

Cooperation between Vaisala and Unikie improves the real-time situational awareness of ports with hyperlocal weather insights

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Technology companies Vaisala and Unikie cooperate to enable better utilization of hyperlocal accurate weather data in ports. Vaisala's weather station solution collects real-time hyperlocal observations from the port area. Combined with the real-time port data sharing and control system developed by Unikie, it enhances port operations and improves safety.

Local weather data is of considerable importance for the smooth and safe operation of ports. Especially rapidly changing wind conditions can cause unexpected problems for ports, including grounding, ship collisions, and damage to port-area machinery. By observing the local weather, the realization of these risks can be avoided.

“Nearly half of the weather-related risks and operational problems in ports are related to winds and their sudden changes. Vaisala Beacon™ weather station network enables accurate observations of the key weather parameters, such as wind speed and direction, and rainfall throughout the port area. Accurate weather data helps port operators in their day-to-day decision-making and improves port safety and efficiency. The collected weather data can also be used in the future to support the port's infrastructure development more intelligently to address changing climate conditions and extreme weather impacts,” says Vaisala's Head of Maritime **Mikko Nikkanen**.

Unikie, a pioneer in intelligent machines, vehicles and industrial applications capable of real-time decision-making, has implemented a real-time situational awareness solution for the port environment, to which hyperlocal weather data from Vaisala's weather station solution adds a significant new feature. The POLO environment developed by Unikie for intelligent port operations enhances the flow of information in ports by combining information collected from the equipment of different port operators into a real-time information sharing, warning and control system. POLO's user interface, Port Activity App, is already in use in 15 Finnish ports and in Gävle, Sweden.

“We are constantly developing new features for POLO with the aim of better optimizing port operations and improving the situational awareness. Vaisala's expertise adds a new dimension to our solution, as hyperlocal weather data is an essential part of the process and real-time situational awareness of the port and its operators. The first joint projects are already underway and the results of the utilization of hyperlocal weather data in the port will be seen as early as next spring,” says Unikie's Head of Industrial Solutions **Petri Kalske**.

The hyperlocal weather information produced by the Vaisala Beacon™ weather stations can be used by all port operators with an application developed by Unikie, either on a computer browser or a smart device via a mobile application. Hyperlocal weather data is integrated with the port operational information. By utilizing machine learning, the collected data can be used to make recommendations for action, and thus to be better prepared for possible hazards or delays.

Vaisala and Unikie will jointly organize a webinar on Wednesday, December 8, where the hyperlocal weather solution for ports will be discussed in more detail as part of the port's real-time situational awareness.

Link to webinar page: <https://www.vaisala.com/en/events/webinars/lp/vaisala-and-unikie-improving-port-safety-and-performance-hyperlocal-weather-insights>

Unikie POLO: <https://www.unikie.com/fi/solution/port-flow-optimization-polo/>
Efficient utilization of weather information and a holistic situational awareness for ports:
<https://www.unikie.com/en/hyperlocal-weather-data-for-ports/>

Vaisala Beacon: <https://www.vaisala.com/en/products/weather-environmental-sensors/beacon-station-ports>

Local weather data into the real-time situational data of the ports:
<https://www.vaisala.com/en/lp/vaisala-unikie-port-operations>

Unikie in brief

Unikie is a forerunner in real-time data control. We connect vehicles, people and processes using a constant awareness of the environment. We support the competitiveness of leading companies in their respective industries in, for example, the automotive, manufacturing, mining, ports and telecom sector by developing sensor data-based autonomous driving technology and industrial AI and automation solutions, as well as secure connectivity and communications solutions. We operate in global markets and harness the almost limitless potential of the entire Internet (IoE), advanced 5g network connections and artificial intelligence to build a smart and secure society. Unikie is one of Finland's fastest growing technology companies (Deloitte 2019). We employ approximately 450 top software professionals in Finland, Sweden, Germany, Poland, the United States and Estonia. Our customers include, for example, Sandvik, Nokia, Valmet and Ponsse, as well as several leading car manufacturers.

Vaisala in brief

Vaisala is the world's leading provider of weather, environmental and industrial measurement solutions. Based on our 85 years of experience, we offer our customers reliable measurement solutions and services to support better decision-making, safety and efficiency. Vaisala's measurement technology is also used in space research, for example on Mars. Vaisala's head office is in Finland and employs approximately 1,800 professionals worldwide. The company is listed on the Nasdaq Helsinki Stock Exchange.

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