

PAC WORLD AMERICAS 2020

1 – 2 September 2020

Agenda



What to Expect in the Live Sessions

- Each Live Session will include 5 presentations with concluding Q&A at the end.
- Each presentation will last 15 minutes (we do try to stay on schedule)
- ALL Live sessions will be recorded and posted as an “OnDemand” recording approximately 3 hours after each session.
- Recorded Sessions & OnDemand presentations will be available for 30 days based on your registration type.
- Submit Questions to be asked using the Q&A section within the live session

General Conference Schedule

Tuesday, September 1, 2020

9:30am – 11am **Live Session 1**
11am – 11:30am **Break**
11:30am – 1pm **Live Session 2**
1pm – 1:30pm **Break**
1:30pm – 3pm **Live Session 3**
3pm – 3:30pm **Break**
3:30pm – 5pm **Live Session 4**
5:30pm – 7pm **Kick-back Happy Hour + Photo Contest Awards**

Wednesday, September 2, 2020

9:30am – 11am **Live Session 5 – Expert Panel**
11am – 11:30am **Break**
11:30am – 1pm **Live Session 6**
1pm – 1:30pm **Break**
1:30pm – 3pm **Live Session 7**
3pm – 3:30pm **Break**
3:30pm – 5pm **Live Session 8**
10pm – 11:30pm **Kick-back Happy Hour**

Live Conference Platform is open September 1 @9am – September 3 @9am (48 hours)
For 30 days AFTER, ALL Sessions recordings available + booths can still be visited.

ALL Times in EDT (same as New York City, NY, USA)

Global time zones listed within each session description.

Live Session #1

Tuesday – September 1, 2020, 9:30 AM – 11:00 AM EDT

09:30 – 09:45
TUM01

Multivendor Process Bus Pilot Project with interoperability; ISA - Interconexion Electrica S.A., Colombia

Presenter: Juan Carlos Olaya

09:45 – 10:00
TUM02

Testing Automation and Control- Test Cases and Test Automation; A. Klien, C. Brauner, T. Schossig, OMICRON electronics GmbH, Austria

Presenter: Thomas Schossig

10:00 – 10:15
TUM03

Benefits of using IEC 61850 messages for testing conventional protection schemes; T. Roseburg, W. Rees, BPA, USA; G. S. Antonova, Hitachi ABB Power Grids, USA

Presenter: Galina Antonova

10:15 – 10:30
TUM04

WASA and the Roadmap to WAMPAC at SDG&E; T. Rahman, San Diego Gas & Electric, USA; E. Udren, D. Brancaccio, D. Novosel, Quanta Technology, LLC, USA

Presenter: Eric Udren

10:30 – 10:45
TUM05

Study of Battery Energy Storage System in a Weak Distribution Grid with Distributed Energy Generation Penetration; Y. Althubaity, M. Alsaba, National Grid, Saudi Arabia; M. Khalid, King Fahad University for Petroleum and Minerals, Saudi Arabia

Presenter: Yasser AlThubaity

10:45 – 11:00
Q&A

Questions and discussions for the different speakers; moderated by the session Chair

	Global Start Times
Los Angeles	6:30am
New York	9:30am
Paris	3:30pm
Dubai	5:30pm
Delhi	7:00pm
Beijing	9:30pm
Sydney	11:30pm

*Session Chair:
Dr. Alexander
Apostolov*

Live Session #2

Tuesday – September 1, 2020, 11:30 AM – 1:00 PM EDT

11:30 – 11:45
TUM06

IEC 61850 Engineering Process; K. Gray, J. Groat, POWER Engineers, USA

Presenter: Keith Gray

11:45 – 12:00
TUM07

Experiences in Design and Commissioning of a Secure Substation Network Architecture; A. Klien, OMICRON electronics GmbH, Austria; S. Mattmann, Y. Gosteli, Centralschweizer Kraftwerke (CKW) AG, Switzerland

Presenter: Andreas Klien

12:00 – 12:15
TUM08

Test Strategy for Protection, Automation and Control (PAC) Functions in a Fully Digital Substation Based on IEC 61850 Applications; R. Løken, Statnett SF, Norway; A. Apostolov, PAC World, USA

