



GLOBAL ELECTRONICS MANUFACTURER GETS ON BOARD WITH HIGH-PERFORMING WIRELESS

MOTOROLA WLAN SOLUTION TURNS SPOTTY RELIABILITY INTO SEAMLESS, SECURE CONNECTIVITY



Isola Group is an advanced global electronics company that manufactures materials used in multi-layer printed circuit boards. Its high-performance laminates are found in a wide range of applications that help the world run smoothly – from computers, communications equipment and consumer electronics to products for the automotive, aerospace, military and medical markets.

As Isola consolidated its global footprint, it discovered its wireless LAN (WLAN) was anything but smooth. All 10 manufacturing sites and three research centers were plagued by systemic problems. Connectivity at locations wasn't standardized, technologies were mixed and security was porous. The wireless network was often erratic and unreliable: employees on the shop floor had trouble accessing their barcode readers and executives were frustrated by the time it took to log on at each facility.

The IT team at Isola engaged in an initiative to improve the network's speed, reliability and security and standardize operations across all sites. What they discovered was they could streamline their technology mix and remedy their problems by leveraging the expertise of American Barcode and RFID Inc. (AB&R) and upgrading to a Motorola WLAN solution.

CUSTOMER PROFILE

isola

COMPANY

Isola Group, Chandler, Arizona
Global material sciences company
11 facilities and 3 research centers in Asia, Europe, U.S.

INDUSTRY

Manufacturing

MOTOROLA'S SOLUTION

- WiNG 5 operating system
- AP 5131 access points
- AP 650 access points
- RFS4000 wireless LAN switch/controller
- AirDefense Services Platform

BENEFITS

- Immediate, centralized access to information
- 360° visibility of all locations around the globe
- Automatic monitoring and verification network-wide
- Impenetrable, gap-free security

THE CHALLENGE

ASSURE ACCESS ACROSS ALL FACILITIES, ALL THE TIME

A merger between Isola and another leading manufacturer of laminates several years earlier left a hodge-podge of systems and technologies carried over from the two companies. “We had quite a number of issues,” says Randall Shipman, Director of IT Infrastructure. “We weren’t standardized and had a varying mix of wireless technologies, connectivity and reliability issues as well as security problems across the board, in all our facilities.”

Factor in Isola’s corporate culture of international travel, which included OEM teams, front line managers and the CEO who frequented its many plants. “Prior to the wireless solution,” explains Shipman, “whenever an executive or employee went from one facility to another, our IT staff would have to reconfigure their laptops. Not only was this frustrating, it was very inefficient. There simply wasn’t any consistency from site to site for network connectivity.”

This frustration extended beyond the front office. “We use Motorola handheld mobile computers and wireless barcode scanners in our plants,” describes Shipman. “The unreliable connectivity affected our people on the shop floor. It impacted their productivity and the efficiency of the production lines. There were a large number of complaints by employees who were dealing with connectivity and reliability issues as they worked.”

SHORE UP NETWORK SECURITY AND GUEST WI-FI

In addition to connectivity challenges, security was problematic, particularly overseas. “We had limited visibility to our security exposure globally,” says Shipman.

“We also had Guest Wi-Fi at some sites, but other sites did not and they were allowing visitors to access our primary network. This was a major security concern, especially since intrusions occur largely through wireless networks.”



“If manufacturers want a bulletproof solution, this is it.”

— Randall Shipman, Director of IT Infrastructure, Isola Group

THE SOLUTION

IMPROVED CONNECTIVITY IS IN THE AIR

As security concerns and frustrations intensified, Isola knew maintaining the status quo was unacceptable. They called on AB&R to help them realize opportunities to improve. “Our relationship with AB&R started with Motorola mobile terminals and bar code scanners and they have been a valuable partner. Our trust level with them is high,” says Shipman.

CASE STUDY
ISOLA GROUP

For the next two months, AB&R performed a full systems analysis of the global network. “They travelled to all our U.S. sites and worked with partners overseas to collect data on what technologies were in place,” he says. “AB&R monitored all our facilities through a secure network they established at our corporate offices in Arizona.”

“We started with the wireless system, with floor workers having a host of issues related to connectivity,” describes Curt Squires, Solutions Architect at AB&R. “We discovered a mixture of older technology across sites which was very difficult to manage. We also found the existing architecture had more switches than access points.”

