

2014 UTC ANNUAL REVIEW

WWW.UTC.ORG | 202.872.0030 | **AUGUST 2014**

THE WIND IS AT OUR BACKS

The transformation of our nation's critical infrastructure is taking place at an unprecedented speed and scale. I have yet to meet a UTC member who is not helping his or her enterprise navigate myriad uncharted waters that require complex decisions about capital investments, emerging technologies, and evolving business models. All while the obligation to provide reliable, affordable, and safe services has not changed. Meeting these dual challenges defines our mission at the Utilities Telecom Council (UTC).

In this era of transformation where every change ushers in unforeseen consequences, we are indebted to UTC's board of directors, our committees, our fellow members, and our technology partners for maintaining a steady hand on the rudder and helping us stay the course. As a result, I am pleased to report that UTC's efforts to confront our industry's most complex challenges by educating policy-makers and stakeholders, advocating for sensible solutions to our core concerns, and creating or sourcing carefully targeted, impactful new resources have resulted in significant and measurable progress. The member-driven organization we have nurtured for 66 years remains an effective model for meeting our collective and evolving challenges.

Representing our common interests to policymakers requires thoughtful strategies and achievable goals. Lack of access to spectrum remains a fundamental barrier to many of our members' efforts to meet the massive increase in demand for next-generation telecommunications technologies underpinning many mission-critical utility applications. UTC continues to work closely with affiliated industry trade groups and public safety organizations as well as with Congress, the White House, and pertinent federal and state agencies on a variety of initiatives, including long-term efforts to present our case for access to federal spectrum through the Commerce Spectrum Management Advisory Council, which advises NTIA on spectrum policy issues.

UTC's position on spectrum goes hand-in-hand with its work in cybersecurity. As information and communications technology networks have become the foundation for utility operations, two things happened: the technology in use is commonly known and the number of access points into the networks has increased exponentially. To address cybersecurity drivers and in response to our member priorities, UTC's cybersecurity efforts focus on three well-defined areas: providing a robust set of awareness, training, and education opportunities; representing members' interests as policies and standards are formulated; and providing tools and resources to help members secure their systems and share the knowledge and experience needed to protect their networks. Our participation and leadership roles in prominent standards development organizations ensure that UTC members' perspectives are taken into account.



Through a partnership with EnergySec, we are developing educational opportunities where there's a gap in commercially available training. And we continue to present insightful, focused cybersecurity content in UTC Journal and at our conferences. In partnership with the National Cybersecurity Center of Excellence, we are developing Energy Use Cases to help you winnow the search for practical tools that can help your utility manage cybersecurity-related risk.

On a different front, I would like to call attention to UTC's role in delivering on the promise of providing state-of-the-art broadband networks in rural environments. The utilities that serve rural America have the communications networks and other capabilities to bring broadband to their customers in unserved or under-served parts of the country. The FCC itself has recognized broadband as a vital service, and it reformed the Universal Service Fund and the Intercarrier Compensation program to reflect that stance. Extending high-speed information services to every corner of America will help create jobs, improve healthcare, and enhance educational opportunities—the stepping stones of economic vitality and growth. However, when the FCC initiated the Connect America Fund (CAF), it excluded rural utilities—the sector best prepared to implement broadband services—from eligibility. Through the work of UTC's Rural Broadband Council (RBC), the FCC agreed to allow rural utilities to gain competitive access to CAF monies, as reflected by the landmark FCC action in January 2014. The following month, more than 50 rural utilities attended a UTC workshop on the issue, and more than a hundred filed "Expressions of Interest" that establish their capabilities as the FCC administers the CAF program. As I have met and worked with the extraordinary people that comprise UTC's membership over the last couple of years, I have started to realize that the only way we are going to drive the scale of change we need in our industry is if we pull together some very unlikely partnerships with businesses, governments, and entrepreneurial people on the front lines. More often than not, the people most affected know the answers—we just need to listen to them. None of us can do it alone, as was evidenced by the extraordinary outcome of the RBC members and staff working in partnership with the FCC and those most affected by the situation—the businesses, constituents, and communities who make up rural America.

