

Utilities Technology Forum Feb 11 - 14, 2024 – Event Dates Feb 12 – 13, 2024 – Exhibit Dates Silver Legacy Resort Casino Reno, NV

Meeting Agenda

- UTC is looking forward to your attendance at the Utilities Technology Forum – Regions 8/9/10 Meeting being held February 11-14 at the Silver Legacy Resort Casino, 407 N. Virginia Street, Reno, NV, 89501.
- The registration desk, education sessions and exhibit hall are located on the lower level under the casino floor. Signs will direct you to the meeting space from the lobby of the Silver Legacy
- Meals and reception locations are listed on the agenda below.
- Additional information may be found in the Utilities Technology Forum Community on <u>UTC's NetWorks site at this link</u> and on <u>the event website at</u> <u>this link.</u>
- The NetWorks community is only open to registered attendees of the meeting. <u>Click here to register now.</u>

Sunday, February 11th 12:00pm **Big Game Party Ticket Pick up** Tickets may be picked up on the lobby level of Silver Legacy • until 2pm. The table will be located just after Ruth's Chris and Drinx lounge as you exit the lobby of the Silver Legacy hotel Beginning at 2:30pm tickets may be picked up at Circus Circus • outside the Mandalay Ballroom Big Game Party – Mandalay Ballroom at Circus Circus 3:00 PM Monday, February 12th **Registration & Breakfast** – located outside meeting room on 7:00 AM lower level Welcome Remarks 8:00 – 8:15 AM Speakers: Kirt Mayson, UTC Board Chair/NorthWestern Energy Travis Phifer, UTC Region 8 Chair/Tri-State Generation and **Transmission Association** Shawna Kiesbuy, UTC Region 9 Chair/Avista Corp. Khai Tran, UTC Region 10 Chair/Sacramento Municipal Utility District

8:15 – 10:15 AM Utility Telecommunications 101

Are you new to the field of utility telecommunications? Do you have Information Communications Technology (ICT) experience but are new to the utility environment? This seminar will give you an overview of how electric, gas and water utilities are using ICT systems today plus a look at some trends/possibilities for the future.

Topics will cover a wide range of applications – including a focus on Smart Grids and their evolving support of mission-critical hybrid energy sources, storage and their interface with the customer. Emphasis will be placed on applications unique to the utility industry that focus on reliability, resiliency, and security, digital transmission technology, optical and wireless systems and their secure integration with the Internet.

Speakers:	Sonny Loreto, President, Utility Telecom Consulting Group, Inc. Bret Johnson, Sr. Engineering Consultant, Utility Telecom Consulting Group, Inc.
10:15 – 10:45 AM	Networking Break

10:45 – 11:45 AM	Why IT / OT Security Doesn't Stop at the Perimeter
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This year's Red Report identified that credential access is one of the most prominent attack trajectories under the MITRE Attack Framework used by adversaries in cyber-attacks. Techniques such as 'adversary in the middle' and credential dumping allow bad actors to gain unauthorized access to critical infrastructure.

Lateral movement is also on the rise which allows attackers, once inside, to move from one system to another until sensitive data is compromised with new techniques now in play, that enable attackers to abuse built in tools and protocols and weaponize legitimate software.

This emphasizes that perimeter-based security is not enough – organizations must strengthen their resilience by developing strong policies and defensive techniques that protect both critical application data flows in IT networks and interconnects between IT and OT networks.

This session will consider:

- Several common attack trajectories used to penetrate critical infrastructure
- Common risks and security gaps that adversaries continue to leverage
- What to do about it.

Speaker:

Simon Hill, Vice-President, Certes Networks

11:45 AM – 1:00 PM	Networking Lunch – Silver Baron Ballroom on the lobby level
1:00 – 2:00 PM	Maximizing the use of Utility Infrastructure with Wireless Colocation

Electric utilities own land, and other infrastructure assets that can be used to help solve the broadband challenge faced by many communities. Substations, transmission poles distribution poles and other assets can be used to place towers, support antennas, and provide communications backbones. Using utility assets to build a broadband network can benefit the community the broadband provider and the utility. This session will discuss the process to maximize the use of your infrastructure and the opportunities and challenges of developing a wireless tower colocation business and a small cell deployment strategy.

