

# Emerging Issues: Information Security

October 19 | 1:00 - 2:00 pm Presented by: Marc Violante, WPI



# Webinar Etiquette

### PLEASE

- § Log into the GoToWebinar session with the name that you registered with online
- **§** Place your phone or computer on MUTE
- § Use the QUESTIONS option to ask your question(s).
  - **§** We will share the questions with our guest speaker who will respond to the group

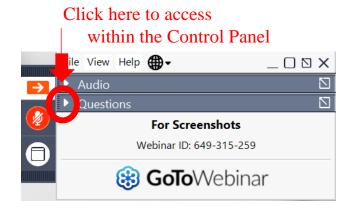
### THANK YOU!



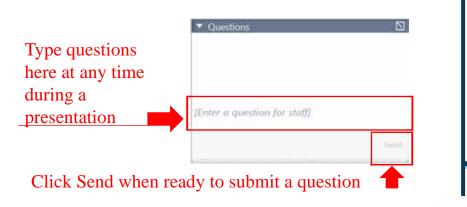




#### **OPENING THE QUESTIONS BOX**



### **USING THE QUESTIONS BOX**











#### WPI is Wisconsin's APEX ACCLERATOR

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 to all of Wisconsin's 72 counties

- Individual counseling at our offices, client's facility or virtually
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§ Technology Innovation Center

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- **§** FEED Kitchens
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- § Wisconsin Manufacturing Extension Partnership (WMEP)
- Madison Area Technical College (MATC)

### § ASHLAND

§ Ashland Area Development Corporation

### **§** CAMP DOUGLAS

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§ Veterans in Professions

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§ Greater Oshkosh Economic Development Corporation

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### **§** RHINELANDER

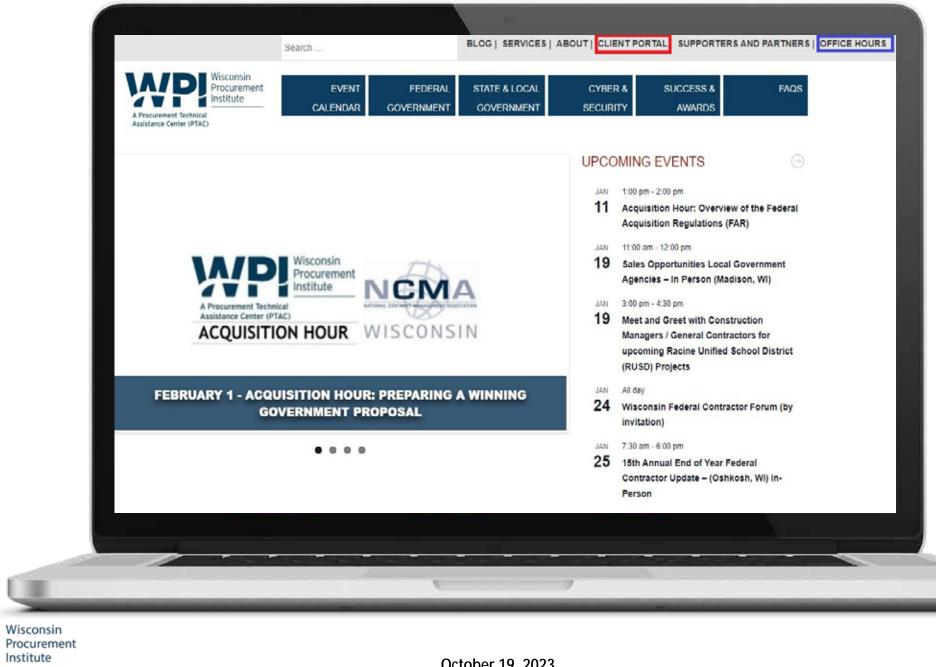
§ Nicolet Area Technical College

### § SUPERIOR

Small Business Dev Center; UW Superior









APEX

# Emerging Issues Information Security

Marc N. Violante

October 19, 2023

Wisconsin Procurement Institute



# What do I want the attendees to learn – think about?

- The multiple dimensions of information flow
- The various types of information
- The handling, security requirements for different information
- The need to mark identify information all
- The need to know who the recipient is and if they are eligible to receive the information both person and company



