Hewlett Packard Enterprise

Wollschläger goes wireless at its new logistics centre

Retail enterprise installs reliable
HPE network solution

Objective
Create a future-proof, scalable Wi-Fi network to serve as the backbone for the new logistics centre

Approach
Compared multiple providers across a set of 30 plus criteria

IT Matters
- HPE Intelligent Resilient Framework (IRF) virtualisation technology ensures that the company benefits from a high-performance Wi-Fi network

- Simple configuration management via HPE IRF

- The HPE Intelligent Management Center (IMC) standard software platform provides high levels of transparency across the network status

Business Matters
- Reliable, high-performance Wi-Fi network ensures the Wi-Fi network in the logistics centre is very stable

- The company now has a future-proof Wi-Fi network that can also be used by the administrative department

- High levels of port security for all data and systems, preventing unauthorised access

Wollschläger uses solely Hewlett Packard Enterprise components to create a Wi-Fi network for its new logistics centre. The company has installed a combination of core switches, access points, premium mobility controllers and the HPE Intelligent Management Center (IMC) standard software platform to create a high performing, reliable and scalable solution.

Challenge

A highly reliable and available network
Within just 12 days, Wollschläger's employees moved around 400 lorry loads, approximately 800 tonnes of material, from the company's existing site to its new logistics centre on the opposite side of Bochum. This was the biggest move that the supplier of precision tools, welding technology, health and safety and factory equipment had ever carried out. The new site not only serves as the central logistics centre for the Wollschläger Group, but also contains a rental and service point and workshop. The site is also home to two data centres, the mechanical engineering department and a Wollschläger subsidiary. The new centre brings all of the separate areas of the company together under one roof. This has enabled the company to optimise its operational procedures and improve the availability of its goods for its customers, which are mainly industrial companies, medium sized enterprises and businesses in the trade industries.

"The Wi-Fi network in the logistics centre is very stable. Having high-performance 20GB connections in the most important areas of the network is an excellent feature. And it also gives us plenty of options to expand in the future - for example if the administrative department decides to move to the new site."

– Stefan Wörder, head of IT and project management, Wollschläger

When it came to choosing the network for the new logistics centre, the company was looking for a future-proof, scalable solution that would be able to support the company as it grows. Wollschläger had already installed a Wi-Fi network at its former logistics site to improve the efficiency of its warehouse logistics processes. Mobile data capture devices were connected to the SAP Extended Warehouse Management System (SAP EWM), via Wi-Fi, which in turn communicated with the SAP ERP system to carry out tasks such as printing the invoices for the relevant goods.

"The Wi-Fi network was ageing. As it was installed some time ago, it wasn't designed for full redundancy, it didn't have tools for monitoring performance and the security definitely needed some improvements," says Erdogan Caymaz, head of IT core services at Wollschläger.

"We wanted to address and correct these issues when we installed the Wi-Fi network at the new logistics centre. As it was a new build, we had the benefit of being able to design the network from the ground up."

During the planning phase, Wollschläger began to research network component manufacturers and solutions providers who could take care of the installation.

The company's catalogue of requirements covered a total of over 30 criteria covering technical, business-related and so-called 'soft' factors. Points were then assigned for each parameter. Hewlett Packard Enterprise and its partner K&K Networks achieved the highest overall points total.

Solution

A Wi-Fi network with all-HPE components

"The technologies behind HPE's network components really impressed us," says Caymaz. "From a business point of view, it was very important to have a flexible partner on our side who would talk to us on our level as a medium-sized enterprise, and also make the solution affordable for us. We believed that K&K Networks would be the best company to meet these needs - and we were right."

The company installed two HPE 7510 switch chassis as a communications hub and over 20 HPE MSM460 dual radio 802.11n access points along with more than 50 HPE MSM466 dual radio 802.11n access points, ensuring the Wi-Fi network was accessible across the entire logistics centre.

The HPE 7510 switches feature HPE Intelligent Resilient Fabric (IRF) technology. This virtualisation technology allows up to nine physical switches to be combined into a single, logical, virtual device. Once the switches are combined, the virtual switch is contacted via a single IP address. This greatly reduces the amount of time spent on configuration as there is only one device to set up. The switches are mainly connected via 10 or 40GB Ethernet interfaces. By using a special configuration, these connected devices can be used as a single, virtual device.

Benefit

High performance and reliability

"The HPE IRF technology ensures that the network is reliable and highly performant," says Caymaz. "It means that we can actively use connections that we have in place for redundancy reasons. And if there is an error, the network is back up within 50 milliseconds - we don't even notice it." This essentially means that the network never goes down.

Two HPE MSM760 premium mobility controllers with a seamless failover feature and virtual controller redundancy ensure that the Wi-Fi network remains highly available.

Wollschläger worked closely with K&K Networks to plan the network. This included factors such as load distribution, locations for radio cells and how it would secure the network against unauthorised access. "In the old warehouse, we had a flat network, i.e. all of the switches were connected together in a single network. In the new logistics centre, we have introduced port security, which means that authentication within the network is carried out using the IEEE 802.1X protocol. We have also created numerous virtual local area networks (VLANs) as sub-networks and configured them with individual access rules. This enables us to prevent any unauthorised access on a network level," says Caymaz.

Caymaz is also very satisfied with how smoothly the project ran. "We are really happy with the results of our collaboration with K&K Networks. There were no disasters, interruptions, misunderstandings or anything like that throughout the whole of the project. The experts from K&K Networks were available around the clock - even on weekends. The support we received was very good, both in terms of rectifying errors and in providing advice when we needed it. Everything was explained quickly over the phone."

Customer at a glance

Application
SAP Extended Warehouse Management System (SAP EWM)

Hardware
- HPE 7510 switches
- HPE MSM460 dual radio 802.11n access points
- HPE MSM466 dual radio 802.11n access points.
- HPE MSM760 premium mobility controllers

Software
- HPE Intelligent Management Center (IMC) standard software platform

About Wollschläger

Wollschläger GmbH & Co. KG is a systems supplier for precision tools, welding technology and health and safety and factory equipment. Wollschläger is a competent partner for industrial customers, medium sized enterprises and businesses in the trade industries. Its systemised operating procedures enable it to deliver high-tech tools across Europe within 24 hours. The retail, technology and service company can deliver items from its extensive range worldwide within 48 hours.

About K&K Networks

K&K Networks GmbH is based in Unna, Germany, and provides consulting, planning and implementation services for company-wide IT networks. It not only offers its customers components tailored for its solutions, but also a range of essential services and maintenance options. The company specialises in IT infrastructures. It also has partner companies covering areas including ERP, CRM, DMS and CAD solutions.

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Wollschläger is currently working with K&K Networks again on a few adjustments to ensure that all of its handheld devices can connect to the Wi-Fi wherever they are on the site. "This depends on a number of variables such as how full the warehouse is and what types of materials are in stock. But we are making great progress."

Complete transparency with HPE IMC

Caymaz has found the HPE Intelligent Management Center (IMC) standard software to be a very useful tool for operating the IT system. "The software has given us complete transparency over the entire network for the very first time. We know exactly where it is getting overloaded and where this causes performance to drop and we can use this information to counteract it."

In future, Wollschläger wants to use HPE IMC for additional monitoring applications outside of the network. "Our vision is to use HPE IMC to monitor many other systems within our company so that we have transparency over possible errors within the network and the causes behind them, both within the local network and across the WAN. HPE IMC is going to be a very important tool for us," says Caymaz.

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4AA5-7672EEW, April 2016, Rev. 1