In closing, I would like to thank every UTC member for your interest and participation in our shared mission to transform critical infrastructure for our respective nation's prosperity and security. I strongly urge you to spread the word among colleagues and technology partners who have yet to join us. Our obligations run deep at this time of change, but the wind is at our backs.

Sincerely,

CONNIE DURCSAK

*President and Chief Executive Officer
Utilities Telecom Council*

ABOUT UTC

Since 1948, the Utilities Telecom Council (UTC) has represented the interests of utility information, telecommunications, and operations technology professionals. UTC advocates for policies to promote the development of telecommunications and IT to support the safe, reliable, efficient and secure delivery of utility energy, water, gas and pipeline services throughout North America. Its members include all types of utilities, including large investor-owned utilities, who may serve millions of customers across multi-state service territories, as well as smaller electric cooperative and municipal utilities that may serve a few thousand customers in rural areas and isolated communities in the country. UTC provides best-in-class, accredited training programs, professional development opportunities, advocacy on issues that impact your bottom line, and unbeatable networking opportunities with the world's leading experts on critical infrastructure.



YOUR MEMBERSHIP AT WORK

THE ISSUES. THE RESULTS.

MEMBER BENEFITS IN ACTION

Technology advances are causing the industry to evolve at an unprecedented pace and change has become a constant in our industry. The lines separating the roles of utility telecommunications, IT and OT professionals are blurring as these sectors are quickly becoming one and the same. Working with industry professionals who have successfully navigated this merging of roles, UTC helps members navigate this dramatically changing environment through the many industry specific educational and networking opportunities.

THE RESULTS

- The premier issue of the *Annual Association Issue and Buyers Guide* chock-full of thought leadership articles, industry outlook, and your comprehensive guide to technology solution providers.
- UTC TELECOM & TECHNOLOGY Conference - five days of no-nonsense, total immersion into the business of information and communication technology that will fast-forward your knowledge, decision-making skills, and leadership abilities.
- Spectrum and Engineering Services that guide through the complex spectrum licensing process.
- Fiber Optic Training courses at a deep discount with three certificate levels.
- UTC Industry Intelligence, your weekly e-news digest containing the latest boots-on-the-ground advocacy and issues.
- UTC Regional Meetings conducted in 10 broadly defined geographical areas.
- Monthly committee calls keeping you current with frank discussions on various issues in our industry.
- Unbeatable networking opportunities attending the many events throughout the year help forge career and life-long relationships.

YOUR MEMBERSHIP AT WORK

THE ISSUES. THE RESULTS.

UTILITY MODERNIZATION, ENERGY INNOVATION AND SPECTRUM

UTILITY MODERNIZATION

UTC believes that modernization efforts have been stalled due to the lack of actionable information that utilities can rely upon to create their own unique vision their utility's modernization efforts. They need a deployment strategy that doesn't waste money through a one size fits all, and a business case justification that they fully understand and can modify to fit their expanding needs.

THE RESULTS

- UTC is supporting modernization programs by providing real life benefits data gathered from our global family of utilities.
- UTC created a program designed to provide guidance for utility staff, rather than magic spreadsheets with misunderstood formulas. UTC is turning modernization questions into concrete business cases. The program doesn't end with electric utility modernization, but brings the interplay between electric, water and gas utility operations, as well as street lighting.
- Formed the Utility Modernization Council (UMC) as a partnership of global utilities working towards modernizing their networks. Global partners include utilities from North America, Latin America, the European Union, Africa, and Asian nations. The global effort resulted in an award from the International Trade Administration to focus on utility modernization and increase U.S. exports of smart grid goods and services.
- Partnered with the U.S. Department of Commerce, International Trade Administration, U.S. Commercial Service and the Trade and Development Agency, Export-Import bank of the United States to help UTC's U.S. vendor community increase their international sales.

UTILITY INNOVATION AND SPECTRUM

Utility mission critical communications require high standards for reliability – standards that are not commonly supported by commercial communications networks. As such, utilities have no alternative but access to additional spectrum from the federal government in order to ensure utility operational reliability.

