

IMPROVING SCIENTIFIC RESEARCH EFFICIENCY IN AUSTRALIA

Conserve It wins project with a leading university to control laboratory temperatures with Dell EMC OEM support



Industrial & Building Automation

Australia

Business needs

Conserve It looked for an original equipment manufacturer (OEM) partner that could help it win projects among leading universities by overcoming existing OEM challenges such as inconsistent hardware performance, time-consuming relationship management and a lack of certification in new markets.

Solutions at a glance

- [Dell EMC OEM IoT Solutions](#)
 - [Dell Edge Gateway 3000 and 5000 series](#)

Business results

- Drives sales in key market for universities
- Gives customers peace of mind with renowned brand
- Helps cut inventory by 20%
- Eliminates time-consuming and costly administration
- Opens new markets with global hardware certification

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Chirayu Shah
General Manager, Conserve It

A major challenge for climate change is energy use for cooling and refrigeration. To reduce the impact, manufacturers in the heating, ventilation, air-conditioning and refrigeration (HVAC&R) industry are seeking more energy-efficient ways to control temperatures.

Conserve It, based in Melbourne, Australia, developed PlantPRO to help building managers optimize chiller plant systems—systems that circulate chilled water through HVAC equipment and buildings to reduce temperatures. By integrating PlantPRO with a plant system, managers can fine-tune temperature control by taking advantage of the IoT technologies to continuously run analytics and diagnostics right at the edge.

An OEM headache

The challenge for Conserve It was finding an original equipment manufacturer (OEM) partner to help realize PlantPRO's global potential. Conserve It had been working with a Taiwan-based OEM partner to supply PlantPRO's hardware. Chirayu Shah, general manager at Conserve It, explains, "Hardware performance was inconsistent. Plus, every piece of hardware was supposed to come with a tracking number for our systems, but the numbers were often incorrect, adding management time on our side."

To ship PlantPRO to a country where the OEM's hardware wasn't certified caused delays. "It cost approximately \$10,000 to have the hardware tested and certified and could take up to three months to gain approval," says Shah. More time was lost because customers often wanted to test the hardware rigorously because they were unfamiliar with the OEM brand behind PlantPRO. "These chiller plant systems are often critical, so customers have to be 100 percent convinced that the hardware is up to the job," he says.

Taking away the OEM pain

Conserve It found a solution to its OEM challenges by establishing a relationship with Tridium, a company whose application framework Niagara powers Conserve It's software. Shah says, "We saw that Tridium had formed a partnership with Dell EMC OEM Solutions and began to investigate the whole Dell EMC OEM proposition." After an initial meeting with the Dell EMC OEM Solutions team in the U.S., Conserve It started testing the Dell Edge Gateway 3000 and 5000 series as replacements for the existing OEM hardware.

The Edge Gateways could perform the data analytics, diagnostics and measurements as part of the optimization process for PlantPRO. What's more, Dell EMC OEM could deploy PlantPRO's operating system and basic input/output system (BIOS) onto the gateways as they rolled out of the Dell EMC factory. "We were impressed with the performance of the Edge Gateways and the OEM services package," says Shah. "It wasn't just the factory deployment, but also the global support—which we'd never had before. It would give customers additional confidence."

"We know that because Dell EMC hardware is certified worldwide, we don't face any delays when looking to enter new markets."

Chirayu Shah
General Manager, Conserve It



20% reduction in inventory

Shortly after implementing Dell EMC OEM Solutions, Conserve It saw good results. Says Shah, “The performance of the Edge Gateways has never varied. They have been highly reliable, so we don’t have to keep stock to replace faulty batches. We’ve found that Dell EMC OEM Solutions has enabled us to reduce inventory by 20 percent.”

In addition, all Dell Gateways have come with the correct tracking numbers. “The importance here,” Shah notes, “is that—unlike before—we don’t spend 30 to 40 minutes on each piece of OEM hardware opening the boxes, checking tracking numbers, replacing the tracking numbers and reboxing the hardware if they are wrong.”

Greater customer confidence

Conserve It has also seen that customers immediately have a high level of confidence in PlantPRO’s hardware when they know it’s from Dell EMC. “As soon as we say it’s Dell Edge Gateway technology underpinning PlantPRO, there are no more questions about the hardware,” comments Shah. “We know that because Dell EMC hardware is certified worldwide, we don’t face any delays when looking to enter new markets.”

Better development planning

Conserve It can now plan the development of PlantPRO more effectively. As Shah explains, “The Dell OEM team told us straightaway that the Edge Gateway platform would be supported over its lifecycle. What’s more, we would receive plenty of notice about configuration changes. We never had that kind of guarantee before. It gave us a solid base on which to continue developing our software.”

“We expect to reduce our energy bills for the chiller plant by 10–20 percent with PlantPRO.”

Guy Walpole
Mechanical Engineer, ANU

Helping secure major projects

Since the Dell EMC OEM Solutions relationship began, Conserve It has won a major project with the Australian National University (ANU) through its value added reseller Airmaster to improve the energy efficiency of its chiller plant system. The system supports facilities such as ANU's John Curtain School for Medical Research, where it closely controls the temperatures in laboratories in which millions of dollars of research is ongoing. Comments Guy Walpole, mechanical engineer for the chiller plant at ANU, "Cooling plant consumes approximately 40 percent of all energy across the ANU campus."

Delivering up to 20% cost savings

ANU deployed the new Dell EMC OEM-backed PlantPRO solution, complete with a Conserve It branded Dell Edge Gateway 3003. "By deploying PlantPRO, I no longer had

to write the control logic for our chiller plant management system and then fine-tune the logic to try to optimize temperature control," Walpole says. "With PlantPRO and the Dell Edge Gateway, we automated the entire optimization process. The Dell Edge Gateway continuously analyzes sensor-based data from the chiller plant, and the PlantPRO software optimizes the management system."

"We expect to reduce our energy bills for the chiller plant by 10–20 percent with PlantPRO," says Walpole. That will also deliver a cost savings to the John Curtain School of Medical Research, which has to pay for the energy the chiller plant consumes for keeping the school's laboratory temperatures precise. "The savings the school makes could be enough to employ one or two more researchers."

Shah concludes, "PlantPRO's success at ANU is an outcome of our Dell EMC OEM Solutions relationship. The performance and reliability of the Dell Edge Gateways are helping PlantPRO deliver these significant savings for ANU. Plus, the support we receive from Dell EMC OEM gives the university an extra layer of confidence in our solution."



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