

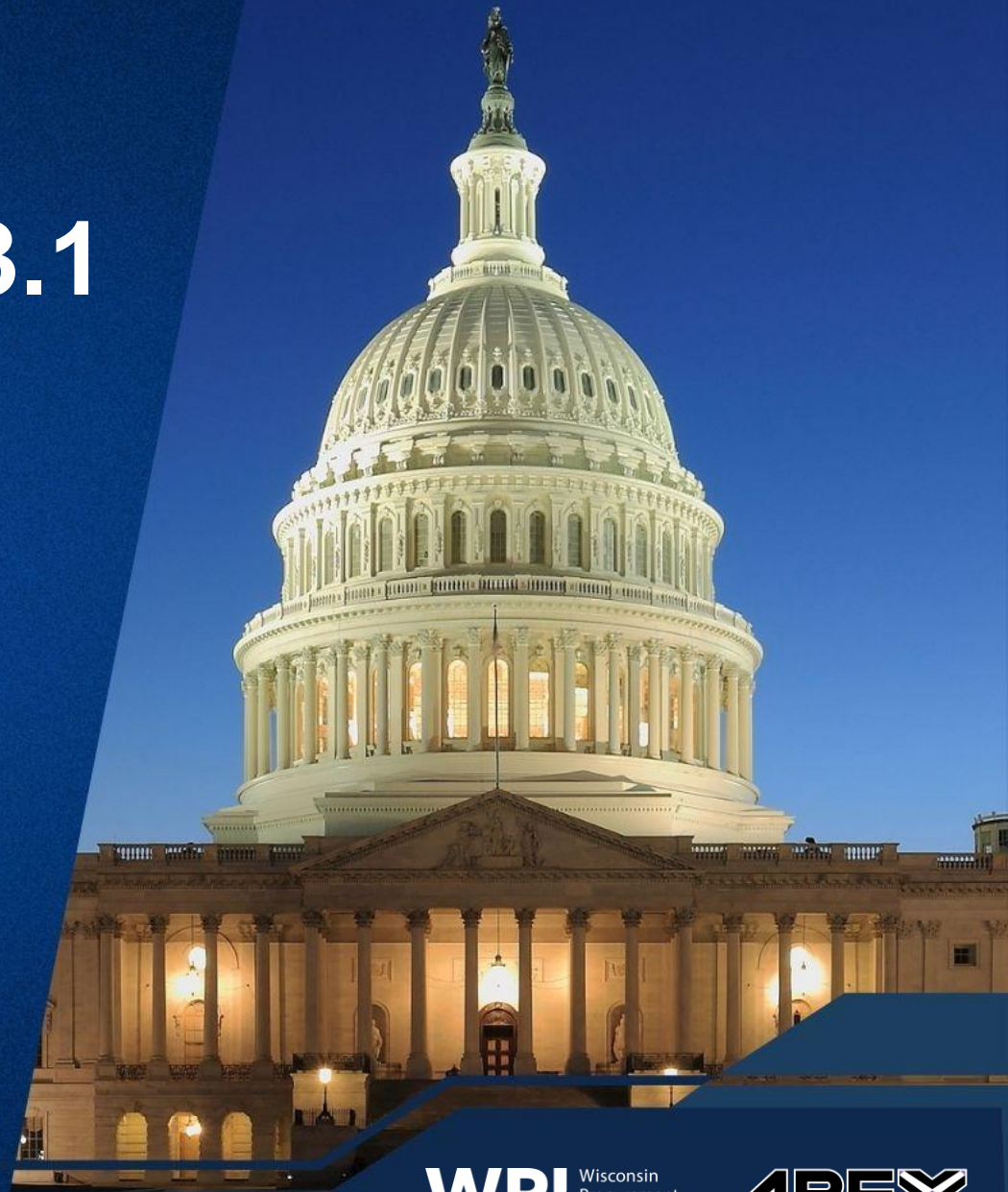
Cyber Thursday:

# CMMC: Control Set Series: 3.1 Access Control

February 26 | 11:00 am - Noon

Presented by:

**Matt Frost, Wisconsin Procurement Institute**





*Assisting Wisconsin businesses compete in the government marketplace.*

## **WPI is Wisconsin's APEX ACCELERATOR**

The APEX Accelerators program, under management of the Department of Defense (DOD) Office of Small Business Programs (OSBP), plays a critical role in the Department's efforts to identify and engage with a wide range of businesses entering and participating in the defense supply-chain. The program provides the education and training that all businesses need to participate to become capable of participating in DOD and other government contracts.

