

Digita and Digital Matter Announce New Industrial IoT Position Sensor for Power Line Sag Detection and Power Pole Condition Monitoring, Smart Grid and Utilities Management on LoRaWAN® Networks

Digita's new custom designed IoT Position Sensor for LoRaWAN monitors power lines and poles, other utilities to alert operators of dangerous snow and ice loads, saving operators millions of Euros in network maintenance

Helsinki, Finland, and Atlanta, Georgia. - March 29, 2022 - Digita (www.digita.fi), Finnish LoRaWAN Network Operator and IoT solution provider, and Digital Matter (www.digitalmatter.com), leaders in GPS and IoT device development today announced Digita's new industrial IoT position sensor, the Industrial Guppy for LoRaWAN to support utility network infrastructure management and smart grid operations.

Custom-developed by Digital Matter to solve a million-euro problem, the Industrial Guppy is installed on overhead power lines to monitor the line's angle and surrounding temperature. When snow or ice accumulates on the line to dangerous levels, the sensor sends an alert to utility network operators ensuring snow clearance before infrastructure damage occurs. Compact and ultra-rugged, the battery-powered position sensor features over 10 years of battery life and is designed to operate in extreme temperatures (-40°C - +125°C).

"Our partners came to us with a real-world problem that we knew we could solve using the IoT and LoRaWAN," says Ari Kuukka, VP, IoT Services at Digita. "The Industrial Guppy is a simple solution to a big problem for utilities operators. As the weather gets more severe it is critical operators are prepared with smart, predictive maintenance strategies to prevent expensive and dangerous network outages, avoid downtime, and prevent blackouts in hazardous conditions."

Inspecting power lines manually, particularly in remote regions, frequently requires the use of a helicopter—an expensive, inexact, and sometimes dangerous exercise. With increasingly comprehensive management of network grids thanks to the IoT, operators are now able to improve operational efficiency and monitor critical infrastructure remotely and affordably, providing also additional benefit of decreasing carbon footprint.

The Industrial Guppy is currently being deployed by Finnish electricity network distributors [Caruna](#), who has been a forerunner in developing more efficient network maintenance with the use of IoT solutions.

"IoT sensors can be used to monitor the development of snow loads, regardless of the observers' time or place. We have installed Digital Matter's IoT sensors that use Digita's LoRaWAN network mainly in northern Finland, where snow load is more common, but also in other network areas especially where there is an increased risk of ice loads," says Petteri Palmumaa, Maintenance Manager of Caruna. "The sensors have made it possible to anticipate and prevent faults, which improves the safety of the electricity network and

reduces inspection and fault repairing costs. The IoT sensors can also be used to precisely target fieldwork and speed up fault repairing. Of course, customers are also satisfied when power cuts are kept to a minimum.”

The Industrial Guppy can also be used for position monitoring and tilt detection across other assets such as cellular towers, poles, highway signage, and more, and can be integrated into any IoT platform, ERP, or SAP. For more information, visit www.digita.fi.

About Digita

Digita is a provider of digital infrastructure and services and the country's largest independent owner of telecommunication masts. The company owns and operates Finland's leading national terrestrial television and radio network, acts as a pay-TV operator for the antenna network, and develops future broadcasting services. Digita's telecommunications services include private networks, indoor coverage solutions, telecommunications rooftop management services, as well as Internet of Things (IoT) and data center services. Services are provided to media companies, consumers, mobile operators, industry, infrastructure companies and property owners. Digita employs 180 experts nationwide.

About Digital Matter

Digital Matter is a leading global developer of low-power GPS and IoT hardware for asset tracking and management applications. Engineered to outperform, we offer a versatile range of LPWAN asset tracking hardware with the largest portfolio of integration-ready battery-powered asset tracking devices across a range of connectivity technologies. With over 20 years of telematics experience and over 500 channel partners across 120 countries, Digital Matter supplies and supports scalable, and secure devices for Telematics Businesses, IoT Solution Providers, Enterprises and Network Operators around the world. For more information, visit us at www.digitalmatter.com.

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