Speaker: Ron Bilodeau, Director, Strategic Solutions, Osmose

2:00 – 3:00 PM Utility Spectrum Landscape

As utilities embark on the journey of refining their grid modernization strategies and seek the most suitable communication technologies to drive their initiatives, RF spectrum is a critical consideration. The utility spectrum landscape is in a perpetual state of evolution, presenting an array of spectrum options that surpass previous options.

Join us as Kathy Nelson, Greg Kunkle, and Brett Kilbourne delve into the intricacies of the utility spectrum landscape. What spectrum options are available for utilities? What crucial factors must utilities consider of when making their spectrum choices? Kathy will illuminate the strategic and technical facets, while Greg will navigate the labyrinth of regulatory and legal considerations. Brett will describe UTC's efforts to access spectrum for utilities as part of the recently released National Spectrum Strategy and through the International Telecommunications Union (ITU).

Ensure that you are well-equipped with a comprehensive understanding of the spectrum opportunities awaiting your utility. This knowledge will empower you to make informed decisions for your communication network.

Speakers:	Kathy Nelson, Founder & Principal, KN Utility Telecom Consulting LLC Greg Kunkle, Telecommunications Attorney, Keller and Heckman LLP Brett Kilbourne, Of Counsel, Stevens & Lee
3:00 – 3:30 PM	Networking Break
3:30 – 4:00 PM	State of the Union Utility Presentations

The State of the Union Presentation is an opportunity to give an update on staff, projects, and plans taking place at each utility. The presentations are generally more specific to the telecom and IT areas, but interesting and major projects in other departments will often be discussed as well. The presentations are a good way to promote discussion between utilities about ongoing projects, lessons learned, etc.

Speaker:	Travis Phifer, Network System Engineer, Tri-State Generation and Transmission Association
	Khai Tran, Cost Schedule Specialist, Energy Delivery &
	Operations, Telecomm Operations & Maintenance, Sacramento
	Municipal Utility District
	Shawna Kiesbuy, Senior Network Engineering Manager, Avista
	Corp.
	Casey Hutchinson, Network Engineer, Avista Corp.
4:00 – 5:00 PM	How Artificial Intelligence (AI) can be leveraged for the Optical Network for Utilities

Al is certainly the hot topic in 2024 with the introduction of ChapGPT in late '22 and every business is trying to figure out what role AI can play in their businesses. But what role can AI play for the optical network for utilities? This presentation will attempt to demystify this topic for utilities.

We will cover:

- Intro to AI: what are the basics of AI.
- How AI is being used for different enterprise verticals.
- How AI can be leveraged to gather insights into optical networks for utilities.
- Demo of AIOps application to show specific use-case for utilities.

Speaker:	Mitch Simcoe, Senior Advisor, Ciena
5:00 – 7:00 PM	Exhibit Hall Grand Opening Reception

Please visit the Exhibit Hall hosted by our vendors. This is an outstanding opportunity to see the latest technology in our industry, plus network with peers and vendor partners.

Tuesday, February 13th

7:00 AM	Registration & Breakfast - located outside meeting room on lower
	level

8:30 – 9:30 AM	UTC President & CEO Address
Speaker:	Rusty Williams, President & CEO, UTC
9:30 – 10:00 AM	Networking Break
10:00 – 11:00 AM	Utility SATCOM & SCADA Networks: A Unique Partnership!

Utilities face unique challenges to extend communications to remote facilities. The objective of this session is to exhibit how one utility uses secure satellite technology (SATCOM) for its SCADA communications. This case study aims to provide attendees with a model to evaluate whether a SATCOM system would be beneficial for their utility needs.

Speaker:	Travis Phifer, Network System Engineer, Tri-State Generation and Transmission Association
11:00 AM – 11:30 AM	 Individual Regional Meetings Region 8 meets in Silver Room Region 9 meets in Gold Room Region 10 meets in EXPO Hall C
11:30 AM – 12:00 PM	Combined Regional Meeting
12:00 – 2:00 PM	Networking Lunch with Exhibitors & Exclusive Exhibit Time

Please visit the Exhibit Hall hosted by our vendors. This is an outstanding opportunity to see the latest technology in our industry, plus network with peers and vendor partners.

2:00 – 3:00 PM	RF Training Workshop Part 1: Advanced Land Mobile Radio
	Communications for Utilities Professionals

This comprehensive training covers essential aspects ranging from basic electronics mathematics to advanced topics such as preventing interference to microwave operations in the 6 GHz band.