# The Coffee Shop



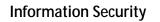
### SUNDAY NEWSPAPER BUSINESS PROPOSAL



10/19/2023

### Basic and Essential Relationship





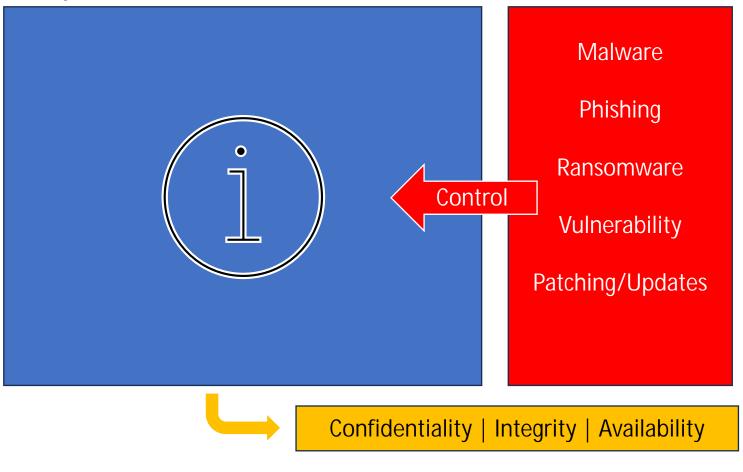
Compliance



# Prevalent Model

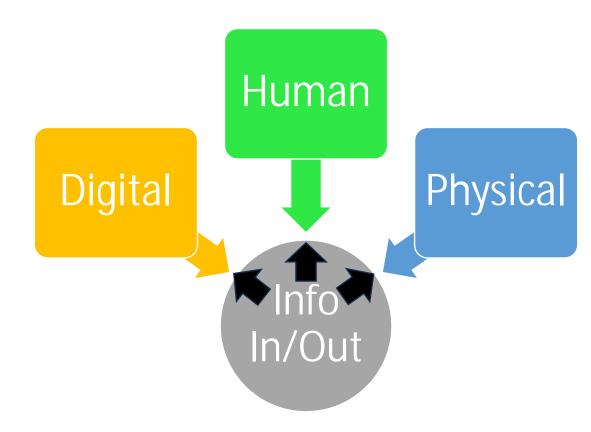
**Computer - Network** 







# Information Flows / Channel



- What pathways are used?
- Who uses?
- How is it protected?
- Where is it stored?
- How is it tracked?
- How is dissemination tracked?
- How is the process audited?
- How is information destroyed?



# Background Questions

- Number of staff assigned to IT security?
- Who is the lead?
- Is the lead formally appointed?
- Does the lead have the background, experience, authority to act?
- What is the company's IT Security budget?
- How are threats identified?
- How are threats communicated to company leadership?
- Are employees provided formal training?
- Are employee training records maintained, with agenda?



# Information Security

• The protection of information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction in order to provide confidentiality, integrity, and availability.

[44 U.S.C., Sec. 3542]



# Confidentiality | Integrity | Availability

- Confidentiality
  - Grandma's secret ingredient is cornflakes.
- Integrity
  - Grandma's recipe calls for 1/8 of a cup
  - After changes Grandma's recipe calls for ½ of a cup
- Availability
  - I need to bake cookies tonight; why can't I access the recipe?



| Security<br>Objectives | FISMA Definition [44 U.S.C., Sec. 3542]  | FIPS 199 Definition  |
|------------------------|--|--|
| Confidentiality        | "Preserving authorized restrictions on information<br>access and disclosure, including means for protecting<br>personal privacy and proprietary information" | A loss of <i>confidentiality</i> is the unauthorized disclosure of information.                                    |
| Integrity              | "Guarding against improper information<br>modification or destruction, and includes ensuring<br>information non-repudiation and authenticity"                | A loss of <i>integrity</i> is the unauthorized modification or destruction of information.                         |
| Availability           | "Ensuring timely and reliable access to and use of information"  | A loss of <i>availability</i> is the disruption<br>of access to or use of information or<br>an information system. |

https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-60v1r1.pdf, page 9



# Security Category v. Impact

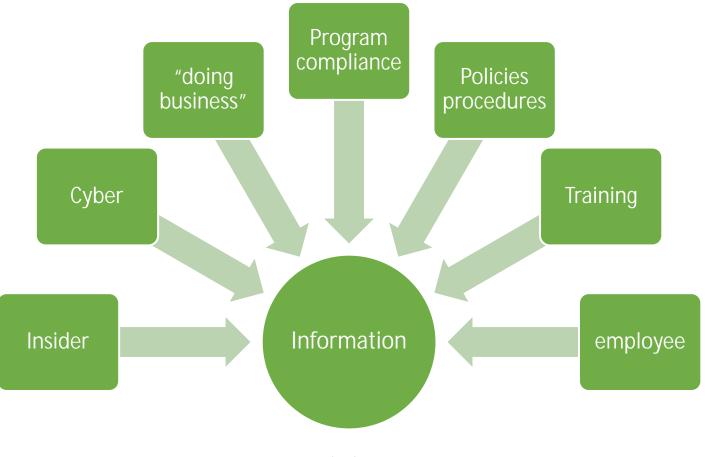
# Security Category information type =

{(confidentiality, impact), (integrity, impact), (availability, impact)}

https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-60v1r1.pdf, page 11



# Threat awareness - examples





# Institutionalized – (passe) but a good concept

Managers have a high level of confidence in the predictability and reliability of practices when they become institutionalized, which improves an organization's maturity. Maturity can lead to an alignment between cybersecurity activities and the organization's business drivers. For example, in mature organizations, managers provide oversight to a particular domain, and evaluate the effectiveness of the security activities the domain comprises.

- Institutionalization is the process of making CMMC practices repeatable and effective against current and future threats practices become a deeper, more lasting part of an organization because they are <u>managed and supported in meaningful ways</u>.
- Institutionalization makes practices more likely to be <u>sustained during times of disruption or stress</u> to the organization.

Cybersecurity Maturity Model Certification | Version 1.02, B.2 Process Maturity, pg B-1



# Use standard/accepted descriptions

# What is a cyber incident? -

• A cyber incident is defined as actions taken through the use of computer networks that result in a compromise or an actual or potentially adverse effect on an information system and/or the information residing therein.

https://dibnet.dod.mil/portal/intranet/Splashpage/ReportCyberIncident



# Security Controls

The management, operational, and technical controls (i.e., safeguards or countermeasures) prescribed for an information system to protect the confidentiality, integrity, and availability of the system and its information.