Presenter: Rannveig Loken

12:15 – 12:30
TUM09

Using Synchrophasors for a Wind Farm Response Analysis on System Disturbances in Brazilian Interconnected Power System; G. F. Krefta, K Consulting, Brazil; C. E. F. Pimentel, GE Grid Solutions, Brazil; L. da S. Bernardino, Copel G&T E., Brazil; M. Lourenço, UFPR, Brazil

Presenter: Carlos Eduardo Ferreira Pimentel

12:30 – 12:45
TUM10

Utilizing IEC 61850 Standard for the Circuit Based Wide Area Distribution Automation System; A. Smit, A. Stinskiy, S. Chanda, Siemens, USA; C. Huff, Southern California Edison, USA

Presenter: Alexandr Stinskiy

12:45 – 1:00
Q&A

Questions and discussions for the different speakers; moderated by the session Chair

	Global Start Times
Los Angeles	8:30am
New York	11:30am
Paris	5:30pm
Dubai	7:30pm
Delhi	9:00pm
Beijing	11:30pm
Sydney	1:30am (+ 1 Day)

Session Chair:
Dr. Fred
Steinhauser

Live Session #3

Tuesday – September 1, 2020, 1:30 PM – 3:00 PM EDT

1:30 – 1:45

TUA01

Automated Fault Location Analysis – Analytics Update III; R. Maxwell, R. Dixon, FirstEnergy Service Company, USA; H. Falk, OTB Consulting Inc., USA; P. Myrda, Electric Power Research Inst, USA

Presenter: Paul Myrda

1:45 – 2:00

TUA02

Testing a Process Bus Based Multi Zone Protective Relay; R. Hunt, GE Renewable Energy, USA

Presenter: Rich Hunt

2:00 – 2:15

TUA03

Solving Performance and Cybersecurity Challenges in Substation and Industrial Networks with Software-Defined Networking; D. Shaffer, D. Thewlis, City Light & Power, Inc., USA; T. Bartman, T. Atiyeh, Schweitzer Engineering Laboratories, Inc., USA

Presenter: Tom Bartman

2:15 – 2:30

TUA04

Using and Securing Routable GOOSE for Wide Area Protection in Centralized Remedial Action Systems.; R. Mackiewicz, SISCO, USA

Presenter: Ralph Mackiewicz

2:30 – 2:45

TUA05

EMP Protection and Control Solution; E. Easton, K. Bryant, CenterPoint Energy, USA; A. Smit, Siemens Industry, USA

Presenter: Andre Smit

2:45 – 3:00

Q&A

Questions and discussions for the different speakers; moderated by the session Chair

	Global Start Times
Los Angeles	10:30am
New York	1:30pm
Paris	7:30pm
Dubai	9:30pm
Delhi	11:00pm
Beijing	1:30am (+ 1 Day)
Sydney	3:30am (+ 1 Day)

*Session Chair:
Benton Vandiver*

Live Session #4

Tuesday – September 1, 2020, 3:30 PM – 5:00 PM EDT

3:30 – 3:45
TUA06 ARPA-E Project – National Infrastructure for Artificial Intelligence on the Grid; T. Laughner, PowerGrid-RX Inc, USA; S. Murphy, PingThings, USA

Presenter: Theo Laughner

3:45 – 4:00
TUA07 Cost-Benefit Analysis for IEC 61850 Implementation; S. Clermont, D. Gauthier, Hydro-Québec, Canada; J. Holbach, E. Udren, S. Ward, D. G.Hart, Quanta Technology, USA

Presenter: Jeurgen Holbach

4:00 – 4:15
TUA08 Virtual Protection Relay Platform; P. Khajuria, Intel Corporation, USA

Presenter: Prithpal Khajuria

4:15 – 4:30
TUA09 A Virtual Synchronous Generator Approach to Resolving Microgrid and Battery Protection Challenges; J. Glassmire, Hitachi ABB Power Grids, USA; S. Cherevatskiy, Hitachi ABB Power Grids, Australia; G. Antonova, Hitachi ABB Power Grids, Canada; A. Fretwell, ElectraNet Pty Ltd, Australia

