

Behr-Hella Thermocontrol

CASE STUDY

Behr-Hella Thermocontrol expands wireless infrastructure, replacing first-generation "Fat AP" network with highly-secure Smart Mobile WLAN.



The Trapeze Mobility System was chosen because it was the only solution that met—and exceeded—the company's tough security and management requirements.

"The Trapeze Mobility System allowed Behr-Hella to expand its wireless infrastructure while putting the freeze on networking operating costs."

— IT Manager,
Behr-Hella Thermocontrol

Behr-Hella Thermocontrol—with 700 employees at factories in Lippstadt and Stuttgart, Germany and Plymouth, Mich.—is a leading manufacturer of electronic controllers and operating units for automobile heating, ventilation and air conditioning systems, producing more than 500 million units per year for car makers around the world, including Audi, BMW, DaimlerChrysler, Ford, General Motors, Peugeot, Porsche, Saab, Volvo and Volkswagen.

A manufacturer with the innovation of Behr-Hella needed a wireless LAN that was equally innovative to deliver the security and mobility within its corporate facilities that would keep it ahead of the curve.

Objective

Behr-Hella initially deployed a first-generation wireless LAN at its Lippstadt headquarters. Employees were pleased with their newfound mobility, and the company was interested in rolling out wireless service to its other manufacturing facilities. Rather than continue with the rapidly aging wireless LAN, which had proven to be a management and administrative nightmare, Behr-Hella wanted a more secure, reliable wireless LAN.

The company was looking for an enterprise-class wireless LAN that could be deployed everywhere in its modern glass and steel corporate headquarters while protecting valuable corporate assets from unauthorized users and unintended security breaches.

On the security front, Behr-Hella's requirements were strict. The company needed rogue detection, IEEE 802.1X authentication, strong encryption and seamless roaming. In addition, the new wireless LAN had to support all 802.11 standards, including 802.11a and 802.11b/g radios. In addition to strong security, the German manufacturer demanded operational efficiency and ease-of-management, including a smooth integration between wired and wireless networks.

Solution

After a thorough review of the leading next-generation wireless LANs, Behr-Hella chose the Trapeze Mobility System because Trapeze was the only company that met—and exceeded—the company's tough security requirements.

Working with Trapeze's systems integration partner TGS-Telonic, Behr-Hella was able to roll out a full deployment of Mobility Exchange® (MX®) controllers and Mobility Point® (MP®) access points at its Lippstadt headquarters in just two days.

Behr-Hella took advantage of Trapeze's AAA offload capabilities, strong encryption and authentication, and Identity-Based Networking to ensure that only authorized users can access the network and that they can access only those resources appropriate to them.

DESCRIPTION

Behr-Hella, a leading manufacturer of electronic controllers and operating units for automobile heating, ventilation and air conditioning systems, produces more than 500 million units per year for car makers around the world.

OBJECTIVE

- Migrate from an aging, first-generation wireless LAN that was plagued with security and administrative problems to an enterprise-class system at corporate headquarters in Lippstadt, Germany
- Choose a solution with operational efficiency and advanced management
- Smooth integration between wireless and wired network topologies
- Deploy strict security, including IEEE 802.1X authentication and strong, standards-based encryption, and seamless subnet roaming

SOLUTION

- The Trapeze wireless LAN Mobility System was selected because it was the only solution that could meet—and ultimately exceed—Behr-Hella's requirements
- Trapeze systems integrator TGS Telonic and Behr-Hella launched a full deployment of Mobility Exchange (MX) switches and Mobility Point (MP) access points
- Security and access features include rogue detection, intrusion prevention, Identity-Based Networking, 802.1X authentication, WPA2/AES encryption and seamless roaming

RESULTS

- Behr-Hella quickly and efficiently deployed the Trapeze Mobility System in its headquarters in just two days
- Behr-Hella was able to control operational costs by deploying a single, integrated wired/wireless infrastructure
- Trapeze's RingMaster pre- and post-deployment planning and management tool saved countless hours for Behr-Hella's IT staff by speeding installation and automatically applying security policies, radio channels, power settings and user roaming profiles
- RingMaster's 3D awareness made planning wireless coverage for the entire building possible, instead of just one floor at a time

Behr-Hella Thermocontrol (continued)

The company implemented 802.1X authentication using the Protected Extensible Authentication Protocol (PEAP) as well as standards-based encryption. Trapeze supports multiple types of encryption, including WPA2/AES, the strongest encryption available today.

Results

The Trapeze Mobility System allowed Behr-Hella to expand its wireless infrastructure while putting the freeze on network operating costs. To ease overall network management, Behr-Hella merged its existing network security policies, RADIUS servers and domain controllers into a single, integrated wired/wireless infrastructure. Trapeze offered the best way to preserve existing network engineering investments while offering seamless integration between the wired and wireless networks.

To deploy the wireless LAN, Behr-Hella and TGS-Telonic relied on Trapeze's award-winning RingMaster, a pre- and post-deployment planning, configuration management and monitoring suite, to speed installation. The company's IT group imported building plan files into RingMaster and designed the wireless LAN offline. With RingMaster's 3D awareness, the team planned wireless coverage for the entire building as opposed to just one floor at a time. RingMaster showed how radio signals flowed through the environment to provide optimal coverage, even in the event of an AP failure.

When the WLAN plan was finished, hundreds of MPs were configured with a single mouse click, saving untold hours of manpower configuring each access point manually, one by one.

This configuration applied user security policies, radio channels, power settings and user roaming profiles automatically.

Employees are enjoying seamless mobility as they roam throughout Behr-Hella headquarters. With Identity-Based Networking, users logon once to the network and no matter where they roam across the wired or wireless network, their access controls, VLAN assignments, roaming privileges, quality of service settings and other policies follow them according to their individual identity or group membership. Wherever employees move, Trapeze recognizes them as authenticated users and provides them with continuous service.

For day-to-day management of the wireless LAN, Trapeze provides Behr-Hella with RF topology mapping, scheduled or on-demand rogue sweeps, always-on intrusion prevention, 24 x 7 user monitoring and location identification, and network usage reports. The Behr-Hella IT staff can view user session data from the MX controllers as well as statistics for the wired network.

As the Behr-Hella wireless LAN expands, Trapeze will easily scale to support new user and application requirements. Trapeze has AAA offload features that distribute key tasks in 802.1X authentication and encryption to the Mobility Exchanges. Offloading these tasks from the RADIUS server to Mobility Exchanges allows the wireless LAN to scale easily.

Overall, the scalability, fast deployment, strong security, low cost of ownership and powerful pre- and post-deployment configuration and management tools has kept Behr-Hella on a smooth course.