[FIPS 199]



# Start with the end in mind

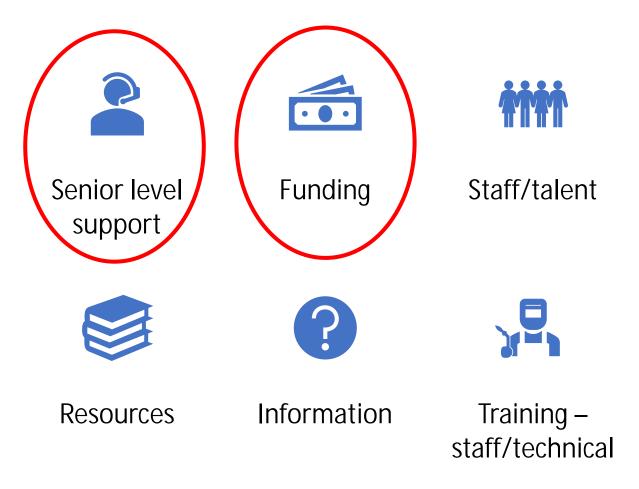
### Pick an approach for success!







# Identify key elements- what is needed?





# Program considerations

| Requirements<br>(combined)         | Defined SCOPE – all,<br>subnet, enclave,<br>single machine | System Security Plan             | Assessment plan,<br>policy, procedures                  |
|------------------------------------|--|----------------------------------|---|
| Assessment results –<br>maintained | Status<br>tracking/monitoring<br>– SPRS                    | Plan of Action and<br>Milestones | Corrective Actions,<br>maintenance,<br>required updates |

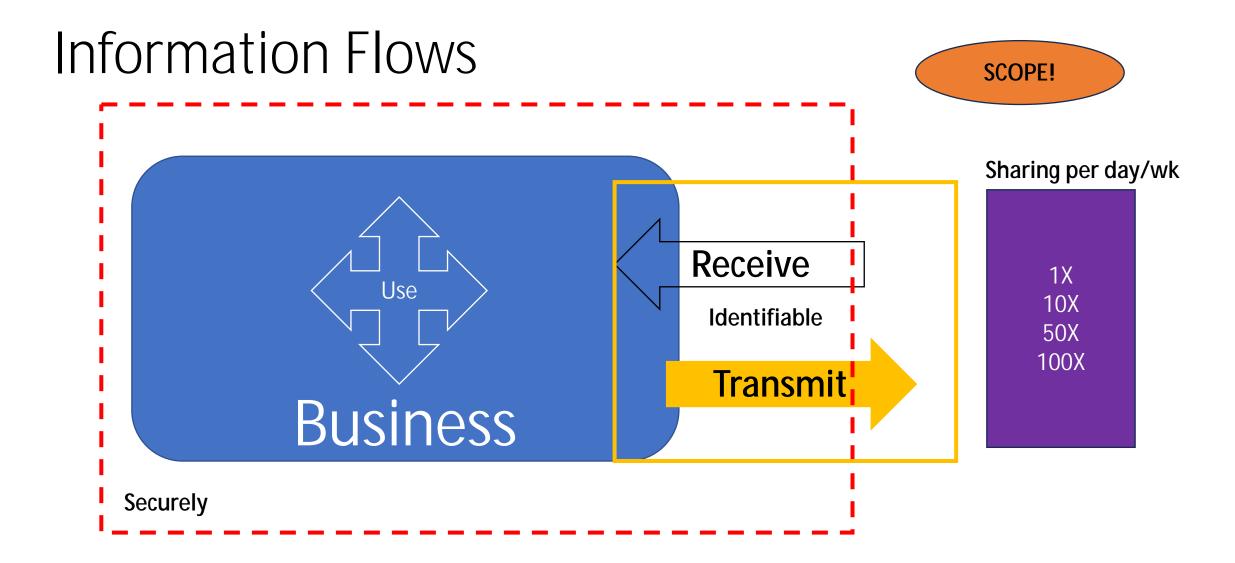


# Information Security – the issue

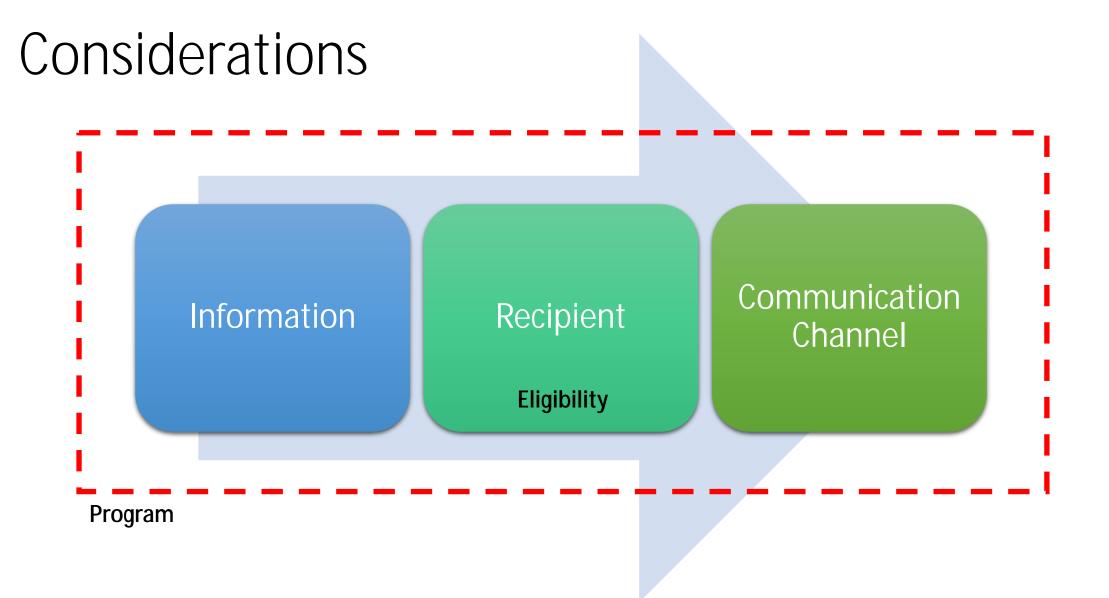
What security controls are needed for these documents?





