



Keeping it green in the logistics industry

How Schneider Electric supported a French logistics and transport company on their journey to achieving the highest possible rating for the Green Mark scheme.



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On a rainy day at Bolloré Logistics Blue Hub, the air-conditioning system of the 540,000 sq ft building automatically adjusts itself to reduce its cooling levels to save energy for the building. And it's not only the cooling system. Temperature, humidity, air quality and other environmental factors are also monitored in real-time using the 300 smart sensors which are scattered across the smart warehouse of the French logistics giant in Jurong, Singapore.

A strong advocate for sustainability, Bolloré Logistics rolled out its "Powering Sustainable Logistics" program in 2018 as part of its efforts to promote sustainable global trade and growth. The program aims to reduce environmental impact of Bolloré Logistics' activities and Blue Hub is the latest testament of the company's commitment to the cause.

It therefore comes as no surprise that Blue Hub is a green building that is equipped with an advanced energy management system and other eco-friendly features such as a storm-water recycling system, energy and water consumption monitoring. The hub is not only Bolloré Logistics' first Asia-Pacific smart warehouse, but is also an icon of new-generation sustainable architecture.

Powered by Schneider Electric's EcoStruxure Power and EcoStruxure Building solutions, Blue Hub successfully achieved the Green Mark Platinum Award and LEED Gold in 2019. The award is a green building rating system introduced by the Building and Construction Authority of Singapore (BCA) to evaluate a building for its environmental impact and performance, with the Platinum award being the highest rating under the program.

Thierry Ehrenbogen, CEO of Bolloré Logistics said, "Blue Hub perfectly illustrates our desire to combine sustainability and innovation with a strong focus on employee-centricity. This new ultra-modern building prefigures logistics platform of tomorrow thanks to the technologies it incorporates and its eco-responsible dimension. It will enable us to strengthen our presence in Asia, emphasize our business development and showcase our expertise."

Goal

- Achieve tangible sustainability benchmarks required to obtain environmental certifications such as Green Mark & LEED

Solution

- Ecostruxure Power & Building

Results

- Achieved Green Mark Platinum & LEED Gold in 2019
- Reduced carbon emission
- Optimal temperature, humidity, air quality levels within the Blue Hub
- Full system analysis of power management system

High-tech sustainability

With the effects of global warming felt worldwide, companies around the globe have been trying their best to reduce their carbon footprint. The logistics industry has also followed suit, environmentally friendly packaging and carbon emission reduction of freight shipping are the many ways employed as part of its efforts to go green.

Bolloré Logistics has gone the extra mile by ensuring that Blue Hub is energy-efficient by adopting Schneider Electric's EcoStruxure Power and EcoStruxure Building technologies - a system which keeps the building systems working optimally while also keeping operation and maintenance costs to a minimum.

Optimising building energy efficiency

According to a status report from the United Nations Environment Programme and the International Energy Agency, building and construction activities account for 39% of energy-related carbon dioxide emissions.

Using Schneider Electric's EcoStruxure Building Advisor, Bolloré Logistics is able to optimise their power consumption levels through the aid of system suggestions and insightful visualisation of collected data, and remote management of AHU over the weekends.

For the Facility Management Team of Bolloré Logistics, they can better allocate manpower and adopt preventive maintenance for their assets as the system send them real time alerts to help them spot potential problems. The system is also able to provide a rough estimate on how much each incident would cost and thus helps Bolloré Logistics make data driven decisions for energy optimisation and maintenance.

Schneider Electric's Building Advisor service not only monitors the building's temperature, humidity and CO2 at individual levels but also uses analytic software to provide suggestions on how to improve overall energy consumption.

This allows Bolloré Logistics to make effective use of its budget while also reducing the occurrences of unscheduled maintenance, which will impact day-to-day operations negatively.

