Utilities Technology Council™

UTC Region 9 Technical Meeting
September 15-17, 2020

Preliminary Agenda
All times listed are Pacific Time Zone

Tuesday, September 15th

1pm – 4pm Optional Fiber Optic Training – Pole-Plant and End-Device

Presented by: Graybar Training Alliance

Wednesday, September 16th

10am – 11am Teleprotection migration to IP/MPLS networks best practices

Utilities have successful transitioned critical TDM-based applications including SCADA and voice to IP/MPLS network for years. However, many are still cautious to migrate teleprotection circuits because teleprotection systems, such as current differential relays, requires not only constant low delay and jitter, but also delay symmetry between the go and return paths to avoid false trip. This session will share real field experiences in engineering IP/MPLS networks to address these challenges.

Speaker: Hansen Chan, Senior Marketing Manager - Nokia

11:30am – 12:30pm RF Safety for Utilities

Speaker: Klaus Bender, VP, Engineering, Training & Standards - UTC

1pm – 2pm CIP and the Cloud Utilization - Time to Move or Time to Plan?

As utilities modernize operations, whether or not to use the cloud for OT systems and data storage is becoming a fundamental security concern. On top of this is the question whether doing so will go against NERC CIP cybersecurity standards. What's the real story? Is there a difference between simply putting OT information in the cloud versus placing the systems themselves there? This session will help electric utilities gain a better understanding of the NERC CIP compliance landscape involved in the use of cloud-based OT solutions, helping to better align OT modernization with security best practices. Mike Prescher of Black & Veatch, Samara Moore of Amazon Web Services and Tom Alrich of Tom Alrich LLC try to unravel the current situation and provide their informed judgment on when (and if) things will improve.

Speakers: Mike Prescher, Sr. Network & Cybersecurity Architect, Telecom Division – Black & Veatch
Samara Moore, AWS Security Assurance Lead for Critical Infrastructure – Amazon Web Services
Tom Alrich, Owner – Tom Alrich LLC

1:30pm – 2:30pm Examination of Modern Dispatch Communication Systems

As utilities reach the end of life of their current land mobile radio (LMR) systems, they open themselves up to a variety of new technologies that can be implemented to support a modern dispatch system. Duke Energy commissioned several studies and performed an in-depth analysis of many of the current

options on the market, including public and private LTE solutions, standardized and proprietary LMR systems, and hybrid systems. This presentation will focus on the process used to compare and contrast the different systems that a utility can deploy for dispatch communications. In addition, our goal is to provide high-level insights into the equipment available today and the various utility needs that each technology platform can satisfy.

Speaker: Logan Nesseth, Project Manager – Burns & McDonnell

2:30 – 3:30pm FCC Spectrum Policy Update

This presentation will provide an update on the latest FCC decisions and rulemaking proceedings that will have the greatest impact on the spectrum landscape for utilities. We will discuss the status of the FCC's 900 MHz rebanding to allocate spectrum for broadband, 3.5 GHz band license auction, opening the 6 GHz band for unlicensed use, and other spectrum bands, such as 4.9 GHz and 700 MHz.

Speaker: Kevin Cookler, Attorney – Lerman Senter PLLC

Thursday, September 17th

10am – 11am Lessons learned from a utility LTE deployment

This paper will discuss lessons learned from an actual deployment of LTE with a large utility. In this deployment, there was a great deal learned by both the utility company and the vendor that makes a utility-based LTE deployment unique from a more traditional telecom deployment. Specifically, the paper will go into detail around three key learnings: 1. Spectrum is important, but large amounts are not required. The initial deployment had only 1.4 MHz of spectrum and this was enough to meet the company's needs. 2. Reliability and Deployment – Diversity of the network and back-ups are 3. Preparing for storm support has enhanced criticality for utilities. While storm support preparation is important in any cellular network, because of the critical nature of the utility business, it required an enhanced approach and solution.

Speaker: Rishi Bhaskar, VP Energy & Public Sector - Ericsson

11:30am – 12:30pm Best practices for successful IT-OT network convergence, a utility case study (Central Lincoln PUD)

Many utilities manage separate communications networks for IT and OT applications. Often these networks are aging, while demands for support of new applications and greater cybersecurity are increasing. This creates pressure on Telecom and OT/IT engineering teams. A single converged network may be an effective solution to improve efficiency and prepare for the future. But how do utilities get there without disrupting mission critical power system applications? Learn how to successfully implement a converged IT and OT network from a utility that has navigated the challenge. This webinar will provide information on the challenges faced by Central Lincoln PUD and the solution they are implementing. It will also explain how innovative technology from SEL helped address the challenge of segregating critical OT traffic from IT services and preserved the network performance needed for protection applications.

Speakers:	Ron Beck, Network Engineer – Central Lincoln PUD Paul Robertson, Senior Product Manager – Schweitzer Engineering Laboratories
1pm – 2pm	4RF Session TBD
2:30pm – 3:30pm	Session TBD
4pm	Region 9 Member Meeting. Core Members Only.