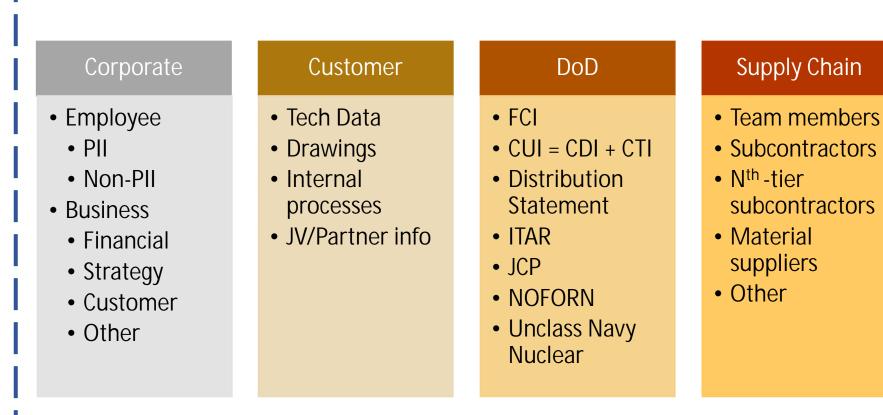








### **General Information Sources**



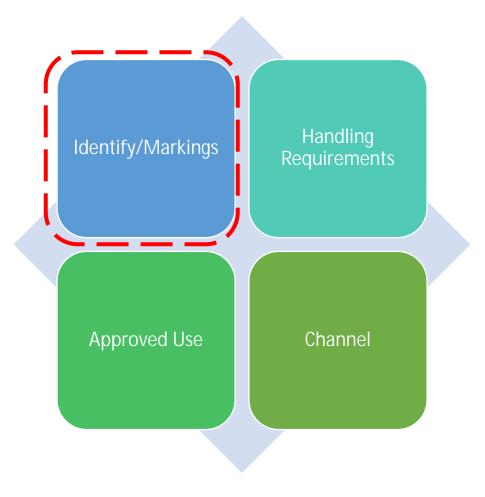
• Subcontractors

subcontractors

Security Perimeter/Programs

 Material suppliers

# Information Handling Considerations





# The Starting Point

# Identify Mark Actions



# Additional Considerations

- What qualifies
- Information life-cycle
- Registrations
- Company policies
- Company POC's
- Markings
- Storage

• Information Sharing Agreement

### • Sharing

- Communication channels
- Retention
- Destruction
- Documentation
- Incident requirements
- Special considerations
- Training requirements

# Information Sharing and System Interconnection Agreements

- As an example
  - DFARS 252.204-7012 + NIST 800-171 r2 & DFARS 252.204-7019 and DFARS 252.204-7020 DD2345 DDTC ITAR -- ...
  - Form the basis of a sharing agreement
  - DoD says, I will share information with you under these circumstances
  - These documents form or should form the basis of sharing agreements between Primes and Subcontractors/Suppliers and other tiers.
  - The sharing agreement should come first, not as an after thought.



# Considerations for Information Sharing

- Company Proprietary Information
- Customer Proprietary Information
  - Commercial Customer
  - Government
- Supply Chain Background, Knowledge
  - What is known? in general, specific
- Supply Chain: Information Sharing Agreement
  - Government generally specifies
  - Supplier agreements & subcontracting agreements should also specify



# Sharing – Key Questions

- What is the information?
- What are the requirements?
- Who is the recipient?
- What is the pathway?
- What procedure will be used? coordination
- Has it been tested? Is there a periodicity?
- Was the test documented?



# Sharing information – the critical question

- Is the recipient eligible to receive the type (category) of information being sent?
  - FCI Federal Contract Information -- Federal
  - CUI Controlled Unclassified Information Federal
    - Is there a lawful governmental purpose?
    - Has the intended recipient met all required requirements? (SSP, POA, SPRS)
  - JCP Joint Certification Program DoD
    - Data Custodian to Data Custodian
  - ITAR International Traffic in Arms Regulation Department of State
    - U.S. Person to U.S. Person without license/other formal authorization
    - Full encryption (FIP 140-2) for email
      - Good overview with key ideas: <a href="https://www.nsa.gov/business/programs/export-control-policy/">https://www.nsa.gov/business/programs/export-control-policy/</a>

\*\* Requirements not inclusive



# DFARS 252.204 -7000

### 204.404-70 Additional contract clauses.

(a) Use the clause at <u>252.204-7000</u>, Disclosure of Information, in solicitations and contracts when the contractor will have access to or generate unclassified information that may be sensitive and inappropriate for release to the public.

