

National Cybersecurity Center of Excellence

Increasing the deployment and use of
standards-based security technologies

Cybersecurity Innovation Forum
September 9, 2015





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

NIST

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



NCCoE



Tech firms



Academia



Project managers



National Cybersecurity Excellence Partners (NCEP)



NIST ITL



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

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Standards-based

Apply relevant local, national and international standards to each security implementation and account for each sector's individual needs; demonstrate reference designs for new standards
- 

Modular

Develop reference designs with individual components that can be easily substituted with alternates that offer equivalent input-output specifications
- 

Repeatable

Enable anyone to recreate the NCCoE builds and achieve the same results by providing a complete practice guide including a reference design, bill of materials, configuration files, relevant code, diagrams, tutorials and instructions
- 

Commercially available

Work with the technology community to identify commercially available products that can be brought together in reference designs to address challenges identified by industry
- 

Usable

Design usable blueprints that end users can easily and cost-effectively adopt and integrate into their businesses without disrupting day-to-day operations
- 

Open and transparent

Use open and transparent processes to complete work, and seek and incorporate public comments on NCCoE documentation, artifacts and results

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

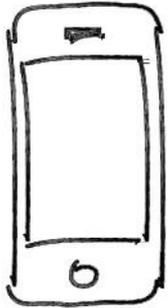
Reference designs address:

- ▶ 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)



The NCCoE and the National Cybersecurity FFRDC (NCF) extends its capabilities to Federal Agencies through our Work For Others Program:

- ▶ Background - NCCoE established a Work for Others (WFO) program where Government agencies, as well as other organizations, can access the unique facilities, cybersecurity technologies, and expertise available at NIST through the FFRDC.
- ▶ Task Areas - Because of the unique status of the FFRDC sponsorship and strategic partnerships, a federally staffed Program Management Office (PMO) within NCCoE ensures appropriate use of the WFO Program. The WFO program can support requests in these major task areas:
 - ▶ • Research and development
 - ▶ • Engineering and technical support
- ▶ For more information contact – Karen Waltermire at 240.314.6812 or email FFRDC_Requests@NIST.GOV



240-314-6800

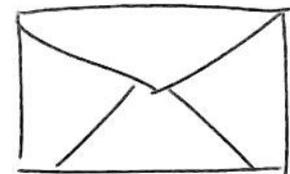


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Participate



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