Presenter: John Glassmire

4:30 – 4:45
TUA10 Improving a Protection, Automation and Control (PAC) system in a digital IEC 61850 substation: The case of San Miguel Digital Substation; W. Camán, Luz del Sur, Peru; I. Otárola, J. Uzcategui, SOLTEC Soluciones Teleinformáticas y Control, Peru; D. Silva, A. Bittencourt, GE Grid Automation, Brazil

Presenter: Iván Otárola, Willam Camán

4:45 – 5:00
Q&A Questions and discussions for the different speakers; moderated by the session Chair

	Global Start Times	
Los Angeles	12:30pm	
New York	3:30pm	
Paris	9:30pm	
Dubai	11:30pm	
Delhi	1:00am (+ 1 Day)	
Beijing	3:30am (+ 1 Day)	
Sydney	5:30am (+ 1 Day)	

Session Chair:
Paul Myrda

Happy Hour

Tuesday – September 1, 2020, 5:30 PM – 7:00 PM EDT

Want to spend some time actually visiting, seeing, and talking other conference attendees?

Join us for a happy hour where everyone can use their cameras and microphones as they like.

It's BYOB – Bring Your Own Beverage. As this is a global event, it could be any time of the day, so bring any drinks from breakfast to cocktails – fruit juice, soda, water, beer, wine, coffee, etc.

We will also be presenting the winning photos from the Photo Contest in both the General and Power categories.

How to Join? Just click the Happy Hour banner in the conference lobby when it's time, as shown below and you will be directed to the Zoom meeting



Global Start Times	
Los Angeles	2:30pm
New York	5:30pm
Paris	11:30pm
Dubai	1:30am (+ 1 Day)
Delhi	3:00am (+ 1 Day)
Beijing	5:30am (+ 1 Day)
Sydney	7:30am (+ 1 Day)



*Photo Contest
Winners will be
announced at the
Happy Hour*

Live Session #5

Wednesday – September 2, 2020, 9:30 AM – 11:00 AM EDT

Ask the Expert Panel

Please continue to send questions/comments via the Q&A option. The Chair will be monitoring them and adding them to the conversation.

We will be using the questions submitted earlier as the kickoff questions to get the discussion started.

Use the menu option “Submit Expert Questions” to submit your own questions ahead of this live session so the chair can watch and promote them

	Global Start Times
Los Angeles	6:30am
New York	9:30am
Paris	3:30pm
Dubai	5:30pm
Delhi	7:00pm
Beijing	9:30pm
Sydney	11:30pm

Session Chair:
Dr. Alexander
Apostolov



Lobby



Exhibit Hall



Auditorium



Agenda



Submit Expert Questions



Drop Us a Photo

Expert Panel

Christoph Brunner

President
It4power

Christoph Brunner is the President of his own independent consulting company it4power LLC based in Switzerland. He has over 25 years of experience with knowledge across several areas within the Utility Industry and of technologies from the Automation Industry. He has worked as a project manager at ABB Switzerland Ltd in the area of Power Technology Products in Zurich / Switzerland where he was responsible for the process close communication architecture of the automation system. He is Convener of WG 10 of the IEC TC57 and is a member of WG 17, 18 and 19 of IEC TC 57. He is member of IEEE-PES and IEEE-SA. He is an IEEE Fellow and is active in several working groups of the IEEE-PSRC and a member of the PSRC main committee and the subcommittee H. He is advisor to the board of the UCA international users group.



Richard Hunt

Senior Product Manager
GE Grid Solutions

Rich Hunt is a Senior Product Manager with the Grid Solutions business of GE Renewable Energy, focusing on digital substation solutions for protection and control systems. Rich has over 30 years' experience in the electric power industry with both utilities and solution providers and has authored more than 50 technical papers presented at more than 90 conferences. Rich earned the BSEE and MSEE from Virginia Tech, is a Senior Member of IEEE, a member of the Main Committee of the IEEE Power System Relaying Committee, the U.S. representative to the CIGRE B5 Study Committee, and is a registered Professional Engineer