(b) Use the clause at 252.204-7003, Control of Government Personnel Work Product, in all solicitations and contracts.

As prescribed in <u>204.404-70</u> (a), use the following clause:

#### DISCLOSURE OF INFORMATION (OCT 2016)

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless—

(1) The Contracting Officer has given prior written approval;

(2) The information is otherwise in the public domain before the date of release; or

(3) The information results from or arises during the performance of a project that involves no covered defense information (as defined in the clause at DFARS <u>252.204-7012</u>) and has been scoped and negotiated by the contracting activity with the contractor and research performer and determined in writing by the contracting officer to be fundamental research

#### Example Response to 252.204-7000 request

From: Jones, Joanna M DLA CIV AVIATION <godia.ml>

#### To:

CC:DCMA Chicago (<u>Patricia.Scott@dcma.mil</u>) <u><Patricia.Scott@dcma.mil></u>, Jones, Joanna M DLA CIV AVIATION <u><joanna.jones@dla.mil></u>, Collier, Kimberley J DLA CIV AVIATION <u><Kimberley.Collier@dla.mil></u>

#### All,

Regarding the subject request, permission is granted to allow your sub to have a copy of the drawings. Rev A, and MIS-20007, Rev AD, are marked with Distribution Statement D; therefore, the contractor must make sure that the holds the proper requirements or clearance to access this level of government drawing. If so, LLC may provide the drawings to them. Thank you!

Joanna Jones DLA Missiles Contracting Officer

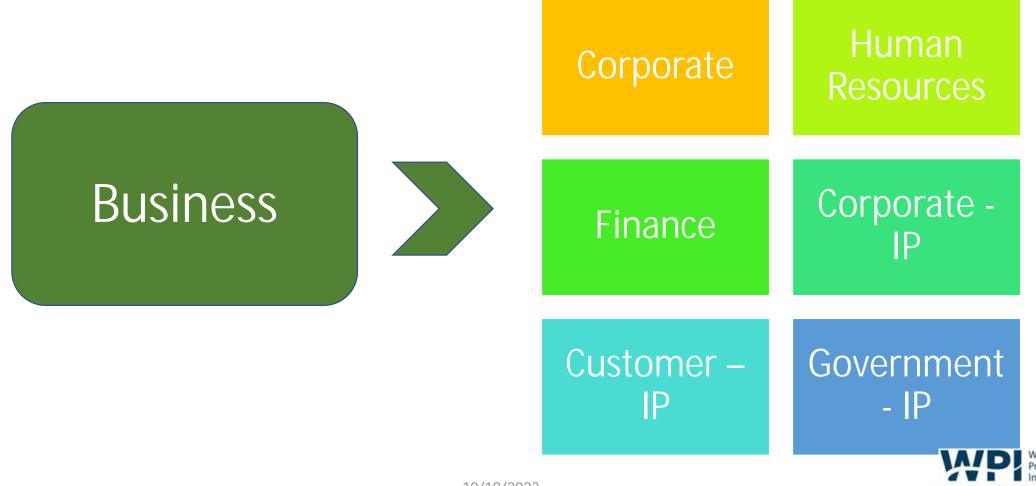


#### Why speaking in code may be detrimental

- We speak in code use acronyms
  - FAR
  - DFARS
  - Cyber
  - 7012 (252.204-7012)
  - NIST
  - The list goes on and on ...



#### Business – the term v. reality



10/19/2023

#### Clause Analysis – re:impact of using Codes

- Federal Contract Information (52.204-21)
- 15 requirements (only 15 easy peasy -
- Includes the following two definitions
- information means any communication or representation of knowledge such as facts, data, or opinions, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual (Committee on National Security Systems Instruction (CNSSI) 4009).
- Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information (<u>44 U.S.C. 3502</u>).



#### FAR 52.204-21 para (xii)

- (xii) Identify, report, and correct *information* and *information system* flaws in a timely manner.
  - Appears to be straight-forward
  - Is it?



#### 52.204-21 (xii) - analysis

- Identify, report, and correct *information* and *information system* flaws in a timely manner.
  - 1. Identify information flaws in a timely manner
  - 2. Report information flaws in a timely manner
  - 3. Correct information flaws in a timely manner
  - 4. Identify information system flaws in a timely manner
  - 5. Report information system flaws in a timely manner
  - 6. Correct information system flaws in a timely manner

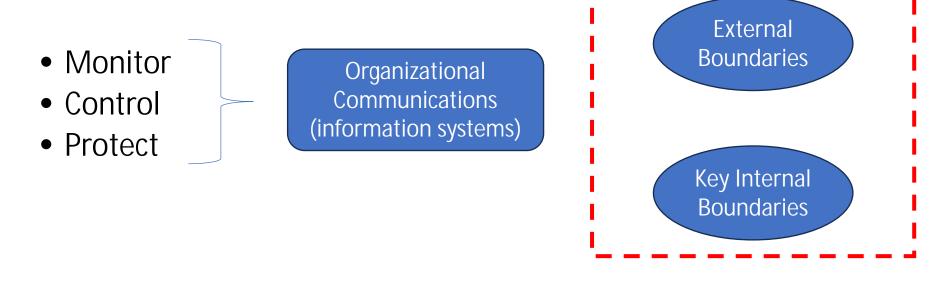
Information

Information system



#### Additionally -- 52.204-21 Para (x)

Monitor, control, and protect organizational communications (*i.e.*, *information* transmitted or received by organizational *information systems*) at the external boundaries and key internal boundaries of the *information systems*.





