be conducted with virtual techniques. ATL is responsible for ensuring the readiness has been appropriately verified.
	1.4 Obtain and Inventory Initial	1.4.1 Obtain Initial Objective Evidence	All activities associated with 1.4 Obtain and Inventory Initial

Phase	Process	Activities	Virtual Considerations
	Objective Evidence	1.4.2 Inventory Objective Evidence	Objective Evidence (1.4.1 and 1.4.2) may be conducted with virtual techniques. ATL is responsible for ensuring objective evidence is properly collected and inventoried.
	1.5 Prepare for Appraisal Conduct	1.5.1 Perform Readiness Review 1.5.2 Re-Plan Data Collection	All activities associated with 1.5 Prepare for Appraisal Conduct (1.5.1 and 1.5.2) may be conducted with virtual techniques. ATL is responsible for ensuring the readiness has been appropriately verified.
2: Conduct Appraisal	2.1 Prepare Participants	2.1.1 Conduct Participant Briefing	Activity: 2.1.1 - Virtual techniques may be used.
	2.2 Examine Objective Evidence	2.2.1 Examine Objective Evidence from Artifacts  2.2.2 Examine Objective Evidence from Affirmations	Activity: 2.2.1 - Virtual techniques may be used.  Activity 2.2.2 – The Appraisal Team must be physically co-located onsite at one of the appraised OU locations. <b>Virtual delivery only permitted during the pilot period.</b>  <b>However, the interviewees may be remote. The ATL must take measures to confirm confidentiality is maintained. These must be documented in the appraisal plan.</b>

Phase	Process	Activities	Virtual Considerations
			<p>For example, having interviewees rotate a camera around an interview room to confirm attendees. The ATL should make all possible arrangements for the Appraisal Team to be co-located, even if virtual techniques are being used.</p> <p><b>Remote team only permitted during the pilot period.</b></p>
	2.3 Document Objective Evidence	2.3.1 Take/Review/Tag Notes 2.3.2 Record Presence/Absence of Objective Evidence 2.3.3 Document Model Component Implementation 2.3.4 Review and Update the Data Collection Plan	<p>For all activities associated with 2.3 Document Objective Evidence (2.3.1, 2.3.2, 2.3.3, and 2.3.4), the Appraisal Team must be physically co-located onsite at one of the appraised OU locations.</p> <p><b>Virtual delivery only permitted during the pilot period.</b></p>
	2.4 Verify Objective Evidence	2.4.1 Verify Objective Evidence 2.4.2 Characterize Implementation of Model Practices and Generate Preliminary Findings	<p>For all activities associated with 2.4 Verify Objective Evidence (2.4.1 and 2.4.2), the Appraisal Team must be physically co-located onsite at one of the appraised OU locations.</p> <p><b>Virtual delivery only permitted during the pilot period.</b></p>
	2.5 Validate Preliminary Findings	2.5.1 Validate Preliminary Findings	<p>For all activities associated with 2.5 Validate Preliminary Findings (2.5.1), the Appraisal Team must be physically co-located</p>

Phase	Process	Activities	Virtual Considerations
			<p>onsite at one of the appraised OU locations.</p> <p><b>Virtual delivery only permitted during the pilot period.</b></p>
	2.6 Generate Appraisal Results	2.6.1 Derive Findings and Rate Goals 2.6.2 Determine Process Area Ratings 2.6.3 Determine Process Area Profile 2.6.4 Determine Maturity Level 2.6.5 Document Appraisal Results	<p>For all activities associated with 2.6 Generate Appraisal Results (2.6.1, 2.6.2, 2.6.3, 2.6.4, and 2.6.5), the Appraisal Team must be physically co-located onsite at one of the appraised OU locations.</p> <p><b>Virtual delivery only permitted during the pilot period.</b></p>
3: Report Results	3.1 Deliver Appraisal Results	3.1.1 Deliver Final Findings 3.1.2 Conduct Executive Session(s) 3.1.3 Plan for Next Steps	<p>All activities associated with 3.1 Deliver Appraisal Results (3.1.1, 3.1.2, and 3.1.3) may be conducted with virtual techniques. ATL is responsible to ensure appraisal results are properly delivered to the appraisal sponsor.</p>
	3.2 Package and Archive Appraisal Assets	3.2.1 Collect Lessons Learned 3.2.2 Generate Appraisal Record 3.2.3 Provide Appraisal Feedback to the CMMI Institute 3.2.4 Archive and/or Dispose of Key Artifacts	<p>All activities associated with 3.2 Package and Archive Appraisal Assets (3.2.1, 3.2.2, 3.2.3, and 3.2.4) may be conducted with virtual techniques.</p>
4: Conduct Action Plan Reappraisal (APR)	4.1 Action Plan Reappraisal	4.1.1 Plan Action Plan Reappraisal	<p>Activity: 4.1.1 - Virtual techniques may be used.</p>