Dr. Normann Fischer

Distinguished Engineer
Schweitzer Engineering Laboratories, USA
Normann Fischer received a Higher Diploma in Technology, with honors, from Technikon Witwatersrand, Johannesburg, South Africa, in 1988; BSEE, with honors, from the University of Cape Town in 1993; MSEE from the University of Idaho in 2005; and PhD from the University of Idaho in 2014. He joined Eskom as a protection technician in 1984 and was a senior design engineer in the protection design department for three years. He then joined IST Energy as a senior design engineer in 1996. In 1999, Normann joined Schweitzer Engineering Laboratories, Inc., where he is currently a Distinguished Engineer in the Research and Development division. He has authored and coauthored more than 70 technical papers and 10 transactions papers. He has 25 patents, with 2 pending, related to electrical engineering and power system protection. He was a registered professional engineer in South Africa and a member of the South African Institute of Electrical Engineers. He is currently a senior member of IEEE and a member of the American Society for Engineering Education (ASEE).



Steven Kunsman

Director Product Management and Applications
Hitachi ABB Power Grids Business, North America

Steve Kunsman is the Director Product Management and Applications, Hitachi ABB Power Grids – Grid Automation in North America joining ABB Inc. in 1984. He has over 35 years of experience in Substation Automation, Protection and Control. He graduated from Lafayette College with a BS in Electrical Engineering and Lehigh University with an MBA concentrated in Management of Technology. Today, Steve is responsible for Hitachi ABB North American Substation Automation business' technical team. He is an active member of the IEEE Power Engineering Society PSRC & PSCC Committees, past IEC TC57 US delegate in the development of the IEC 61850 communication standard and UCA International Users Group Executive Committee Co-chair.



Expert Panel

Rannveig Loken

Project manager Statnett, Norway
Chair for CIGRE SC B5,
Rannveig Loken received her Master of Science in Electric Power engineering from the Norwegian University of Science and Technology (NTNU) in 1992. She works in Statnett, the TSO of Norway, currently the project manager in Statnett R&D project related to Digital substation. In August 2012, she became the secretary of CIGRE SC B5. She has been the Chair of SC B5 from September 2018. Her special field of interest is protection and control for the transmission system. In addition, working in CIGRE Working groups is of great interest - she is currently a member of WG B5.69. Rannveig is in the Advisory board of PAC world, Committee member of DPSP, and Member of the International Advisory Committee APAP.



Dr. Damir Novosel, IEEE Fellow

President
Quanta Technology LLC
Damir is president and founder of Quanta Technology. Previously, he was vice president of ABB Automation Products and president of KEMA T&D US. Dr. Novosel is a member of U.S. National Academy of Engineers and IEEE Fellow. He served as IEEE PES President and VP of Technical Activities. He is presently member of the IEEE Standards Board and chairs IEEE Smart Cities and Industry Technical Support Leadership Committee. He received CIGRE Attwood Associate and Distinguished Member awards. Damir holds 17 patents, has over 170 publications, and contributed to 5 books. Damir holds PhD and MSc, BSc degrees in EE from Mississippi State University (where he was a Fulbright scholar), the University of Zagreb, Croatia, and the University of Tuzla, Bosnia, respectively. He was selected Mississippi State University Distinguished Engineering Fellow.



Andre Smit

Product Manager
Protection, Substation & Distribution Automation
Siemens Industry, Inc.
Andre Smit completed his studies at the Vaal University of Technology in Power Engineering in South Africa in 1988. He joined Siemens in 1989, working in the field of protective relaying for the past 31 years. He specialized in generator protection systems. From 2004 to 2008 Managed the USA Siemens Protective relay business unit. Current position is P&C Product Manager for Protection and Automation including Distribution Feeder Automation systems. He is the principal inventor of a new Distribution Automation System and holds various patents on new methods to protect and automate distribution feeders. He is a member of the IEEE.



Dr. Alexander Apostolov

Editor-in-Chief
PAC World, USA
Dr. Alexander Apostolov received MS Electrical Engineering, MS Applied Mathematics and PhD from the Technical University in Sofia, Bulgaria. He has 45 years' experience in power systems protection, automation, control and communications. He is presently Principal Engineer for OMICRON electronics in Los Angeles, CA. He is IEEE Fellow and serves on many IEEE PES Working Groups. He is member of IEC TC57 working groups 10, 17, 18 and 19. He is Distinguished Member of CIGRE and IEEE Distinguished Lecturer. He holds four patents and has authored and presented more than 500 technical papers. He is Editor-in-Chief of PAC World.



