



Kaspersky Industrial CyberSecurity protects first smart floating fishing farm in Singapore

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**Kaspersky
Industrial
CyberSecurity**



Agri-food industry

- Launched in 2020
- Up to 350 tonnes of fish production capacity
- 10 tanks, with 10 tonnes of fish each

Wintershine is a sustainable aquaculture nutrition & healthcare company based in Singapore. Its subsidiary, Singapore Aquaculture Technologies (SAT), launched the first smart floating fish farm in Singapore. This launch goes hand in hand with efforts of the Singapore Food Agency to strengthen the country's food supplies. The facility is expected to produce 350 tons of fish annually to meet the growing need for quality fish in the region, while also addressing climate change challenges raised by dwindling fish populations. This is at least 20 times the minimum yield that a conventional coastal fish farm in Singapore of the same size is required to produce.

Singapore's first smart floating fish farm, which is equipped with an integrated artificial intelligence (AI) and video analytics system to monitor fish health and growth rates, houses 10 tanks, each of which can hold up to 18 tons of fish. The tanks work on a closed loop RAS system that recycles water and does hardly release any waste into the ocean. In a bid to reduce its carbon footprint, the farm uses solar power to run about 30 per cent of its operations.

Mr Masagos Zulkifli, Minister for the Environment and Water Resources, said in his speech at the opening that this off-shore smart fish farm is in line with Singapore's vision to bolster homegrown agri-food production to make up 30 per cent of the country's nutritional needs by 2030.

Cybersecurity for Aquaculture 4.0

SAT has embarked on a unique first of its kind fish farm that combines cutting edge OT equipment with latest Aquatechnologies. Collecting data for analytics along with specifically developed dashboards and interfaces, the fishfarm is pioneering a new generation of sustainable fish farming. Both the Singapore government and several other leading companies under the guidance of Siemens are helping create this unique Aquaculture 4.0 project a showcase for South East Asia.

To strengthen the facility's cyber resilience, SAT has chosen Kaspersky Industrial CyberSecurity (KICS) for Nodes - an industrial endpoint protection solution from Kaspersky Industrial CyberSecurity portfolio. It was specially designed to protect industrial infrastructures and secures SCADA servers, HMIs and engineering workstations from the various types of cyberthreats.

KICS for Nodes protects the farm against the widening cyberthreat landscape, with potential danger coming from human factors, malware and sophisticated targeted attacks, so SAT can effectively maintain operations.

“As we believe in a technology-based approach in aquaculture that handles a lot of data, first our own and later potentially also those of others, it is essential to have cybersecurity solutions we can trust and rely on.”

Dr. Dirk Eichelberger,
Director of Wintershine Asia.



Cyber resilience

Implementation of a specialized industrial cybersecurity solution helps to mitigate the risks of disruption caused by a cyber incident.



Low resource consumption

Due to its modular architecture, KICS for Nodes consume the minimal amount of resources.



Full support

Kaspersky Industrial CyberSecurity brings value on any stage of the customer's OT security process – from training and assessment to advanced technologies and incident response.

Results

The launch of this smart floating fish farm demonstrates how technology can support the growth of the agri-food industry worldwide, by helping societies prosper with less resources. The farm combines advanced technology by using big data, AI and video analytics to increase the food productivity.

“By integrating cutting-edge technologies like artificial intelligence, edge computing and blockchain, Siemens is helping SAT to continuously optimize their operations,” comments Raimund Klein, Executive Vice President, Digital Industrial, Siemens ASEAN. “The use of innovative advanced predictive analytics such as machine learning and video analytics helps to predict potential biomass growth and prevent the outbreak of diseases, hence reducing fish mortality.”

“We are proud to partner with Wintershine on this innovative and exciting initiative that will help put Singapore on the world map in the food and agri-tech sectors. It is clear from this example that the relevance of cybersecurity is no longer confined to the usual suspects of sprawling industrial complexities, corporations and consumers, but should be a principal consideration for every industry. Looking ahead, we will continue to explore how we can continue to deliver tailor-made cybersecurity solutions that considers the evolving business needs of every industry,” adds Stephan Neumeier, Managing Director for Asia Pacific, Kaspersky.



Kaspersky Industrial CyberSecurity

Kaspersky Industrial CyberSecurity is a portfolio of technologies and services designed to secure operational technology layers and elements of your organization - including SCADA servers, HMIs, engineering workstations, PLCs, network connections and even engineers - without impacting on operational continuity and the consistency of industrial process.

Learn more at www.kaspersky.com/ics

All about ICS cybersecurity:
<https://ics-cert.kaspersky.com>

Cyber Threats News:
www.securelist.com

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opentip.kaspersky.com

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