



ABOUT THE COMPANY

For an international retailer with a growing network of stores, information technology is absolutely critical for click & collect, digital signatures, location-based services, intelligent cash register systems and smooth merchandise logistics. To leverage the key benefits of digitisation, a high-performance, fail-safe IT- infrastructure, either in a data centre, server room or edge computing environment in stores, is vital.

That's why this international retailer, with around 10,000 stores in more than 20 countries, chose Vertiv as a worldwide partner to supply, set up, configure and handle overall project management of their IT infrastructure for business-critical processes.

The Challenge: Implementing Standard IT Solutions & Services Across Europe

International retailers require a multi-channel strategy, exceptional onsite service and trouble-free logistics. What's more, cash register failures or issues in the storage systems can lead to sale losses. In a worst-case scenario, this could even result in data losses, which would have a negative impact on the company's image. For an international retailer with around 10,000 stores and an online shopping service, the security and availability of IT infrastructures is a crucial success factor. That's why this retailer was looking for a reliable solution and service partner, which could cover the entire network of stores with integrated standard solutions for data centres and edge computing. Based on proved expertise and renown capabilities, the retailer opted for Vertiv and its flexible, advanced and energy-efficient products, as well as its global service network. At the same time, Vertiv was able to customise and deliver a number of racks tailored to the customer's specifications.

The Solution: Integrated Server Racks Tailored to the Customer's Specifications

The customer's data centres, logistics centres and stores were gradually equipped with racks, Power Distribution Units (PDUs) and integrated cooling units. Approximately 250 racks and 500 PDUs were installed in the main data centre, while 20 racks and 40 PDUs were installed in the warehouses. Depending on their size, stores themselves were equipped with between two and eight server racks. The advantage of the customised racks is that they are designed for both large and small data centres, as well as for edge applications within the stores. The rack's technical configuration and ducting was designed to suit the retailer's specifications. The integration of active and passive components, such as temperature and humidity sensors, as well as preparatory works for cable distribution and configuration took place in one of the Vertiv facilities in Germany. The customised racks were then delivered to all sites, ensuring a common standard and compatible UPS interfaces. The project included not only delivery and set-up of the integrated racks, but also global project management. The retailer has already equipped three of its main data centres and is planning additional sites.

International standards facilitate maintenance – Remotely and on-site

Data centres, as well as server rooms within logistics centres and stores, can be easily managed remotely. All retailer sites across various countries are monitored and controlled from the IT headquarters based in Germany. In the event of an unexpected network failure or issue, the appropriate data centre or IT manager at the company headquarters has remote access to all devices, including servers, switches and intelligent power distributors, and can conduct troubleshooting.

The various sites, along with detailed information, are visible on a map on a display, which allows the customer to quickly identify where the devices are located and how they are wired. Having standardised, custom made equipment reduces the complexity of the IT infrastructure and facilitates maintenance, providing great advantages for service technicians and minimising overall costs.

Energy Efficient PDUs: Increased Sustainability and Lower Operating Costs

Compared with other solutions available on the market, Vertiv™ PDUs have great advantages, such as excellent reliability at operating temperatures of up to 60° C, as well as maximum energy efficiency. On average, the power distributors only use a quarter of the usual energy. Projected over ten years, with around 100 PDUs, this alone results in a saving of approximately 45,000 Euros. Thanks to this successful cooperation, another joint project is already being planned which involves the build of prefabricated data centres.

These systems combine infrastructures and IT systems in standard containers or modules. Existing data centres can be expanded using container modules, and new freestanding all-in-one data centres can be rapidly set up as required. In this case, racks, PDUs and cooling units are already included in the modules as standard. Thanks to this innovative concept, as well as energy efficient and fail-safe operation of the entire IT infrastructure, nothing stands in the way of the successful discount retailer's further expansion in terms of IT.

Vertiv Solutions

- Knürr DCM® Heavy-Duty Rack
- Vertiv MPX™ Rack PDUs
- Liebert® DCL

Critical Need: Secure, energy-efficient and high-performance integrated rack systems for a global IT infrastructure network

Results:

- 25% savings in energy consumption
- Individually configurable standard server racks
- Integrated cooling units and interfaces with the UPS solution
- Reliability at operating temperatures of up to 60° C
- Quick and efficient maintenance services
- Minimised footprint thanks to adaptable cable routing

With this global retail project, we were once again able to demonstrate that we can deliver technologically sophisticated and energy-efficient solutions along with the most advanced international service and support.

Reinhard Purzer, vice president & managing director DACH, Vertiv