

Industrial Products

# A better way to track the catch of the day

Grupo Pinsa

Propelled by Lenovo ThinkSystem SE350 edge servers, Latin America's biggest tuna fishing fleet can now track fish catches in near real time, supporting more efficient production and distribution planning.



Lenovo

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## Who is Grupo Pinsa?

Founded in Mazatlán, Sinaloa more than 40 years ago, Grupo Pinsa is one of the biggest players in Mexico's fishing industry. A vertically integrated business, it handles every step in the seafood supply chain: sustainably catching thousands of tons of fish every year, processing them at dozens of factories, as well as marketing and distributing 100+ end-products to markets in the Americas, Europe, and Asia.

Pesca Azteca is Grupo Pinsa's fisheries arm. It operates the largest tuna fishing fleet in Latin America, with more than 20 boats and an annual harvesting capacity of 75,000 tons.



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# The Challenge

At the mercy of ever-changing environmental and biological conditions, wild fishing remains a high-risk, highly uncertain enterprise. Whenever Pesca Azteca's boats go out, it's almost impossible to predict the size of the catch they'll return with. This left Grupo Pinsa reliant on estimates to plan production and delivery, and at elevated risk of discrepancies between anticipated and actual supply—which could be costly to the business.

Sergio Alcaraz Pérez, IT Infrastructure Manager, at Pesca Azteca, gives an example: "Say we planned production of 1,000 cans of tuna, but our boats caught much more than that. We'd only know the true size of the catch once the fleet was back in harbor. It's not easy to scale up to accommodate the increased supply at such short notice. We also have to find space to store the fresh fish before it's processed, as well as the end products.

"Of course, we can account for such gaps with our forecasting and planning, so we have some wriggle room. But the lack of timely, precise information was definitely holding us back. We needed a more real-time view of supply levels, which would allow the group to make informed decisions around production and logistics well in advance."





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“We wanted to move away from existing spreadsheet-based processes to a more sophisticated requirements planning system, which would give us a better view on our fleet and fishing production. To enable the new approach, we needed an underlying computing infrastructure that could stand up to rough conditions and unstable connectivity out on the high seas.”

**Sergio Alcaraz Pérez**

IT Infrastructure Manager, Pesca Azteca

# Full steam ahead with edge computing

After building a bespoke application for ship and fishing production management, Grupo Pinsa turned its attention to finding the right hardware platform to run it on board.

That search led the group to Lenovo ThinkSystem SE350 edge servers. These ruggedized devices are significantly smaller than a traditional server. They can be stacked on a shelf or mounted on a wall or in a rack—an ideal option on vessels where space is at a premium.

## Hardware

Lenovo ThinkSystem SE350  
Edge Server

## Software

Microsoft Hyper-V  
Microsoft Windows Server

## Services

Lenovo Professional Services

Working with a team from Lenovo, Grupo Pinsa outfitted an initial group of three boats with the edge devices. It deployed two Lenovo ThinkSystem SE350 servers in a high-availability cluster on each vessel, running Windows Server and Microsoft Hyper-V virtualization. These systems support the group's custom-built app, used for tracking the ship's supplies—such as fuel and food—as well as its fishing catch. Every four hours, the solution automatically relays the latest information on supply levels to a central server at group headquarters.

This initial deployment was a success and now Grupo Pinsa is working to equip the entire Pesca Azteca fleet with Lenovo edge computing solutions.



**“The Lenovo edge servers are easy to deploy and work with, and rugged enough to withstand conditions on the ocean. We can now get a new boat set up with everything—servers, operating system, and virtualization layer—in less than a day.”**

**Sergio Alcaraz Pérez**

IT Infrastructure Manager, Pesca Azteca

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## Results

With their rugged, compact design, low power usage, and high performance, Lenovo ThinkSystem SE350 servers are perfect for use onboard ships that spend weeks out at sea, navigating all kinds of conditions.

Edge computing has made it possible for Grupo Pinsa to embrace a more nuanced way of tracking fleet supplies and fishing catches. For the first time, the group has clear, reliable insight into fuel and food consumption on its vessels. It means crews can stock up with exactly the supplies they need for every voyage, avoiding shortages and reducing unnecessary expenses.



Rugged design stands up to tough conditions out at sea



Provides near-real-time insight into fishing catches



Supports precise production and distribution planning

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Most importantly, the ability of the SE350 servers to rapidly process digital images of catches means that Grupo Pinsa can now obtain accurate, up-to-date information on the amount of fish that its crews have caught. This is helping the group bring all the links of its seafood supply chain into closer alignment—propelling it towards more efficient, precise, and profitable operations.





# Why **Lenovo**?

Grupo Pinsa had first-hand experience of the capabilities of Lenovo hardware. Since 2018, the group has been using Lenovo ThinkSystem SR650 servers at its main data center, along with supporting hardware systems at other group locations. So, when Pesca Azteca needed a new edge computing solution, Lenovo was the group's first port of call—not least because this would enable it to use the same management tools from edge to cloud.

The success of Grupo Pinsa's latest engagement with Lenovo has spurred the group to explore further possibilities in the realm of edge computing. It's currently looking into enabling cutting-edge Internet of Things (IoT) applications with Lenovo technology. That includes equipping fishing nets with wireless sensor devices that track and monitor fishing activity in real time, giving Grupo Pinsa an even more precise view of operations out at sea.







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“We had a vision for making fleet and fishing production more effective, and Lenovo proved to be the perfect partner to bring it to life. Lenovo ThinkSystem SE350 servers have been a great enabler for our business.”

**Sergio Alcaraz Pérez**

IT Infrastructure Manager, Pesca Azteca

# How can you drive ultra-accurate production planning?

Tracking fish catches in near real time with  
Lenovo ThinkSystem SE350 edge servers.

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