

Utilities adopt new initiatives to minimize outages in the face of extreme weather events – according to Wi-SUN Alliance

Prioritize cyber for interoperability & connectivity for IoT projects; AI offers opportunities to integrate energy forecasting & automated fault detection

ORLANDO, FLORIDA, USA, February 26, 2024 /EINPresswire.com/ --DISTRIBUTECH 2024 Booth #1957 -Advanced weather prediction tools, renewable energy integration, and grid modernization are some of the key



initiatives currently being undertaken by utilities to ensure network resilience in the face of power outages caused by extreme weather events and climate related disasters. This is according to new research published today by <u>Wi-SUN Alliance</u>, a global association of leading companies that specifies open standards-based, interoperable technology solutions for smart utilities, smart cities and other IoT and IIoT wireless communication applications.

The research among senior professionals in the U.S. utilities and power sectors highlights the role of new tools and technologies to help improve resilience and outage recovery times as weather events and environmental disasters become commonplace. According to the U.S. Department of Energy, extreme weather conditions – from heatwaves to arctic vortexes – have doubled power outages in the U.S. over the past 20 years. From California to New Jersey, states are experiencing significant weather-related utility disruption, making it more challenging to meet the needs of customers in traditional ways.

Key survey findings:

• Advanced weather prediction (41%) tops the list of initiatives that will ensure better network resilience for utilities, followed by renewable energy integration (41%), grid modernization and microgrids (39%), and disaster response and recovery plans (34%).

• Respondents are adopting new approaches to improve outage recovery times through advanced networking, including predictive maintenance analytics (40%), smart grid technologies (39%), and enhanced communications (34%), as well as use of drones and robotics to inspect

assets (31%).

• Utilities recognize opportunities to integrate artificial intelligence (AI) technologies as part their network infrastructure, with energy consumption forecasting (37%), automated fault detection (33%), and grid optimization (31%) as viable use cases.

"Extreme weather events are fast evolving from a rare occurrence to something that should be built into the risk profile of any utility company," comments Phil Beecher, President and CEO of Wi-SUN Alliance.

"The emergence of smart grids, microgrids and other technologies, like predictive maintenance and fault finding, offers a way of controlling costs while increasing resilience and stability to help mitigate the impact of outages. But technologies like this are only as good as the underlying communications network to provide reliable, and secure delivery of the data needed to deliver a truly smart grid. Built on open industry standards, Wi-SUN FAN wireless mesh networking offers utilities and power companies more choice in what they do – both today and in the future."

The research also shows that cybersecurity investment is a priority for utilities looking to enhance interoperability and connectivity for large-scale IoT applications in smart utility and smart city projects. Asked to list their top strategic initiatives for the next five years, 41% of respondents cited security enhancement as their number one choice, reflecting concerns highlighted in Wi-SUN's global <u>Journey to IoT Maturity</u> report published in 2022, where security and data privacy were critical considerations for utilities and organizations adopting IoT solutions.

Customer-centric services (40%), renewable energy integration (37%), building infrastructure resilience (32%), and IoT integration and data analytics (23%) are also as integral to respondents' five-year plans.

Jeff Scheb, Director of Solutions and Systems Architecture at Landis+Gyr, a Wi-SUN Promoter member, says: "Enhancing cybersecurity across utility networks continues to be a key priority for future investment. That security focus extends from the customer grid-edge to the Field Area Network, to the substation, and ultimately to the data center. An authentic layered approach to security is a must. While Wi-SUN FAN is often thought about in terms of interoperability, it also has robust security mechanisms built in, based on widely adopted industry standards. Adoption of Wi-SUN should be seen as one layer in the overall security posture of a wide-scale IoT network."

The research is being announced at DISTRIBUTECH 2024, the leading transmission and distribution event for the utility and power sectors, where Wi-SUN Alliance is exhibiting on booth #1957.

* Censuswide conducted online research of 250+ senior level professionals within the U.S. utility

and power industry (working in IT, Operations and Production) in February 2024.

About Wi-SUN Alliance

Wi-SUN Alliance is a global non-profit member-based association made up of industry leading companies. Its mission is to drive the global proliferation of interoperable wireless solutions for use in smart cities, smart grids and other Internet of Things (IoT) applications using open global standards from organizations, such as IEEE, IETF, TIA, TTC and ETSI. With 300 members worldwide, membership of the Wi-SUN Alliance is open to all industry stakeholders and includes silicon vendors, product vendors, services providers, utilities, universities, enterprises and municipalities and local government organizations. For more information, visit: <u>www.wi-sun.org</u>.

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