Workshop Introduction

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Workshop Background

NCCoE ongoing effort
- Enhance the overall security of IoT devices and their networks

Recently Published Practice Guide
- Securing Small-Business and Home IoT Devices—Mitigating Network-Based Attacks using Manufacturer's Usage Description (MUD) (NIST SP 1800-15)

Now exploring initiation of a possible follow-on project in the area of Trusted IoT device network-layer onboarding and lifecycle management to mitigate the risk of:
- unauthorized credential exposure
- unauthorized devices connecting to networks
- devices being taken over by unauthorized networks
- Provide a secure mechanism for conveying the device's MUD URL
- Securely associate a device with its lifecycle management service

Today's Workshop Objectives

Hear views of subject matter experts and practitioners regarding
- relevant protocols, standards, guidelines, use cases and technologies
- challenges to implementation, operations, and security

Discuss the challenges and investigate the practical and implementable approaches and technologies that may be used to provide trusted network-layer onboarding and lifecycle management

Provide NIST with input needed to develop an NCCoE project to help accelerate investigation and demonstration of proposed approaches to trusted network-layer onboarding and lifecycle management, along with their supporting technologies

Agenda

Time	Session
11:00 – 11:10 EDT	NIST and NCCoE Overview Jeff Greene – NCCoE
11:10 – 11:15	Workshop Introduction Tim Polk – NCCoE
11:15 – 11:40	Workshop Overview, Background, and Challenges Susan Symington – NCCoE
11:40 – 11:50	NIST IoT Baseline with Respect to IoT Device Onboarding Michael Fagan – NCCoE
11:50 – 12:00	Moderated Q&A Russ Housley – Vigil Security
12:00 – 12:05	*Break*
12:05 – 12:20	Standards, Technical and Operational Considerations for IoT Device Onboarding and Lifecyle Management Eliot Lear – Cisco
12:20 – 12:35	An Approach to IoT Device Onboarding and Lifecycle Management Darshak Thakore/Craig Pratt – CableLabs
12:35 – 12:50	Enhancing IoT Device Security Through Trusted Network-Layer Onboarding Steve Clark – WISeKey
12:50 – 13:00	Moderated Q&A Scott Rose – NCCoE
13:00 – 13:05	*Break*
13:05 – 13:20	Application Onboarding with Intel SDO and FIDO IoT Geoffrey Cooper – Intel
13:20 – 13:35	IoT Onboarding with DPP Dan Harkins – HPE
13:35 – 13:50	Trusted IoT Device Onboarding and Lifecycle Management Alon Shamir – Arm
13:50 – 14:00	Moderated Q&A Tim Polk – NCCoE
14:00 – 14:15	Next Steps/Wrap-Up Curt Barker – NCCoE