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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

CMMC Alignment to NIST Standards

How the Requirements Fit Into the Assessment Framework

February 2025

Agenda

- Overview of Cybersecurity Maturity Model Certification (CMMC) Program
- Alignment to National Institute of Standards (NIST) Special Publication (SP) 800-171 Revision (Rev.) 2
- Scoring in NIST SP 800-171 Rev. 2 (Including Multi-Factor Authentication (MFA) and Federal Information Processing Standards (FIPS) Partial Scores)
- NIST SP 800-172 Alignment and Organization-Defined Parameters (ODPs)
- Transition to NIST SP 800-171 Rev. 3
- Takeaways
- Q&A

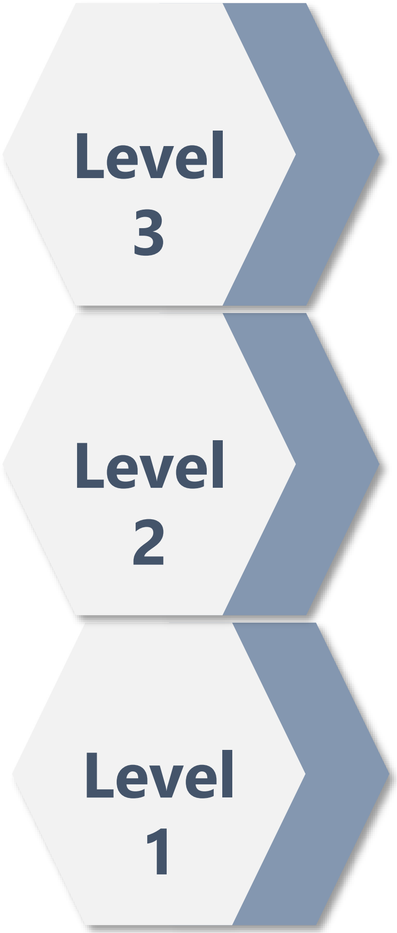
CMMC Overview

What is CMMC?

- A DoD framework ensuring protection of Federal Contract Information (FCI) and Controlled Unclassified Information (CUI).

Why Align to NIST Standards?

- Leveraging existing federal requirements, efficiency, and risk mitigation.



