



Revolutionizing manufacturing with the Internet of Things

Auk Industries helps manufacturers increase productivity 80 percent using edge computing backed by Dell Technologies OEM | Embedded & Edge Solutions



Technology

Singapore

Business needs

Auk Industries looked for a partner to provide gateways at the network edge of its analytics platform to help its customers raise productivity. Auk Industries built the software and edge devices for customer production lines but needed gateways to process the data before transferring it to the cloud.

Solutions at a glance

- [Dell Technologies OEM | Embedded & Edge Solutions](#)
- [Dell Edge Gateway 3000 Series](#)

Business results

- Triples business size in the first 18 months
- Enables an 80% rise in industrial productivity for an Auk customer
- Reduces order lead time by 40% for Singapore customer
- Enables business development in multiple markets with global support network
- Handles industrial environments through compact gateways
- Reliably processes data from 10,000 readings per second at the edge

“The data from our platform, supported by Dell Technologies solutions, helped our customer increase production by 80 percent.”

Samuel Tan
CEO, Auk Industries

With the globalization of many markets, competition has increased. It's creating a drive for greater efficiency across industries including manufacturing, where companies are turning to Internet of Things (IoT) technologies to help increase production-line performance.

In Singapore, startup Auk Industries is helping manufacturers deliver performance improvements and step up to the challenge of global competition. Auk Industries has developed an analytics platform that tracks and measures the performance of industrial machines. The company built the software and constructed IoT devices that connect to the machines' operating systems. The devices collect data on the machines 24/7, and then the data is transferred to a cloud-based infrastructure for deep analysis.

Help needed to unlock potential

Auk Industries needed industrial-grade edge gateways to sit between its devices on the machines and the cloud infrastructure. Samuel Tan, CEO of Auk Industries, says, "We wanted a compact gateway that was rugged enough for industrial environments. Besides offering us multiple communication options such as Ethernet, wireless LAN and cellular, the gateway had to help us build additional levels of performance and redundancy at the edge of our network."

The gateways needed to load balance and pre-process data from the devices, adding timestamps, for example, before transferring data to the cloud. The data loads moving through the gateways would be large, with each device taking 10,000 readings per second from each machine. In addition, the gateways might need to store data for brief periods to avoid data loss if there were momentary breaks in cloud connectivity. Tan says, "The gateways were crucial to the success of the platform. We looked for an OEM to provide gateways that took all this into account."

Support from a global partner

Auk Industries engaged Dell Technologies OEM | Embedded & Edge Solutions. Tan and colleagues had reviewed the Dell Edge Gateway 3000 Series, which is available in an OEM Ready version. "The gateways were rugged and compact. The 3000 Series included the communication protocols we were looking for and gave us the capabilities to distribute firmware updates to our devices," says Tan.

By choosing OEM | Embedded & Edge Solutions, Auk Industries gained the assistance of a global network of support engineers and program managers. "At the initial stage of our relationship, when support is always the most critical, they were very responsive to our questions. Our lines of communication were great from day one," remembers Tan.

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Samuel Tan
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“We are helping companies transform their production lines for the data era with the support of OEM | Embedded & Edge Solutions.”

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Promotes data-driven decision making

Auk Industries has now deployed its analytics platform, including Dell Edge Gateways, for companies in Europe and Southeast Asia. “It’s a quick win for customers,” states Tan. “Recently, we shipped our platform to a company in Europe and had an hour-long conference call with the customer when the platform arrived, just to talk it through. The customer called us back two hours later and told us our platform was up and running and providing data on the performance of their machines. In no time, our customer was making data-driven decisions on its production line with our devices and Dell Technologies gateways.”

Increases customer productivity by 80 percent

Another customer, which runs a water bottling plant, realized a significant production increase as soon as it gained detailed information on the performance of each machine in the production process. Originally, the company was planning to spend millions of dollars on building a new production line to increase output. “We showed how our customer could meet that increase without a significant CapEx investment,” says Tan, “The data from our platform, supported by Dell Technologies, helped our customer increase production by 80 percent with its existing machinery.”

Enables 40 percent shorter lead time on orders for customer

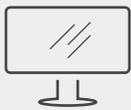
Auk Industries is helping manufacturers work “smarter” using the analytics platform. Tan provides the example of a customer in Singapore that optimized the performance of the machinery on its production line so that the company reduced order lead times from 2.5 to 1.5 worker shifts. Tan says, “The company didn’t have to dedicate as much of its workforce to basic, production-line tasks. Better-performing machinery meant more people could be dedicated to higher-value tasks. It’s the power of IoT.”

Helps Auk Industries triple in size

The company went to market with its analytics platform supported by OEM | Embedded & Edge Solutions in 2017. In the first 18 months, the company grew rapidly—more than tripling in size. Today, it has operations in Singapore, Indonesia, Malaysia and Thailand, and it is planning to open a European office in Italy. The company is looking to widen its product portfolio with an analytics platform incorporating Dell EMC PowerEdge server technology. With the servers as an option, Auk Industries will meet the needs of companies that want their machine data to reside on-site. “It’s an exciting time,” concludes Tan. “We are helping companies transform their production lines for the data era with the support of OEM | Embedded & Edge Solutions.”

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CEO, Auk Industries



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