## **WPI provides services and training to all of Wisconsin's 72 counties**

- Individual counseling at our offices, client's facility or virtually
- Small group training – webinars and workshops including Acquisition Hours, Cyber Fridays, Evening FAR sessions, Federal Market Insights and Local Government Sales Opportunities
- Conferences the Governors Marketplace, The Contracting Academy (TCA), WEDCs Small Business Academy, Wisconsin Federal Contractor Forum [DC and in-state], Government Opportunities Business Conference GOBC) with WI military bases, End of Year Federal Contractor Update, Annual DOD Contract Management Update, and more.....

[www.wispro.org](http://www.wispro.org)

# WPI OFFICE LOCATIONS

- **MILWAUKEE**

- *Technology Innovation Center*

- **MADISON**

- *FEED Kitchens*
- *Dane County Latino Chamber of Commerce*
- *Madison Area Technical College (MATC)*

- **CAMP DOUGLAS**

- *Juneau County Economic Development Corporation (JCEDC)*

- **EAU CLAIRE**

- *Western Dairyland*

- **FOND DU LAC**

- *Envision Greater Fond du Lac*

- **GREEN BAY**

- *NWTC Startup Hub*

- **LACROSSE**

- *Veterans in Professions*

- **MANITOWOC**

- *Progress Lakeshore*

- **OSHKOSH**

- *Greater Oshkosh Economic Development Corporation*

- **SUPERIOR**

- *Small Business Dev Center; UW Superior*

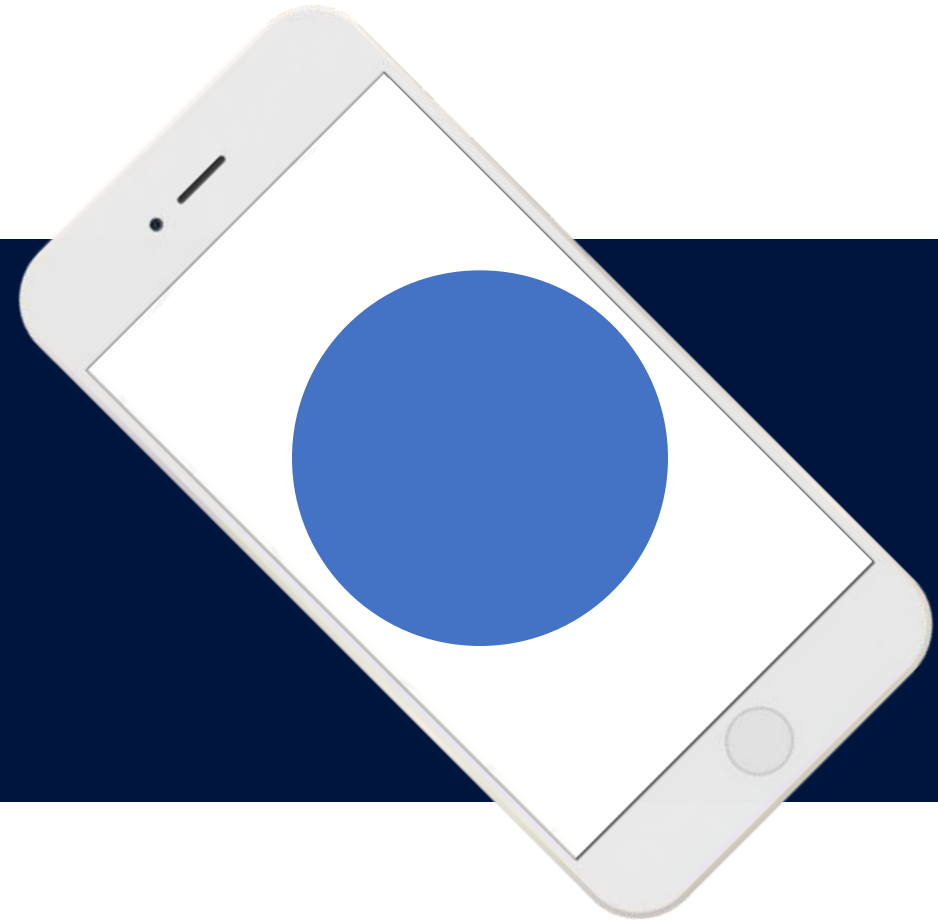






# Access Control

*An APEX Accelerator*



Cyber Thursday – February 26th, 2026



# 14 Families – 110 Controls – 320 Audit Objectives

- **Access Control**

- Awareness and Training
- Audit and Accountability
- Configuration Management
- Identification and Authentication
- Incident Response
- Maintenance
- Media Protection
- Personnel Security
- Physical Protection
- Risk Assessment
- Security Assessment
- System and Communications Protection
- System and Information Integrity



