

WEBINAR SERIES

Sensor Data as a Service: Part 2

Wednesday, June 17, 2026, at 10 a.m. PT (1 p.m. ET)

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Sensor Data as a Service is transforming grid monitoring by providing utilities with on-demand access to richer measurement data and actionable insights. By enabling earlier detection of abnormal conditions and faster interpretation of events, it can improve situational awareness while reducing the need for large, bespoke monitoring deployments. This webinar highlights two complementary approaches for delivering synchrophasor- and waveform-based observability as a practical, utility-ready service.

Theo Laughner (Lifescale Analytics) will first discuss an IOT power quality network based on 1.2 million sensors deployed across the North American grid over the past 5 years. The sensor network reports voltage sags, power outages, surges and a composite power quality index each month. The index has revealed that there are an increasing number of faults for many utilities in the United States. To better understand locations and root cause, a fault correlation algorithm has been developed to better pinpoint fault locations on the grid. This presentation shares the approach and some case studies where this approach has been used.

Next, Diego Rodríguez (Reactive Technologies) will explore how high-resolution time-synchronized dynamic measurement can complement PMU and power quality monitoring by revealing behavior that is difficult to characterize through event detection alone, including oscillatory patterns, propagation behavior, damping characteristics, and fast interactions from inverter-based resources, AI data centers, and power-electronic loads. Rather than treating sensor data as raw telemetry, the session will discuss how utilities can turn high-granularity measurements into a dynamic visibility service: supporting baselining, event interpretation, operational confidence, and a better understanding of system behavior across dynamic grid conditions.

Meet the Presenters



Theo Laughner is the Director of Engineering and Geospatial Services at Lifescale Analytics Inc where he has been helping utilities and their stakeholders maximize the return on investment in data for the contemporary grid. Previously, Theo spent 21 years at TVA where he was responsible for the Power Quality program at TVA. He is a senior member of IEEE where he chairs a variety of working groups in cyber security, intelligent grid, power system relaying, and power quality within the Power and Energy Society. He is a registered professional engineer in the state of Tennessee.



Diego Rodríguez, PhD is a Technical Solutions Lead at Reactive Technologies, supporting utilities and system operators across the U.S. energy sector. He brings deep expertise in power system analysis, with a focus on transmission planning, system stability, protection, power quality, and the integration of inverter based resources. In his role, Diego works closely with utilities, ISOs/RTOs, and internal product and commercial teams to deliver data driven, measurement based solutions for grid stability assessment, compliance monitoring, and operational decision making as system complexity increases. He holds a PhD in Electrical Engineering and is an IEEE Senior Member.

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