Level 3

NIST SP 800-172
24 Additional Security Requirements

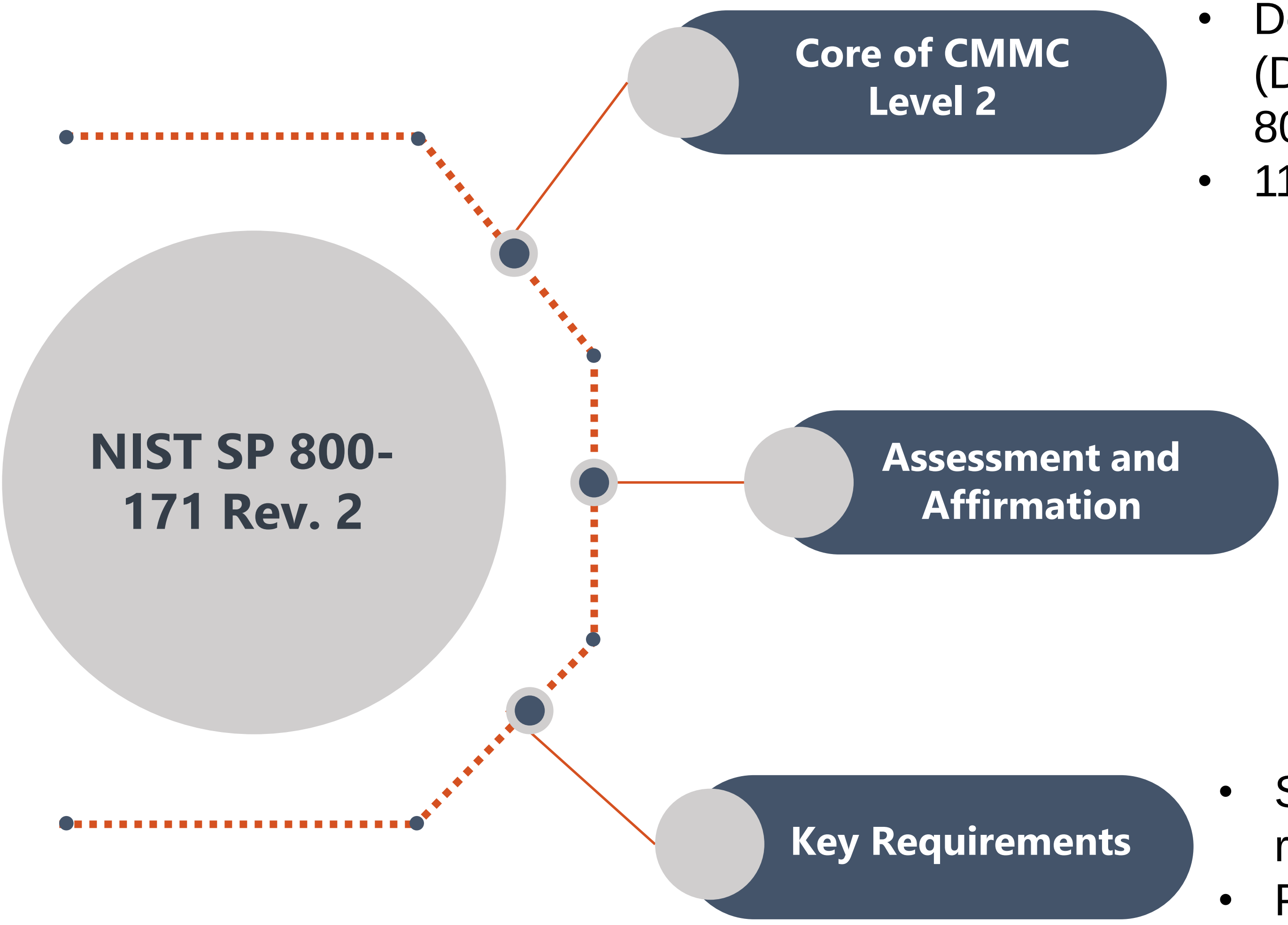
Level 2

NIST SP 800-171 Rev 2
110 Security Requirements

Level 1

FAR 52.204-21
15 Security Requirements

Alignment to NIST SP 800-171 Rev. 2



Core of CMMC Level 2

- Defense Federal Acquisition Regulation Supplement (DFARS) clause 252.204-7012 requires NIST SP 800-171 Rev. 2.
- 110 Security Requirements across 14 families.

Assessment and Affirmation

- Ensures consistent baseline implementation of safeguards for protecting CUI.
- Self-assessments and third-party assessments (C3PAOs) validate compliance.

Key Requirements

- System Security Plan (SSP): How security requirements are met.
- Plan of Action & Milestones (POA&M): Addressing gaps (conditional compliance).

NIST SP 800-171 Rev. 2 Scoring and Partial Scores

- **Scoring System**
  - Based on DoD Assessment Methodology, assessing NIST SP 800-171A objectives.
  - Maximum score: 110 points.
  - Deductions for unmet requirements (critical requirements must be fully met).
  - Security requirements are valued 1, 3, or 5 points with a range of -203 to 110, with a minimum passing score of 88. Partial credit is allowed for two requirements:
    - MFA: 5 points deducted from overall score of 110 if MFA is not implemented or implemented only for general users and not remote and privileged users;
    - MFA: 3 points deducted if MFA is implemented for remote and privileged users but not implemented for general users;
    - FIPS: 5 points deducted from overall score of 110 if no cryptography is employed;
    - FIPS: 3 points deducted if cryptography is employed but not FIPS validated.

Alignment to NIST SP 800-172 and ODPs

- **CMMC Level 3**
  - 24 Enhanced Security Requirements derived from NIST SP 800-172.
  - Targets Advanced Persistent Threats (APTs).
  - CMMC Level 3 first requires CMMC Status of Final Level 2 (CMMC Third-Party Assessment Organization)
- **Organization-Defined Parameters (ODPs)**
  - ODPs allow organizations to tailor specific security values to meet mission needs.
  - Flexibility for organizations while meeting the intent of the security controls.
- NIST SP 800-172 supplements and enhances NIST SP 800-171 Rev. 2.

Transition to NIST SP 800-171 Rev. 3

- **Rulemaking Process for NIST SP 800-171 Rev. 3**
  - DoD will formally adopt Rev. 3 through future rulemaking.
  - DFARS 7012 Class Deviation: Assessments remain against Rev. 2 until Rev. 3 is officially adopted.
  - A new scoring methodology will be developed.

- **Voluntary Transition to Rev. 3**
  - Organizations can proactively implement Rev. 3.
  - Key Condition: Must still meet Rev. 2 requirements for compliance and assessments.

- **Key Changes in Rev. 3**
  - Added flexibility via ODPs.
  - Increased focus on resilience and advanced threat protections.

Practical Guidance for Transitioning to Rev. 3

- **Preparation Steps:**
  - Review gap analysis between Rev. 2 and Rev. 3.
  - Update SSPs and security controls accordingly.
  - Maintain current compliance with Rev. 2 while aligning systems with Rev. 3.

Key Takeaways

- CMMC Level 2 aligns fully with NIST SP 800-171 Rev. 2.
- Scoring includes partial credit for MFA and FIPS implementation.
- CMMC Level 3 incorporates NIST SP 800-172 and uses ODPs for flexibility.
- Transition to Rev. 3 will occur via rulemaking.
- Continuous compliance with current requirements is critical.

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Questions?

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