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CMMC ECOSYSTEM ▼

NEWS & EVENTS ▼

MARKETPLACE

CAICO

**[www.cyberab.org](http://www.cyberab.org)**

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# CMMC Assessment Guide

## Level 2

Version 2.0 | December 2021

1

CMMC Assessment Guide (Level 2)

2

NIST Special Publication 800-171A  
Assessing Security Requirements for  
Controlled Unclassified Information

3

DoD Memo  
DoD Guidance for Reviewing System  
Security Plans and the NIST SP 800-  
171 Security Requirements

## AC.L1-3.1.1 – AUTHORIZED ACCESS CONTROL

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Limit information system access to authorized users, processes acting on behalf of authorized users, or devices (including other information systems).

### ASSESSMENT OBJECTIVES [NIST SP 800-171A]

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Determine if:

- [a] authorized users are identified;
- [b] processes acting on behalf of authorized users are identified;
- [c] devices (and other systems) authorized to connect to the system are identified;
- [d] system access is limited to authorized users;
- [e] system access is limited to processes acting on behalf of authorized users; and
- [f] system access is limited to authorized devices (including other systems).

3.1.1	<p><b>SECURITY REQUIREMENT</b></p> <p>Limit system access to authorized users, processes acting on behalf of authorized users, and devices (including other systems).</p>												
	<p><b>ASSESSMENT OBJECTIVE</b></p> <p><i>Determine if:</i></p> <table border="1"> <tr> <td data-bbox="695 395 835 458">3.1.1[a]</td> <td data-bbox="835 395 1979 458"><i>authorized users are identified.</i></td> </tr> <tr> <td data-bbox="695 458 835 521">3.1.1[b]</td> <td data-bbox="835 458 1979 521"><i>processes acting on behalf of authorized users are identified.</i></td> </tr> <tr> <td data-bbox="695 521 835 584">3.1.1[c]</td> <td data-bbox="835 521 1979 584"><i>devices (and other systems) authorized to connect to the system are identified.</i></td> </tr> <tr> <td data-bbox="695 584 835 646">3.1.1[d]</td> <td data-bbox="835 584 1979 646"><i>system access is limited to authorized users.</i></td> </tr> <tr> <td data-bbox="695 646 835 709">3.1.1[e]</td> <td data-bbox="835 646 1979 709"><i>system access is limited to processes acting on behalf of authorized users.</i></td> </tr> <tr> <td data-bbox="695 709 835 758">3.1.1[f]</td> <td data-bbox="835 709 1979 758"><i>system access is limited to authorized devices (including other systems).</i></td> </tr> </table>	3.1.1[a]	<i>authorized users are identified.</i>	3.1.1[b]	<i>processes acting on behalf of authorized users are identified.</i>	3.1.1[c]	<i>devices (and other systems) authorized to connect to the system are identified.</i>	3.1.1[d]	<i>system access is limited to authorized users.</i>	3.1.1[e]	<i>system access is limited to processes acting on behalf of authorized users.</i>	3.1.1[f]	<i>system access is limited to authorized devices (including other systems).</i>
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3.1.1[f]	<i>system access is limited to authorized devices (including other systems).</i>												
	<p><b>POTENTIAL ASSESSMENT METHODS AND OBJECTS</b></p> <p><b>Examine:</b> [SELECT FROM: Access control policy; procedures addressing account management; system security plan; system design documentation; system configuration settings and associated documentation; list of active system accounts and the name of the individual associated with each account; notifications or records of recently transferred, separated, or terminated employees; list of conditions for group and role membership; list of recently disabled system accounts along with the name of the individual associated with each account; access authorization records; account management compliance reviews; system monitoring records; system audit logs and records; list of devices and systems authorized to connect to organizational systems; other relevant documents or records].</p> <p><b>Interview:</b> [SELECT FROM: Personnel with account management responsibilities; system or network administrators; personnel with information security responsibilities].</p> <p><b>Test:</b> [SELECT FROM: Organizational processes for managing system accounts; mechanisms for implementing account management].</p>												

# Let's Look Closer

## ASSESSMENT OBJECTIVES [NIST SP 800-171A]

Determine if:

[a] authorized users are identified;

- Who Are The Authorized Users?
- Where Are They Identified?
- How Are They Authorized?

