CASE STUDY

HYDAC CO. LTD., FUNABASHI:

GLOBAL EXPERTISE IN ACTION

With a fail-safe, scalable IT infrastructure solution, Datwyler ensures long-term operational reliability at Hydac's Japanese logistics centre.

Hydac is an international group of companies headquartered in Sulzbach/Saar, Germany, employing approximately 10,000 people worldwide. Hydac develops and distributes components, systems and services for industrial and mobile applications – including not only classic hydraulic products but also systems for various industries and applications, such as electromobility and hydrogen.

Its global network of companies includes a logistics centre in Funabashi, a major city in the Tokyo metropolitan area. In spring 2024, a critical network outage temporarily halted shipping operations at the logistics centre. Since there was no on-site IT team, Hydac's German IT department contacted Datwyler IT Infra to find a solution. Hydac tasked Datwyler with resolving the issue as quickly as possible and implementing sustainable improvements at the Funabashi site to prevent similar outages in the future.

Datwyler IT Infra in Singapore was immediately brought on board. The Singapore team in turn coordinated support through a Japanese partner company. This close collaboration between the teams in Germany, Japan and Singapore was ultimately crucial in finding a swift and satisfactory solution for Hydac.

Future-proof IT infrastructure solution

In August 2024, Datwyler and its Japanese partner then conducted a comprehensive on-site survey of the existing network infrastructure in the logistic centre. This process identified weaknesses and led to the development of a sustainable modernisation plan.

The jointly developed concept included optimised cabling, detailed documentation of the existing hardware and the phased replacement of outdated network components. These measures aimed to minimise future risks and ensure the long-term stability of the IT infrastructure.

Based on the data gathered during the site survey, the Datwyler team also presented Hydac's IT department with an efficient Wi-Fi design that addresses the current and future requirements of the logistics centre. Further proposals focused on more efficient cabling, enabling Hydac to reduce cable lengths and minimise interference, as well as

improved locations for power and network distribution points, which would significantly increase reliability.

The new network had to meet the company's specifications. The selection of the necessary equipment was based on its compatibility and transmission performance, and it also had to comply with Hydac's security requirements. To ensure high reliability and meet the business continuity standards, the IT infrastructure was designed to incorporate redundant power supplies and failover mechanisms.

Implementation during ongoing operations

A detailed schedule, encompassing all phases from material procurement to testing the installed solution, ensured successful implementation. Datwyler planned the necessary work in such a way that it would not disrupt operations at the logistics centre. Thorough testing was scheduled for each phase of implementation. Regular progress reports ensured that all deadlines were met. And there was a contingency plan in place for unforeseen challenges.

The Datwyler team in Singapore oversaw the delivery, installation and configuration of the necessary network equipment and the data network itself. Between mid-November and the end of December 2024, all connections and the entire cabling system, including the outdated racks, were gradually replaced.

Long-term reliable solution

The new network infrastructure, which was thoroughly documented, not only resolved the immediate problems but will also prevent future outages as the Datwyler solution is designed for long-term, reliable operation.

The structured cabling consists of high-quality cables and components and ensures stable connectivity for all connected IT systems and devices. Furthermore, it offers sufficient capacity for future expansion and challenges. One example is the Wi-Fi access points, which are strategically placed to handle the ever-increasing demands of IP telephony.

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