### Looking beyond code (re: speaking in code)

- 252.204-7012 paragraph (I)
- Other safeguarding or reporting requirements. The safeguarding and cyber incident reporting required by this clause in no way abrogates the Contractor's responsibility for other safeguarding or cyber incident reporting pertaining to its unclassified information systems as required by other applicable clauses of this contract, or as a result of other applicable U.S. Government statutory or regulatory requirements.
- 252.204-7012 is synonymous with CUI but paragraph (I) pertaining to its unclassified information systems is not dependent upon CUI!



#### Federal Contract Information

- FAR 52.204-21 Basic Safeguarding of Covered Contractor Information Systems.
- *Federal contract information* means information, not intended for public release, that is provided by or generated for the Government under a contract to develop or deliver a product or service to the Government, but not including information provided by the Government to the public (such as on public websites) or simple transactional information, such as necessary to process payments.
- Information means any communication or representation of knowledge such as facts, data, or opinions, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual (Committee on National Security Systems Instruction (CNSSI) 4009).



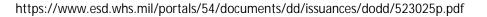
#### Federal Contract Information

- FAR 52.204-21 Basic Safeguarding of Covered Contractor Information Systems.
- A closer look -
- Federal contract information means
  - information, not intended for public release, that is
    - provided by or
    - generated for the Government
  - under a contract to
    - develop or
    - deliver
      - a product or
        - service to
  - the Government,



#### Further dissemination of JCP Technical Data

 NOTE: JCP CERTIFIED CONTRACTORS WHO RECEIVE TECHNICAL DATA PURSUANT TO THEIR DD FORM 2345 CERTIFICATION MAY NOT FURTHER DISSEMINATE SUCH DATA UNLESS FURTHER DISSEMINATION OF THE TECHNICAL DATA IS EXPRESSLY PERMITTEDBY DODD 5230.25 paragraph 5.8





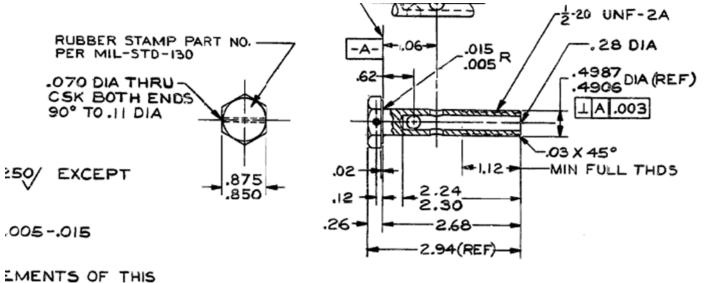
#### Distribution Statements – as an example

- A. Approved for public release.
- B. U.S. Government agencies only
- C. U.S. Government agencies and their contractors
- D. Department of Defense and U.S. DoD contractors only
- E. DoD Components only
- F. Further dissemination only as directed by controlling office

DoDI 5230.24, August 23, 2012 Change 3, 10/15/2018



#### Distribution Statement A - example



SQAPS) ARE

DISTRIBUTION STATEMENT A: "APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS UNLIMITED."



10/19/2023

Attachment to client email

#### **Distribution Statement B**

- Administrative or Operational Use
- Contractor Performance Evaluation
- Critical Technology
- Export Controlled
- Foreign Government Information
- Operations Security
- Premature Dissemination

DoDI 5230.24, August 23, 2012 Change 3, 10/15/2018; Table 1 Reasons to Assign Distribution Statement B





- (a) Technical data is released through:
- (1) <u>Visual or other inspection</u> by foreign persons of a defense article that <u>reveals technical data</u> to a foreign person; or
- (2) <u>Oral or written exchanges</u> with foreign persons of technical data in the United States or abroad.
- (b) [Reserved]

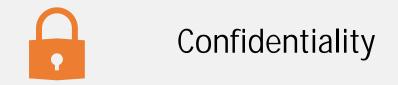
May be part of ITAR but may also be a cautionary idea.

 $22\ CFR\ \$120.50\ https://www.ecfr.gov/cgi-bin/text-idx?SID=86008bdffd1fb2e79cc5df41a180750a\&node=22:1.0.1.13.57\&rgn=div5\#se22.1.120\_150$ 