# Let's Look Closer

**[d] system access is limited to authorized users;**

- What Authorizes Users onto the System?
- How Is Authorization Maintained/Reviewed?
- Can Authorization Be Removed/Granted At Will, By Whom, Process?



## Access Control Policies

- Acceptable Use Policy
- Account Authorization Form
- System Security Plan
- Onboard/Offboard Procedure



## Technical Control/Management

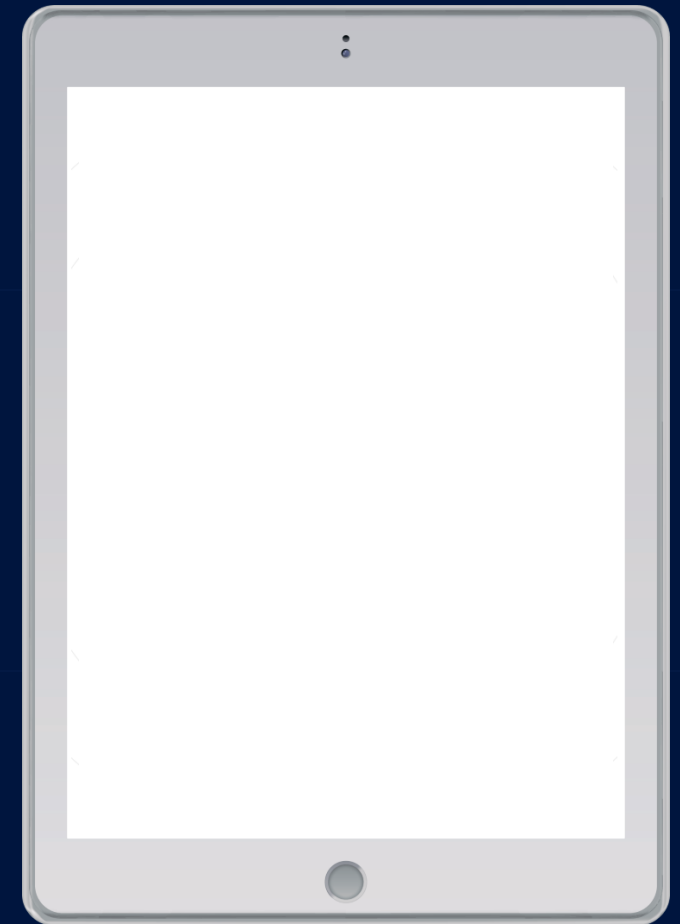
- System Configuration
- Account Records
- Transaction Records



## Record Keeping

- Authorization Records
- Account Management Reviews
- System Audit Logs
- Up to Date Account/Host Lists

# Control Requirements



## 3.1 Controls

Account Authorization	Permissions	Routing & Session Management	Configuration
3.1.1	3.1.4	3.1.3	3.1.8
3.1.2	3.1.5	3.1.11	3.1.9
3.1.15	3.1.6	3.1.12	3.1.10
3.1.16	3.1.7	3.1.13	3.1.17
3.1.18		3.1.14	3.1.19
3.1.22		3.1.20	3.1.21

# Meeting the Controls



## Process/Plan

- States Organization Intentions
- Defines Process
- Provides Path to Authorization



## Implementation

- Shown through technical or non-technical process
- Can be observed
- Owner of this Control is defined



## Enforcement

- Technical Restrictions In Place
- Consequences for Policy Breach Defined



## Review

- Periodically Reviewed
- Review is Recorded
- This Review process is demonstrable
- Changes to process/control are subject to scrutiny

## AC.L1-3.1.1 – AUTHORIZED ACCESS CONTROL

---

Limit information system access to authorized users, processes acting on behalf of authorized users, or devices (including other information systems).