Live Session #6

Wednesday – September 2, 2020, 11:30 AM – 1:00 PM EDT

11:30 – 11:45
WEM01 Wideband Voltage Sensors For The Modern Substation; T. Laughner, PowerGRID-RX Inc, USA; Dr. E. Sperling, Pfiffner Instrument Transformer, Inc, Switzerland

Presenter: Theo Laughner

11:45 – 12:00
WEM02 Testing of Transformer Protection with Time-Domain Inrush Detection Elements; C. Pritchard, T. Hensler, G. Tishenin, OMICRON electronics GmbH, Austria

Presenter: Christopher Pritchard

12:00 – 12:15
WEM03 Threat Intelligence: Application Aware Visibility into Automation and Control Networks Based on IEC 61850; L. Hausermann, Cisco, France; M. G. Seewald, CISSP Cisco, Germany, O. Koucham, Cisco, France

Presenter: Laurent Hausermann

12:15 – 12:30
WEM04 Reliable Protective Relay Coordination Considering Grid Dynamics; M. Stojanovic, Electricity Coordinating Center Ltd., Serbia; C. Zheng, R. Ganjavi, A. Gopalakrishnan, Siemens Industry, Inc., USA & Germany

Presenter: Ce Zheng

12:30 – 12:45
WEM05 Power Sensor Considerations in Protection and Control Applications ; R. D. Pate, D. Raschka, ABB, Inc., USA

Presenter: Ron Pate

12:45 – 1:00
Q&A Questions and discussions for the different speakers; moderated by the session Chair

	Global Start Times
Los Angeles	8:30am
New York	11:30am
Paris	5:30pm
Dubai	7:30pm
Delhi	9:00pm
Beijing	11:30pm
Sydney	1:30am (+ 1 Day)

*Session Chair:
Rannveig Loken*

Live Session #7

Wednesday – September 2, 2020, 1:30 PM – 3:00 PM EDT

1:30 – 1:45
WEA01 Merging Unit Based Solution for Full Switchyard Digitization; L. d. Marchi Pintos, A. O. Pires, R. Donadel, E. Bencz, GE Renewable Energy, Brazil

Presenter: Adriano Oliveira Pires

1:45 – 2:00
WEA02 Functional Testing Non-Standardized IEC 61850 Features for Practical Applications; G. Wilson, J. Autrey, Southern Company, USA; E. Carnevali, OMICRON, USA

Presenter: Glenn Wilson

2:00 – 2:15
WEA03 Initial Exploration of SDN for Substation Automation System ; B. Simpson, K. Gray, POWER Engineers, USA

Presenter: Bryce Simpson

2:15 – 2:30
WEA04 Developing Network and Protection Model Maintenance Approach for NERC PRC-027; F. Xu, M. Anazodo, Hydro One Network Inc, Canada; I. Anand, H. Khani, M. Chapariha, S. Alaeddini, Quanta Technology, Canada

Presenter: Hadi Khani and Muna Anazodo

2:30 – 2:45
WEA05 High-speed method to detect broken overhead conductors; A. Smit, Siemens Industry, USA

Presenter: Andre Smit

2:45 – 3:00
Q&A Questions and discussions for the different speakers; moderated by the session Chair

	Global Start Times
Los Angeles	10:30am
New York	1:30pm
Paris	7:30pm
Dubai	9:30pm
Delhi	11:00pm
Beijing	1:30am (+ 1 Day)
Sydney	3:30am (+ 1 Day)

*Session Chair:
Rich Hunt*

Live Session #8

Wednesday – September 2, 2020, 3:30 PM – 5:00 PM EDT

3:30 – 3:45
WEA06 Improving Protection Applications for Modern Distribution Switchgear Systems; B. Vandiver, ABB ES, USA

Presenter: Benton Vandiver

3:45 – 4:00
WEA07 Using Real-Time Testing Tools to Baseline the Performance of OT Networks for High-Speed Communications; L. Delli Carpini, E-Distribuzione, Italy; A. Kalra, D. Dolezilek, G. Vielmini, T. Grigg, Schweitzer Engineering Laboratories, Inc., Italy and USA

