



REGIONAL CASE STUDY

MARKET: **MANUFACTURING**

REGION: **EUROPE**

COMPANY: **OECHSLER AG**

DO IT RIGHT THE FIRST TIME

Oechsler creates a fast, flexible environment for its data and business communications



Established in 1864, Oechsler AG is now a major global plastics engineering and manufacturing company. Headquartered in Ansbach, southern Germany, the company has three German locations, as well as international offices in China, Romania, Mexico and Singapore.

Oechsler recently modernized its IT and networking infrastructure, covering three locations in Germany and two international subsidiaries. The company's aim was to provide its employees with a high-speed network that combines innovative communications technology, reliability and centralized management into a coherent overall concept, ensuring the satisfaction of all internal customers.

CHALLENGES

- Outdated network with heterogeneous components
- Inflexible and slow
- No reliability
- No central management

SOLUTIONS

LAN switches:

- Alcatel-Lucent OmniSwitch® 6900
- Alcatel-Lucent OmniSwitch® 6850E

WLAN Controllers:

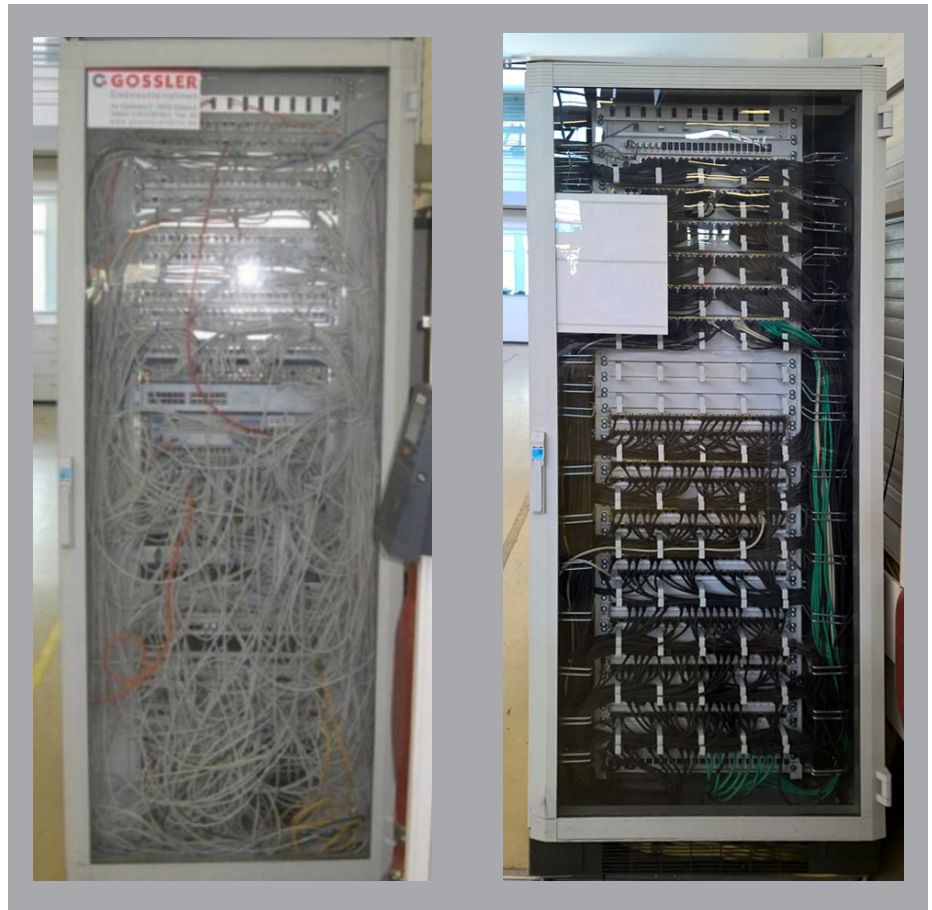
- Alcatel-Lucent OmniAccess® 4000 series Access Points
- Alcatel-Lucent OmniAccess® Remote Access Points
- Network management
- Alcatel-Lucent OmniVista® 2500 Network Management System

Communications:

- Alcatel-Lucent OpenTouch® Suite for Medium and Large Enterprises
OpenTouch Conversation software clients

BENEFITS

- Modern network with cutting-edge communications technology
- Flexible and efficient through innovative devices and central management
- Fast through high-speed data transfer and low latency
- Reliable through two redundant data centers
- High level of customer satisfaction



THE CHALLENGES

Founded as a small handicraft business in 1864, Oechsler has grown into a global group with some 2,300 employees. In 2013, the company, which is run as a privately owned corporation, achieved a turnover of 250 million euros. Headquartered in Ansbach, southern Germany, the company runs three German locations and international offices in China, Romania, Mexico and Singapore

The plastics-processing company develops, manufactures, assembles and supplies custom-made components for the automotive industry, the medical sector and industrial solutions. Oechsler offers the entire spectrum, from development to the finished product, including design, engineering, mould making and assembly.

Initial situation

In 2011, Oechsler decided to modernize its IT and network infrastructure. The existing platform was old – some network switches dated back to the year 2000 – and, with many dedicated servers from different manufacturers, extremely heterogeneous.

There was no central network management, just individual tools for different tasks, and the bandwidth requirements exceeded the capacity of the installed network by far. As for wireless connections, there was only a small installation in Ansbach, the other sites were not connected. Above all, even the most important components were not installed redundantly, so that a network failure had an impact on the entire enterprise – right up to the truck waiting at the ramp.

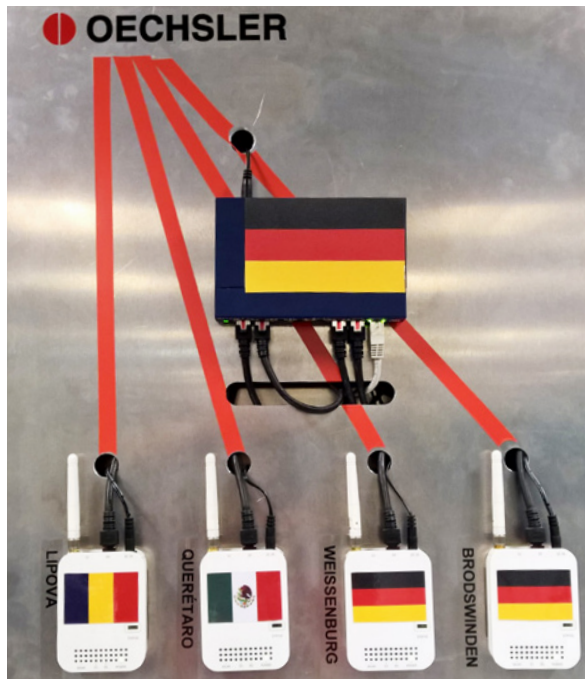
This outdated infrastructure was to be replaced by a modern network with innovative components, high reliability and intelligent network management. Oechsler organized a tender to invite bids from various providers. The Alcatel-Lucent Enterprise solution was developed jointly with Oechsler Controlware GmbH, a long-time Business Partner, supplied the network components and training to Oechsler's IT team.

The aim of the modernization project was to satisfy internal customers. They wanted to be able to use the infrastructure without having to worry about functionality or speed. "The best IT is the one that you do not notice," says Thomas Ehnes, Head of IT, Oechsler AG. "And that can only be achieved through a coherent overall concept." This is why he did not limit the project to the simple exchange of some obsolete components. He designed and implemented a completely new infrastructure for fixed and wireless communications that included the renewal of the telephone systems and workstations as well as the establishment of a second, redundant data center.

THE SOLUTION

The modernization project began in 2012 with a two-day training course, which Controlware conducted for Oechsler's IT team. It enabled the IT team to install the new network components themselves. Over a few weekends, the old components were replaced by state-of-the-art technology – and a total of 3,840 new ports were configured. Alcatel-Lucent OmniSwitch 6900 Stackable LAN Switch switches were used at the core of the network, while the subdistributions were realized with Alcatel-Lucent OmniSwitch 6850E Stackable LAN Switch switches. Network management is now done centrally with the Alcatel-Lucent OmniVista 2500 Network Management System.

