Industry: Automotive

Customer case study

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Auto supplier improves plant ventilation and creates architecture for future projects with PLCnext Technology

Highlights

- A Tier 1 automotive supplier needed to improve the ventilation infrastructure in its production area
- The customer selected Phoenix Contact's PLCnext Technology for an easy-to-use monitoring system
- Phoenix Contact took a holistic approach and created a solution that fits the budget and sets the architecture for the future
- The new system will serve as a backbone for future monitoring projects

> "Phoenix Contact took a holistic approach, creating a solution that fits the budget for the current project and sets the architecture for the future."

Customer profile

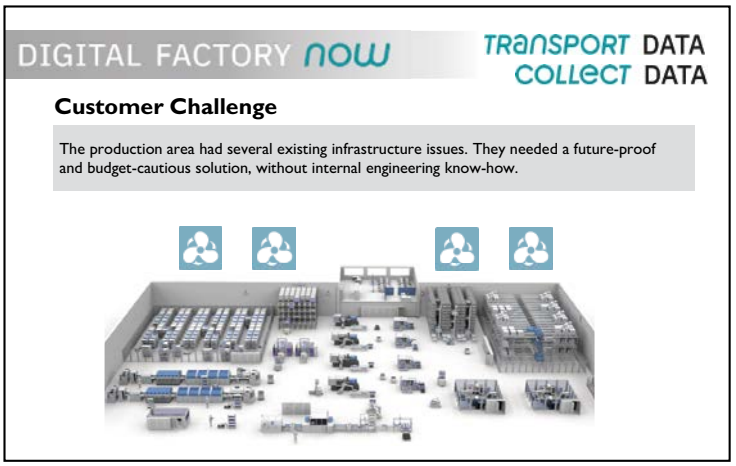
This Tier 1 automotive supplier manufactures extruded aluminum subframes, body structures, and crash management systems.

Challenge: Outdated ventilation infrastructure

The CO2 levels in the production area were high, and the manufacturer had several issues with the existing ventilation infrastructure. The original system used a series of rooftop ventilation fans that operated in different ways — some manual and some via thermostat. The ventilation infrastructure was not centralized or easy to manage.

The customer wanted a new monitoring system that could act as the backbone for future monitoring projects. However, they did not want a system with a difficult learning curve. They needed an expandable platform that would meet current budget needs.

Solution: Open architecture is easy to integrate



The customer relied on Phoenix Contact engineering resources for technical assistance during the project. Phoenix Contact took a holistic approach, creating a solution that fits the budget for the current project and sets the architecture for the future. The competition offered more basic solutions, such as running VFDs to the fans or using simple mechanical contractors and switches.

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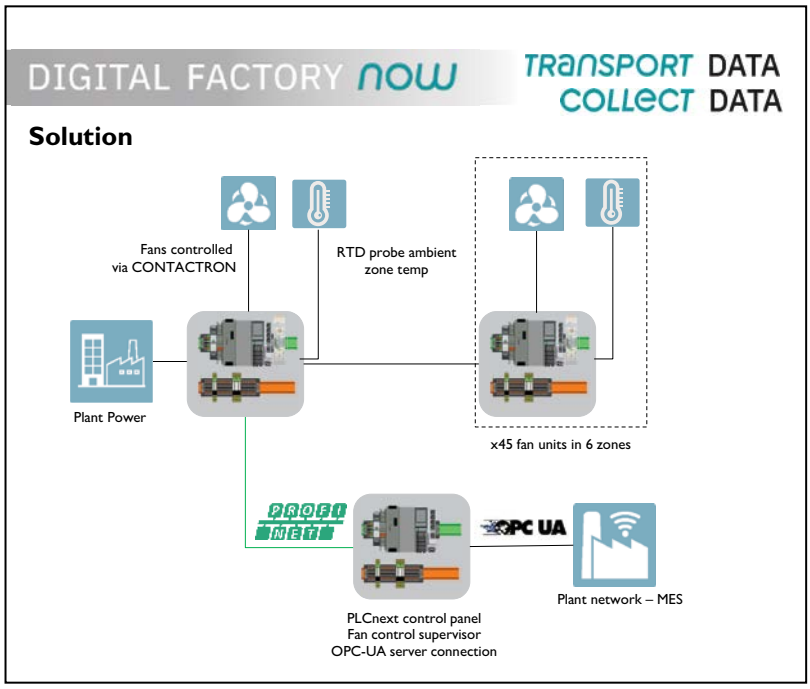
The solution was built mainly from the PLCnext Technology ecosystem. The EMpro energy meters monitor the heating elements on the floor. Numerous other Phoenix Contact products supported the application and increased reliability.

PLCnext Technology offered a free software tool with open architecture, allowing easy implementation to the customer's system of choice. Because the PLCnext controller is built on open-source software, it is compatible with numerous systems, including Amazon Web Services (AWS). The customer already had an existing system to visualize and historize the tag information.

Results: A backbone for future monitoring projects

The improved ventilation makes the production area a safer work environment. The customer can now visualize the exhaust fans operating in the facility via Grafana. They can also monitor other key metrics to increase safety and efficiency in the manufacturing environment.

Building on the ventilation monitoring system, the manufacturer now has a reliable and secure framework to build future monitoring systems, paving the way for the IIoT and the digitalization of business.



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