Presenter: Tim Grigg

4:00 – 4:15
WEA08 Power System Disturbances and IEC 61850-7-420 Operational Functions; F. Cleveland, Xanthus Consulting International, USA; L. Guise, Schneider Electric, France; C. Brunner, It4Power, Switzerland

Presenter: Frances Cleveland

4:15 – 4:30
WEA09 Redundancy in Time Synchronization System; D. Maragal, F. Ronci, New York Power Authority, USA

Presenter: Deepak Maragal

4:30 – 4:45
WEA10 IEC 61850 Based Centralized Substation Protection, Automation and Control – Principles and Benefits; A. Apostolov, PAC World, USA

Presenter: Alex Apostolov

4:45 – 5:00
Q&A Questions and discussions for the different speakers; moderated by the session Chair

	Global Start Times	
Los Angeles	12:30pm	
New York	3:30pm	
Paris	9:30pm	
Dubai	11:30pm	
Delhi	1:00am (+ 1 Day)	
Beijing	3:30am (+ 1 Day)	
Sydney	5:30am (+ 1 Day)	

*Session Chair:
Andre Smit*

Happy Hour

Wednesday – September 2, 2020, 10:00 PM – 11:30 PM EDT

Want to spend some time actually visiting, seeing, and talking other conference attendees?

Join us for a happy hour where everyone can use their cameras and microphones as they like.

It's BYOB – Bring Your Own Beverage. As this is a global event, it could be any time of the day, so bring any drinks from breakfast to cocktails – fruit juice, soda, water, beer, wine, coffee, etc.

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	Global Start Times
Los Angeles	7:00pm
New York	10:00pm
Paris	4:00am
Dubai	6:00am (+ 1 Day)
Delhi	7:30am (+1 Day)
Beijing	10:00am (+ 1 Day)
Sydney	12:00pm (+ 1 Day)

*Pop-In,
Say Hello,
and Let us know
how the conference
was for you!*

OnDemand Presentations

Available from the start of the conference and until 30 days after

OnDemand1 Substation HMI Design for Silicon Valley Power; A. De, Silicon Valley Power, USA; G. Antonova, Hitachi ABB Power Grids, USA; A. Piatniczka, Hitachi ABB Power Grids, Canada

Presenter: Galina Antonova

OnDemand2 CPC Architectures for Small Distribution Substations; J. Mendez, GE Renewable Energy, Canada; R. Hunt, GE Renewable Energy, USA

Presenter: Jose Mendez

OnDemand3 Multi-Terminal Permissive Overreaching Transfer Trip (POTT) Scheme Using IEC 61850 GOOSE Messaging; M. E. Baran, North Carolina State University, USA; A. Smit, A. Stinskiy, Siemens Industry Inc., USA; S. Arsal Hussain, P. Kulkarni, C. Zhang, X. Chen, North Carolina State University, USA

Presenter: Alexandr Stinskiy

OnDemand4 NERC CIP compliance of an EMP Mitigation Solution (Digital Substation model); A. Fernandes Onça, A. Smit, Siemens Industry Inc, USA; E. Easton, K. Bryant, Center Point Energy, USA

Presenter: Alexandre Fernandes Onca

	Global Start Times
Los Angeles	OnDemand
New York	OnDemand
Paris	OnDemand
Dubai	OnDemand
Delhi	OnDemand
Beijing	OnDemand
Sydney	OnDemand

These presenters
will also attend
the conference -
Reach out in the
conference chat for
any questions!

OnDemand Presentations

Available from the start of the conference and until 30 days after

OnDemand5 Monitoring Power System Poles ; T. Laughner, Hayden Data, USA; P. Markley, I. Putty, Hayden Data, Australia

Presenter: Peter Marklew

OnDemand6 Benefits of Simultaneously Monitoring Cybersecurity and System Protection; Nathan Wallace, Kevin Johnson, Ampirical, USA

Presenter: Kevin Johnson

OnDemand7 IEC 61850 Data Modelling for Utilities; G. Rigadello, Enyr, Italy; J. Reuter, Helinks, Switzerland

Presenter: Jörg Reuter

OnDemand8 UCAIug Update; Herb Falk, UCAIug and OTB Consulting, USA

Presenter: Herb Falk

	Global Start Times
Los Angeles	OnDemand
New York	OnDemand
Paris	OnDemand
Dubai	OnDemand
Delhi	OnDemand
Beijing	OnDemand
Sydney	OnDemand

These presenters
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conference chat for
any questions!

