

Customer: F. Linster & Co. GmbH

Market: Manufacturing/Industrial

Location: Headquarters,
Germany



New Wi-Fi Improves Operations at One of Europe's Largest Steel Companies



Few companies have as challenging an environment for a wireless network as F. Linster & Co. GmbH. With our partner, Nutz GmbH, Allied Telesis meets the challenges and exceeds expectations.

The family company F. Linster & Co. was founded in 1952 and has grown to become one of Europe's largest companies in the stainless steel trade. The business specializes in the storage and processing of semi-finished steel products. From its locations in Aschau and Hilden, Linster develops project-related solutions for all customer requirements and ensures on-time delivery, directly from stock or from the factory.

The company's facilities span several office buildings and numerous warehouses. Within the various warehouses, there are many high racks filled with stored steel products. Knowing what and where these products are is a critical factor in maintaining the proper inventory to quickly serve customers' needs.

Linster had just deployed a new enterprise resource planning (ERP) system and needed upgraded Wi-Fi to support mobile barcode scanners for inventorying and tracking the stored products. The existing Wi-Fi had spotty coverage and was difficult to manage due to decentralized managed access points with different SSIDs and different Wi-Fi keys. A better wireless networking solution was needed—one with non-stop wireless connectivity, enhanced security, and simplified and centralized monitoring and administration.

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Markus Kern

IT System Administrator at Linster

Amid competitive bids, Allied Telesis won the project

Finding a suitable Wi-Fi solution for the warehouse environment would not be easy. One challenge would be to ensure that the Wi-Fi signal was available throughout the entire area, and that it was stable everywhere above and between the high racks of stored steel. The solution would need to be expandable as business needs dictate, as well as managed centrally from both the main site and other sites connected via VPN.



Several IT solution providers gave Linster proposals for the new Wi-Fi system. One company submitted a proposal based on Ruckus wireless products. Another put forth a bid using Bintec brand Wi-Fi components. However, Nutz GmbH, a full-service IT and security partner, made a stronger pitch by offering to deploy both the switching infrastructure (core switches, edge switches) and the Wi-Fi, all based on Allied Telesis switches, wireless access points, and system management software.

"We had solid Wi-Fi proposals from several firms," according to Markus Kern, IT System Administrator at Linster. "We ultimately went with the recommended solution from Nutz because of their confidence in a successful realization of the project based on using Allied Telesis products from end-to-end. We especially liked the concept of the Channel Blanket technology to give us a reliable, non-stop Wi-Fi solution."

"We have worked with Allied Telesis for several years now," says Marco Ruttar, Quality Manager of Nutz GmbH. "We quickly saw the advantages to Linster of having a single-vendor network throughout the environment. We were confident this solution could deliver simplified management, reduced costs, streamlined troubleshooting, and standardized security across the network."

Key components of the Allied Telesis solution

Several aspects of the Allied Telesis solution were quite appealing to Linster. Among them was Autonomous Management Framework Plus (AMF Plus), a sophisticated suite of management tools that provides an automated and simplified approach to network management. Powerful features like centralized management, auto-backup, auto-upgrade, auto-provisioning, and auto-recovery enable plug-and-play networking and zero-touch management.

Allied Telesis' Vista Manager EX network management software pairs with AMF Plus and the Autonomous Wave Control (AWC) wireless controller to optimize the operation of wired and wireless networks. Vista Manager EX offers a clear network and floor map for monitoring the network and Wi-Fi components across Linster's various locations. AWC autonomously analyzes the wireless network and improves performance to provide an exceptional user experience and reduce administration time and cost.

Most important for the Wi-Fi deployment was Allied Telesis' Channel Blanket technology. Channel Blanket is a single-channel Wi-Fi architecture that eliminates interference and simplifies network management. It helps to ensure non-stop

wireless coverage between access points and clients over and above interfering stainless steel materials.

Building reliable Wi-Fi with Channel Blanket technology

Nutz designed a comprehensive network environment which covers three office buildings and seven warehouses as well as external warehouses.

In all, the deployment includes Allied Telesis core switches, industrial switches, edge switches, and both indoor and outdoor wireless access points. Special attention was given to the Wi-Fi due to the complexities of the warehouse environment and surroundings.

"There are shelves stacked high with steel products that can interfere with Wi-Fi signals," says Kern. "There are harsh outdoor conditions requiring weather-resistant enclosures and extended operating ranges for access points that may be exposed to extreme temperatures—anywhere from -40°C to 65°C. It all makes for an extraordinarily complex environment in which to install a reliable Wi-Fi solution."

Nutz relied on Allied Telesis' Channel Blanket technology to overcome the coverage challenges. "We had to install enough access points to ensure adequate wireless signal strength across the entire premises," according to Kern. "With 28 indoor and 38 outdoor APs, this complete coverage allows user devices to wirelessly connect to online resources and applications from anywhere."

Channel Blanket takes the guesswork out of predicting radio signals by utilizing a single-channel wireless architecture, enabled by the Allied Telesis Autonomous Wave Control (AWC) Wi-Fi controller. Unlike typical multi-channel Wi-Fi architectures where all available channels have to be carefully managed to avoid interference, the preferred single-channel architecture uses one wireless channel to create a single "blanket" of wireless coverage, thereby eliminating interference.

Linster's wireless client devices see only a single virtual AP covering the entire premises, and the devices connect to





this virtual AP. When a client device connects to the network, the AWC controller decides the optimal physical AP for the client to send and receive data through. The Channel Blanket wireless technology maximizes network performance by optimizing AP use. More importantly, it means that user devices always have reliable connectivity to the Wi-Fi.

The benefits so far

At the time of writing, the barcode scanners have yet to be fully deployed on the wireless network. However, Linster reports having benefited from the Wi-Fi project through increased mobility, higher performance, and expandability in view of constantly growing IP devices. Moreover, through increased network visibility via Vista Manager EX, Linster is able to get a better inventory of its devices. "Our expectations have been fully met for all applications to date," says Kern.

Linster has also seen improvements in reducing the time to manage, license, administer, and keep track of all products, licenses, and services.

“We engage with Allied Telesis for its Net.Cover support services to simplify the IT administrative processes. We have very good cooperation from Allied Telesis, with a number of people to contact if the need arises. This is unusual for a vendor relationship but we really appreciate it. The team that looks after us is very competent and always helps quickly and reliably with queries or problems.

Markus Kern

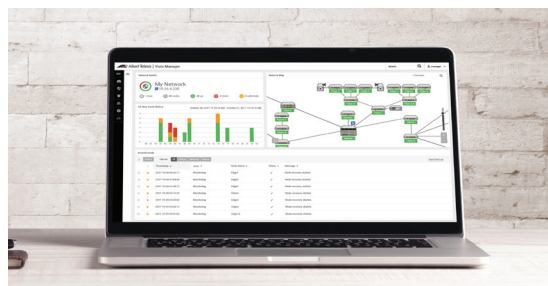
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About Allied Telesis

For over 35 years, Allied Telesis has been delivering reliable, intelligent connectivity for everything from enterprise organizations to complex, critical infrastructure projects around the globe.

In a world moving toward Smart Cities and the Internet of Things, networks must evolve rapidly to meet new challenges. Allied Telesis smart technologies, such as Allied Telesis Autonomous Management Framework™ (AMF) and Enterprise SDN, ensure that network evolution can keep pace, and deliver efficient and secure solutions for people, organizations, and “things”—both now and into the future.

Allied Telesis is recognized for innovating the way in which services and applications are delivered and managed, resulting in increased value and lower operating costs.

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