

## Energy provider plays it safe

### Integrated RimatriX5 system solution at the Herten municipal utility Computer Centre

For over 100 years, the municipal utility in Herten in the German state of North Rhine-Westphalia has provided its residents with electricity, gas, and heat. "The highest possible service security, service quality and, last but not least, environmental protection are the primary aspects of concern", says Erwin Schulte Fishedik, who, as head of IT Support, is responsible for the entire IT infrastructure at the municipal utility in Herten. Since May of 2005, an integrated total solution with RimatriX5 from Rittal has ensured complete operational reliability while providing optimum flexibility and the highest possible availability at the new municipal utility Computer Centre.

**Erwin Schulte Fishedik, Herten municipal utility:**  
"The ability to add modules during live operation was extremely important to us. All our initial reservations against liquid cooling were completely swept away."



In November, 2004, the network specialist Tektonik Networks from Recklinghausen, Germany, who is responsible for the complete delivery of the system as the Herten municipal utility contract partner, brought Rittal and RimatriX5 into play. At this time, there was still some uncertainty as to how much heat would be dissipated by the server racks. It quickly became clear during the RimatriX5 presentation that the heat dissipation of 4-10 kW per server enclosure with a high packaging density could not be drawn off with the room cooling concept initially considered. To avoid thermal problems in the future in the Computer Centre, the Herten municipal utility decided to use the scalable, rack-based high-performance LCP Liquid Cooling Package from Rittal.

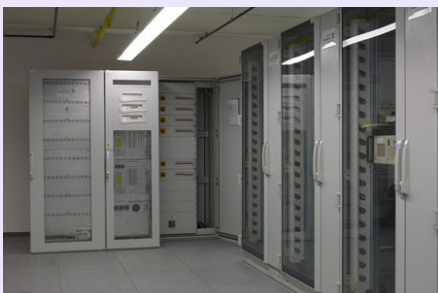
#### Quick results thanks to modularity



Three-phase, modular "n+1"-redundant UPS technology for secure power on demand.

Thanks to the modularity of RimatriX5, the first system configuration was specified just a short time later:

- 4 network enclosures (passive)
- 18 server enclosures (with a total of 32 in the final system configuration)
- 18 LCP Liquid Cooling Packages, each designed for 12 kW of power dissipation
- Three-phase UPS, 40 kVA, "n+1"-redundant design
- PDR Power Distribution Rack to supply power to 32 racks
- 2 x 125 kW recooling systems, redundant



Rittal took care of the technical clarification and planning specifications for the supply and return piping systems between the LCPs and recooling system. "Although the Computer Centre was designed at the beginning to be "water-free", our initial reservations were completely swept away", said Erwin Schulte Fishedik. This was not only due to the fact that the liquid-based rack cooling system from Rittal ensures the highest possible security against leaks by separating the LCP cooling enclosure from the server enclosure so that there is no more risk of this kind.

The high level of flexibility of the Rittal solution was another factor in favour of RimatriX5. During normal operation, a cooling module can be added to the LCP or an existing cooling module replaced without having to switch off the servers. "We cannot switch off our servers", emphasised Schulte Fishedik. "The ability to add modules during live operation was extremely important to us."

#### A complete package from a single company

The deciding factor in favour of RimatriX5 was not only the cooling system, though. "The entire package, in which each component is perfectly matched to work together, completely convinced us", said the head of IT Support. The decision to go with Rittal racks was already made during the planning stage. The Rittal Plug & Play UPS technology was also completely convincing. "We're happy to have decided on an experienced partner who can offer a complete package."

**Components:** Rack, LCP, recooling system, UPS, PDR, PSM, CMC-TC

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