AB&R’s discovery process included an initial assessment, data collection and identification of the current state of each facility. This resulted in a global picture of exactly what Isola had in place.

WALL-TO-WALL COVERAGE FROM ARIZONA TO EUROPE TO ASIA

According to Dan Trainor, AB&R National Account Manager, his company recommended a centralized, site-based management system with new sensors and access points to provide wall-to-wall coverage for all Isola’s sites with important security features.

“Global standardization is critical for our CIO so our CEO can travel to any site, step into an office and his laptop is working. That was a big win,” says Shipman. “So is having an automatic monitoring capability that gives us insight into who, what, when and where someone is on the network – something which previously did not exist.”

“Now our executives can travel to any site without hunting down IT resources for getting onto the network.”

– Randall Shipman, Director of IT Infrastructure, Isola Group

AIRDEFENSE ADDS A CRITICAL LAYER OF SECURITY

Because security was a high priority for Isola, AB&R set up a Motorola AirDefense Services Platform in the corporate office for several months to demonstrate its monitoring capabilities. The platform makes it easy for businesses to manage, monitor and protect their WLAN environments – and is also invaluable for companies dealing with BYOD in their workforce.

AirDefense combines the information collected from a network of sensors or access points with the analytical power of an intelligent central console to provide 24/7 network monitoring, automate security, and enable regulatory compliance, multi-vendor management, remote troubleshooting and locationing services.

“We proved the technology with a 90-day test in Isola’s corporate location and found it was a good fit,” says AB&R’s Trainor. Adds Shipman, “Proving that technology was key. It showed consistency, reliability and strong signals. It was well received by our employees on the shop floor.” Based on the success in Arizona, AirDefense was rolled out in the U.S., then in Asia and Europe over the next year.

PARTNER PROFILE
American Barcode and RFID Inc. (AB&R), Phoenix, Arizona

INDUSTRIES
Manufacturing, distribution, healthcare, construction, data centers, utilities, hospitality

ABOUT THE COMPANY
Since 1980, American Barcode and RFID Inc. (AB&R) has been a nationally-recognized integrator of proven solutions that drive efficiency and productivity in the supply chain. Those solutions include asset tracking, inventory management, work force mobilization, wireless networking, and the managed services to support them all.

CONTACT INFORMATION
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800-281-3056

“The shop floor works flawlessly and productivity has significantly improved from site to site.”

– Randall Shipman,
Director of IT Infrastructure, Isola Group



BENEFITS

QUICK CONNECTIVITY 100 PERCENT OF THE TIME

With the upgraded WLAN solution in place, Isola is enjoying significant improvements, from greater productivity to faster access to information wherever employees travel. "Specifically, we've seen increases in speed file transfers which is critical. Improvements in reliability have been outstanding and are vital to our business. The ability to quickly connect has been extremely well received by our employees," emphasizes Shipman.

"There have been obvious efficiency gains with the wireless technology, too. The shop floor works flawlessly and productivity has significantly improved from site to site. The efficiency we have gained on the shop floor and the ability to have consistent connectivity 100 percent of the time is a big change, versus the mash-up of technology we had before."

UNIFIED VIEW WITH 360° VISIBILITY OF ALL SITES

Having visibility of all components in the network has been a big improvement according to Shipman. He believes it is very important for collaboration among

"Reliability, improvements in speed and security are clearly the three most important benefits."

— Randall Shipman, Director of IT Infrastructure, Isola Group

employees and management to be able to go to any site and have instant access to tools, documents and applications which look and function the same as at home.

No longer does Isola's IT department worry about continual security intrusions and unauthorized guest access on their primary network either. "With our efficient networks, standardization and monitoring from 360 degree standpoint, we know who is touching the network," Shipman says. "Motorola's WLAN solution brings centralization, strong security and monitoring – all which help ensure efficiency with all mobile devices in an organization."

"Wireless technology on the shop floor, nine out of ten times, is a critical part of the manufacturing process," he says as he describes how the upgraded WLAN is helping their plants run smoothly. "If manufacturers want a bulletproof solution, this is it."

To get on board with a seamless, secure wireless solution, visit motorolasolutions.com/industrialwireless or contact your local Motorola representative.

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**MOTOROLA WLAN
UNLEASH OPTIMAL**