Fabrication & Assembly

Keeping car washes spotlessly safe

Sonny's Enterprises

The world's top car wash equipment manufacturer uses Lenovo ThinkEdge SE70 edge computing devices, powered by NVIDIA® Jetson™ Xavier™ NX modules, to enable a first-of-its-kind computer vision application that automatically detects risky conditions to keep customers and vehicles moving through car washes safely and smoothly.

Lenovo

Powered by

NVIDIA®

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Who is Sonny's Enterprises?

Sonny's Enterprises is the largest manufacturer of conveyorized car wash equipment in the world. Founded by Sonny Fazio in 1949 as a full-service car wash, the company soon moved into manufacturing car wash equipment, parts, and supplies. Today, Sonny's is the industry leader, operating 12 lines of business and serving clients throughout the United States and around the globe. Digital transformation is in Sonny's DNA, with a strategy to bring more intelligent equipment that brings more value to their customers.

SONNY'S®
The CarWash Factory

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The
Challenge

Every year, Sonny's conveyor systems and equipment deliver millions of clean, dry, and shiny cars. The company's priority is to help clients move vehicles through their car washes quickly and safely. Lately, Sonny's R&D team has been tapping into ever-more sophisticated technology to achieve this objective, including artificial intelligence (AI) and edge computing.

Regi Flanagan, CTO of Sonny's, explains: "We've been developing a proprietary computer vision application, which uses AI on camera streams to monitor vehicles going through a car wash tunnel and detect incidents that could slow or stop the line. Our first use case focuses on unsafe driver behavior: spotting when vehicles are getting too close, which usually happens when drivers brake unnecessarily, and intervening to prevent a collision."

Sonny's was gearing up for an initial deployment of the new application when it hit an unexpected bump. There was an issue with the edge computing platform on which it planned to deploy the solution, grinding the deployment to a halt. Sonny's needed to find a fix, and fast.

"**Edge computing is an absolutely critical component of our new solution. The time delay waiting for video to be processed by AI in the cloud is simply too long. We need to make decisions very fast, and for that, we need hardware made for running reliably at the edge.**"

Regi Flanagan
CTO, Sonny's Enterprises

Computer vision at the edge

Lenovo stepped up to help Sonny's get back on track, delivering a Lenovo ThinkEdge SE70 in just days. Lenovo's system is one of the first edge appliances on the market powered by NVIDIA® Jetson™ Xavier™ NX: a high-performance, small form factor system on module (SOM) that's made for deploying AI and machine learning models to the edge.

Jetson Xavier NX delivers up to 21 trillion operations/second (TOPS) of accelerated computing, allowing it to run modern neural networks in parallel and process high-resolution data from multiple cameras and sensors with ease.

Hardware
Lenovo ThinkEdge SE70
NVIDIA® Jetson™ Xavier™ NX

Initial tests with the ThinkEdge SE70 system were a success, thanks to the direct support provided by the Lenovo OEM Solutions engineering team, allowing any issues with deployment to be resolved quickly and efficiently. Sonny's has since acquired 10 more appliances for further testing at 10 car washes.

The company plans to bring the computer vision solution to every new car wash it builds, ultimately covering thousands of locations worldwide. Lenovo's global coverage will be a key advantage here, simplifying hardware procurement and global deployment logistics, giving Sonny's access to technical support wherever and whenever it's needed. Lenovo was ranked #9 in the Gartner Supply Chain Leader report (read more here) with a strong focus on reducing total cost of ownership that goes well beyond the cost of the box.

"Lenovo didn't just deliver an edge computing appliance for us in record time, they gave us a solution that is truly second to none. We've been very impressed with what the ThinkEdge SE70 can do—it's the ideal edge platform for enabling our computer vision application."

Regi Flanagan
CTO, Sonny's Enterprises

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Results

The rugged design, small form factor, and massive processing power of the Lenovo ThinkEdge SE70 have proven to be a perfect fit for Sonny's. The Lenovo appliances are made for tough conditions at car washes, where they can be exposed to an extreme outdoor temperature range, water, dirt, and vibrations without issues, while bringing big performance and reliability for AI workloads at the edge.

With the Lenovo-NVIDIA solution powering its new computer vision application, Sonny's is poised to help car wash operators take a big leap forward in safety and efficiency. Clients will be able to automatically detect risky driver behavior and intervene before it impacts operations—keeping car wash customers safer and vehicles moving through the line faster. This results in a more efficient car wash with increased throughput, which brings the car wash operator increased revenue and profitability.

✓ **Rapid processing for computer vision workloads and video data directly at edge sites**

✓ **Stands up to tough conditions in car washes**

✓ **Lenovo's global network makes it easy for Sonny's to scale worldwide**

For Sonny's, this is just the beginning. The company sees huge potential for applying computer vision and other AI technology to make car washes even smarter, by tracking both equipment and vehicles more closely. Innovation like this will enable clients to improve both car wash throughput and customer satisfaction, sharpening Sonny's value proposition and competitive advantage.

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"We're always looking ahead for what's next in car wash equipment and technology. With Lenovo and NVIDIA, we're ideally positioned to seize on fresh opportunities for innovation, so we can deliver more for our clients and maintain an edge on our competitors."

Regi Flanagan
CTO, Sonny's Enterprises

Why Lenovo?

When Sonny's was in urgent need of an edge computing platform, Lenovo was able to react fast. After meeting with a Lenovo sales rep on Friday, the team at Sonny's had a ThinkSystem SE70 on site the next Monday morning, ready for testing. It allowed work to continue on the company's critical computer vision project with minimal disruption.

The Lenovo OEM Solutions group delivered end-to-end value and support throughout the process—providing access to a dedicated engineering team, exceptional product, and global specialization capabilities for their future expansion projects.

Lenovo has kept that same dedication going throughout the project. When Sonny's needed help configuring the Jetson Xavier NX module, Lenovo put them in touch with a senior member of NVIDIA's team, who was able to advise them on the best steps to take. Today, Sonny's continues to count on close attention and a fast response from Lenovo whenever they're in need of support.

How do you keep car wash equipment running at its best?

Keeping drivers safer and car washes running at top capacity with Lenovo and NVIDIA technology.

Explore Lenovo Edge Solutions

Lenovo

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NVIDIA.