National Cybersecurity Center of Excellence (NCCoE) Energy Sector

Energy Provider Community of Interest

28 March 2017





Agenda

- NCCoE Energy Sector Planned Activities
- > Status of Energy Sector (and related) Projects
- Supply Chain Use Case Proposal
- > EPC Open Discussion / Comments / Questions

NCCOE ENRGY SECTOR PLANNED ACTIVITIES



- ➤ OSIsoft Annual User Conference, 03/20/17 03/23/17 San Francisco, CA
- Second Annual Intelligence and Nationals Security Forum 04/20/2017, Tyson's Corner, VA
- American Council for Technology (ACT) and Industry Advisory Council (IAC), Cybersecurity Community of Interest Monthly Meeting, 04/28/2017, Washington, DC



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

NCCoE Supply Chain (SC) Sub Working Group (SWG)

- Last call held on 02/24/2017
- Drafted Use Case Proposal that incorporates several elements of ideas generated by SWG
- SWG Action provide comments by 04/07
- Present to NCCoE Management in April for approval

ENERGY SECTOR PROJECT STATUS



Cybersecurity for Manufacturing

- Behavioral Anomaly Detection (BAD)
- Final project description (PD) -03/10/2017
- Federal Register Notice 03/2017
- <u>https://nccoe.nist.gov/projects/use_cases/capabilities-assessment-securing-manufacturing-industrial-control-systems</u>

Identity and Access Management SP 1800-2 (a,b,c)

- Draft released 08/2015
- Projected final document release Spring 2017
- https://nccoe.nist.gov/projects/use_cases/idam



Questions/comments







301-975-0200

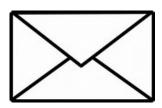


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VISION

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 standardsbased 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



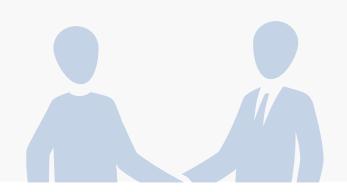


NIST ITL

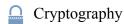
The NCCoE is part of the NIST Information Technology Laboratory and operates in close collaboration with the Computer Security Division. As a part of the NIST family, the center has access to a foundation of prodigious expertise, resources, relationships and experience.

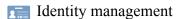
PARTNERSHIPS

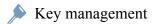
Established in 2012 through a partnership between NIST, the State of Maryland and Montgomery County, the NCCoE meets businesses' most pressing cybersecurity needs with reference designs that can be deployed rapidly.



NIST CYBERSECURITY THOUGHT LEADERSHIP

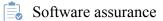






Risk management

Secure virtualization



(24) Security automation

Security for cloud and mobility

Hardware roots of trust

Vulnerability management

Secure networking

Usability and security

STAKEHOLDERS





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 State of County Maryland



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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



National Cybersecurity FFRDC*

















END USERS

Work with center on use cases to address cybersecurity challenges



Business sectors



Academia



Cybersecurity IT community



Individuals



Government



Systems integrators

ENGAGEMENT & BUSINESS MODEL





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)