UTC believes we need to promote utility spectrum access and utility innovation as part of integrated policies for affordable, clean, and secure energy, water and gas services, which are essential to improving U.S. economic productivity, enhancing our quality of life, protecting our environment, and ensuring our Nation's security.

THE RESULTS

- 4.9 GHz band - UTC in conjunction with NPSTC developed and submitted to the FCC a band plan that would give utilities and CII access to 50 MHz of spectrum. This plan enables utilities to support applications with broadband to critical assets, gives a more robust and reliable form of SCADA, provides additional opportunities to implement IP applications, reduces costs through wider array of equipment and manufacturers, and positions utilities for increased interoperability with public safety.
- 5.8 GHz antenna gain restrictions - UTC successfully opposed a proposal by the FCC to limit antenna gain for fixed point-to-point operations. This saved utilities potentially tens of millions of dollars not having to re-engineer existing links that would fall outside of new guidelines.
- Use of Telex Headsets in Nuclear Power Plants - UTC aided in reaching a breakthrough with the FCC in their decade-long effort to provide a permanent regulatory solution for the use of Telex headsets in nuclear power plants, thereby reducing exposure to radiation for workers by providing a faster work process.
- White Paper - Published *2014 Estimating Smart Grid Communication Network Traffic*
- The Smart Networks Council (SNC) published the *Field Area Networks: UTC SNC Report February 2014*
- Led the 5th Annual UTC and DOE Critical Infrastructure Communications Policy Summit

UTILITIES AND THE RURAL BROADBAND COUNCIL

UTC leads the effort through the formation of the Rural Broadband Council (RBC) to find funding to provide advanced communications for underserved rural areas, working with utilities and technology partners to establish best practices and cost efficient deployments of high speed communication networks. Utilities, including rural electric cooperatives and municipal utilities are uniquely positioned to promote rural broadband access using extensive communications and utility infrastructure that is already deployed for utility purposes. Leveraging utility infrastructure in this way helps to reduce costs, boost speeds and improve reliability. There are several shining examples of utilities that are already offering broadband services that are robust, affordable and reliable in areas that were previously unserved or underserved. In turn, this has boosted economic growth in these areas, which also provides additional social, educational and health benefits for the communities that utilities serve. There are synergies that are achieved by leveraging utility networks in this way, because they support both smart grid and broadband, which adds value to the network and improves operational efficiencies.

THE RESULTS

- Instrumental in the creation of Rural Trials at the FCC allowing utilities to access Connect America Funding (CAF)
- Led the Rural Broadband Workshop and webinar at request of FCC to garner utility participation in CAF bringing together 50+ cooperatives.
- Worked with Rural Utility Service closely to allocate funding from the electric program to fund advanced communications infrastructure.

UTILITY INFRASTRUCTURE AND NATIONAL SECURITY

At the same time that utilities need access to spectrum to meet increasing demands on their networks, they also need to increase the security of their infrastructure in the face of physical and cybersecurity threats. Today utility critical assets are increasingly interconnected with each other and are increasingly sophisticated and coordinated, including attacks from nation states. While it is impossible to prevent attacks from occurring, the risks can be mitigated through tools and process-based solutions, which include improving the reliability and resiliency of the underlying communications networks that support IT applications. These attacks have spurred industry and government efforts to work together to prevent and protect against future attacks.

THE RESULTS

- Launched Utility Cybersecurity Assessment and Roadmap consulting service to help utilities establish their cybersecurity baseline and create a practical plan to achieve their cybersecurity goals.
- Established discounts and introduced NERC CIP Version 5 Foundations Course roadshow opportunities at several UTC Regional meetings.
- Directed Cyber Supply Chain workshop on Managing ICT Supply Chain Risks in Utilities featuring solutions on challenges and risk mitigating strategies.
- Key contributor in the development of NIST Cybersecurity Framework initiated in response to the Presidential Executive Order 16363, Improving Critical Infrastructure Cybersecurity.
- Helped shape the revision of international standards on information security guidelines for energy utility industry, ISO/IEC 27019.
- Partnered with C2CSmart Compliance to deliver security standards and best practices mappings, saving UTC members hundreds of hours and thousands of dollars.
- Collaborated with policy makers to develop practical guidelines and incentives for the utilities space as well as bringing together utilities and utility technology partners to mitigate risks associated with ICT supply chain.
- Hosted webinars and Security Committee Meetings on topics such as:
 - Updates on NIST Cybersecurity Framework
 - NERC CIP 5 progress
 - Secure Development Lifecycle
 - U.S. government services available to utilities