Thank you to our Sponsors and Exhibitors for their support!

Platinum Sponsor

OMICRON



OMICRON is an international company serving the electrical power industry with innovative testing and diagnostic solutions. Customers in more 160 different countries.

Visit our booth to learn about:

- IEC 61850 and Digital Substations
- RelaySimTest: "Why system-based Testing should be part of every Commissioning"
- Cybersecurity in the Substation – StationGuard
- Field Testing Traveling Wave Protection Systems
- Substation Automation System Testing – StationScout

We will have our expert engineers readily available to answer your questions!



Thank you to our Sponsors and Exhibitors for their support!

Silver Sponsors



Arcteq is the pioneer in arc flash protection, and we are known for making the most accurate protection relays in the world. Our headquarters and manufacturing facilities are located in Vaasa, Finland. Over the past decade, Arcteq products have been installed on all continents throughout the world. In addition to high-quality products, we are committed to providing industry-leading support and service to our customers. Our mission is to promote the safe and reliable supply of energy by enhancing power grid protection and control.



GE Grid Solutions, a GE Renewable Energy business, is focused on bringing together technologies and expertise to help solve the toughest power system challenges, accelerating the global transition to a greener, more resilient and reliable grid. GE Grid Solutions provides mission critical protection, automation, control, monitoring and diagnostic solutions for power system applications covering generation, transmission, distribution and industrial segments. GE has developed a wide range of solutions and services to enable full implementation of the Intelligent Digital Substation. These solutions and services include protective relays, gateways, optical instrument transformers, merging units, networking, time synchronization, panel fabrication, commission services, security audit services, non-SCADA data management and setting development services. Our engineering services also include Microgrid services, DER integration, and protection study services. Our distribution solutions include underground pad-mount switch control, overhead recloser & switch control and optimized distribution substation protection architectures using fewer devices and/or IEC61850 process bus.



Synaptec invented the world's first distributed sensor platform for power systems. Our unique arrays of passive sensors compare current, voltage, temperature, vibration and strain in real-time, unifying the visibility and control of complex MV and HV power systems with unmatched speed, accuracy and range.

We will be demonstrating how our technology platform improves real-time control functions and control room decisions, visualises live-streaming data correlations to improve scheduled maintenance, reduces outages and extends asset lifetimes, all in one integrated system which is safe and easy to deploy without civil works, data networks or power supplies.



Thank you to our Sponsors and Exhibitors for their support!

Bronze Sponsors



Helinks LLC is a software development and consulting company located in Zug/Switzerland. We are focusing on the development of IEC 61850 system tools and related components. Our customers are Utilities, System Integrators, and IEC 61850 device manufacturers. For Utilities and System Integrators we offer an advanced IEC 61850 System Specification and Integration Tool (Helinks STS) and related consulting, training, and project engineering services.

For IED manufacturers we offer IEC 61850 configuration and modelling software components and custom engineering tool development.

As members of TC57/WG10 we actively take part in the ongoing development of the IEC 61850 standard. Our customers benefit from our expertise and our future proof product strategy.



SISCO provides standards-based, real-time communications, and integration solutions to end-users and OEMs in the energy industry. We specialize in the application of IEC 61850 and CIM to manage the complexity of electric power systems while building a flexible Smart Grid integration architecture that is robust and scalable.

Products include source code, off-the-shelf interfaces, remedial action systems, and special protection systems.

Services available include use case and model consulting, systems integration, application development, training, support, and maintenance



For over 25 years, Triangle MicroWorks (TMW) has been providing solutions for standards-based protocols. TMW has grown over the years to provide a wide array of Communication Protocol solutions including Communication Protocol Software Libraries, PC-based Test and Configuration Tools, OPC drivers, and Protocol Gateways supporting industry-standard communication protocols including DNP3, IEC 61850, IEC 60870-5, IEC 60870-6 (TASE.2/ICCP), OPC, and Modbus. We work hard to advance Communication Protocol Standards by serving on the technical committees and governing bodies of the protocols we support, such as the DNP Users Group, the IEC Technical Committee 57 WG 3 and 10, UCA International Users Group, Modbus-IDA, and the OPC Foundation.



