



2023 Region 6 Meeting Agenda
March 21 – 23, 2023
DoubleTree Kansas City, Overland Park, KS

Meeting Agenda

- All times listed are in Central Time Zone
- All of the meetings space for exhibits, education sessions, breakfast, and lunch will be held at the DoubleTree by Hilton Kansas City/Overland Park, 10100 College Blvd, Overland Park, KS 66210 on the 1st floor off the lobby.
- Additional information may be found on the Region 6 Community on [UTC's NetWorks site at this link](#) and on [the event website at this link](#).
 - The NetWorks community is only open to registered attendees of the meeting. [Click here to register now.](#)

Tuesday, March 21st

7:00 – 9:00 AM	Exhibit Setup-Ballroom
8:00 AM – 4:00 PM	Registration-Ballroom Foyer
8:00 – 9:00 AM	Breakfast Member and Vendor Introductions at Breakfast
9:00 AM – 12:00 PM	Exhibits Open-Ballroom
12:00 – 1:00 PM	Lunch - Sponsored by Black & Veatch & GE
1:00 – 5:00 PM	Exhibits Open-Ballroom
2:30 PM	Ice Cream Break
3:30 PM	Putting Challenge
3:30 – 5:00 PM	Cash Bar (Located in Exhibit Area – Bar Vendor Tickets can be purchased ahead of time through the DoubleTree. Details to be provided)
6:30 – 8:30 PM	Bowling and Bocce at Pinstripes Overland Park Buses will depart at 6:15pm from the front entrance of the Doubletree. <i>Space is limited and an RSVP was required. Please check with the registration desk if you did not RSVP and wish to attend.</i>

Wednesday, March 22nd

7:00 AM – 4:00 PM	Registration-Ballroom Foyer
7:00 AM	Breakfast

7:45 AM

Welcome Remarks

Speakers:

Sheryl Riggs, President and CEO – UTC

Alex McCullough, Region 6 Chair – Alliant Energy

8:00 – 8:15 AM

UTC National Leadership Address

Speaker:

Dewey Day, UTC Board Chair

8:15 – 8:45 AM

Lessons Learned: PG&E's Path to a Private Satellite Network

As utilities have become more dependent upon SCADA communications, communication outages have become less tolerable to operations personnel, especially during critical events. Many substations and SCADA devices in the PG&E territory are only served with a single Microwave link, Telco lease, or cellular service. PG&E and X2N worked together to provide a cost-effective redundant communication solution to these facilities. This presentation will discuss how PG&E leverages our partnership with X2N Satellite to provide redundant/emergency communications to facilities.

Speakers:

Dewey Day, Senior Telecom Engineer – Pacific Gas & Electric Company

Jena Blazer, Director of Products & Services – X2nSat

8:45 – 9:15 AM

Federal Advocacy Update

Speaker:

Brett Kilbourne, Senior VP of Policy and General Counsel - UTC

9:15 – 10:00 AM

Unlicensed 6 GHz Regulatory and Real-World Update

Three years ago, the FCC approved the highly controversial rule changes that enable the operation of automatic frequency-controlled (AFC) outdoor devices and unlicensed indoor devices in the 6 GHz band. Real-world testing of these unlicensed Wi-Fi 6E devices has confirmed them to be a source of harmful interference to licensed microwave systems commonly used by utilities.

The industry is at another crossroads as the unlicensed proponents are on the verge of getting FCC approval for the Automatic Frequency Coordination servers that will enable deployment of Standard Power access points outdoors and are pressing the FCC to increase power levels for Low Power Indoor access points and allow Very Low Power access points to operate anywhere. The unlicensed proponents have also asked for the Federal Government microwave allocation at 7 GHz to be opened to unlicensed use in the same manner as 6 GHz.

Lockard & White has been on the forefront of this issue since the first Notice of Proposed Rulemaking in 2018, contributing to dozens of filings with the FCC as well as performing paper analysis, real-world testing, and supporting industry incumbents and trade associations in their work and testing. This presentation will provide an overview of these issues, an update on current FCC activities, the increasing risk of interference, and recommended Industry efforts to influence the process to minimize interference and avoid our other microwave allocations (i.e., 11 GHz) being opened to unlicensed use.

Speakers:

David L. Hattey, Senior Associate Consultant - Lockard & White

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Brett Kilbourne, Senior VP of Policy and General Counsel - UTC

10:00 – 10:15 AM

Break

10:15 – 11:00 AM

SDWAN - Edge Computing Evolution

- **Automating & Securing Your Edge**

The talk will cover innovation and industry trends related to SDWAN and the Edge Computing evolution, as it relates to utilities specific connectivity technologies. We will discuss how software innovation specific to the edge connectivity has unlocked last mile network potential and brought the application awareness, scalable security and zero-touch provisioning to the automation of your power grid networks.

Speaker:

Senad Palislaamovic, Head of Technology – Nokia Enterprises

11:00 AM – 12:00 PM

Lincoln Electric System's implementation of CISCO ISE

Lincoln electric recently implemented CISCO ISE on our Corporate and Physical Security Networks. I will go through the decision to use Cisco ISE, the process used to Select Cisco ISE, and how we deployed it. I will cover issues encountered while deploying and how we were able to resolve these issues.

