



Design meets metal engineering – Metal engineering meets IT

Fit for the future with 10 Gigabits

What do the KaDeWe, das Haus der Zukunft Berlin, the Landesmuseum Brandenburg and the Hasso-Plattner-Institut in Potsdam have in common? The characteristic metal and glass elements which critically define these buildings were produced by Metallbau Windeck, a medium-sized company from Kloster Lehnin in Brandenburg. The family business has always set benchmarks in many different areas. For example, in 2016 it was awarded the German Metal Construction Prize – the Oscar for the metal engineering sector – for the exceptionally creative and innovative design of the metal façade of St. Johanniskirche in Brandenburg an der Havel.

A significant part of the company's success company has always been its future-oriented IT strategy which for decades has been defined and implemented by Industrieelektronik Brandenburg GmbH. At its heart is a high-performance 10G network based on components from D-Link.

Tablets not paper

Architecture and construction have changed greatly over the last few decades as indeed have many other sectors. For a long time now experts on construction sites no longer work only with huge plans. Most of them now hold their tablets in their hands, view all plans digitally and can access all other information on demand from the Cloud. This was also the experience several years ago of Oliver Windeck, Managing Director of the family business, when he decided he wanted to take advantage of digitalisation for his company.

In the planning phase, whilst collaborating with international teams, fast communications across the network have a big role to play, but Metallbau Windeck also viewed a high-performance IT infrastructure as being crucial for production.

On-site expertise

Ever since 1993 the company has relied on the expertise of their local partner, Industrieelektronik Brandenburg GmbH who plans, implements and supports the entire IT infrastructure of the metal engineering company. What started 25 years ago with

three people now encompasses a high-performance IT network for more than 120 employees. Metallbau Windeck continues to grow and in autumn 2018, with prominent guests from politics and industry in attendance, it inaugurated its new production hall and modern office building, both of which are connected to the central network with 10 Gbit/s Ethernet.

Digitalisation across-the-board

The network conversion from 1 Gbit/s to 10 Gbit/s started two years ago. It was both the increasing digitalisation of production and the comprehensive use of Enterprise Resource Planning (ERP) software that necessitated a further increase in broadband capacity across the entire company. In light of this it was not difficult for Michael Deutloff, a Partner at Industrieelektronik Brandenburg, and his team to select the requisite network components. "We have been installing D-Link Network Switches for many years and have always had good experiences with them. The collaboration with the experts at the manufacturer always func-



tions smoothly and the price/performance ratio is also very good."

Fully networked

The backbone at Metallbau Windeck consists of 24-port DXS-3400 Core Switches and stackable DGS-1510 Smart Managed Switches which can be bundled if required. In the new office building on each of all three storeys 10 Gbit/s Ethernet switches are used and in the basement there are two Switches. The previous copper cabling connection between the buildings was replaced in two segments by one fibre optic connection. The workstations themselves are for the most part attached by switches via copper connections with 1 Gbit/s Ethernet. Production workstations such as machine tools for milling or sawing are connected with 100/1000 Mbit RJ45 copper. The machines are controlled by specific machines

from the manufacturers and are based on a wide range of operating systems. This is why a system-level connection is required. The benefit of this is that the machine tools are fully-equipped with network interfaces enabling them to be integrated into the domain network. This means that production data can be transferred to the machines and that machine data can be processed centrally.

Always keeping pace with the times

For Oliver Windeck, Managing Director of Metallbau Windeck, there is one overriding aspect: "In order for us to work competitively and efficiently, we must have the corresponding IT processes. Even if flexibility is lost somewhere or other due to digitalisation and technology dependence, construction with this degree of individualisation cannot be achieved without a

high-performance network infrastructure." And another thing is clear: The reliability of the components and the ensuing availability of the entire network make a direct contribution to the company's success. Fortunately downtime for Michael Deutloff is not an issue. Since 1990 there has only been one short-term network downtime for the customers of Industrieelektronik Brandenburg. "Based on our positive experiences which now date back many years, we know that we can really rely on network components from D-Link. We do not need a big warehouse for replacement devices or spare parts." The further expansion of the network is continuing and one thing is certain: Metallbau Windeck can take constant advantage of the digital opportunities of the future thanks to the high-performance IT infrastructure.

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Oliver Windeck, Managing Director of Metallbau Windeck