Cisco Automotive Solutions:
Enhancing Efficiency, Collaboration, and Mobility

What Is the Value of Cisco Automotive Solutions?

In today's automotive industry, manufacturers are always exploring better ways to drive innovation and growth, while enhancing efficiency throughout every step of the supply, production and delivery chain. Automotive manufacturing encompasses a broad range of business processes, from design, fabrication, and assembly to marketing, distribution, and post-sales customer support.

By applying an intelligent, converged network approach to business process, automotive manufacturers can dramatically improve the performance and flexibility of every aspect of their operations—speeding decisions, boosting agility, and mitigating risk.

Cisco® solutions for the automotive industry are based on a proven, industry-leading portfolio of manufacturing products and solutions that provide real-time visibility and control to deliver a rapid return on investment. They are backed by a broad array of industry partners and services.

What Problems Do These Solutions Help Solve?

Automotive manufacturers face constantly changing market conditions, evolving consumer needs, innovative design concepts and production techniques, and new environmental and safety regulations. These changes are creating new challenges, including:

- Rapid growth in emerging markets
- A shortage in skilled global workers
- Hyper competition through a more informed consumer market
- Increased environmental and safety regulations, from product cradle to grave

The production environment is changing as well, becoming increasingly mobile and connected, with billions of sensors, controllers, and other devices in plants, factories, and machines. These IP-enabled devices are placing new demands on operational technologies, controls and automation.

> **In today's dynamic environment, automotive manufacturers are seeking better ways to:**
>
> - Increase responsiveness, improve efficiency, and mitigate risk
> - Create a flexible, scalable infrastructure used for communications and controls
> - Improve performance and delivery levels
> - Increase asset utilization
> - Enhance safety and security
> - Boost product and service quality

A Broad Portfolio of Proven Solutions

Cisco offers a variety of solutions for automotive manufacturers.

The Cisco Industrial Smart Solution is an end-to-end architecture specifically designed, tested, and validated to provide predictable performance and system resiliency for industrial applications, from plant device management to manufacturing execution systems (MES). It is built on a secure, robust platform enabling remote user and partner access. Cisco Smart Solutions provide performance-tested architectures that are validated with an extensive ecosystem of partners in wide variety of use case configurations and topologies.

Many automotive manufacturers and their suppliers are taking advantage of this solution architecture, to bring together their IT and operational technologies (OT). Converging these systems lets manufacturers integrate secure real-time plant-floor data with enterprise requirements planning (ERP) and supply chain management (SCM) and other channel delivery systems in the data center. The Cisco Industrial Smart Solution also lets manufacturers take advantage of rich collaboration, analytics, and video applications on the plant floor, to improve product development, advance quality and resolve issues faster.

Cisco Video Solutions enable manufacturers to use real-time video to facilitate more effective collaboration between globally distributed design centers, account teams, factories, partners, and suppliers. Cisco TelePresence® provides powerful support for remote collaboration that allows distributed participants to interact with colleagues just as they do at in-person meetings. Digital signage solutions enable manufacturers to present complex information in a visual format that can be quickly and easily understood by employees. Content can be presented as a live video stream, or cached and stored for presentation in the best possible format for easy consumption. The result is improved product quality, enhanced worker productivity and safety, and improved business agility. Cisco also offers physical security solutions such as video surveillance and access control systems to help safeguard the workplace and assets. For customer-facing environments, Cisco's i-Services Solution features interactive video panels that let dealerships and other automotive ecosystem distributors reach out to customers and provide a richer buying experience.

Cisco Mobility Solutions enable automotive manufacturers to support secure wireless communication across the value chain, including wireless radio-frequency identification (RFID) asset tracking. They provide real-time insight into manufacturing processes, equipment status, and inventory, to help enable organizations to dramatically enhance supply chain efficiency and business agility. Automotive manufacturers are already employing mobility to improve work-in-process (WIP) workflows and inventories, control costs and waste, and shorten manufacturing cycles. Mobility solutions can also enhance security for manufacturers and suppliers, as well as dealers and distributors who are tracking parts and inventory.

What Are the Benefits of Cisco Automotive Solutions?

Cisco automotive solutions enable organizations to achieve a dramatic return on investment and unlock real business benefits. Examples include:

- Real-time performance visibility for OEE and business process improvements

- Better business decisions with access to KPIs

- Optimized scheduling for reduced cycles (TAKT times)

- Management dashboards

- Inventory visibility and reductions throughout the value chain

- Collaborative production and business processes for faster time-to-value

- Enhanced mobility and collaboration of skilled and knowledge workers

As a result, automotive manufacturers can position themselves to better control costs, by integrating their manufacturing processes with enterprise applications via a single network. They can reduce risks by applying validated designs with robust security. Manufacturers can boost productivity through remote access, integrated communications and enhanced mobility. And they can achieve business transformation with more video-rich collaborative production processes, enhanced analytics and information sharing.

Why Cisco?

As the leading provider of global IP networks, Cisco is uniquely qualified to deliver secure, converged solutions for automotive manufacturers. Unlike other providers who are largely limited to stand-alone hardware or software, Cisco offers extensively tested, validated, and well-documented solutions architectures that ensure end-to-end security, performance, and reliability. Our solutions are backed by a lifecycle of services from design strategy through network optimization and management. Cisco automotive solutions are designed to help our customers create a clear architectural vision to align their combined IT and OT strategies with business requirements.

For More Information

To learn more about Cisco automotive solutions, visit www.cisco.com/go/auto