



# Bauer AG

Better international communication and first steps towards Industry 4.0 thanks to AerohiveNetworks' scalable WLAN solution

## Challenges

- Provide the company's international sites with high-performance WLAN
- Replace controller-based architecture with a flexible, scalable and secure alternative
- Expand the WLAN infrastructure for different building types
- Create a stable, high-performance network

## Results

- Global sites reliably networked
- HiveManager makes WLAN network easy to administer
- Robust, reliable WLAN
- Cost-effective, manufacturer-based solution
- Paves the way for intelligent machine communication (Industry 4.0)

## About Bauer AG

The Bauer Group is an international construction and machinery manufacturing group based in the Bavarian town of Schrobenhausen. Bauer AG, a listed holding company, has over 110 subsidiaries that operate in the fields of construction, equipment and resources. It is a market leader in complex excavation pits, foundations and vertical seals, and the design and production of equipment for this fast-growing market. The Group also specializes in the exploration, mining and safeguarding of valuable natural resources. With about 10,400 people, the BAUER Group achieved total group revenues of EUR 1.56 billion in 2014.

## Background and Challenges

When Bauer AG's WLAN infrastructure supplier was acquired by another company Bauer was no longer able to obtain new network access points for its sites. This is because the new OEM partner's APs were not compatible with the existing system. Bauer AG also suffered from constant connection and data transfer problems, and the existing WLAN infrastructure no longer met its stability and quality requirements. The company therefore decided to find a new solution from a best of breed independent vendor to avoid future compatibility issues and one that would allow individual, even small subsidiaries to connect to the network without having traffic go through headquarters.

"Before the Aerohive solution, we had big problems with network stability and quality. Today, our WLAN architecture works perfectly and is extremely user-friendly. People come in to work in the mornings, open their laptops, authenticate effortlessly and are online straight away."

—**Roland Bauer**,  
IT network/infrastructure Group Manager, Bauer AG.

Bauer AG has subsidiaries in seventy countries, with each office employing between five and 500 people. This is why Bauer AG wanted a controllerless WLAN solution from the start that would be more flexible, scalable and cost effective. The network also needed to provide comprehensive coverage for the different types of buildings, including warehouses and offices.

"A lot of IT managers buy traditional controller solutions because that's what they're most familiar with," says Roland Bauer, IT network/infrastructure Group Manager at Bauer AG. "In our experience, controller-based technology has too many downsides compared to the Aerohive solution, which has no central controller. We're very much in favor of the latter, because it gives us more flexibility to grow the WLAN network with our business, and we save money on unnecessary hardware."

Furthermore, Bauer needed a stable WLAN architecture as foundation for their own industry 4.0 scenario: the company intends to fit the forklifts used in the logistic centers with industrial computers which in turn are equipped with WLAN in order to improve the machine to machine communication and overall business processes.

### Solutions and Achievements

Bauer evaluated several potential suppliers, including HP-owned Aruba, before selecting Aerohive. They were impressed with Aerohive's architecture because it provides scalable access points and its robust and reliable WLAN network is able to cover all Bauer sites and link up all types of machines. With the auto-provisioning feature, especially multi-site organisations benefit from the easy to deploy Aerohive architecture. Auto-provisioning is a way to send unconfigured APs to different locations. After booting the APs get their configuration from the management system - whether it is local or hosted. That way rollouts of multiple distributed locations can be coordinated from a central point very easily.

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The Aerohive solution is used in all areas of Bauer AG's business, including administration, production, sales and logistics. The Aerohive access points use intelligent collaborative control to share information between access points and sites of different sizes all over the world, using a single network management system operated by a team of four IT specialists. This is managed on Aerohive's user-friendly management interface HiveManager which in this instance is installed on-premise in Bauer's own datacenter (private cloud).

Most users are sales staff who access the network from laptops and other mobile devices. Additionally, Bauer has set up separate smartphone SSIDs because it provides its staff with BlackBerrys. It uses Aerohive's private preshared keys (PPSK) to provide better, easily managed and secure access to the network and its clients, and to simplify the guest management process.

Users also include warehouse staff picking goods with the help of mobile barcode scanners. In the future, forklifts in Bauer's logistics centers will be fitted with industrial computers with WLAN interfaces. These steps represent a key component of a networked machine communication system. With Aerohive's support, Bauer will be on its way to creating their own industry 4.0 scenario.

Another point in Aerohive's favor was the fact that it provided a one-stop shop for the fully-integrated solutions and services Bauer needed.

It took just a week to implement the management environment at Bauer and switch on the first access points. There are now 295 of these, serving some 1,500 users, many with multiple devices. Bauer has 120 subsidiaries in seventy countries, including the United States, Malaysia and Singapore. Fifty of these are now using the Aerohive solution, and the company plans to expand it to the others as part of an international upgrade.

"The new solution gives us a much more stable, high-quality and user-friendly WLAN system," says Roland Bauer. "This state-of-the-art infrastructure has huge innovation potential. For example, it enables different types of machines to talk to one another more effectively."

### The Advantages at a Glance

- Flexible, scalable, pay-as-you-grow network improves communication between sites of different sizes
- Access points rolled out quickly at fifty international locations
- Easy remote management of global access points from a central platform
- Simple, cost-effective and scalable controllerless architecture prevents single point of failure
- Comprehensive, cost-effective manufacturer-based solution
- Intelligent machine network represents a major innovation

### About Aerohive Networks

Aerohive (NYSE: HIVE) enables customers to simply and confidently connect to the information, applications, and insights they need to thrive. Aerohive's simple, scalable, and secure platform delivers mobility without limitations. For over 20,000 customers worldwide, every access point is a starting point.

Aerohive was founded in 2006 and is headquartered in Sunnyvale, CA. For more information, please visit [www.aerohive.com](http://www.aerohive.com), call us at 408-510-6100, follow us on Twitter [@Aerohive](https://twitter.com/Aerohive), subscribe to our [blog](#), join our [community](#) or become a fan on our [Facebook](#)



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