Speakers:

Neal McGrath, Telecommunication Crew Leader – Lincoln Electric System

Bill Clay, Technical Security Architect - Cisco

12:00 – 1:00 PM

Lunch for all attendees – Sponsored by Black & Veatch & GE

1:00 – 2:10 PM

State/Regional Two-Way Radio system and interoperability

The panel participants will provide a brief description of their two-way radio systems and those systems/entities that the radio systems provide operations for and interoperate with along with methods of interoperability. The panel will also discuss what is involved in system interoperability and possible intersystem ties.

Speakers:

Jason E. Bryant, StateWide Interoperability Coordinator – Kansas DOT

Lon Renner, Telecommunications Engineer – Nebraska Public Power District

Dan Weis, Senior RF Engineer – Omaha Public Power District

2:10 – 2:40 PM

Overcoming Cyber Threats to enable Digital Transformation

Utilities are undergoing a rapid period of digital transformation. By way of example, deployment of Smart Grid infrastructure and integration with "smart homes" and IoT is just one of the key projects being undertaken today. Although such transformation results in huge benefits, it also introduces significant cybersecurity risks as sensitive data becomes more vulnerable and exposed, granting hackers and cyber-terrorists' greater opportunity to compromise critical information and disrupt operating environments.

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To combat these threats, utilities should consider deploying new, innovative, and improved security tools that can address the gaps, risks, and challenges inherent in legacy perimeter-based network security.

In this session, we will be discussing how the application of ‘Zero-Trust’ principles can enable utilities to move forward with these new technologies without compromising their security posture. Join us to learn how to secure critical data and eliminate risk with Micro-Segmentation, Strong Cryptography and Observability without degrading or impacting network performance or visibility.

Speaker: **Simon Hill, VP-Contracts, Legal and Sales Operations – Certes Networks**

2:40 – 3:00 PM UTC Technical Division Troubleshooting Guide

The Technical Division of UTC is researching a Troubleshooting Guide. The presentation will discuss the current contents of the guide which include the process of troubleshooting, the OSI model, and some other techniques. The presentation will end with a discussion on the additional direction(s) the project plans or should address throughout the next year of research.

Speaker: **Matt Holthe, Telecommunications Manager – Nebraska Public Power District**

3:00 – 3:15 PM Break

3:15 – 3:45 PM Lessons from Ameren's Fiber Management Journey: From Paper to GIS

Presentation and discussion regarding the transformation of fiber mapping at Ameren. This introduction will cover a five-year view inclusive of implementation, management, and expansion of a fiber mapping system.

Speakers: **Alex Porter, Senior Network Engineer – Ameren**

3:45 – 4:30 PM The Risk of Public Cellular Networks for Supporting Critical Infrastructure

As the U.S. electric grid evolves to meet federal, state and utility-specified mandates, the reliability of the network that connects the increasing number of sensors and control points is becoming more important to the operation of the electric grid. Public wireless networks are relied upon to connect many electric utility sensors and control points, but should utilities be relying on these networks to operate critical infrastructure?

In this discussion we will provide a perspective on the reliability of public networks using observed test results captured on live public wireless networks. The results will be generated from a custom software application developed to emulate typical EMS and Distribution Automation DNP3 poll/response traffic run over a continuous multi-day timeframe. In addition to the testing effort, this discussion will raise a

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series of hidden risks that public networks present to utilities and will list major network failure events that provide concrete examples of the risks outlined in this discussion.

Speakers: Daniel Allnutt - Electrical Engineer - Burns & McDonnell
Mathew Eshpeter, Technical Consultant, Burns & McDonnell

4:30 – 5:15 PM The Evolution of Line Protection with IEC 61850 and MPLS

Line protection has always been a challenge due the restrictions that communication between terminals impose. With the evolution of technology, it has allowed protection engineers to deploy more efficient protection functions and schemes, increasing power system reliability.

This presentation will discuss the evolution of protection, reminding of first protection schemes based only in distance protection, its evolution with first telecommunication schemes and differential protection. With the large-scale installation of TDM, SONET, SDH and later MPLS, the capacity to use line protection relays was enhanced significantly.

As the relay-to-relay communication still relies heavily on serial communication, such as G/703 and C37.94, one can imagine where do we go from here? The answer, just like MPLS and packet-based communication have become the answer for telecom backbone within utilities, ethernet communication and IEC 61850 will do the same for line protection relays.

We will introduce how GOOSE and Sampled Values can play a role in this next stage of line protection, and even how to have MPLS nodes integrate themselves with protection and control systems networks.

Speaker: Guilhermme Lisboa, Electrical Engineer - BELDEN

6:00 – 8:30 PM Networking Dinner at KC Joe’s BBQ

The bus will depart from the front entrance of the Doubletree. There will be two trips to the venue. The first bus will depart at 5:45pm and the second bus will depart at 6:15pm. ***Space is limited, and an RSVP was required. Please check with the registration desk if you did not RSVP and wish to attend.***

Thursday, March 23rd

7:00 – 8:00 AM Breakfast

8:00 – 10:00 AM Closed Session - Utility Only Business Meeting

- Secretary Report
- Treasurer Report
- Old Business
- New Business
- Nomination Committee
- Round table discussion of various company projects
- Drawing of Door Prizes
- Adjournment