Remote monitoring for peace of mind

Aside from employing the Building Advisor service to keep Blue Hub running smoothly, Bolloré Logistics is also using Schneider Electric's Power Advisor service. The service enables remote monitoring of every connected asset and helps Bolloré Logistics visualise their energy consumption patterns across a variety of parameters.

With this information, the facility management team can easily spot an asset that is spiking in its energy consumption which often signals a need for inspection and possible preventive maintenance.

This is a forward-looking approach to system maintenance and helps keep equipment and the lights on without any disruption. Bolloré Logistics can also use the data collected to produce trend analysis and usage forecasts.

Maintaining assets

The main switchboard functions as the heart of any building – it is how electricity and power are distributed to the rest of the site. Therefore, keeping the switchboard up and running is the highest priority for any facility or building.

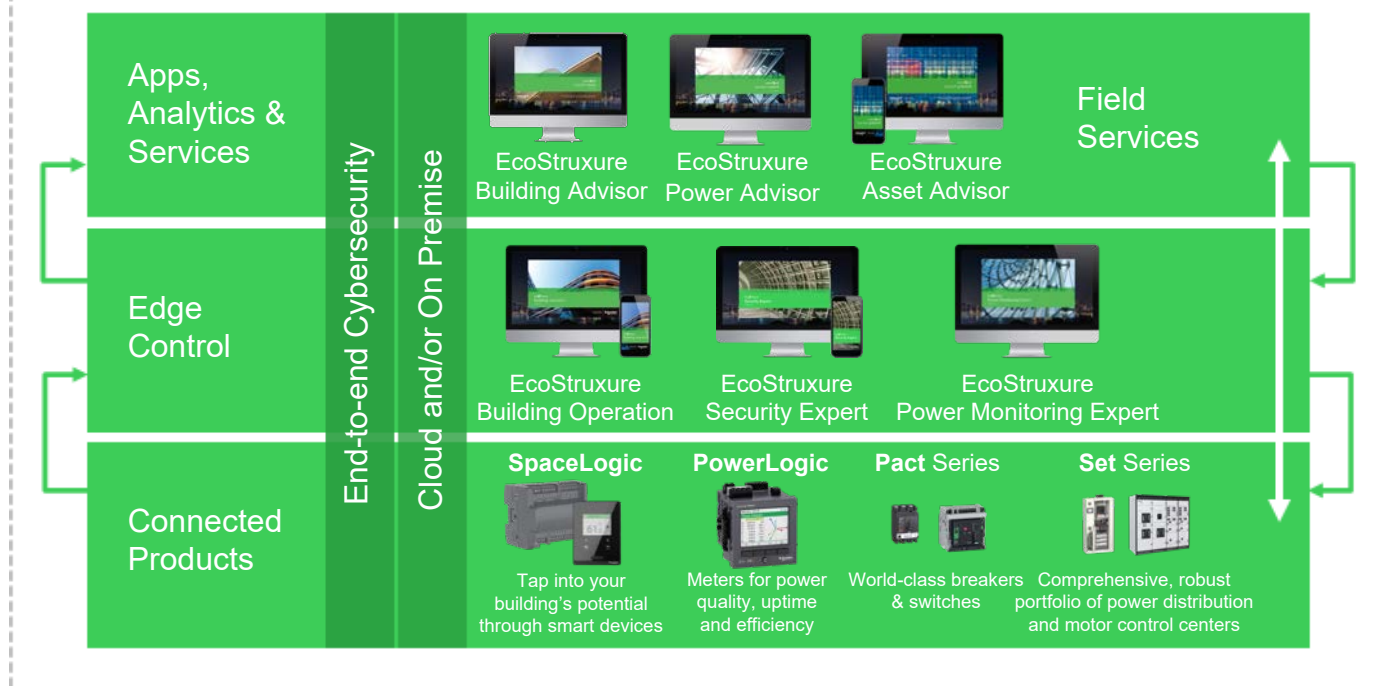
EcoStruxure Asset Advisor provides online condition monitoring to identify abnormalities in electrical devices (using sensors) to prevent impending failures and reduce unscheduled downtime due to electrical process failure. The Asset Advisor provides in-depth reports on various aspects of the monitored assets, by running the collected data through their analytics software.

