



Fitting out the factory floor with robust edge servers.

How **Strauss Coffee Romania** used Lenovo ThinkSystem SE350 edge servers to enhance the resiliency and security of its factory-floor control system, helping to keep manufacturing operations on track.

Lenovo Infrastructure Solutions
for The Data-Centered

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Background

Strauss Coffee Romania is a subsidiary of Strauss Coffee—one of the top-ten coffee companies in the world. Part of Strauss Group, a major food and beverage multinational based in Israel, Strauss Coffee has been present in Romania for more than 25 years and employs around 250 people.


Strauss Coffee is the only multinational coffee company with local production facilities in Romania. Headquartered near Bucharest, the Strauss Coffee Romania factory roasts, grinds, and processes thousands of tons of coffee beans each year to produce ground and instant coffee mixes, including the popular Doncafé, Amigo, BeanZ Café, and FORT brands.

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Challenge

To keep factory operations running smoothly, Strauss Coffee Romania relies on an extensive supervisory control and data acquisition (SCADA) system. This comprises supervisory systems connected to plant machinery and human-machine interfaces (HMI) through programmable logic controllers (PLCs) and other industrial automation sensors. The supervisory systems collect, aggregate, and visualize equipment data in graphical dashboards, enabling operators to monitor, control, and optimize production.

In the past, Strauss Coffee Romania used Lenovo ThinkCentre M90n Nano PCs as the platform for its supervisory systems. However, factory conditions were pushing the machines to their limits. Temperatures on the factory floor can reach up to 50°C because of the roasting process, while the mills that grind the coffee beans produce a very fine dust that permeates the atmosphere.



“The PCs we were using simply weren’t designed to withstand the extremely hot and dusty conditions of our factory. The cooling mechanisms typically failed after about a year and a half from overwork, so we had to replace the PCs on a regular basis. Maintenance was tricky too. We also had to physically take the PCs off the factory floor to an outer area and blast them with compressed air to remove dust buildups. Not only was this time-consuming, it was also risky—one false move and you could easily damage the internal components.”

Aurelian Mester,
IT Manager at Strauss Coffee Romania



Why Lenovo? Trusted partner, innovative technology.

A long-term user of Lenovo technology, Strauss Coffee Romania decided to replace its existing PCs with Lenovo ThinkSystem SE350 edge compute servers soon after the product launch.

Designed specifically for tough operating conditions outside of data centers, the Lenovo ThinkSystem SE350 edge server has a small hardware footprint with a 1U height, half width, and short depth case that can be installed flexibly almost anywhere. The rugged edge server can handle temperatures from 0° to 55°C, and tolerate locations with high levels of dust and vibration—making it the ideal fit for Strauss Coffee Romania’s production site.

“We have used Lenovo technology in our data center and Lenovo PCs and laptops across the business for many years, and they have never let us down,” says Mester. “Lenovo is one of our most trusted partners.”

Strengthening the supervisory control and data acquisition (SCADA) network.

Strauss Coffee Romania replaced multiple PCs with Lenovo ThinkSystem SE350 servers, reducing the total number of required hardware devices on the factory floor and improving ROI.



“The Lenovo ThinkSystem SE350 has greater connectivity than our old desktop PCs, which future-proofs the devices in line with our wider factory refurbishment strategy. We are also very happy with the physical security of the servers. Special security locks, encrypted hard disks, and motion detection features reduce the risk of unauthorized access and tampering.”

Aurelian Mester,
IT Manager,
Strauss Coffee Romania

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Results

Today, the Lenovo ThinkSystem SE350 edge servers form an essential part of Strauss Coffee Romania's SCADA system. Connected to 8,000 equipment sensors, the servers control more than 42,000 digital input/output (I/O) devices, collecting data on machine state, error codes, temperature, humidity, pressure, and more.

"The Lenovo ThinkSystem SE350 servers are rugged, powerful, and perfectly suited to the conditions in our factory," comments Mester. "The advanced air flow and cooling system prevents the servers from overheating despite the 50°C ambient temperature, and specially designed dust filters prevent coffee grounds from entering the servers. Maintenance is much quicker and easier—rather than disconnecting and moving PCs around, all we need to do is remove, clean, and reattach the dust filter."

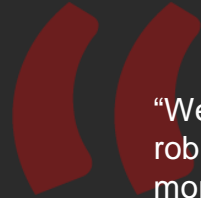


✓ Offers high performance in a compact footprint

✓ Operates in ambient temperatures of 0°C to 55°C

✓ Robust physical security features

✓ Special dust filters ideally suited to factory environments



“We’re delighted with the Lenovo ThinkSystem SE350 servers. As well as being more robust, secure, and easier to maintain than our old supervisory computers, they deliver more compute and storage performance. This helps to keep our mission-critical SCADA system—and therefore manufacturing operations—running smoothly, so we can keep delivering delicious coffee to our customers.”

Aurelian Mester,
IT Manager, Strauss Coffee Romania

What will you do with Edge computing solutions?

Harness the value of data at the Edge with Lenovo Edge Computing solutions. Gain powerful, real-time insights from data at any edge location with secure, connected, and reliable solutions.

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