

Securely Connect and Manage Renewable Energy Generation Assets

Splight



Challenges

Digitalization of Heterogenous Assets in Renewable Energy

Energy Producers and Operators must continuously improve their operational efficiency and service quality. Asset managers require streamlined access to real-time asset status to avoid the complexity of multiple sources. Integrating diverse technologies and protocols from various vendors poses a significant challenge. Simplifying the secure connection of remote assets to the cloud is vital for the success of digital initiatives in the energy sector.



The Solution Eurotech & Splight

Integrated Asset Management of Global Distributed Energy Assets

IoT-based edge systems, collect, compute and communicate constantly vital data from assets in the field to the cloud. Eurotech's ReliaGATE IoT Gateways offer the capability to operate assets using their native protocols, maintaining a consistent structure across various hardware providers, simplifying operations, and enhancing efficiency. It ingest and aggregate data from as different sources as energy field buses (i.e. Modbus, OPC-UA, IEC 60870, IEC 61850, DNP3, etc.), smart systems and sensors. ESF and Everyware Cloud facilitate and speed up deployment and configuration of the edge, with full device management and powerful health monitoring, enabled by EC installed in the customers AWS account.

Splight revolutionizes grid management for utilities and operators by using real-time AI analytics, hardware-independent data, and automated controls within its software. Its unified platform facilitates the monitoring and management of energy assets, enhancing operational optimization and driving cost savings. This method affords a holistic asset overview, bolstering efficiency and aiding strategic planning. In partnership with Eurotech, Splight ensures swift energy asset integration, streamlined data handling, and effective asset management. This integrated solution simplifies workflows and delivers insights for efficient resource allocation and strategic decision-making.



Benefits

Optimized Asset Management and Situational Awareness

Optimize asset service schedules based on actual real-world data. Predict and ensure that services are available when and where needed. Being able to react in real-time on asset and infrastructure status and performance values. The interoperability facilitated by Splight enhances asset utilization and yield improvements in the Return on Assets (ROA) across the entire portfolio.

Ease of Asset Integration

Integrated field protocols, a no-code programming environment and seamless integration with AWS IoT (AWS IoT Core and AWS IoT Greengrass) reduce the efforts and cost for remote asset integration significantly.

Improved Compliance Data

Ensure that advanced logging is providing vital data for detailed audit trails as part of continuously ensuring service quality and compliance.

Eurotech on AWS

Eurotech is a multinational company that designs, develops and supplies ruggedized Edge Computers and Internet of Things (IoT) solutions to system integrators and enterprises. The portfolio ranges from IoT software stacks to Edge Gateways and Edge Servers to High Performance Edge Computers and Edge AI Systems. Eurotech complements the AWS offerings by enabling customers with application optimized Edge / IoT building blocks for demanding verticals like manufacturing, transportation, agriculture, energy, utilities and medical. Eurotech is part of a global AWS partner network that allows to create and leverage "best in class" solutions for the Industrial IoT, without compromising operational technology (OT) requirements.



Features



Effective Development and Reduced Time-to-Market

The Eurotech offering marries certified hardware with a full software stack, including a managed Linux OS and a powerful IoT device middleware ESF (Everyware Software Framework). ESF comes with a low-code/no-code development solution, a wide range of supported field protocols and ready to use AWS IoT Core and AWS IoT Greengrass integrations. The IoT Management Platform EC (Everyware Cloud), enables remote and full lifecycle management, advanced logging and health monitoring features.



Clear Focus on Low TCO and Risk Mitigation

The offering addresses major aspects that add to the total ownership costs of an IoT solution, like security, device software lifecycle management, health monitoring and logging. Security, a major challenge in critical infrastructure is ensured by successfully achieved PSA Level 1 and IEC 62443-4-2 certifications. Risk aspects are further mitigated by long product life support, extended warranty options and a broad professional services offering.

Case Study:

Connect & Manage PV Power Generation Assets

Challenges



Navigating a landscape with diverse hardware from multiple manufacturers comes with significant challenges. These assets often use various protocols, employ non-standardized units, and use inconsistent variable naming conventions. Such variability not only complicates decision-making but also raises serious compatibility issues, making a comprehensive analysis of the asset portfolio an arduous task. Furthermore, keeping pace with technological advancements and ensuring seamless integration of these disparate systems add complexity to their operations.

Splight

Solution



Integrating the ReliaGate 10-14 edge device with Splight enables seamless connections among diverse data sources and monitoring systems. This integration paves the way for creating tailored dashboards, real-time alert systems, and advanced predictive analytics, which utilize anomaly detection algorithms. Such capabilities facilitate a comprehensive evaluation of the asset portfolio, ensuring smooth interoperability of various devices across multiple hardware providers, international borders, and differing regulatory frameworks with ease and efficiency.

Results



With this solution, the customer can gain – fast and securely – a comprehensive insight in renewables power production and get detailed views into each site to monitor performance, identify issues or inefficiencies. Benefits include:

- Fast & efficient remote asset integration and ready to use applications: fast track to digitalization of renewable energy assets
- Risk Mitigation & reduced risk: edge lifecycle management and security designed in.
- Enhanced asset usage and boosted asset up-time. Decreased Mean Time to Repair (MTTR).

Get started with Eurotech solutions on AWS

Visit eurotech.com to learn more about Eurotech's offering for Energy & Utilities.
Visit AWS Certified Device Catalog for information on [ReliaGATE](#) IoT Gateways.
Visit splight-ai.com for more information of Splight's platform for power producers and operators.

