

Case Study: Strato Pi Base Data Monitoring and Analysis helps uncover Energy Savings: how IntelliSense used their branded IoT Server

Challenge

In the manufacturing sector, energy inefficiencies often remain hidden: lights left on after shifts, compressed air leaks, HVAC systems running unnecessarily, or machines drawing power in standby. Traditional monitoring tools fail to detect these issues in real time, and energy managers face overwhelming amounts of raw data, manual analysis, and complex system setups.

- Too much data, too little insight → IntelliSense's AI continuously analyzes 24/7, detecting anomalies automatically.
- Slow and manual problem detection → Instant alerts to energy managers, reducing detection time by up to 70%.
- Complex IT and high costs → Plug-and-play ecosystem, no deep IT or SQL expertise required, deployment in days instead of weeks.
- Fragmented solutions → One integrated, secure, and cost-efficient system, replacing multiple platforms and cutting integration costs by up to 60%.

That's why this plant chose IntelliSense, powered by Sfera Labs Strato Pi Base, to bring AI-driven energy intelligence to the shop floor.

Solution

The factory deployed Xserver.IoT.200, based on our Strato Pi Base edge-computing server, for field data acquisition, with EnergyXpert and the IoT Explorer Web Portal for monitoring and analysis. All 15-minute interval data is stored in Azure SQL Cloud, while management dashboards and reports are delivered via IntelliSense Cloud (Power BI).



Figure 1: Full architecture realised with Strato Pi Base

Measured Advantages with IntelliSense and Sfera Labs

- Energy Savings – Average 20–30% reduction in energy consumption.
- Decision Speed – Thanks to AI, decision-making is 2–3x faster compared to manual analysis.
- Deployment Cost – IoT-based plug & play setup costs are only 50–70% lower than traditional solutions.
- Operational Cost – Ongoing operation and maintenance expenses are cut by ~50% versus conventional systems.

With IntelliSense and Sfera Labs, the factory turned hidden waste into measurable savings — quickly, securely, and without complex IT.

Discover more about IntelliSense by visiting their website: [https://www.intellisense -
iot.com/](https://www.intellisense-
iot.com/)