

Cisco and Deloitte Industrial Smart Operations: Smart Factory @ Montreal



Benefits from smart manufacturing and warehousing:

- 10–20% improved asset efficiency from more uptime, optimized capacity, and increased throughput
- 10–35% improved process efficiency with lower scrap rates, less rework, and reduced warranty cost
- 20–35% optimized costs from reduced labor cost, lower operating expense, lower inventory levels, and less maintenance
- 3–10% improved safety and sustainability from new practices, improved worker health and satisfaction, reduced safety incidents, lower energy consumption, and lower environmental impact from the facility
- Up to 25% increase in annual revenue by implementing smart factory solutions

The power of the digital supply network

The traditional, linear supply chain path of design, plan, source, make, and deliver limits an organization’s ability to improve performance and increase profits. Technology advancements that include big data, analytics, and higher processing speeds have ushered in the era of Industry 4.0. Changing how businesses operate can be difficult. To transition to an Industry 4.0 operational model, organizations need:

- Advanced technologies for increased agility and efficiency
- Ability to collect and analyze the right data to gain business-critical insights
- Convergence of IT and OT for interconnected systems that use information to drive smart factory operations

The digital supply network (DSN) establishes a dynamic, interconnected system that evolves over time, incorporates ecosystem partners, and fundamentally changes how an organization operates. A continual information flow improves work processes, delivers network-wide operational insights, increases visibility across the supply network, and provides end-to-end transparency.

Using Cisco secure data collection sensors, multi-access wireless, and a cybersecurity-converged platform for IT and OT, along with solutions from other ecosystem partners, Deloitte created the Smart Factory @ Montreal. This facility showcases how cutting-edge manufacturing and warehousing technology can help organizations embrace the next level of Industry 4.0 innovation (Figure 1).