The reports contain a step-by-step explanation of how the system used the data to deduce that there was a problem and even provides suggestions to help resolve the issues. This is useful when dealing with large and complex assets that cannot be easily shut down or taken apart for inspection. The amount of time and energy saved can be allocated to tackle other issues.



Power & Building

EcoStruxure™ Architecture



EcoStruxure™

Innovation At Every Level

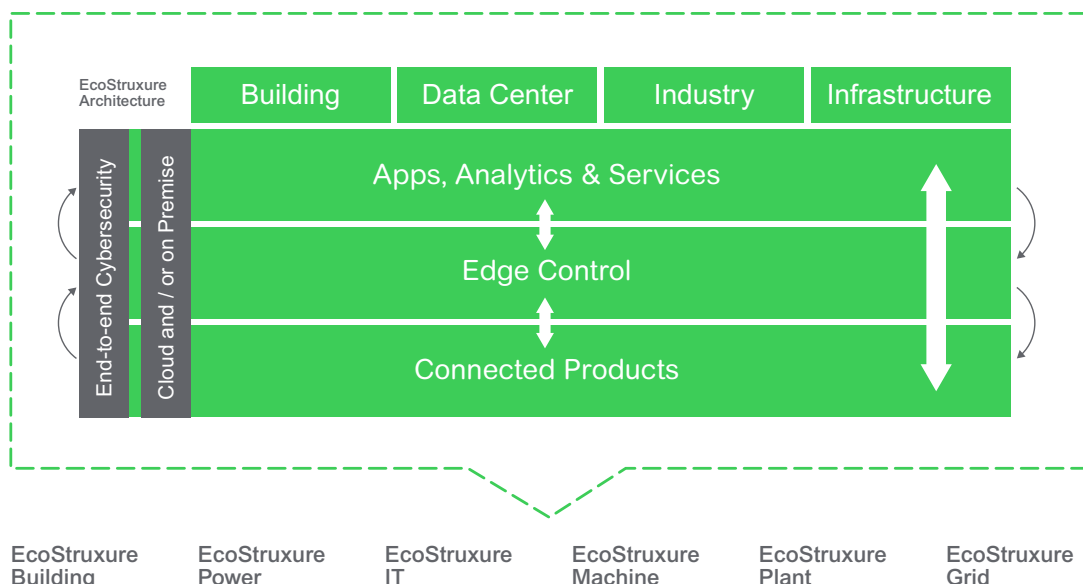
IoT-enabled solutions that drive operational and energy efficiency

EcoStruxure is Schneider Electric's open, interoperable, IoT-enabled system architecture and platform.

EcoStruxure delivers enhanced value around safety, reliability, efficiency, sustainability, and connectivity for our customers.

EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level including Connected Products, Edge Control, and Apps, Analytics & Services. EcoStruxure™ has been deployed in 480,000+ sites, with the support of 20,000+ system integrators and developers, connecting over 1.6 million assets under management through 40+ digital services.

One EcoStruxure architecture, serving 4 End Markets with 6 Domains of Expertise



Connected Products

The Internet of Things starts with the best things. Our IoT-enabled best-in-class connected products include breakers, drives, UPSs, relays, sensors, and more. Devices with embedded intelligence drive better decision-making throughout operations.

Edge Control

Mission-critical scenarios can be unpredictable, so control of devices at the edge of the IoT network is a must. This essential capability provides real-time solutions that enable local control at the edge, protecting safety and uptime.

Apps, Analytics & Services

Interoperability is imperative to supporting the diverse hardware and systems in building, data center, industry, and grid environments. EcoStruxure enables a breadth of agnostic Applications, Analytics, & Services for seamless enterprise integration.

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