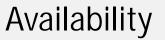
# Information Security -considerations





Integrity







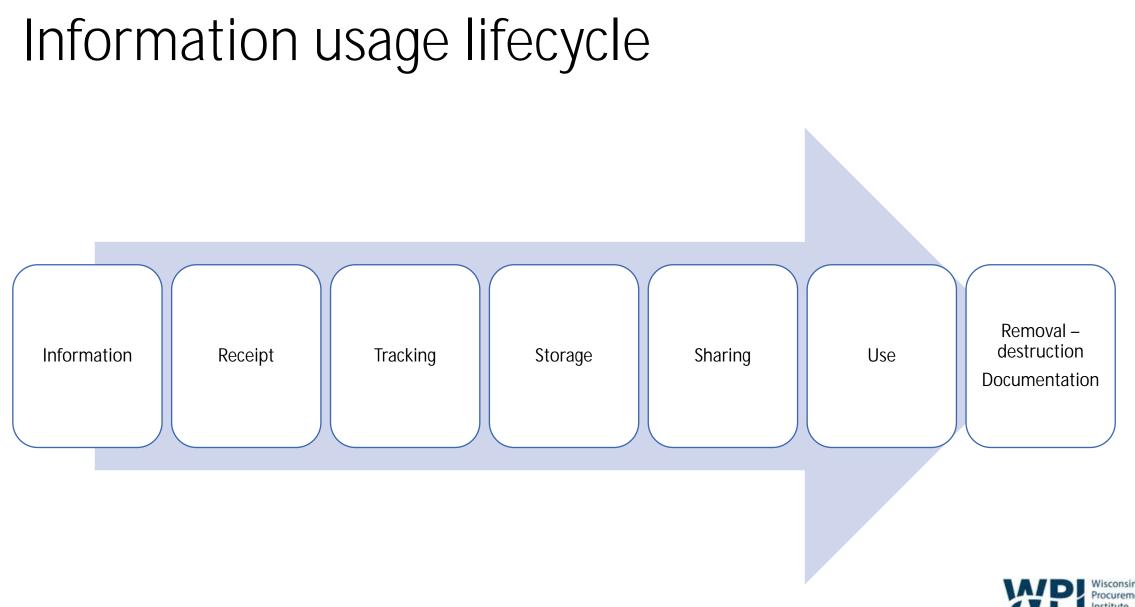
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#### Information Management (digital & physical)

- There are requirements regulations
- These apply to different categories of information







#### Information Pathways – the importance

- Human
- Physical
- Digital
- Human/Physical
- Human/Digital



### Information Flows (Pathways)

- Digital email/FTP/other
- In person
  - Meeting
    - Discussion
    - RFP review
    - Drawing review/sharing
  - Shop visit
  - Conference
  - Webinar
- Physical
  - Model / Mock-up / Machined Item
  - USPS



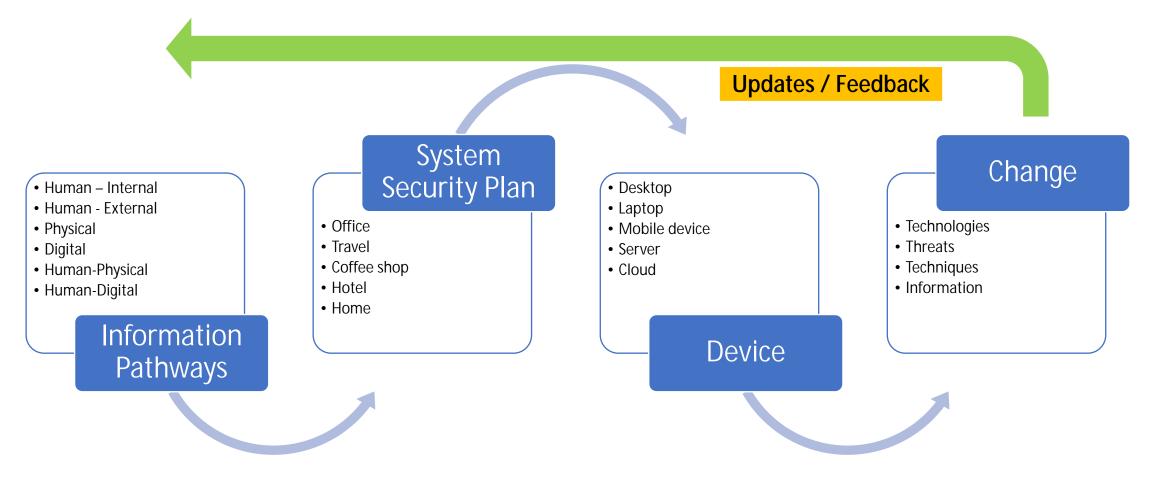
#### Mock-ups / Scrap / Models / etc

#### § 120.31 Defense article.

- (a) **Defense article** means any item or technical data designated in § 121.1 of this subchapter and includes:
  - (1) Technical data recorded or stored in any physical form, models, mockups or other items that reveal technical data directly relating to items designated in § 121.1 of this subchapter; and
  - (2) Forgings, castings, and other unfinished products, such as extrusions and machined bodies, that have reached a stage in manufacturing where they are clearly identifiable by mechanical properties, material composition, geometry, or function as defense articles.
- (b) It does not include basic marketing information on function or purpose or general system descriptions.
- (c) The policy described in § 120.3 is applicable to designations of additional items.