UTILITIES AND GLOBAL OUTREACH

Access to spectrum, securing infrastructure, advancing communications for underserved areas, utility modernization, and utility innovation are the needs of any utility regardless of where they are in the world. UTC recognizes this need and is leading the effort to join together leaders in the international utility community. With the support of UTC's global family of utilities, together we formed the UTC Global Advisory Council (GAC) and developed four task objectives. The GAC will work on solutions for the following: drafting Packet/IP Based-solutions, promoting Wireless Spectrum for Future Smart Grids, cooperating on Cybersecurity solutions, and developing key performance indicators (KPIs) to determine the overall performance of utility telecom networks.



UTCC

UTC Canada advocates for the telecom, IT, and operations interests of Canadian electric, gas, and water utilities and oil and gas pipelines, whether publicly or privately owned, and for infrastructure organizations in Canada, especially with Industry Canada, Canadian Radio-television Telecommunications Commission, and other federal government organizations.

Our activities support focused networking opportunities and include advocacy and public policy efforts for the telecom and IT interests of our members with the Government of Canada, especially with Industry Canada. UTCC provides advocacy support through various legislative and regulatory efforts with focus on spectrum for utilities, and technology support in the area of smart networks, cybersecurity, emerging broadband wireless technologies, optical fiber networks, and wide area networks.

UTCC's annual conference is held every autumn. Join us September 23-26 in Calgary for the 2014 Canadian Utilities IT & Telecom Conference. Visit us at www.utccanada for information on membership, programs, and activities.



EUTC

Technology is rapidly changing the role of telecom in Europe's electric, gas, and water utilities, energy companies, and other critical infrastructure companies.

Many are using their vast experience in building and managing sophisticated telecommunications networks to enter Europe's new competitive telecoms markets. Many are also facing issues introducing new wireless communications systems and managing internal telecoms businesses in a shared services environment.

EUTC is also involved in the ICT for Smart Distributed Generation Thematic Network funded by the European Commission. The general objective of this Thematic Network is to foster and promote large-scale integration of domestic and distributed micro generation and promote improvements in energy efficiency through the implementation of innovative ICT solutions into local smart power grids.

The European Utility Telecom Conference is held in the fall and is the largest gathering of telecommunications and technology executives from Europe's utilities and their technology partners. EUTC will host this year's annual conference October 22-24 in Monaco. Visit us at www.eutc.org for more information.



UTCAL

The newly established UTCAL is prepared to meet the needs of telecommunications specialists working in energy, gas, and water companies. Bringing together the leading utility members and technology providers in Latin America, UTCAL fosters a constant exchange of knowledge and information, keeping its members updated on critical areas where technology is constantly changing.

UTCAL recognizes the increasingly critical role that telecommunications play in the safety and reliability of the region's critical infrastructure. Telecommunications technology will enable the exchange of critical information and maximize the benefits of Information and Communications Technologies. Together, working with regulators, members, and partners, we strive to enhance the essential services we provide to our customers.

Each year, industry professionals from across the region attend UTCAL's annual summit. Held in the spring, this event provides opportunities to learn and explore opportunities on spectrum allocation, technology, regulation, and the development of our energy and water networks. UTCAL will host the annual conference March 25-27, 2015 in Florianópolis, SC, Brazil. Visit us at www.utcamericalatina.org for more information.

