

Institutional Experiences with CMMC February 26, 2021

Moderator: Robert Hardy, Director,
Research Security & Intellectual Property
Management

Panelists:

Michael Corn, Chief Information Security
Officer, UC San Diego

Carolyn Ellis, Regulated Research Program
Manager, Purdue University

Von Welch, AVP for Information Security,
Indiana University

Jarret Cummings, Senior Advisor, Policy
and Government Relations, Educause

DOD 9/29/20
Interim Rule
*Assessing
Contractor
Implementation
of Cybersecurity
Requirements*

- All DOD contractors must obtain at least a Level 1 CMMC certification
- Level 1 is compliance with FAR Basic Safeguarding Requirements
- Rule states that contractors must implement FAR requirements immediately (if they've not already done so)
- FAR requirements apply to *Federal Contract Information* (FCI)

DOD 9/29/20
Interim Rule
*Assessing
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Requirements*

- FCI defined as information not intended for public release
- CMMC requirements based on NIST Security Requirements for CUI
- DFARS 204.7501 states that DOD contractors must achieve a CMMC certification and contracts cannot be awarded without a current one
- New DFARS 7021 clause implements the requirement for contracts and subcontracts

CMMC and Fundamental Research

- NIST requirements implemented through DFARS 7012 clause that applies to safeguarding of covered defense information (CDI)
- Fundamental research by definition cannot involve CDI (CUI), so 7012 clause is self-cancelling
- CMMC framework established by interim rule does not fit fundamental research

CMMC and Fundamental Research

- Associations have asked for fundamental research recognition
- One possibility: modify DFARS 7021 clause (and 7501) to incorporate DFARS Clause 252.204-7000(a)(3) fundamental research determination process

UC San Diego

UC SAN DIEGO: UC'S CENTER OF EXCELLENCE FOR CMMC

Regulated Data and Maintaining a Research Portfolio

Michael Corn (mcorn@ucsd.edu)

Chief Information Security Officer, UC San Diego

COGR Winter Meeting, Feb 26th 2021

RESEARCH AT UC SAN DIEGO

- \$1.4 billion (2020)
- NIH (> \$700 million)
 - NSF
 - **DoD**
 - Energy
 - Nasa
 - ...

UCSD DoD Contracts by VC Area*	Number of Contracts		Award Obligated Total Cost	
Non-SIO		58%		
Academic Affairs	145	41%	\$124,449,184	33%
Health	60	17%	\$64,706,992	17%
Marine Sciences (SIO)	150	42%	\$193,027,915	51%
	355	100%	\$382,184,092	100%

* 3/2020 data

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The Challenge is not CMMC
it's research cyber
infrastructure

or
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CMMC IS MEDICAL PRACTICE FOR RESEARCH



Actions

- Medications
- Healthy Living



Management

- Office Visits
- Tests



Review

- Medical Record
- Regulatory Review



Actions

- Technical Controls
- Planning



Management

- Change Management
- Evidence Collections



Review

- Internal Assessments
- External Assessments

ADDRESSING CUI AND CMMC AT UC SAN DIEGO

Building a culture for research and highly regulated data

BUILDING A CENTER OF EXCELLENCE

- Leverage existing San Diego Super Computer's security and infrastructure strengths and investments
- Provide a competitive advantage for UCSD's Researchers by offering speedy transition into CMMC certified environments
- Consulting, Engineering, Support, and Training to UCSD and Higher Education nationally
- Bring continuous monitoring and assurance to UCSD's CMMC portfolio
- Solution brokering: Supplementing local solutions with external partners
- Drive to a self-supporting model
 - At cost services for UCSD and UC researchers
 - Market priced services for non-UC campuses and researchers



Leadership



Best Practices



Services



Support



Training

WHAT ARE WE DOING NOW?

- Policy on Regulated Research Data in review
- Completed CUI self-assessments per DoD mandate
 - Deficiencies will be addressed by moving CUI projects into CMMC enclaves.
 - With uncertain CMMC timelines, focusing on CUI and with it, likely CMMC candidates
- Building two enclaves
 - Sherlock (entirely cloud based)
 - Research Enclave
 - Inherits where possible from Sherlock
 - Includes lab environments not cloud capable
- Start up funded with loan from campus
- Based on modeling the pace of historical DoD awards
- Recharge model underdevelopment for campus review
 - Three types of costs:
 - Startup
 - Maintenance
 - Usage
- Costs ARE allowable
- Also looking at potential growth in funding & ICR as funding source