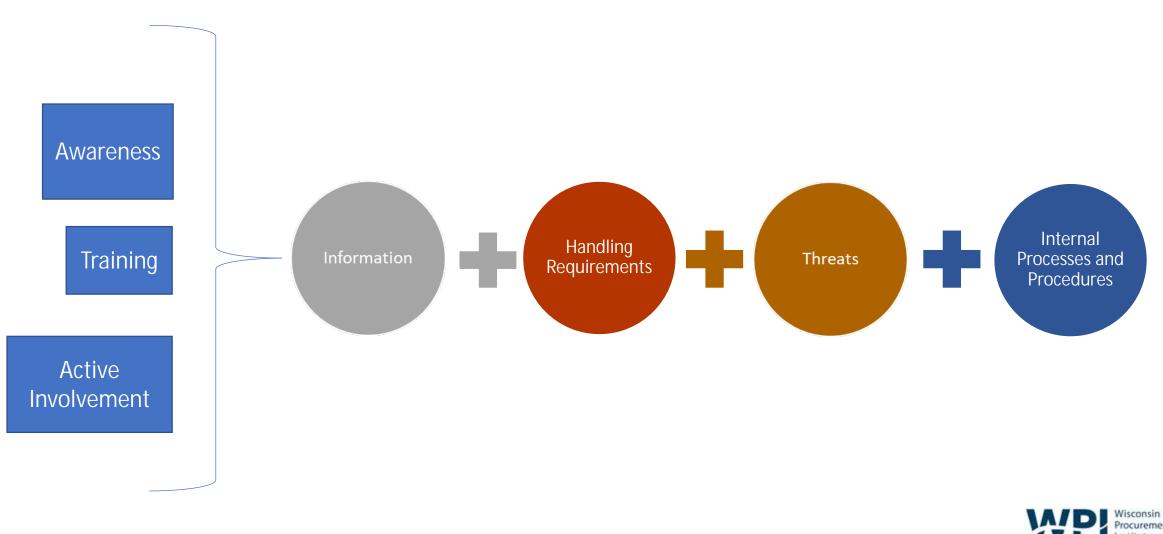


### Dynamic/Evolving Environment





#### Awareness = mindset



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#### Reportable incidents

- Have you defined what is and is not a reportable incident for each type of information held, processed and/or transmitted?
- Are there policies/procedures in place?
- Who is responsible for determining when a reportable incident has occurred?
- Is there a checklist?
- Are the necessary resources for forensic evidence collection available?
- Has the company created formatted reports?



#### Incidents is there a plan – a process/procedure?

- What happened?
- When did it happen?
- How (why) did it happen?
- How was the incident identified?
- How long did it take to identify?
- Was the causative factor known, being watched or unknown?
- Has the access pathway been remediated?
- Is the remediation permanent or stop-gap?
- Is the remediation being monitored?



#### Protection Schemes - Requirements

Driven by the owner's requirements

Driven by the type of (category of) information

There are some generally accepted principles

There is no single set of actions that apply to all types of information



#### Handling concepts

- Responsible party
- Centralized
- Inventory
- Marked

5

7

- Managed
- Sharing log, serialized
- Copy creation log, serialized
- Destruction appropriate method, documentation, which documents
  - Witness,



### Sharing





### Information - lifecycle

- Creation Contract documents Supplier Sub K
- Mark (ID) per company policies/procedures
- Inventory record creation and management
- Storage physical/digital security requirements
- Use access controls (authorization, use management)
- Contract file appropriate annotations
- Sharing requirements, DFARS 252.204-7000, per owner
- Destruction appropriate method
- Inventory update; removal



### Information Flows

- US Mail
- Hand carried
- Conference, outreach, meetings ...
- Derivative
- Aggregation
- Digital
- Staff
- Suppliers/Subcontractor



### Items to review, watch for

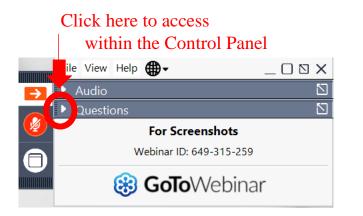
- Cyber attacks / Ransomware / Malware
- DFARS 252.204-7012 → CMMC
- DOJ efforts → Civil Cyber-Fraud initiative
- 52.204-21  $\rightarrow$  New unifying FAR Cyber Clause
- SEC reporting requirements Johnson Controls & Simpson
- CISA reporting requirements
- Pending Executive Order
- Joint NSA / CISA Advisory



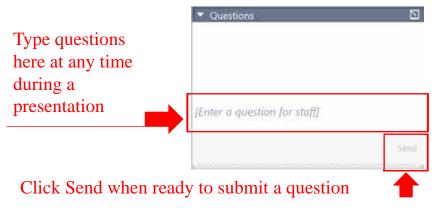
## **QUESTIONS?**



#### **OPENING THE QUESTIONS BOX**



#### **USING THE QUESTIONS BOX**





October 19, 2023

### **UPCOMING TRAINING - EVENTS**





October 19, 2023

#### **ACQUISITION HOUR LIVE WEBINAR SERIES**

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- November 15
  Preparing a Winning Government Proposal
- December 12 The HUBZone Program – Certification Benefits and Regulations
- December 13 Analyzing and Responding to Federal Construction Solicitations

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  Federal Certifications
- October 26
  Local Certifications
- November 30
  State Certifications



#### MATC Goodman-South Campus 2429 Perry Street, Madison, WI 53713

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### **CYBER FRIDAY LIVE WEBINAR SERIES**

- October 27 NIST SP 800.171 – 3.9 Personnel Security and 3.10 Physical Protection
- November 3 NIST SP 800.171 – 3.11 Risk Assessment and 3.12 Security Assessment
- November 9 (Thursday) NIST SP 800.171 – 3.13 System and Communications Protection and 3.14 System and Information Integrity





#### Registration Now Open



Developing and Growing Government Contractors



# December 5-7, 2023

MarketplaceWisconsin.com

October 19, 2023







October 19, 2023



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#### **PRESENTED BY**

Wisconsin Procurement Institute (WPI)

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> 10437 Innovation Drive Suite 320 Milwaukee WI 53226