Thank you to our Sponsors and Exhibitors for their support!

Exhibitors



Calnex makes test & measurement equipment to prove performance and standards-compliance in 2 areas:

- Emulating IP/MPLS Wide-Area Networks to prove Teleprotection works
- Precision Timing Protocol (PTP) Conformance for IEC-61850

Based in Scotland, UK Calnex has shipped products to over 600 customer sites in 68 countries across the world.
Maintenance



Interface StationWare and PowerFactory to optimize your protection settings!

Manage large numbers of different manufacturer-specific settings files using StationWare, DlgSILENT's centralized asset management system for primary and secondary equipment.

Analyze protection settings using PowerFactory, DlgSILENT's leading power system analysis software that provides everything from standard features to highly sophisticated applications.



RFL : Delivering solutions that work. Period.

RFL designs and manufactures highly-reliable, mission-critical, cost-effective communications and protection solutions for the electric utility market. We offer dynamic, substation hardened solutions and see you as our partner and we want to ensure that we are working for you—now and over the long haul.



RTSoft GmbH is credible for serving biggest TSOs, DSOs and Generation companies with solutions for critical infrastructure. On PACWorld RTSoft focuses on "Advanced Protection Suite" that provides a comprehensive set of products for Protection Department activities – from Settings Calculations to Risk-based maintenance – for Power Utilities of all types.



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Exhibitors



PROTASIS SA was established in Athens / Greece in 2002. It has, since, been delivering expert Power Systems' Consulting services and specialized Systems' Integration services for Protection, Control, Monitoring (PCM), Substation Automation (SAS) and Smart Metering (AMI/MDM) Systems for Electricity Networks to Customers in more than ten (10) EMEA countries.



SecuControl - Testing Solutions for Electric Power

SecuControl specializes in safety-focused and innovative test switch designs. The Safety Test Switch features the cutout size and function of legacy knife-blade test switches. It improves user safety, provides easy test access via banana plugs, and reduces the chance of errors.



Schweitzer Engineering Laboratories (SEL) provides systems, services, and products for protection, monitoring, control, automation, security, communication, and metering of power systems worldwide. Our ten-year worldwide warranty, rugged reliability, unmatched service, and competitive pricing have created customer confidence for over 35 years. Learn more at selinc.com.



Leading the market for protection simulation, Siemens PTI PSS®CAPE software supports protection engineers with their entire workflow including detailed protection data collection to validation. With its extensive library of highly detailed relay models and modular tools, engineers can seamlessly manage voluminous and complex network data, uncover potential problems, and examine alternative solutions.



Thank you to our Sponsors and Exhibitors for their support!

Conference Organizer

PAC World provides a forum for members of the PAC (protection, automation and control) community to clarify the history of our industry, define its future, share experiences and ideas, learn about each other as human beings and to make new friends.

PAC World publishes 4 magazines per year on a quarterly basis keeping its readers informed on the reports and standards published by leading industry organizations such as IEC, CIGRE, and IEEE. PAC World also hosts conferences in Europe and the USA. The PAC World conference format is unique not only in bringing experts from different domains of the PAC space together in the same room but allowing us to capture the pulse of our industry.

We provide the participants at the conference and the members of the PAC World community around the globe a snapshot of the state of technology, challenges, experience and future developments that will shape protection, automation and control systems as part of the Smart Grid of the future.

PAC World invites you to join us by becoming a member or following us on social media.



PAC WORLD AMERICAS 2020

1 – 2 September 2020

Agenda



Thanks for joining us in the cloud for the first virtual PAC World Americas Conference!

Some Final Thoughts to get involved before leaving the conference:

- Fill out the survey so we can learn for our future conferences.
- Visit the exhibitor booths and see what they have to offer.
- Take time to color on our poster
- Drop us a photo
- Come back afterwards and watch the session recordings, OnDemand Presentations, and any exhibitor booths for 30 days!



SMILE & Drop Us a Photo!