EFFICIENCY

The path forward

UPS — Atlanta, GA, USA

How UPS is improving on-time efficiency with EcoStruxure™ connected solutions.

schneider-electric.com/ecostruxure
EcoStruxure Machine offers Connected Products, Edge Control, and Apps, Analytics, and Services within the Schneider Electric IoT-enabled EcoStruxure architecture.

Forward-looking efficiency

On the outskirts of Atlanta, Georgia, UPS is building an industry-leading Smart Hub capable of handling 104,000 packages per hour. It's a game-changing facility, loaded with the kind of technology and capabilities that can affect how the entire shipping industry operates. And what is driving the need for this massive build-out? The rapid and ongoing rise of digital demand.

“The growth of digital demand in shipping and e-commerce has given us a variation in package mix, package size, delivery demands, and customer expectations that did not exist just a few years ago,” said Joel Stenson, Vice President of Corporate Plant Engineering at UPS. “It tells us that the market is changing, and we are changing right along with it.”

UPS Smart Hub at a glance:

• 1.5 million square feet
• 104,000 packages per hour capability
• 15 miles of conveyor belts
• Fourth largest UPS facility in the world, third largest in the U.S.

Employing forward-thinking technology has always been a part of UPS’ strategy. From automation within their shipping facilities to the ORION system that helps deploy and optimize driver routes, the company constantly seeks ways to optimize their operations and increase overall efficiency.

“To be considered cutting-edge or innovative in this industry requires an open mind,” Stenson said. “You have to be willing to consider solutions that seem completely odd to you. You have to be willing to reconsider solutions that didn’t work six months ago, because technology is changing just that rapidly these days.”

Modernization efforts at UPS:

• Spending 8% of its 2018 revenue on modernization
• Committing $20B to modernization over the next five years
• Identifying opportunities to drive efficiency and reduce carbon footprint
• Reducing carbon emissions by 20% by 2020

Goal
Create an industry-leading Smart Hub facility capable of accurately handling 104,000 packages and parcels per hour.

Story
Calling on a long-term relationship with Schneider Electric, the two companies worked to create innovative solutions to improve efficiency, modernize operations, and achieve facility goals.

Solution
Schneider Electric experts worked closely with UPS to adapt and innovate with existing Schneider Electric solutions to work within the Smart Hub. From PLCs and motor drives to power protection and remote monitoring, a complete solution was created to UPS’ exacting specifications.

Results
UPS achieved increased operational insight and higher reliability. By simplifying their process through EcoStruxure, they improved efficiency, which drove a corresponding reduction in energy usage.
Building on a relationship

UPS and Schneider Electric have a history of innovation that goes back more than 20 years. When it came time to develop the Smart Hub, that existing relationship played a vital role in UPS’ vendor decision.

“Schneider has helped us realize our vision of what automation looks like, and to take advantage of the technologies that make themselves available,” Stenson said. “It’s a relationship that has built trust over time. We believe that when Schneider says they will do something, that’s what we’ll see.”

The two companies worked very closely throughout the project. Stenson visited Schneider Electric facilities in Europe to meet with product engineers. They discussed his needs so both sides had a strong understanding of what the company hoped to achieve with the new facility. This led to modifications of some existing Schneider offers, to ensure they would deliver exactly what UPS required.

“When we first evaluated some of the Schneider products, they didn’t necessarily fit the spec and the vision that we had in mind,” Stenson said. “But that wasn’t the end of the conversation. Schneider took our feedback and made modifications to those designs. Now, as a result of those discussions, those products better suit our needs within the smart facility.”

The dedication to customer service — and providing innovative solutions — played a major part in UPS bringing on Schneider as a partner in this project.

“Schneider has always been a very good partner from a customer service perspective,” Stenson said. “They have always been able to respond to us and respond to our needs and correct problems. When we run into difficult conditions and difficult situations, we’ve always been able to find a solution.”

“The complete package

Look around the new Smart Hub facility, and chances are you’ll be looking at Schneider Electric technology. From power distribution to conveyor operations, Schneider equipment keeps the Hub running smoothly.

Making the Smart Hub smarter:

- EcoStruxure Machine
- PacDrive™ controllers
- Momentum I/O
- Altivar™ Machine (320 & 340) networked AC drives
- Magelis™ HMI
- Square D™ power equipment
- AVEVA software
- APC™ UPS
- Lexium™ 62 multi-axis servo drives
At the heart of it all is EcoStruxure, Schneider’s IoT-enabled, open and interoperable architecture and platform. Because UPS was already working with many Schneider solutions, bringing EcoStruxure into the picture was very easy.

“Our application of EcoStruxure was really organic,” Stenson said. “It was a matter of understanding how we could best utilize the capabilities of plant floor devices, and how we could make that information more readily available to our support personnel and maintenance mechanics. EcoStruxure’s open architecture makes it so much easier for us to realize real-time communication from plant floor devices all the way up to the control system and the SCADA that runs the facility.”

Real-time information, Stenson said, is vital in a facility the size of the Smart Hub. “You want to be predictive and understand what is about to fail before it fails — to understand, as immediately as possible, what’s going wrong, where we need to send people, and what do they need to be prepared to do when they get there.”

The path forward

Even beyond the development of their “crown jewel” facility, Stenson sees the long partnership between UPS and Schneider continuing into the future. “Over nearly three decades, we have continued to work alongside each other as partners to develop solutions, identify areas of opportunity, improve product lines, and to improve our processes. I expect the same thing to continue as we look to see how Schneider can help UPS bring greater value to our customers.”

As with any great business, the word “customer” carries a lot of weight with UPS. From package handlers to delivery drivers, the company strives to treat every package as if it were their own. It’s a point of pride.

“At our core, we are a service organization,” Stenson said. “Winning over the customer and exceeding customer expectations are where we create a difference between us and our competition. So everything that we can do to understand how best to identify the needs, the desires, and the wants of the customer, that’s what we’re really here to do.”

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**104,000**

packages processed per hour at the new Smart Hub facility.

**$20B**

UPS’ commitment to modernization over the next five years.
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, and 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, and 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, and services for seamless enterprise integration.

Find out more about EcoStruxure

schneider-electric.com/ecostruxure
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