Once the Oechsler IT team implemented the new infrastructure for the fixed network without outside help – only the company's engineers assisted in the laying of cables, they tackled the WLAN installation during 2012. This second step started with a training course organised by Controlware. During the five-day course, the Oechsler team acquainted themselves with the modern Alcatel-Lucent Enterprise wireless technology, in particular with the Alcatel-Lucent OmniAccess range of products such as Alcatel-Lucent OmniAccess 4000 series Access Points and Alcatel-Lucent OmniAccess Remote Access Points. The internal engineers again gave assistance, and Controlware helped with the WLAN site survey in Ansbach.



"We knew it was not enough to replace some components. Instead, we created a completely new, modern foundation for our entire data and voice communications," says project manager Thomas Ehnes. He is convinced that only a coherent combination of network, servers, storage devices and terminals can produce the expected results. It is no coincidence that all the company's 1,000 PCs were exchanged during the course of the project so that no workstation is older than three years. "We designed our infrastructure in a way that makes it innovative and flexible, provides high capacity and speed to the users, but remains reduced to the essential components. Like this, we managed to implement a next-generation data center and a state-of-the-art network that meets all the needs that our internal customers have today and tomorrow."

Thomas Ehnes, head of IT, Oechsler AG

As each location has a WLAN controller of its own, Oechsler's IT team can virtually move to the local sites. To achieve this, a remote access point is configured for each location. This remote access point dials in to the respective local controller, from the headquarters in Ansbach. This enables the team to connect to the local network through the respective Service Set Identifier (SSID) or through the second network port of the remote access point. Once connected, they can easily test the local configuration with all its features and policies.

Following the successful implementation at the headquarters, the other locations were connected step by step: the German subsidiary in Weißenburg was connected in 2012, the international locations in Romania, Mexico, and the logistics center near Ansbach followed in 2013. In the same year, Oechsler installed an additional production network so each of the machines is now connected to the network. These connections are mainly used for process data capturing, remote maintenance and software updates.

THE BENEFITS

Oechsler is now at the cutting edge of business communications. In June 2015, some 400 desks in Ansbach and Weißenburg were converted to software-based communications. This increases employee efficiency, as they can now take full advantage of Alcatel-Lucent OpenTouch Conversation software clients offering multimedia collaboration and business communications across sites including video conferencing, desktop sharing, and call shift between multiple devices.

Network management

Oechsler's entire global IT is managed from Ansbach. The Alcatel-Lucent OmniVista 2500 Network Management System enables the IT team at the headquarters to see which port is online or offline at any given time - in the German offices as well as in international locations.

To ensure maximum reliability, Oechsler has built a second data center. Set up in a container on the roof of the company headquarters, it contains the same configuration as the productive data center: some servers with corresponding storage, and some switches.

These hardware components serve to manage more than 1,000 PCs and 1,500 users around the world and the corporate telephony system. The application servers are connected with 40 Gb/s, redundantly distributed over two switches per data center, and the storage servers with 60 Gb/s. If an error occurs in the productive data center, the entire operation can be switched to the second data center within three seconds.

The new infrastructure has an enormous bandwidth. The data transfer rate between the two data centers is 160 Gb/s and will soon be increased to 320 Gb/s. In the sub-distributions at the Ansbach site, the general transfer rate of 2 x 10 Gb/s also allows very high throughputs. Transfer from random access memory (RAM) to RAM is 4 GB/s. From hard disk to hard disk, files are transferred at a speed of 500 MB/s.

Users have been amazed by the high transfer speed. A complete backup of the file server used to take from Friday evening until Monday afternoon - now it is completed by Saturday morning. There have even been cases where users have feared that the transfer of a larger file did not complete properly - simply because they expected to see a progress bar, but the transfer was so fast there was none.

CUSTOMER SUMMARY

Oechsler AG

MARKET: MANUFACTURING

EMPLOYEES: 2,300

URL: www.oechsler.com/en

controlware
communicationssysteme

As one of Germany's leading systems integrators and managed service providers, Controlware GmbH is planning and implementing challenging IT and telecoms projects for over 35 years.

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