### ASSESSMENT OBJECTIVES [NIST SP 800-171A]

---

Determine if:

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- [c] devices (and other systems) authorized to connect to the system are identified;
- [d] system access is limited to authorized users;
- [e] system access is limited to processes acting on behalf of authorized users; and
- [f] system access is limited to authorized devices (including other systems).

## 3.1.1 – Meeting the Controls

USER ACCOUNT  
AUTHORIZATION  
POLICY

**3.1.1[a] Authorized Users are Identified**

**3.1.1[d] System is limited to authorized users.**

ACTIVE  
DIRECTORY

**3.1.1[a] Authorized Users are Identified**

**3.1.1[b] Processes acting on behalf of authorized Users are identified**

**3.1.1[c] Devices [and other systems] authorized to connect to the system are identified**

**3.1.1[d] System access is limited to processes acting on behalf of authorized users.**

**3.1.1[e] System access is limited to processes acting on behalf of authorized users.**

**3.1.1[f] System access is limited to authorized devices (including other systems).**

HARDWARE/SOFTWARE  
INVENTORY

**3.1.1[c] Devices (and other systems) authorized to connect to system are identified.**

NETWORK DIAGRAM

# Permissions

3.1.4	<b>SECURITY REQUIREMENT</b> Separate the duties of individuals to reduce the risk of malevolent activity without collusion.
	<b>ASSESSMENT OBJECTIVE</b> <i>Determine if:</i>
3.1.4[a]	<i>the duties of individuals requiring separation are defined.</i>
3.1.4[b]	<i>responsibilities for duties that require separation are assigned to separate individuals.</i>
3.1.4[c]	<i>access privileges that enable individuals to exercise the duties that require separation are granted to separate individuals.</i>
	<b>POTENTIAL ASSESSMENT METHODS AND OBJECTS</b> <u>Examine:</u> [SELECT FROM: Access control policy; procedures addressing divisions of responsibility and separation of duties; system security plan; system configuration settings and associated documentation; list of divisions of responsibility and separation of duties; system access authorizations; system audit logs and records; other relevant documents or records]. <u>Interview:</u> [SELECT FROM: Personnel with responsibilities for defining divisions of responsibility and separation of duties; personnel with information security responsibilities; system or network administrators]. <u>Test:</u> [SELECT FROM: Mechanisms implementing separation of duties policy].

## 3.1.4 – Meeting the Controls

ACCESS CONTROL  
POLICY

**3.1.4[a] the duties of individuals requiring separation are defined.**

**3.1.4[c] access privileges that enable individuals to exercise the duties that require separation are granted to separate individuals.**

ACTIVE  
DIRECTORY

**3.1.4[b] responsibilities for duties that require separation are assigned to separate individuals.**

**3.1.4[c] access privileges that enable individuals to exercise the duties that require separation are granted to separate individuals.**

# Routing & Session Management

3.1.3	<b>SECURITY REQUIREMENT</b> Control the flow of CUI in accordance with approved authorizations.
	<b>ASSESSMENT OBJECTIVE</b> <i>Determine if:</i>
3.1.3[a]	<i>information flow control policies are defined.</i>
3.1.3[b]	<i>methods and enforcement mechanisms for controlling the flow of CUI are defined.</i>
3.1.3[c]	<i>designated sources and destinations (e.g., networks, individuals, and devices) for CUI within the system and between interconnected systems are identified.</i>
3.1.3[d]	<i>authorizations for controlling the flow of CUI are defined.</i>
3.1.3[e]	<i>approved authorizations for controlling the flow of CUI are enforced.</i>
	<b>POTENTIAL ASSESSMENT METHODS AND OBJECTS</b> <u>Examine</u> : [SELECT FROM: Access control policy; information flow control policies; procedures addressing information flow enforcement; system security plan; system design documentation; system configuration settings and associated documentation; list of information flow authorizations; system baseline configuration; system audit logs and records; other relevant documents or records]. <u>Interview</u> : [SELECT FROM: System or network administrators; personnel with information security responsibilities; system developers]. <u>Test</u> : [SELECT FROM: Mechanisms implementing information flow enforcement policy].

