

Meeting Agenda

Project 2016-02 Modifications to CIP Standards Drafting Team

February 19, 2019 | [WebEx](#) (Starts at 1:00 p.m. eastern)

February 20, 2019 | [WebEx](#) (Starts at 9:00 a.m. eastern)

February 21, 2019 | [Webex](#) (Starts at 8:30 a.m eastern)

Administrative

1. Review NERC Antitrust Compliance Guidelines and Public Announcement¹
2. Roll Call
3. Introductions/Chair's remarks
4. Review meeting agenda and objectives

Agenda Items

February 19, 2019 | 9:00 a.m.–Noon Eastern

Phone lines will not be open for this session. All are welcome to attend in-person.

1. CIP White Board Session
 - a. Concepts via drawings
 - i. Understanding the why to our virtualization and future technology changes
 - ii. Understanding concepts

February 19–21, 2019

Phone lines will open for the remaining standard drafting team in-person meeting.

2. Recap of White Board Session
3. Virtualization and Future Technology Concepts
 - a. What is the case for change
 - b. Software Defined Policy v. EAP/ESP (Topology) for defining security (FEB. in-person 2019 Goal)
 - c. Systems approach/assets and shared infrastructure class (special asset class for virtual hardware)
 - i. What is the best approach?
 - (1) System up/Asset down
 - (2) Full system

¹ See page 10.

- (3) Paralell path infrastructure class
- d. How does ERC/IRA work with the new model.
- e. Secure Configuration/from prescriptive to objective/system based requirements CIP-007/CIP-010
- f. Moving “monitoring” to BCSI v. defining PAMS/EAMS

4. Working Session

- a. What is the case for change
 - i. Technology agnostic
 - ii. CA classification
 - (1) Is a VM an asset?
 - (2) Physical host v. VM tenant (Shared Infrastructure)
 - (3) Dormant VMs
 - (4) Instantly created VMs from templates (VDI)
 - (5) Are containers an asset or just software?
 - (6) Is Management plane a CA?
 - (7) Privileged VM (hypervisor module)
 - iii. Distributed firewalls
 - (1) One policy or a 1000 ESPs
 - (a) Policy based routing for security service insertion
 - (b) EAP applied to interface v. policy
 - (2) How to deal with identifying EAPs
 - (3) Management plane for distributed firewalls
 - (4) Physical firewalls are software constructs too Priviledged introspection and its relationship to malware protection
 - iv. Prescriptive topology
 - (1) Complex architecture to support ESP/EAP Model with virtualization
 - (2) Virtualization supports and automates the policy model
 - (3) Don’t protect the topology; protect the BES Cyber System
 - (4) Discourages use of security best practices
 - (a) Inhibits adoption of microsegmentation
 - (b) Encourages management interfaces to be placed on the same network as cyber systems.

(c) Dual home systems across two ESPs could violate the integrity of the ESP.

(d) Remediation VLANs to protect devices from connecting before meeting security requirements. Physically moving devices v. remediation VLAN

v. Future technology

vi. Zero trust

vii. Clearer reporting

(1) Auditability

viii. Enabling technical controls/Reducing administrative burdens

ix. Automation

5. Software Defined Security Policy-v. EAP/ESP (Topology) for defining security

6. Systems approach/assets and shared infrastructure class (special asset class for virtual hardware)

7. Guidelines and Technical Basis (GTB) Project

8. Update on Outstanding Action Items

9. Outreach SDT Opportunities

a. CIPC March 2019 Meeting (March 5-6, 2019) (Jim Fletcher)

b. RF Workshop May 1, 2019 (Baltimore, MD) (Heather Morgan/Matt Hyatt)

10. Future In-person Meetings

a. March 26–28, 2019 (San Antonio, TX)

b. April 16–18, 2019 (Atlanta, GA)

c. May 28–30, 2019 (TBD)

11. Adjourn

Action Items			
<u>Action Item</u>	<u>Due Date</u>	<u>Comments</u>	<u>Owner</u>
CIP-002 “Commission Date”	February 28, 2019, SDT Conference Call	Review the Planned Changes language and determine if “Commission date” is the correct phrase. Seems to be confusion on what the phrase means. See John’s email for examples as to why Commission date does not work.	Jordan Mallory

Parking Lot Items

<u>Discussion Item</u>	<u>Comments</u>

Attachment 1 (February 19, 2019)

Name	Company	Member/ Observer	Straw Vote (X)	Conference Call/Web (Y/N)
David Revill	GSOC	Co-Chair		Y
Jay Cribb	Southern Company	Co-Chair		Y
Steven Brain	Dominion Energy	Member		Y
Jake Brown	ERCOT	Member		Y
Gerald Freese	NIPSCO	Member		Y
Scott Klauminzer	Tacoma Public Utilities	Member		N
Matthew Hyatt	Tennessee Valley Authority	Member		Y
Forrest Krigbaum	Bonneville Power Administration	Member		Y
Heather Morgan	EDP Renewables	Member		Y
Mark Riley	Calpine	Member		N
Jordan Mallory	NERC	NERC Staff		Y
Marisa Hecht	NERC	NERC Staff		Y
Shamai Elstein	NERC	NERC Staff		N
Jeremy Withers	NERC	NERC Staff		N
Lonnie Ratliff	NERC	NERC Staff		Y

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Michael Keane	FERC	FERC		Y
Jorge Reig	FERC	FERC		Y
Ken Lanehome	Bonneville Power Administration	PMOS		Y
Kirk Rosener	CPS Energy	PMOS		Y

Attachment 1 (February 20, 2019)

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David Revill	GSOC	Co-Chair		Y
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Steven Brain	Dominion Energy	Member		Y
Jake Brown	ERCOT	Member		Y
Gerald Freese	NIPSCO	Member		Y
Scott Klauminzer	Tacoma Public Utilities	Member		N
Matthew Hyatt	Tennessee Valley Authority	Member		Y
Forrest Krigbaum	Bonneville Power Administration	Member		Y
Heather Morgan	EDP Renewables	Member		Y
Mark Riley	Calpine	Member		Y
Jordan Mallory	NERC	NERC Staff		Y
Marisa Hecht	NERC	NERC Staff		N
Shamai Elstein	NERC	NERC Staff		
Jeremy Withers	NERC	NERC Staff		
Lonnie Ratliff	NERC	NERC Staff		Y
Michael Keane	FERC	FERC		Y
Jorge Reig	FERC	FERC		Y

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Jeremy Withers	NERC	NERC Staff		
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NERC Antitrust Guidelines

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition. It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Disclaimer

Participants are reminded that this meeting is public. Notice of the meeting was posted on the NERC website and widely distributed. The notice included the number for dial-in participation. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

NERC Standards Development Process-Participant Conduct Policy

<http://www.nerc.com/pa/Stand/Documents/Standards%20Development%20Process-Participant%20Conduct%20Policy.pdf>

NERC Email Listserv Policy

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