National Cybersecurity Center of Excellence

Energy Provider Community (EPC) Update

05/01/2018

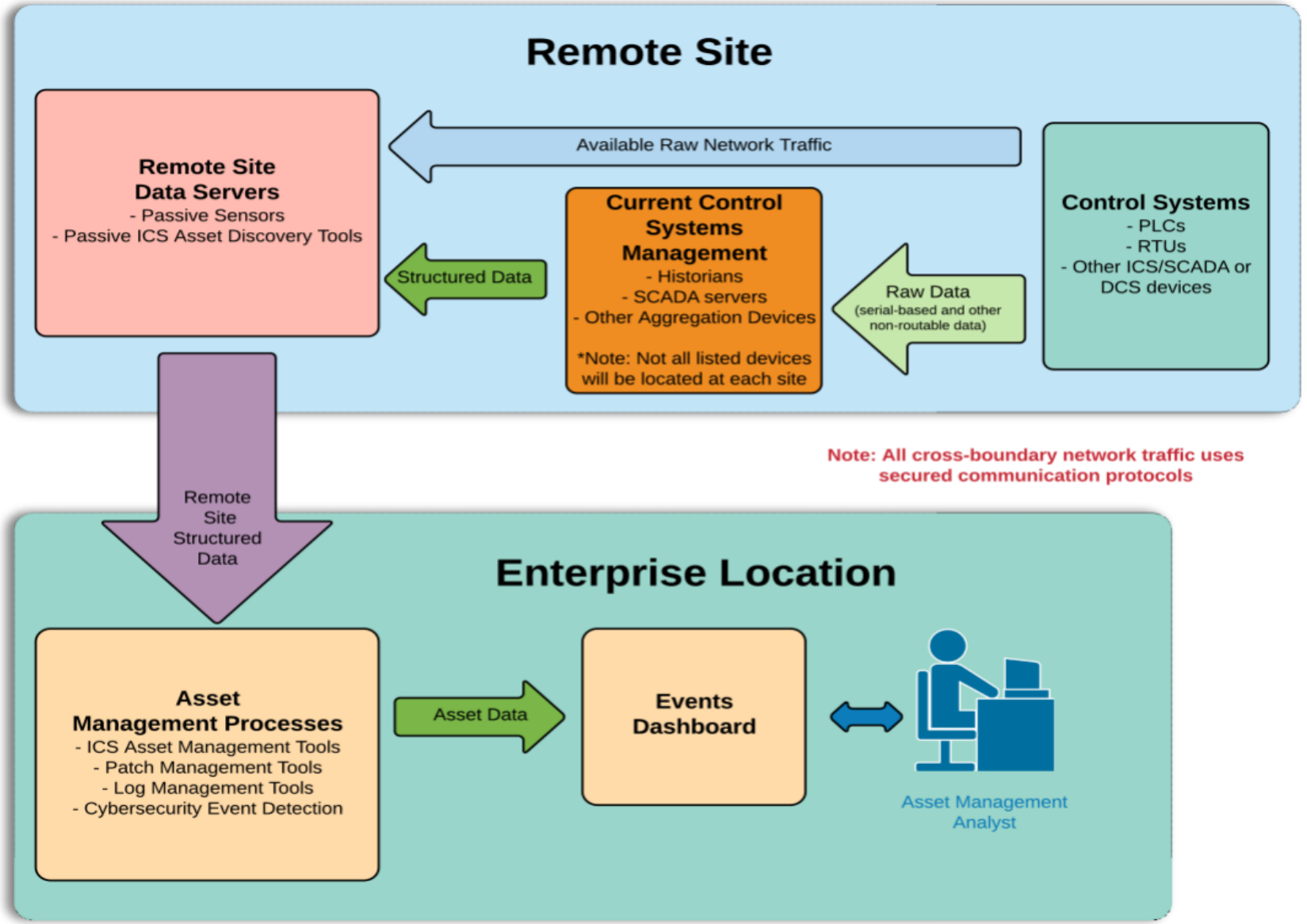
NIST National Institute of Standards and Technology U.S. Department of Commerce

NCCoE NATIONAL CYBERSECURITY CENTER OF EXCELLENCE

Agenda

- Welcome and Introductions
- Energy Sector Asset Management (ESAM) Update
- Questions, Open Discussion

ESAM CONCEPTUAL ARCHITECTURE



OT Asset Management Attributes

- **Asset Discovery:** establishment of a full baseline of physical and logical locations of assets
- **Asset Identification:** capture of asset attributes, such as manufacturer, model, operating system (OS), Internet Protocol (IP) addresses, Media Access Control (MAC) addresses, protocols, patch-level information, and firmware versions
- **Asset Visibility:** continuous identification of newly connected or disconnected devices, and IP (routable and non-routable) and serial connections to other devices
- **Asset Disposition:** the level of criticality (high, medium, or low) of a particular asset, its relation to other assets within the OT network, and its communication (to include serial) with other devices
- **Alerting Capabilities:** detection of a deviation from the expected operation of assets

- **ESAM Component List**
  - OT/ICS specific asset discovery and management tools
  - Encrypted communication devices
  - Log management/security information and event management (analytics, storage, alerting)

- **Energy Sector Asset Management (ESAM)**

  - Call for Collaboration (Federal Register) Released: Monday, 03/26/2018
  - Excellent response from tech community
  - Stopped Receiving LOIs (Letter of Interest): Friday, 04/20/2018
  - All requested capabilities accounted for with overlap
  - Currently working with UMD regarding possible deployment at their site
  - Multiple sites in consideration and not limited to one

- **ESAM Tentative Schedule**

  - Collaborator selection completed: May, 2018
  - Build Team Kickoff: June, 2018
  - Build Architecture: July, 2018
  - Draft ESAM Practice Guide (PG): January, 2019
  - Draft ESAM Public Release: March, 2019

- **Spring 2018**

  - **OSIsoft:** The 3rd Annual Intelligence and National Security Forum: 05/11/2018, Tysons, VA
    Presenting NCCoE Energy & Manufacturing Cybersecurity projects to Intelligence Community

  - **Lexington Institute:** Cybersecurity of the Electric Grid Capitol Hill Forum: 06/08/2018, Washington, DC
    Guest Panelist

Engagement & Business Model

DEFINE

OUTCOME:
Define a scope of work with industry to solve a pressing cybersecurity challenge

ASSEMBLE

OUTCOME:
Assemble teams of industry orgs, govt agencies, and academic institutions to address all aspects of the cybersecurity challenge

BUILD

OUTCOME:
Build a practical, usable, repeatable implementation to address the cybersecurity challenge

ADVOCATE

OUTCOME:
Advocate adoption of the example implementation using the practice guide

Contact Us

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About NCCoE

Collaborative Hub

The NCCoE assembles experts from businesses, academia, and other government agencies to work on critical national problems in cybersecurity. This collaboration is essential to exploring the widest range of concepts.

As a part of the NIST cybersecurity portfolio, the NCCoE has access to a wealth of prodigious expertise, resources, relationships, and experience.