



Siemens SCALANCE Project

Polestar offers refreshing technology for beverage manufacturer

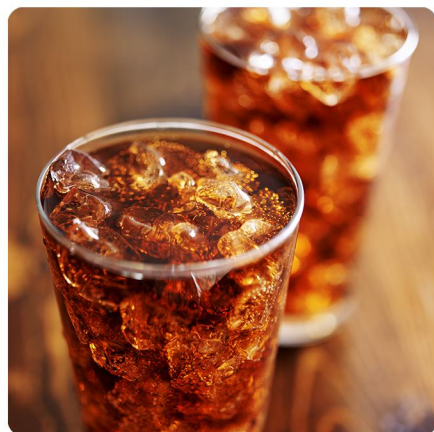
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One part reliability, one part undiluted security and no added downtime – this is the recipe for success for all beverage manufacturers. So when a well-known multi-national beverage manufacturer required a more effective automation IT layer, they called Industrial Internet of Things (IIoT) specialist Polestar. As this was the largest soft drinks manufacturing plant in Europe, Polestar partnered with Siemens to offer the best possible solution.

Based in Nottingham, in relative proximity to the plant, Polestar was chosen for its expertise in IIoT consultancy, managed IT services, computer networking, configuration and support, as well as its unique approach to business continuity solutions.



Will Burnett, Solutions Architect at Polestar, explains how it all started:

“We were called in to work alongside controls installation specialist KIM Systems who had been working with the customer for the past 20 years,” he recalls. “We created a high availability structure that also included failover processes and maintained data integrity. After the design of the new system was approved, KIM Systems expertly implemented everything with minimal disruption.”

The main requirement for Polestar was to replace the legacy IT provider infrastructure with a modern new solution that offered high availability. The integrity and security of data and manufacturing processes also had to be considered, so the existing critical systems had to be upgraded.

This included configuration of a ring infrastructure for new Siemens switches. The ring topology was constructed by patching fibre through panels where the old switches were located.

At the customer’s plant, this system was acting as the user interface for brewery controls. It allowed users to manage all of the physical systems that enable the plant to function effectively.

Partner:

Siemens
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About Siemens:

Siemens is a global technology powerhouse that stands for engineering excellence, innovation, quality, reliability and internationality. The company is active in more than 200 countries, focusing on the areas of electrification, automation and digitalisation.

Working with Siemens:

As Siemens continues to bolster its portfolio of industrial communications partners; Polestar have recently successfully completed their Siemens accreditation for Industrial Switches, Routers, Wireless and Security products. Polestar are Siemens’ second partner in the UK focusing on the communication product range and providing customers with end to end solutions ranging from simple network design to large factory wide projects covering installation, commissioning and support.

About Polestar:

Polestar Interactive Ltd is uniquely placed to help organizations gain competitive and operational advantage from Industrial IIoT. For years we have been delivering enterprise and industrial IT infrastructures across the UK, Europe and North America.



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In the event of system failure, an interruption to the manufacturer's operation means costly losses in soft drink production. Only a couple of hours of downtime to the manufacturing process is equivalent to a loss in production of hundreds of thousands of pounds.

In a nutshell, the soft drinks manufacturer wanted to avoid specific single point of failures that can bring down the network. They also required a clear separation of the various production lines so that when something went wrong, only a small part of the plant would be affected and the entire production wouldn't come to a halt.

Polestar initially installed, configured, implemented, and then tested the bridge link from the existing infrastructure to the new Siemens ring infrastructure. Implementing the network bridge carried inherent risks and careful planning was required for a period of scheduled downtime. Reconfiguring the individual Siemens switches already connected to the existing legacy infrastructure to work in the new ring infrastructure was a challenge, but Polestar engineers, aided by KIM Systems, managed to implement it without a hitch.

"Implementing the new configuration carried a lot of risks but these were mitigated by using test PLCs in coordination with the manufacturer's own devices", explains Jon Cooper, Project Manager at KIM Systems. "We did experience a short period of downtime as the individual switches were integrated into the ring, but that was all factored in at the planning stages. We looked at keeping both servers going until we were certain the new one was working perfectly. Only after we were confident, did we proceed to decommission the legacy system."

"Working with Polestar is always a pleasure as they are all experts who consider all facets of the project well in advance. Their expertise is surpassed only by their flexibility, and that was clearly appreciated by the beneficiary", concluded Jon.

Thanks to the new system, in the event of malfunction, or if the plant required maintenance such as installing patches and implementing server or software upgrades, there would be no disruption. The engineers can work on the production servers without compromising plant performance. Furthermore, this means that the backup process doesn't interfere with production performance and backups can be done during normal working hours.

The customer now has total confidence that its beverage manufacturing processes will not be interrupted by IT failures, thus assuring the continuity of supply to retailers. Polestar's solution was implemented on time and within budget, and has delivered everything the client expected. The original and expert approach was refreshing for the soft drinks manufacturer, who will continue to produce fizzy treats for the nation, but in an even more efficient way!

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Did you know?

- In the UK, each person consumes on average 204 litres of soft drinks each year!
- The fizz in soft drinks is usually caused by reacting chalk, limestone or bicarbonate of soda with sulfuric acid.
- There are more than 200 businesses in the UK which are involved in the manufacturing of soft drinks!



Siemens SCALANCE X208 Switch