



Case Study: Dachser protects IT with Newave UPS

Client:

- Dachser GmbH & Co.KG

Industry:

- Transportation

Business Scope:

- Conceptual design and implementation of UPS systems in the main office, Germany
- Implementation of UPS - solution to subsidiaries

Logistics depends on perfect processes. Made-to-measure IT systems control and monitor global flows of goods for the international logistics provider Dachser. Mission-critical IT systems are protected by Newave UPS systems. They help save extra costs and avoid unnecessary CO2 emissions.

Logistics provider Dachser has played an important role in goods transport in Germany for 80 years. Thomas Dachser laid the foundation for the company in the middle of the Great Depression in 1930. From its beginnings as a one-man operation focusing on transporting cheese from the Allgäu region, over the years it has grown into a global player with over 18,000 employees and turnover of 3.6 billion euros in 2008.

The company took off once it was awarded an IATA licence for air freight and from 1980 made substantial strategic investments in IT expertise and communications technologies. Since then, the IT infrastructure has developed continuously; efficient delivery of goods on schedule is critically dependent on the various applications and network services working. "Logistics simply cannot work without a functional IT environment, even at Dachser. It is not a necessary evil but one of our business's core competences." This is how Georg Ponradl, specialist electrical designer in the company, assesses the situation. In addition to the usual office programs, the logistics provider also uses an SAP ERP system and its own logistics software among others.

So it is easy to understand that Dachser places stringent demands on the availability of its IT and secures this availability accordingly. An important component in this concept is the power supply. UPS systems protect against power failures and disruptions throughout its headquarters in Kempten and its many branches. However, there was a major difference between the data centre in Kempten and the other sites: Kempten has always used Newave UPS systems. On the other hand, there was a wide variety of products and manufacturers at the other sites until the year 2000. No procurement standards were specified so the managers had to deal with changing contacts and different service contracts in the event of problems. "The variety of products meant our costs were much too high, and we were not always happy with the availability and service," says Georg Ponradl, describing the situation at the turn of the millennium.





Dachser took the opportunity presented by an expansion of the data centre in Kempten to reconsider its UPS strategy at the other sites too. Since the co-operation with Newave had always been smooth, the manufacturer was asked to come up with a concept. Other UPS manufacturers were also given the opportunity to submit their own bids. What Dachser particularly liked about Newave's solution was the slide-in modular design.

Newave UPS systems comprise a frame with individual power modules. The modules are largely autonomous and are even fitted with their own sets of batteries. All the modules share the load, and the size of the system is designed such that if one module should fail, the remaining modules would not be overloaded by all the consumers at maximum consumption.

There are many benefits to this concept, called $n+1$ redundancy. Firstly the availability is very high because the likelihood of more than one module failing is very low. Secondly the size of the system is designed to ensure that all the modules operate at near full load so that they can reach maximum efficiency. In fact, Newave UPS systems achieve efficiency of 96 percent, which is the best figure in the industry. In times of rising energy prices, high efficiency is worth real money, not to mention the benefit to the environment of reduced CO₂ emissions. Moreover the initial equipping of data centres is made easier in financial terms. With a monolithic UPS system, which provides the required performance as a block, a second system of identical capacity must be used as backup. That leads to high investment costs and poorer efficiency since both UPS systems run at around 50 percent load. This result was also seen in Dachser's selection process. Georg Ponradl recalls, "The modular technology was simply better and exactly met our requirements." Newave's bid was also very attractive because the requisite performance could be provided with smaller systems.

The electrical designer's powers of persuasion were hardly needed, the guaranteed availability was a winner for the management, and the IT department found the benefits of the modular technology attractive. The decision in favour of Newave was an obvious one. At the headquarters in Kempten, the IT infrastructure is secured with a new slide-in modular UPS with a capacity of 360 kVA. A diesel power unit serves as a buffer for longer downtimes. Dachser installed 50 kVA modules in the UPS frames to achieve the greatest possible reliability. The cables and electrical equipment are ready for 900 kVA so as to be equipped for the future. The UPS systems are connected to the central network management system via an SNMP module and deliver precise data about the quality of the current and the status of the system.

The other sites were then gradually migrated as time went on. "Over the last eight years, we have installed nothing but Newave UPS systems in our branches," says Georg Ponradl. It has been possible to reduce the entire stock of UPS systems from 250 devices previously to around 90 systems today. Since Newave can cover the whole spectrum of performance requirements, the smaller systems in the branches are between 1.1 and 6 kVA. The availability requirements vary from site to site. Larger sites have a parallel backup, but only response times of a few hours can be tolerated in the event of problems with the UPS. Georg Ponradl is delighted with the accessibility and competence of Newave's service. "Our decision to concentrate the UPS systems on a single partner has certainly proven to be very sensible." Another benefit he cites is the much lower wear and tear on the batteries because Newave fits high-quality, long-life rechargeable batteries in its systems.



Apart from a basic cost calculation in the evaluation phase, Dachser did not analyse any other figures on potential savings. Georg Ponradl sees the benefits of a UPS differently: “A UPS is like an insurance policy for bad times as that is when it must prove its worth. Whether the business stops making a profit for a short time is secondary for us.” Now that Dachser has been able to rely on Newave UPS systems for nine years since the decision in favour of Newave, the findings from experience to date are absolutely clear. Georg Ponradl has no doubts. “The decision was still the right one, and we would choose Newave again today.”

About Newave

Newave Energy is a leading manufacturer of uninterruptible power supply solutions that enable customers to protect their critical applications from operational losses and ensure business continuity. Innovation, quality, serviceability and environmental friendliness are key characteristics of our power protection solutions. Newave Energy has introduced modularity and transformer-less UPS-technology several years ago and these are the most important architectural trends in the UPS market today. Our mission is to help our customers from various industries to protect their critical applications efficiently and to lower environmental impact in a sustainable way. The company operates its own sales and service offices in eight countries and a worldwide network of business partners. Newave Energy continues its focus on development and manufacturing of leading power protection technology while worldwide we provide comprehensive services such as technical consultancy, maintenance and service packages.

Contact

Newave SA
Via Luserte Sud 9
CH-6572 Quartino
Schweiz

Tel. +41 91 850 29 29
Fax +41 91 840 12 54

info@newave.ch
www.newaveups.com