## 3.1.3 – Meeting the Controls

ACCESS CONTROL  
POLICY

**3.1.3[a] information flow control policies are defined.**

**3.1.3[b] methods and enforcement mechanisms for controlling the flow of CUI are defined.**

**3.1.3[c] designated sources and destinations for CUI within the system and between interconnected systems are identified.**

**3.1.3[d] authorizations for controlling the flow of CUI are defined.**

**3.1.3[e] approved authorizations for controlling the flow of CUI are enforced.**

**3.1.3[b] methods and enforcement mechanisms for controlling the flow of CUI are defined.**

**3.1.3[c] designated sources and destinations for CUI within the system and between interconnected systems are identified.**

NETWORK DIAGRAM /  
BUSINESS PROCESS  
FLOW

# Configuration

3.1.8	<b>SECURITY REQUIREMENT</b> Limit unsuccessful logon attempts.	
	<b>ASSESSMENT OBJECTIVE</b> <i>Determine if:</i>	
	3.1.8[a]	<i>the means of limiting unsuccessful logon attempts is defined.</i>
	3.1.8[b]	<i>the defined means of limiting unsuccessful logon attempts is implemented.</i>
	<b>POTENTIAL ASSESSMENT METHODS AND OBJECTS</b> <u>Examine:</u> [SELECT FROM: Access control policy; procedures addressing unsuccessful logon attempts; system security plan; system design documentation; system configuration settings and associated documentation; system audit logs and records; other relevant documents or records]. <u>Interview:</u> [SELECT FROM: Personnel with information security responsibilities; system developers; system or network administrators]. <u>Test:</u> [SELECT FROM: Mechanisms implementing access control policy for unsuccessful logon attempts].	

## 3.1.8 – Meeting the Controls

ACCESS CONTROL  
POLICY

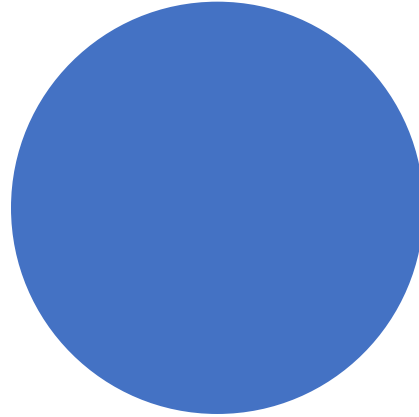
**3.1.8[a] the means of limiting unsuccessful logon attempts is defined.**

ACTIVE DIRECTORY

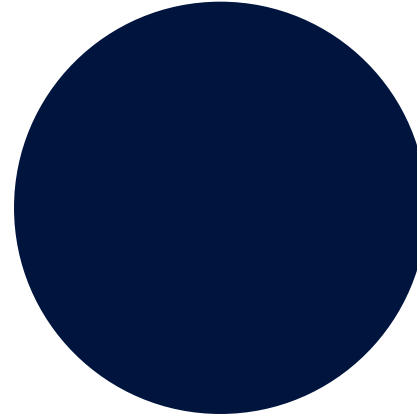
**3.1.8[b] the defined means of limiting unsuccessful logon attempts is implemented.**

# Plan of Action and Milestones

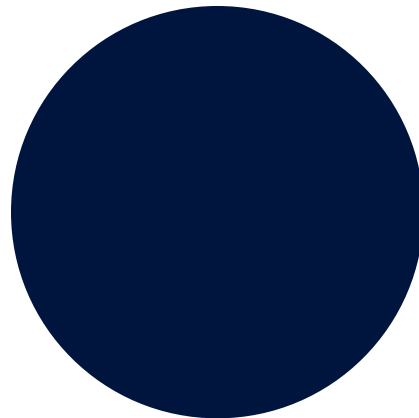
**Control Owners**  
are clearly defined.



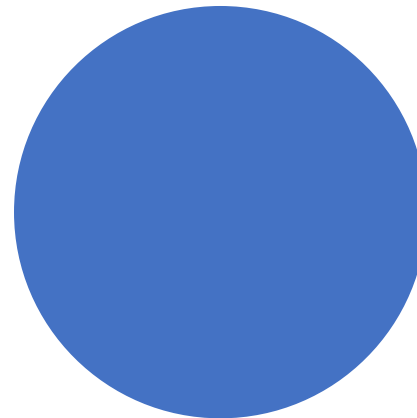
**Technical Control Artifacts**  
are collected, accurate, and  
available.



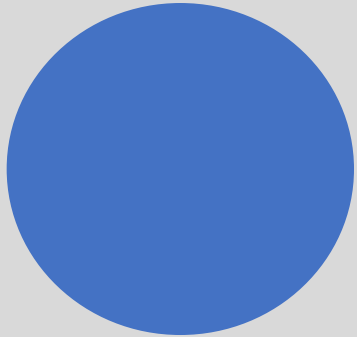
**Processes**  
are documented and  
approved.