LONG TERM

- CMMC Level 1 as the new baseline
- Parallel program to require all researchers to self-certify to a CMMC L1 aligned baseline: <https://assure.ucsd.edu>
 - Require self-certification for proposal processing
- Research IT as a shared responsibility model
 - Examine unit IT capabilities
 - Local unit provides last mile support for CMMC
 - Establishing workshops / retreats for faculty
 - Partnership with Campus Research Facilitators: <https://research-it.ucsd.edu>

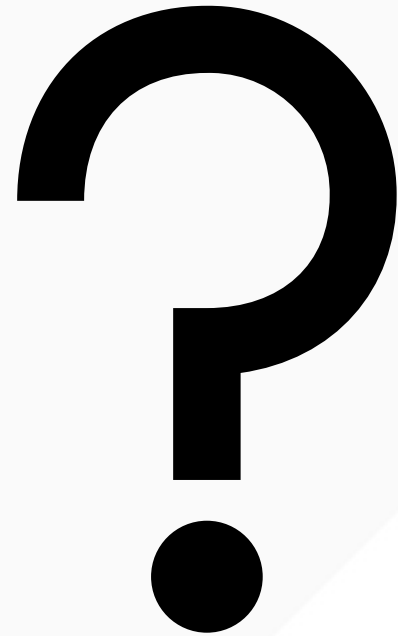


QUESTIONS?

Michael Corn

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- assure.ucsd.edu
- research-it.ucsd.edu
- sherlock.sdsc.edu



Regulated Research

Purdue University's Local & National Impact

Carolyn Ellis

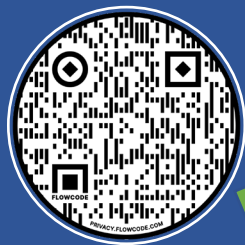
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COGR Winter Meeting, Feb 26th 2021



COMMUNITY DEVELOPMENT



Online Community

Scan this QR Code to Join!



Administrative CUI Framework Support

- Single process for intake, contracting, and facilitating easy mapping to CI resource



Regulated Research Workshop Series

- Institutions exploring commonalities among our challenges and efforts



Regulated Research Community of Practice

- Central resources and knowledge share for all impacted roles

FOUNDATIONAL

TODAY

PLANNING

- Scoping & Inventory
- Gap Assessment
- Self Assessment
- Templates

- Strengthening Governance
- Evaluating Impact
- Addressing Business & Technical Gaps
- Internal Marketing & Awareness

- Mock Audit
- Spin-Off Projects
- Policy, Guides, & Standards
- Full System Cost Model





OFFICE OF THE VICE PRESIDENT FOR INFORMATION
TECHNOLOGY

CUI/CMMC @ IU

Von Welch
Associate Vice President, Information Security

COGR Winter Meeting, Feb 26, 2021



Outline

- Indiana University
- History of regulatory compliance & research @ IU
- CUI Plan
- CMMC



Indiana University

- 2 core, 7 regional campuses
- Central IT + highly distributed departmental IT
- 100,000+ students from 164 countries, 45,000 employees
- Teaching hospital run by IU Health (external healthcare system)



It's a city, not a corporation!

- Serves a wide range of constituents (including the public) that have diverse needs and demand autonomy
- Acts as home (literally) to many, who expect to use their home appliances, personal devices, gaming systems, etc.

History

- Central research systems aligned with HIPAA (2009)
- Needed to do security once, compliance often
 - HIPAA, FISMA, DFARS/CUI, future
- Migrated to a cybersecurity standard (NIST) (2014)



Where we are today

- NIST Risk Management Framework (800-37)
- Tailored controls from NIST SP 800-53 catalog
- Massive documentation, annual reviews, training...
- DOD grants and contracts: ~100 and growing. No CUI yet.

Current activities

- Aligning our collaborative security operations center, OmniSOC, with NIST 800-53
- Trusted CI Framework: Cybersecurity for NSF / science w/o compliance - www.trustedci.org/framework



Current activities

- REN-ISAC engaged with CMMC Accreditation Body (CMMC-AB) as a higher ed representative
- REN-ISAC conducting NIST 800-171 peer assessments

Our CUI Plan

- NIST 800-171 is derived from 800-53
- Systems currently aligned with 800-53 can be used for CUI projects
- Will need new system security plans specific to 800-171 (to accommodate, e.g., control number differences)

Our CMMC Plan

- Not intending to spend \$ right away
- Pieces in place to satisfy L1, making plans for L3
- L3 on-prem seems difficult because infrastructure would also be in scope (as per DoD) - would require separate IAM, DNS, networking...



Our CMMC Plan

- Wait and learn how assessors (C3PAOs) end up interpreting compliance
- Take training once it is in place
- Plans will change if relevant research increases rapidly



Questions?

Von Welch

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Q & A

Next Session: Committee Reports @ 2 pm EST

Visit us at www.cogr.edu

Thank You