

National Cybersecurity Center of Excellence (NCCoE) Energy Sector

Energy Provider Community of Interest

28 February 2017

Agenda

- NCCoE Energy Sector Planned Activities
- Overview of NCCoE for New Members
- Status of Energy Sector (and related) Projects
- EPC Open Discussion / Comments / Questions

- ICRMC – Toronto, ON 03/02/17- 03/03/17
(International Cyber Risk Management Conference)
- OSISoft Annual User Conference, 03/20/17 - 03/23/17
San Francisco, CA
- American Council for Technology (ACT) and Industry Advisory
Council (IAC), Cybersecurity Community of Interest Monthly Meeting
04/28/2017



VISION

ADVANCE CYBERSECURITY

A secure cyber infrastructure that inspires technological innovation and fosters economic growth

MISSION

ACCELERATE ADOPTION OF SECURE TECHNOLOGIES

Collaborate with innovators to provide real-world, standards-based cybersecurity capabilities that address business needs



GOAL 1

PROVIDE PRACTICAL CYBERSECURITY

Help people secure their data and digital infrastructure by equipping them with practical ways to implement standards-based cybersecurity solutions that are modular, repeatable and scalable

GOAL 2

INCREASE RATE OF ADOPTION

Enable companies to rapidly deploy commercially available cybersecurity technologies by reducing technological, educational and economic barriers to adoption

GOAL 3

ACCELERATE INNOVATION

Empower innovators to creatively address businesses' most pressing cybersecurity challenges in a state-of-the-art, collaborative environment

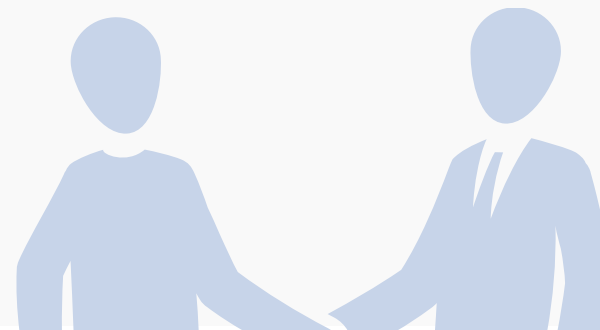


NIST ITL





The NCCoE is part of the NIST Information Technology Laboratory and operates in close collaboration with the Computer Security Division. As a part of the NIST family, the center has access to a foundation of prodigious expertise, resources, relationships and experience.





PARTNERSHIPS





Established in 2012 through a partnership between NIST, the State of Maryland and Montgomery County, the NCCoE meets businesses' most pressing cybersecurity needs with reference designs that can be deployed rapidly.



NIST CYBERSECURITY THOUGHT LEADERSHIP

-  Cryptography
-  Identity management
-  Key management
-  Risk management

-  Secure virtualization
-  Software assurance
-  Security automation
-  Security for cloud and mobility

-  Hardware roots of trust
-  Vulnerability management
-  Secure networking
-  Usability and security



SPONSORS

Advise and facilitate the center's strategy



White House



National Institute of Standards and Technology



U.S. Department of Commerce



U.S. Congress



Montgomery County



State of Maryland



TEAM MEMBERS

Collaborate to build real-world cybersecurity capabilities for end users

**Sponsored by NIST, the National Cybersecurity Federally Funded Research & Development Center (FFRDC) is operated by the MITRE Corporation*



NCCoE



Tech firms



Academia



Project managers



National Cybersecurity Excellence Partners (NCEP)



National Cybersecurity FFRDC*



Industry



Government



Project-specific collaborators



END USERS

Work with center on use cases to address cybersecurity challenges



Business sectors



Academia



Cybersecurity IT community



Individuals



Government



Systems integrators



DEFINE + ARTICULATE

Describe the business problem

Define business problems and project descriptions, refine into a specific use case



ORGANIZE + ENGAGE

Partner with innovators

Collaborate with partners from industry, government, academia and the IT community on reference design



IMPLEMENT + TEST

Build a usable reference design

Practical, usable, repeatable reference design that addresses the business problem



TRANSFER + LEARN

Guide users to stronger cybersecurity

Set of all material necessary to implement and easily adopt the reference design

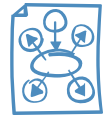
Cybersecurity solutions that are:



based on standards and best practices



usable, repeatable and can be adopted rapidly



modular, end-to-end and commercially available



developed using open and transparent processes



matched to specific business needs and bridge technology gaps

The NCCoE seeks problems that are:

- ▶ Broadly applicable across much of a sector, or across sectors
- ▶ Addressable through one or more reference designs built in our labs
- ▶ Complex enough that our reference designs will need to be based on the combination of multiple commercially available technologies

Reference designs address:

- ▶ Sector-specific use cases that focus on a business-driven cybersecurity problem facing a particular sector (e.g., health care, energy, financial services)
- ▶ Technology-specific building blocks that cross sector boundaries (e.g., roots of trust in mobile devices, trusted cloud computing, software asset management, attribute based access control)

Supply Chain – we are here



Manufacturing BAD – we are here



IdAM and Situational Awareness – we are here



Pre-Process

We strategically identify, select, and prioritize projects that align with our mission.



P1: Concept Analysis

We partner with industry to define, validate, and build business cases for the most challenging cybersecurity issues.



P2: Develop Use Case

Using a collaborative method with industry partners, we develop a full Use Case that outlines a plan for tackling the issue.



P3: Form Build Team

We unite industry partners and technology companies to build a qualified team to execute the Use Case.



P4: Design & Build

The Use Case team plans, designs, and builds the system in a lab environment and documents it in the Practice Guide.



P5: Integrate & Test

The team test the system and make refinements as necessary. The system may be validated by our partners. The final solution system is documented in the Practice Guide.



P6: Publish & Adopt

We, alongside our partners, publish, publicize and demonstrate the Practice Guide. This solution provides a reference architecture that may be implemented in whole or in part.

- **Situational Awareness SP 1800-7 (a,b,c)**

- Released public draft - 02/16/2017
- Comment period open until - 04/17/2017
- https://nccoe.nist.gov/projects/use_cases/situational_awareness

- **Cybersecurity for Manufacturing**

- Behavioral Anomaly Detection (BAD)
- Final project description (PD) - 03/2017
- Federal Register Notice - 03/2017
- https://nccoe.nist.gov/projects/use_cases/capabilities-assessment-securing-manufacturing-industrial-control-systems

- **NCCoE Supply Chain (SC) Sub Working Group (SWG)**
 - Last call held on 02/24/2017
 - Discussed numerous possibilities for use cases from various members (O&G, SDLC)
 - Initial goal was to have one or more use cases by 03/2017, and that has been achieved
 - Future activity – prioritize use cases, all are good ideas with technology as a basis

- **Identity and Access Management SP 1800-2 (a,b,c)**
 - Projected release of final - 03/2017
 - https://nccoe.nist.gov/projects/use_cases/idam

- Questions/comments





301-975-0200

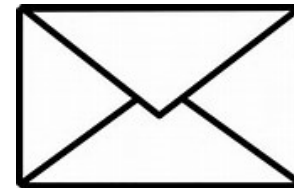


9700 Great Seneca Hwy,
Rockville, MD 20850

<http://nccoe.nist.gov/forums/energy>



energy_nccoe@nist.gov



100 Bureau Drive, Mail Stop 2002,
Gaithersburg, MD 20899

Thank You