**Reviews**  
are periodically conducted,  
tracked, and summarized.



# Artifacts



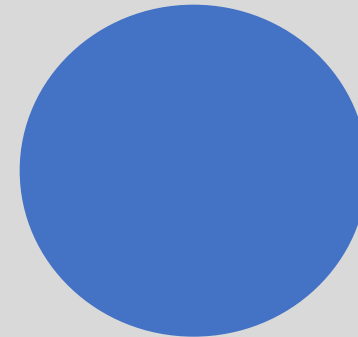
## Scoping Diagram

- ❑ Identifies Scoping Boundaries between CUI Assets, SPAs, CRMAs, Specialized Assets, and Out Of Scope Asssets



## Network Diagram

- ❑ Identifies Interconnectivity Between Hardware and Cloud Resources within Assessment Environment



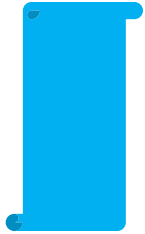
## Inventories (Hardware/Software)

- ❑ Identifies Hardware, Software, and Cloud Assets within Assessment Environment



## Policy Documentation

- ❑ States the Intention of the Architecture, Data Flow, and Restrictions on Usage within the Assessment Environment



## ASSESSMENT OBJECTIVES

Includes a determination statement related to the CUI security requirement that is the subject of the assessment.

Ex. 3.1.3 Control the flow of CUI in accordance with approved authorizations



## ASSESSMENT METHODS

Define the nature and the extent of the assessor's actions. They include **examine**, **interview**, and **test**.

Ex. 3.1.3 Examine architectural solutions to control flow of system data.

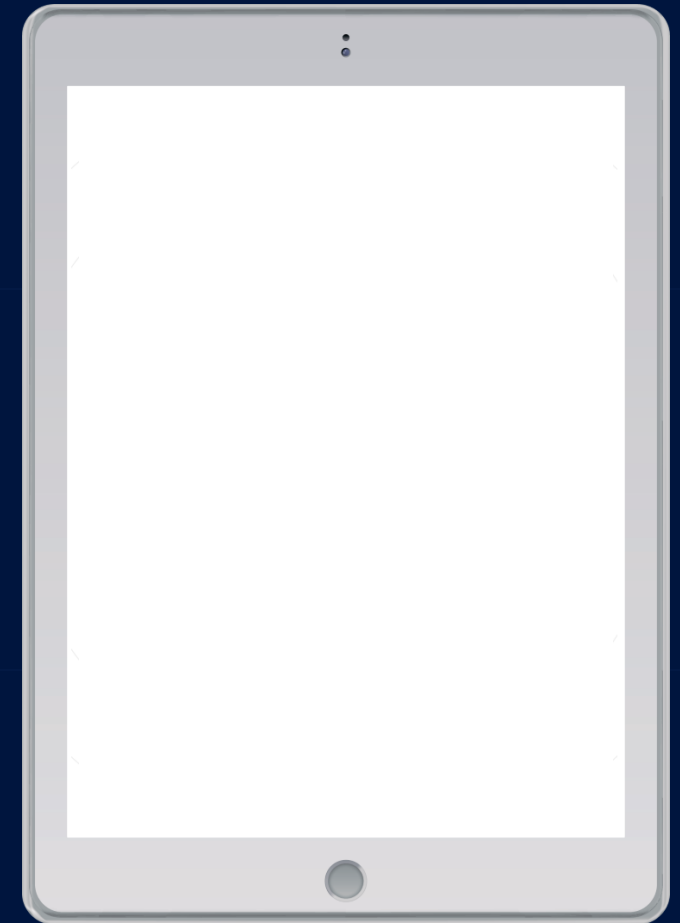


## ASSESSMENT OBJECTS

Identify specific items being assessed and can include specifications, mechanisms, activities, and individuals.

Ex. 3.1.3 Network Diagrams, Business Process Flow Diagrams

# Assessment Process



Assess each of the NIST SP 800-171 controls using the NIST SP 800-171A to ensure all audit points are covered.

