



Logistics

# Delivering more efficient logistics operations with **AI at the edge**

## Leading delivery company

This delivery company sorts and ships millions of packages every day. With an AI-driven Package Intelligence solution from Peak Analytics and Lenovo ThinkEdge, the company is automating and streamlining supply chain operations for faster, more efficient deliveries.

Lenovo

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**Who is  
this leading  
delivery  
company?**

This delivery company provides dependable business-to-business and residential package delivery services across the United States.

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## The Challenge

Faced with an uncertain global economic outlook and a post-pandemic decrease in package volumes, the delivery company is looking to unlock operational efficiencies and cost-savings. It aims to harness cutting-edge technologies to build a more flexible, efficient, and intelligent supply chain.

The company identified AI-driven image recognition as a key enabler of logistics success. By using computer vision to gain real-time data about the condition of every package, the company can enable more automated and efficient quality-control processes, faster processing, enhanced tracking and traceability, and—ultimately—an improved customer experience.

# Tapping into AI at the **edge**

The delivery company has teamed up with Peak Analytics, a division of Peak Technologies, and Lenovo ThinkEdge to roll out an innovative AI-powered image recognition solution across its entire supply chain.

In the coming years, the company will install more than 1,300 Peak Analytics Edge AI appliances on scanning tunnels in its distribution centers. The plug-and-play appliances comprise Peak Analytics software on Lenovo ThinkEdge servers, enabling powerful AI-driven computer vision at the edge.

The Edge AI appliances process high-quality visual data from cameras and sensors in the scanning tunnels in real time. Using the solution, the company can capture the dimensions of each package as well as images from six different angles—offering game-changing visibility into supply chain operations.

## **Hardware**

Lenovo ThinkEdge SE350 V2  
Lenovo ThinkEdge SE360 V2

## **Software**

Peak Analytics Package Intelligence

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“Our solution enables customers to see everything moving through their distribution center. They can share images of packages upstream and downstream for traceability and quality assurance, and search by barcode, tunnel, facility, and time period.”

**John Dwinell**

Founder, Peak Analytics

# Building an **intelligent** supply chain

Sorting and shipping operations can grind to a halt if packages are labelled incorrectly or poorly packaged. By utilizing sensors placed at the edge within warehouses, the Package Intelligence solution delivers immediate insight into the condition of every package, allowing the delivery company to identify problem inventory at the source.

High-resolution scanning tunnel images are processed in real time and stored for 90 days on Lenovo ThinkEdge SE350 V2 and SE360 V2 servers at the edge. Data is hosted in a private cloud for long-term retention, which also provides a master index for searching and storing images on a mass scale.

A graphical dashboard provides a real-time overview of all scanning tunnels in each facility as well as remote monitoring of scanning performance. The Peak Analytics solution also offers customizable AI reporting and alerts for anomaly detection, and powerful search and export for all barcodes and dimension attributes.

Featuring powerful NVIDIA GPUs in a rugged, compact design, the Lenovo ThinkEdge SE350 V2 and SE360 V2 servers are ideal for AI deployments at the edge, offering extremely high performance in a compact package that can be installed anywhere.

The ThinkEdge SE350 V2 is optimized for workload consolidation at the edge and customers like this delivery company who need broad, diverse storage configuration options while supporting a large amount of central processing power. The Lenovo ThinkEdge SE360 V2 is purpose-built for maximum computing power to handle the most demanding AI applications at the edge, which is ideal for computer vision and package detection and tracking in this situation. Both feature compact form factors and rugged designs built to withstand even the most demanding work environments.



Lenovo ThinkEdge SE350 V2

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## Results

The delivery company is working closely with Peak Analytics and Lenovo to install Package Intelligence appliances across its network of distribution centers across the United States.

The solution will scan millions of packages each day and deliver real-time information on labeling accuracy (for example, poorly printed barcodes, scratched and dirty labels, and other package identifiers), packing quality (such as crushed corners, dents, tears), and label readability (such as wrinkled or torn labels, folded over edges, multiple packages mistakenly scanned as one, or missing labels).

By automating detection and diagnostics, the Package Intelligence solution will help the delivery company to keep its logistics processes moving smoothly. The Peak Analytics and Lenovo solution will help the company to enhance the efficiency of its supply chain operations, helping it to stay competitive in the post-pandemic world.



1,300+ installations across the delivery company's network



Millions of packages scanned daily



Real-time insights; automated detection and diagnostics



# Why **Lenovo**?

The delivery company has long been an early adopter of the latest technology, embracing new ways to deliver faster and better services. And partnering with the right partners to deploy and adopt new technologies is key.

“We look for partners with the same innovation mindset that we have,” confirms a delivery company spokesperson. “Peak Analytics and Lenovo are both at the leading edge of technology for distribution and logistics, so are the right partners to support us. Together, we’re pushing the boundaries of the intelligent supply chain.”

“This leading delivery company is known for pushing the boundaries of service and technology, and we’re proud to be partnering with them and Peak Analytics,” says Charles Ferland, VP and GM, Lenovo ThinkEdge Computing.



## Partner perspective: Peak Analytics



“Our partnership is just beginning. Supported by Lenovo, we’re excited to help the delivery company harness the latest in AI and image recognition technology to prepare its supply chain for future success.”

**John Dwinell**

Founder, Peak Analytics



# How can logistics companies keep packages moving efficiently?

Working with Peak Analytics and Lenovo, a leading delivery company is rolling out an AI-powered image recognition solution across the supply chain.

[Explore Lenovo Edge Computing Solutions](#)