Understand the importance of baseline measurements and documentation, especially in light of the FCC's October 2023 rules allowing unlicensed use in the 6 GHz band. Gain valuable insights into potential challenges and solutions while staying informed about the evolving landscape of radio communications.

Speakers: Ms. Susan E. Ronning, P.E., PMP, ASEP, Owner and Principal Engineer, ADCOMM Engineering, LLC

Ira Wiesenfeld, President/Principal Engineer, IWA Technical Services, Inc.

3:00 – 3:30 PMNetworking Break3:30 – 4:30 PMRF Training Workshop Part 2 Advanced Land Mobile Radio
Communications for Utilities Professionals

This comprehensive training covers essential aspects ranging from basic electronics mathematics to advanced topics such as preventing interference to microwave operations in the 6 GHz band.

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Speakers:	Ms. Susan E. Ronning, P.E., PMP, ASEP, Owner and Principal Engineer, ADCOMM Engineering, LLC Ira Wiesenfeld, President/Principal Engineer, IWA Technical Services, Inc.
5:00 – 7:30 PM	Networking Reception - <i>Kingpin Lounge at the National Bowling</i> <i>Museum located at 300 University Way</i>
Wednesday, February 14 th	

7:00 AM	Breakfast - located outside meeting room on lower level
8:15 – 9:00 AM	Telecom and Utilities Collaboration: A Unified Approach to
	Critical Communication Beyond the Grid

In a rapidly evolving digital landscape, the demand for robust and reliable critical communication services has never been more pronounced. This presentation explores the compelling need for a new player in the telecoms market, particularly focusing on an innovative consortium formed by utility companies. Specifically designed to meet the critical communication needs of entities like the police and fire department, this consortium redefines telecom services with unparalleled resilience and reliability.

The presentation provides insights into cutting-edge technologies, including AI/ML, crucial for establishing reliable, automated, and efficient network management. As services become more closely linked to network resources, especially in the realm of software-defined technologies and cloud-based solutions, the significance of efficiency and automation intensifies. Defining

deterministic rules for managing and monitoring networks becomes less obvious. Examples, such as alarm prediction, correlation, ticket matching, and KPI forecasting, will be shared, along with more sophisticated use cases like predictive maintenance and operations.

Speakers:	Piotr (Peter) Stoklosa, Director of Business Development, Comarch Pawel Lopata, Head of OSS Consulting, Comarch
9:00 – 10:00 AM	People don't mean to do what they sometimes do: how to ensure network performance after the build is complete and one is left operating a new network

Idaho Power has operated a packet network since its complete transition away from SONET/TDM in 2015. After nine years of operation, how does Idaho Power keep confidence that the packet network will still perform as originally designed, especially for current differential relaying? Sometimes, people do things when in the heat of the moment troubleshooting or have a cut-and-paste error, which may not interrupt the network or services right now, but what are the impacts on future operations? This session is how Idaho Power is ensuring the network will perform as it was originally designed to.

Speaker:	Shaun Skidmore, Communications Principal Engineer, Idaho Power Company
10:00 – 10:30 AM	Networking Break
10:30 – 11:30 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 continuation of their 2023 case study, speakers 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.

Attendees will walk away from this session with a first-hand account of Layer 2 and 3 integration between PG&E's network and the satellite network and how VLANs are used to separate traffic and bring it into the appropriate networks within PG&E. We will also discuss how new use cases are tested and brought into production.

Speakers:

Dewey Day, Principal OT Architect, Pacific Gas & Electric Company

Jena Blazer, Solutions Expert, X2nSat

11:30 AM - 12:30 PMWhy Utilities Need to Accelerate the Transition to EIC 61850 and
How They Can Embrace It

In response to rising energy demand and evolving technology, power utilities are adapting their operations to integrate utility-scale and residential distributed energy resources (DERs). The IEC 61850 standard family serves as a crucial communication foundation, enabling utilities to address challenges and deploy grid applications cohesively. It empowers utilities to implement digital automation in substations, establish communication links, and seamlessly interface with control centers, extending automation to distribution systems, storage, and renewable energy sources like solar or wind farms. The imperative is clear — accelerate the transition to IEC 61850 for a more connected and technologically advanced energy infrastructure.

Speaker:	Mauricio Subieta, Chief Technology Officer Energy, Nokia
12:30 – 1:00 PM	Prize Drawings & Wrap-Up