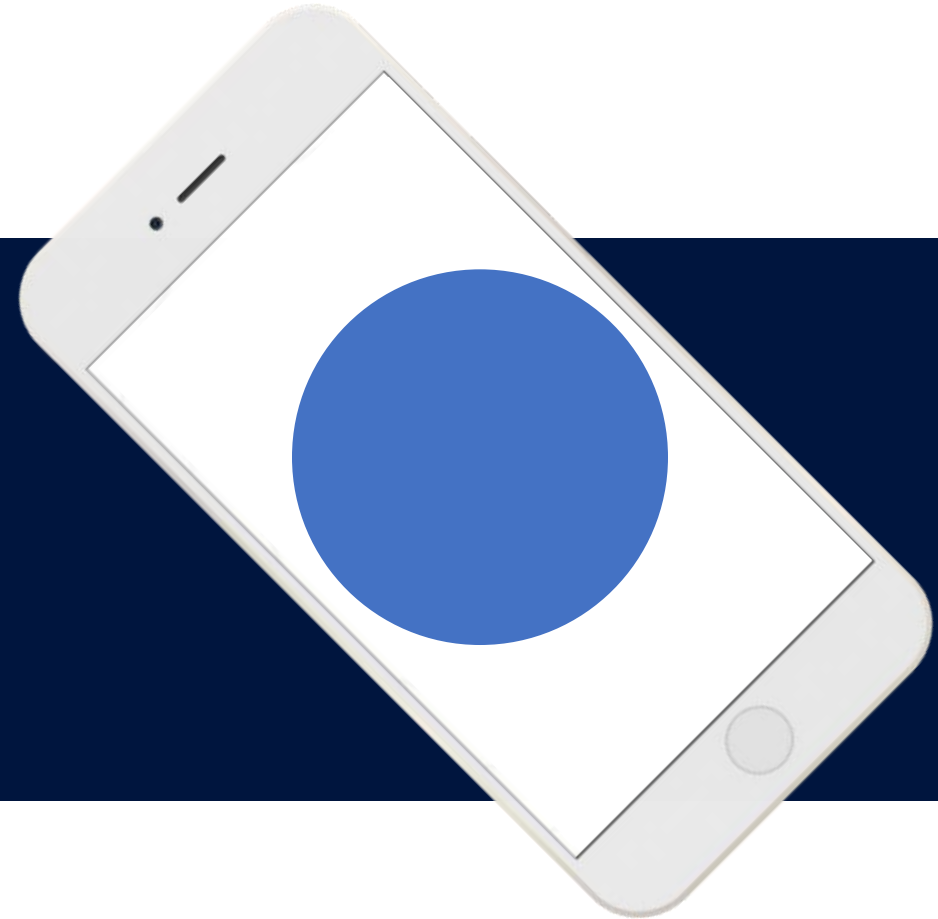


Wisconsin  
Procurement  
Institute

*An APEX Accelerator*

**Matthew Frost**

[mattf@wispro.org](mailto:mattf@wispro.org)



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# Acquisition Hour

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The Acquisition Hour webinar series covers a range of topics from market entry, sales growth, small business certifications, compliance, and more. Attendees receive 1 CPE credit for attending.

- **March 18** – Department of Defense Invoicing – PIEE / Wide Area Workflow
- **March 11** – An Introduction into the Supplier Performance Risk System (SPRS)

**...More information and registrations at [wispro.org/events](https://wispro.org/events)**



# Cyber Thursday

Cyber Friday is a series of one-hour webinars focusing on critical topics for DOD contractors and subcontractors in cyber security, data security, and CMMC. Attendees receive 1 CPE credit for attending.

- **February 26** – CMMC: Control Set Series: 3.1 Access Control
- **March 26** – CMMC: Control Set Series: 3.2 Awareness and Training
- **April 30** – CMMC: Control Set Series: 3.3 Audit and Accountability
- **May 28** – CMMC: Control Set Series: 3.4 Configuration Management

**...More information and registrations at [wispro.org/events](https://wispro.org/events)**

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# Federal Market Insights

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Federal Market Insights [FMI] is an informal podcast designed to provide valuable information about the government marketplace for businesses interested in government contracting.

- **March 17** – Government Property Programs
- **March 10** – Federal Contracts for Real Estate and Leasing Opportunities
- **March 3** – Issues Related to Debarment
- **February 24** – FAR 52.219-8 Utilization of Small Business Concern

**...More information and registrations at [wispro.org/events](https://wispro.org/events)**

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