



UTC Region 5 2024 Meeting  
Millenium Minneapolis Hotel  
September 16-18 – event dates  
September 17-18 – exhibit dates  
Minneapolis, MN

## Preliminary Meeting Agenda

### Monday, September 16<sup>th</sup>

- 4:00 pm                      **Registration**
- 4:30 – 6:30 pm            **Welcome Reception**

### Tuesday, September 17<sup>th</sup>

- 7:00 am                      **Breakfast**
- 8:00 – 10:00 am        **State of the Union Presentations**
- 10:00 am                    **Break**
- 10:30 – 11:30 am        **Cybersecurity is more than software**

Utilities rely on private communication systems for reliable, resilient, efficient, and safe operations of their businesses. These IP-based communication solutions are a complex and sophisticated mix of software, hardware, firmware, operating systems, and radio frequency technology. This makes cybersecurity more than software. These systems are used daily and extensively throughout the organization, and when the operational tempo increases due to a power outage, they are needed most. These solutions require ongoing evaluation of security controls, policy and configuration updates, cybersecurity assessments, and life cycle management plans covering all aspects of the system. This activity demands a close relationship with the supplier.

- 11:30 am – 12:30 pm    **UTC President & CEO Address**
- Speaker:**                      **Rusty Williams, President & CEO, UTC**
- 12:30 – 1:30 pm            **Attendee Lunch**
- 1:30 – 3:00 pm            **Utility Only Panel/Questions**
- 3:00 – 5:30 pm            **Vendor Hall Happy Hour**
- 7:00 – 9:00 pm            **Evening Activity & Dinner**

### Wednesday, September 18<sup>th</sup>

- 7:00 am                      **Breakfast & Registration**



**UTC Region 5 2024 Meeting**  
**Millenium Minneapolis Hotel**  
**September 16-18 – event dates**  
**September 17-18 – exhibit dates**  
**Minneapolis, MN**

**8:00 – 9:00 am                    Implementing a Private Satellite Network**

PG&E’s private satellite network, since its inception in 2021, has onboarded hundreds of terminals across various use cases and locations. In this presentation, PG&E architects and X2nSat solutions experts will discuss the following:

- Rollout status of sites onto PG&E’s satellite network and challenges faced along the way
- Network design details: how the satellite network is integrated into their overall network infrastructure (ODN/UDN)
- Technical designs and updates on new use cases for leveraging private satellite connectivity.
- High-Availability-Service (satellite with LTE failover)
- L-band/BGAN satellite replacement
- LMR backhaul over satellite

**9:00 – 10:00 am                    Maintaining Precise Time for Power System Applications in the Event of Wide Area Loss of GPS**

In February 2020, the President of the United States issued Executive Order 13905. Its intent is to strengthen national resilience and security through responsible use of positioning, navigation, and timing (PNT) systems. All critical infrastructures’ entities, including the power grid, transportation, emergency response, and commerce, are ordered to build resilient systems that responsibly use GPS. One method of responsible use is to build systems that can mitigate GPS outages.

In North America, the power grid is a critical infrastructure that relies on distributed GPS-based clocks for precise time acquisition. Disruption to positioning, navigation, and timing (PNT) services for these GPS-dependent critical infrastructures could cost the U.S. over one billion dollars daily in financial losses.

This presentation explores how to get closer to GPS independence using enhanced primary reference time clock (ePRTC)-grade Precision Time Protocol grandmaster (GM) clocks. This presentation includes various laboratory validations and test results that prove the concept’s viability.

**10:00 am                                Break**

**10:30 – 11:30 am                    Overcoming the drilled shaft challenges + Anchors 101**

From the loose sands of Florida to the cold joints of Indiana, our presenters will walk the audience through several interesting, drilled pier challenges. The audience will gain exposure to design cases that require 8-foot diameter foundations that extend to depths more than 100 feet, situations including a rock core barrel stuck over 80 feet deep in a 108-foot-deep pier, and soil conditions so poor that helical pile installation becomes economically feasible. Additionally, our presenters plan to cover multiple in-field construction issues, including instances of poor concrete pouring practices and an early rock encounter that burned up 3 drilling bits. This presentation will cover the situations, the consequences, the immediate resolution, and the ongoing lessons learned from each challenge. The presenters will engage the audience with an inclusive discussion of engineering solutions and controls and provide insight into the construction and safety perspectives.



**UTC Region 5 2024 Meeting**  
**Millenium Minneapolis Hotel**  
**September 16-18 – event dates**  
**September 17-18 – exhibit dates**  
**Minneapolis, MN**

11:30 am – 1:30 pm      **Vendor Hall and Lunch**

1:30 – 2:30 pm          **Region 5 Business Meeting – Open to Utility Members Only**

2:30 – 3:30 pm          **Radio Frequency Exposure and Worker Safety**

Radio frequency (RF) exposure is becoming an ever more critical safety issue as more and more wireless equipment and facilities – such as small cells, municipal broadband, and utility field area networks – are deployed on utility infrastructure, thus increasing the potential for RF exposure for utility workers and the public in general. This session will provide an overview of the regulatory and legal framework covering RF exposure and safety issues, compliance with applicable laws, regulations, and obligations, and how utilities can use these regulations and other industry guidelines to ensure a safe environment for workers, contractors, and the general public. This session will also look at how utilities – as owners, managers, and users of joint-use infrastructure – can effectively manage the risks involved with RF exposure and safety in the joint-use environment.

3:30 – 4:30pm          **Xcel + Arvig + SEL Relaying over Ethernet**