Corning® Everon™ Network Solutions

Industry:
Robotic Manufacturing

Production Environment:
Machines
Computers
Cameras
WAP's
RFID Scanners

Network Needs:
Scalable
Flexible
Reliable
Minimum Downtime

Project by the Numbers

200,000 sq. ft. manufacturing facility

140 Machines in operation

100+ Security, data, scanners and WAP locations

7 miles of fiber deployed

Watch the case study video here.

DIRTT Inc. Rock Hill, (SC) Manufacturing Plant

World-class Fiber Network = Smart Manufacturing

The Customer

DIRTT is a global leader in industrialized construction. Cutting-edge smart manufacturing facilities are the cornerstone of the company which produce their modular solutions. These include walls, timber frame, casework, electrical and network cabling, and access flooring. When used as a system of construction parts, they can deliver truly adaptable spaces which counter the construction hurdles we see in todays market.

The Challenge
Distance, expansion, and reliability

The main challenge for network design was distance. The size of the building IDFs would have taken up valuable real estate and hindered planning of production flow layout. An easily expandable network was also crucial. Plans of doubling the factory floorplate to accommodate expected business growth needed to be addressed on day one. Reliability was also key - every minute counts with DIRTT's aggressive lead times, and managing the network needed to be simple and efficient.

"This is a manufacturing facility, we move things around a lot. Instead of logging into 3 or 4 individual switch stacks, I interact with a single intuitive interface, point and click."

- Dieter Fandrich
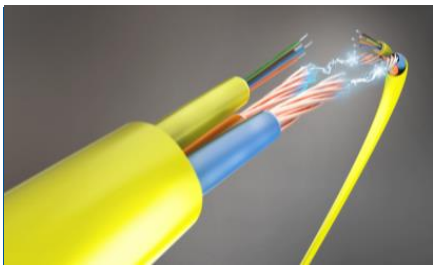IT Telecom Network & Infrastructure Manager
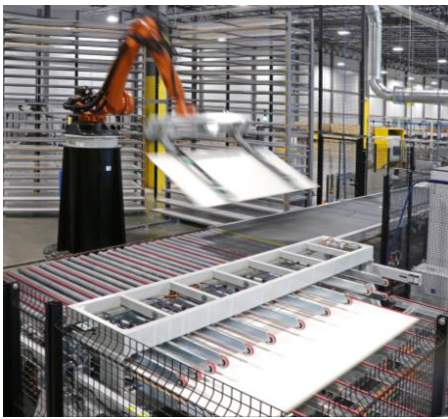
The Total Solution

Fiber to the Edge Network: ActiFi® armored composite cable, with copper conductors and optical fiber in one cable, spanned distances greater than traditional copper bringing power and bandwidth to the far reaches of the facility. ActiFi cable enabled DIRTT to double its factory floorplate, without the need for additional IDFs. Corning provided SD-LAN Network Equipment with GPON for all machine, desk, security, and RFID locations and with Active Ethernet for dedicated bandwidth to Wi-Fi Access Points.

Redundancy at the core switches: Each ONT was fed through a separate pathway with two composite cables originating from separate top-of-rack switches. Four- and eight-port ONTs with 70% capacity used on day one allowed for future expansion at the device level.

Modular infrastructure: In keeping with all of DIRTT's construction solutions, the entire network infrastructure for its new facility was made up of preterminated harnesses. Calculated to the exact length and prelabeled using DIRTT's proprietary design software, ICE, installation times were drastically cut due to the modular nature of the product.

Installation made easy: DIRTT and its network integrator Qypsys have over 5-years experience working together to deliver cutting-edge network solutions to their clients. This relationship and the processes created through the partnership have allowed for seamless delivery and installation.

CORNING   **DIRTT** Build better.™   **QYPSYS** ADVANCED TECHNOLOGY DEPLOYMENT

☑ Future-Ready
Less risk of obsolescence, 5G ready, scalable and expandable

50% Quicker Install Time
Cable modularity, partnership alignment, and digital design tools creating detailed install drawings

30% CapEx Savings
Less infrastructure, less downtime, less cable, less space

For more information on Fiber to the Edge visit:
Enterprise Fiber Network Solutions

Future-Ready
Less risk of obsolescence, 5G ready, scalable and expandable

Better User Experience
Capacity and coverage made simple. Streamline network built on trusted fiber infrastructure

Cost Effective
Less infrastructure, less downtime, less cable, less space, less power, even with added redundancy