CASE STUDY
STREAMLINING AUTOMATION DEPLOYMENT

More Flexibility
To gain production efficiencies, a global auto manufacturer wanted to update one of its facilities from a fixed manufacturing line to a flexible production system. Because the facility could only produce one car model per production line, manufacturing multiple or custom-model production runs required major retooling to shift capacity from one model to another, risking an idle plant or overproduction as well as a slow speed to market and chronic excessive inventory. To create an automated, flexible production system, the manufacturer decided to implement Ethernet connectivity on the factory floor to replace the fixed production lines. This system would allow the company to produce multiple cars per line, quickly retool processes and allocate capacity and resources as demand required.

To achieve this type of flexible manufacturing, the company needed to link the enterprise network with the factory floor. By utilizing self-contained industrial cabinets loaded with the IT and factory equipment, the manufacturer could exert greater control over the manufacturing process. However, not only were the goals and functions of both systems unique, but their environments could not be more dissimilar. The manufacturer required a solution with the capacity to carry communications reliably between the two systems deployed in a streamlined, minimally invasive manner that reduced production downtime.

To help the solution meet the customer's specifications, Anixter worked with various partners to bring together all of the products, including cabinets, patch panels, cable management, uninterruptible power supply (UPS) units and more than 1,900 patch cords, clearly labeled for easy identification during installation. Anixter recycled any leftover packaging material not needed for delivery. The build-out phase for the new production line would only be three weeks. This schedule required that Anixter and the auto manufacturer complete a bulk of the work prior to construction of the flex line.

The Anixter Advantage
Understanding the short- and long-term goals of the manufacturer, Anixter recommended solutions that would provide the data, monitoring, diagnostic and environmental requirements of the cabinets. The physical enclosure had to be large enough to hold the patch panels, cable management and other components needed to keep the manufacturing process operational. Anixter approached one of its manufacturer partners about creating a cabinet to meet the auto manufacturer's needs.

SUMMARY

Customer
Automotive manufacturer

Challenge
Flexible production line for minimal disruptions and faster market response

Solution
Deploy READY!™ Cabinet

Results
- Flexible extension of Ethernet connectivity between the enterprise and the production facility
- Met tight implementation timeline
- Reduction of waste at the job site

The expansion project resulted in the extension of Ethernet connectivity over the product line and an increase in the ability to effectively manage the manufacturing process.
From the start of the sourcing process, Anixter quickly realized that its READY!SM Cabinet offering, part of its READY!SM Deployment Services, would meet the automotive manufacturer's needs for advanced technology and streamlined deployment. Instead of just shipping all of the products to the auto manufacturer in a bulk shipment, READY! Cabinet provided a complete cabinet along with all the necessary components delivered as one part number to it.

Anixter loaded each READY! Cabinet on one pallet and assigned a single part number to it. Once completed, the assembled cabinets were delivered from dock to dock with the manufacturer's technicians placing the cabinet in its place on the factory floor.

The Result? Seamless Integration

The READY! Cabinet solution worked so well that the auto manufacturer was able to install the new cabinets on the factory floor before the old manufacturing lines had been removed. This allowed IT technicians to establish networking and operating protocols and shut down the cabinets at the last possible moment before the change-over process began.

When the READY! Cabinets arrived at the factory, the manufacturer's technicians only had to pull the fiber from the office environment and then connect the copper from the machines on the plant floor, allowing them to spend valuable time on other projects. With Anixter serving as the supply chain partner, two days were taken off the deployment schedule.

The expansion project resulted in the extension of Ethernet connectivity to the production line and a more streamlined manufacturing process. The auto manufacturer saw a reduction in the time it takes to retool the production line, an increase in the number of models created on one line, and the ability to rapidly increase or decrease product levels or shift capacity quickly from one model to another. The success of this project is prompting the manufacturer to consider deploying a similar solution to other facilities in North America.