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Mike Lowe, Blue Ridge EMC

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Mike Oldak, Utilities Telecom Council

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VACANT

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Infrastructure Issues Committee
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Spectrum Issues Committee
Jeff Nichols, Semptra Energy Utilities

Technical Division Committee

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Information Technology Committee
Scott Hughes, Great River Energy

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Bob Hance, Midwest Energy Cooperative

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Great Lakes Region (4)
Cliff Burns, Northern Indiana Public Service Company

Minnesota-Dakotas Region (5)
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Randy E. Hopkins, Idaho Power Company

Southwest Region (10)
Aaron Shearin, Southern California Edison

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Miguel Angel Sánchez Fornié, Iberdrola SA

Smart Networks Council
Doug McGinnis, Excelon Corporation

UtiliSite Council
Karen Flewharty, Oncor Electric Delivery Company

UTC Spectrum Services Advisory Board
James Smith, NIPSCO (designee)

Critical Infrastructure Communications Coalition
Mike Oldak, Utilities Telecom Council

Rural Broadband Initiative
Mike Keyser, BARC Electric

Global Advisory Council
Miguel Angel Sánchez Fornié, Iberdrola SA

ELECTED DIRECTORS

Terms Expiring May 2015

Roxanne Fong, PG&E
Tim Slay, Duke Energy
Michael Quinn, ONCOR
Matt Schnell, Nebraska Public Power

Terms Expiring May 2016

Sonya Baskerville, Bonneville Power Administration
Jeff Nichols, Semptra Energy Utilities
Rick Speck, Kansas City Power
Allen Eichenberg, Consumers Energy Company
Dan Murray, Lincoln Electric System

Terms Expiring May 2017

Roger Bryant, Southern Company
Chuck Hackney, CenterPoint Energy
Doug McGinnis, Exelon
John Nachilly, Northeast Utilities
Todd Oney, Nashville Electric Service

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Geoffrey Trofimuk, SaskPower (Vice Chair)
Jean De Sève, Hydro Quebec (Treasurer)
Sol Lancashire, BC Hydro

UTC AMERICA LATINA REPRESENTATIVE

Dymitr Wajsman (Acting)

PAST CHIEF ELECTED OFFICERS

Mike Lowe
Fiber/Comm Manager
Blue Ridge EMC
UTC Chairman - 2013-2014

Thomas Perry
Principal Engineer
Santee Cooper
UTC Chairman - 2012-2013

Ron Beck
Network Engineer
Central Lincoln Public Utility District
UTC Chairman - 2011-2012

Troy West
General Manager - Technology & Corporate Services
Cleco Corp.
UTC Chairman - 2010-2011

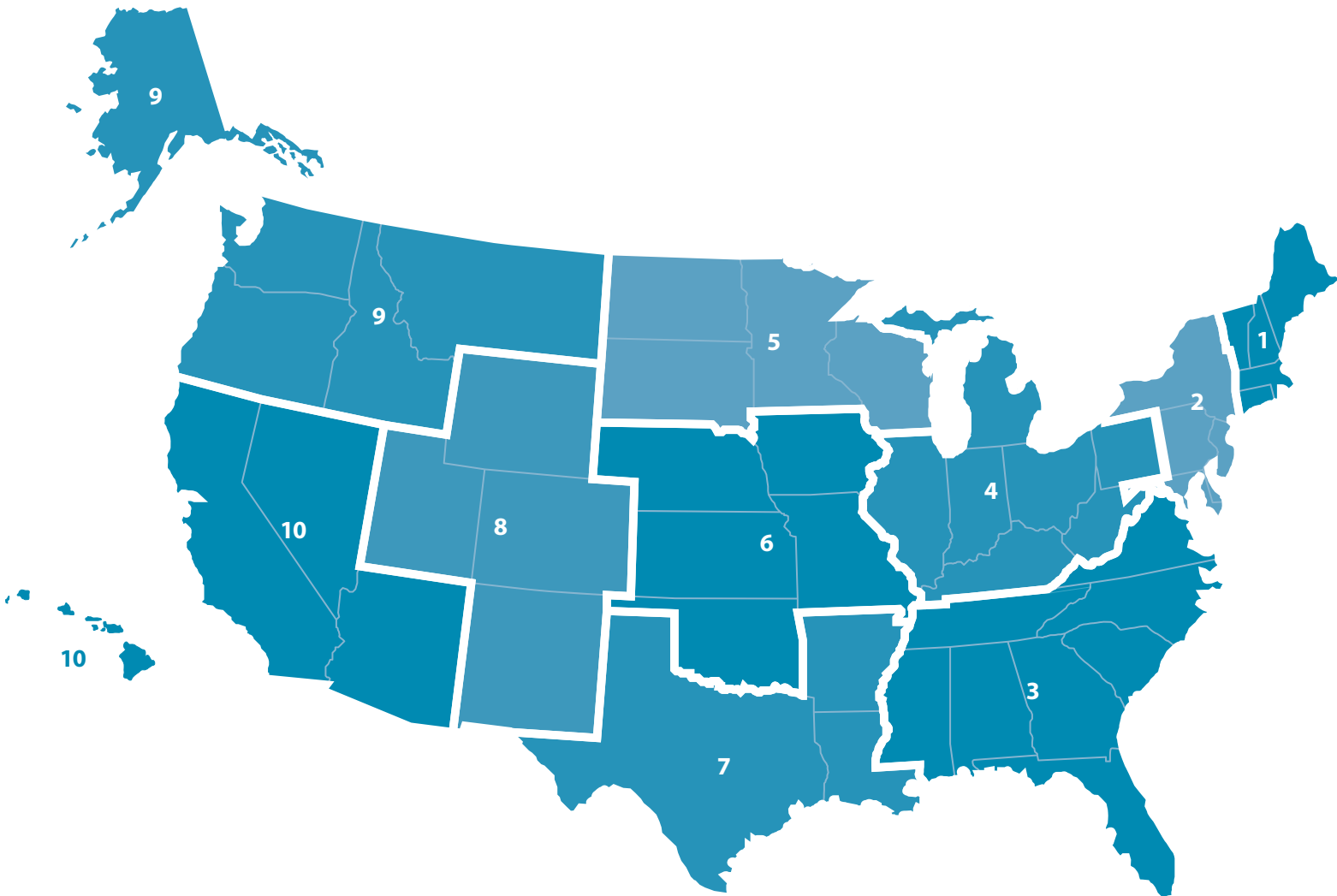
Jeff Katz
Enterprise IT Consultant
PSEG Services Corp
UTC Chairman - 2009-2010