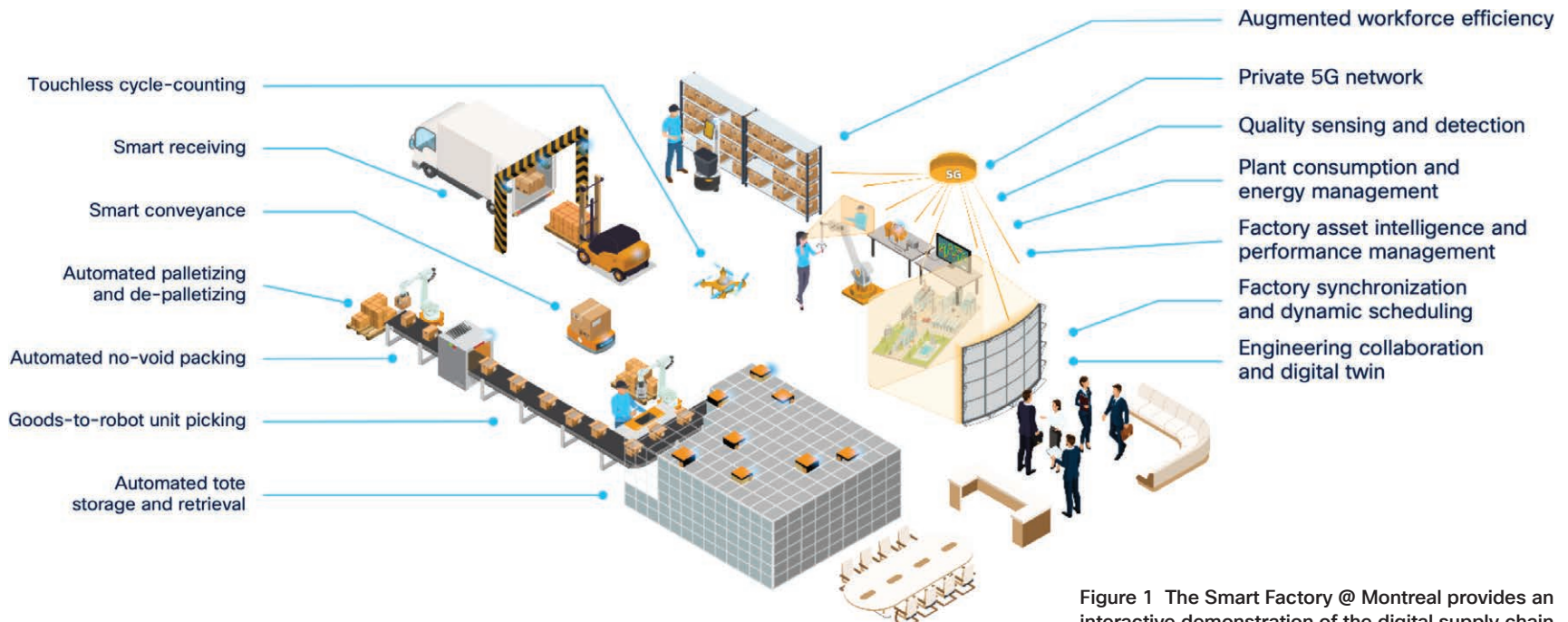


Figure 1 The Smart Factory @ Montreal provides an interactive demonstration of the digital supply chain

Smart Factory @ Montreal demonstrates industrial smart operations

This 9100 square foot facility provides an immersive experience using a Smart Trainee theme within a fully functional, end-to-end manufacturing and warehousing environment. Guests can learn about and experiment with an array of live smart technologies.

Stations within the smart factory demonstrate artificial intelligence, machine learning, big data, cloud and edge applications, robotics, and vision solutions. While this facility focuses on manufacturing and warehousing, the lessons learned support multiple use cases across numerous industries:

- Manufacturing and warehousing
- Retail and distribution
- Transportation
- Oil and gas
- Mining
- Utilities
- Smart buildings

The below use cases from [Cisco Portfolio Explorer](#) are encompassed within the Smart Factory @ Montreal.

Portfolio Explorer use case	Outcomes delivered	Key Cisco/Cisco technology partner solutions
Advanced Warehouse Operations	Apply data science tools to provide insights for optimizing factory floor operations	<ul style="list-style-type: none"> • Cisco Industrial Asset Vision • Cisco LoRaWAN Gateway and Bridge • Cisco IoT Operations Dashboard
Plant Floor Collaboration	Improve workforce efficiency through enhanced technologies and equipment	<ul style="list-style-type: none"> • Cisco Webex® • RealWear HMT • Augmentir
Industrial Cybersecurity – Full Spectrum	Advanced security for greater policy enforcement, access control, threat detection, and response	<ul style="list-style-type: none"> • Cisco Cyber Vision • Cisco Identity Services Engine • Cisco SecureX™ and Cisco Secure Firewall
Inventory Management	Automate warehouse operations by analyzing inventory distribution and use rates	<ul style="list-style-type: none"> • Cisco Spaces and Cisco DNA Center® • Meraki® wireless and cameras • Stanley RFID tags
Health, Safety, and Environment	Monitor and enhance overall manufacturing operations to remediate unsafe working conditions	<ul style="list-style-type: none"> • Cisco Spaces and Cisco DNA Center • Meraki wireless and cameras • Cogniac
Cisco Industrial Ethernet Switches, Industrial Routers, and Industrial Wireless Access Points		

The Cisco solutions used by Deloitte create a true cross-architectural framework, tightly integrated between collaboration, security, and industrial networking. For example, Cisco® sensors collect data across any type of network or infrastructure, and the information feeds into artificial intelligence and business intelligence processing by Deloitte.

Deloitte brings deep industry knowledge in all functional areas of the supply chain to help organizations transform to a digital supply network. They create strategic roadmaps, build and deploy the solution, and operate across multiple types of environments. A robust third-party ecosystem supports this fully functional, end-to-end distribution operation.

Experience the digital supply network in action.

Reach out to your Deloitte or Cisco seller to schedule your visit to the Smart Factory @ Montreal.



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