Jeff Selman
Manager, Telecom & Protection Engineering
Tri-State Generation & Transmission Association
UTC Chairman – 2007-2008

Leonard Leech
Design Engineering Manager
Nashville Electric Service
Nashville, TN
UTC Chairman – 2005-2006

Jim Stahl
Lead, Mobile Communications
PacifiCorp
Portland, OR
UTC Chairman – 2003-2004

UTC REGIONS



Utilities Telecom Council

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UTC CALENDAR OF EVENTS

2014

September 3-5	Region 9 Technical Meeting, Newport, OR
September 10-12	Region 1 & 2 Combined Regional Meeting, Providence RI
September 15	5th Annual UTC and DOE Critical Infrastructure Communications Policy Summit, Washington, DC
September 16	UTC Cybersecurity Workshop – Managing ICT Supply Chain Risks in Utilities, Washington, DC
September 23-26	2014 Canadian Utility Telecom & IT Conference, Calgary, Alberta, Canada
October 1-2	2014 Fall Region 3 Meeting, Nashville, TN
October 2-3	Region 10 Technical Meeting, Las Vegas, NV
October 9-10	Region 4 Meeting, Indianapolis, IN
October 16	Region 8 Technical Meeting, Denver, CO
October 22-24	2014 EUTC Annual Meeting, Monte Carlo, Monaco
November 17-18	UTC Africa Summit 2014, Sandton, South Africa

2015

February 8-11	Utilities Telecom Forum, Region 8,9,10, Reno, NV
February	Region 7 Regional Meeting, TBD
March 3-6	Region 3 Spring Regional Meeting, Orlando, FL
March 23-25	Region 6 Regional Meeting, Overland Park, KS
March 25-27	UTCAL Summit, Florianopolis, Brazil
April 20-24	Region 5 Regional Meeting, Milwaukee, WI
May 5-8	UTC TELECOM & TECHNOLOGY 2015, Atlanta, GA

2016

May 3-6	UTC TELECOM & TECHNOLOGY 2016, Denver, CO
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VISIT WWW.UTC.ORG/EVENTS/ALL FOR THE MOST UP-TO-DATE CALENDAR OF EVENTS