

## Vodafone - Europe's largest data centre



### Case study:

**Site:** Ratingen, Germany

**Application:** Data centre

#### Chloride capabilities displayed:

- Eight nines availability
- Secure installation

#### Chloride products used:

- 90-NET
- CROSS static switches
- Generators
- Batteries
- LIFE.net

Vodafone Information Systems employs over 24 MVA of Chloride UPS systems at its 10,000m<sup>2</sup> Centre of Competence in Ratingen, Germany to protect computer and server equipment from power failures and voltage disturbances.

#### Total power protection

Chloride has supplied 46 90-NET UPS with ratings of 500 kVA each, 14 90-NET UPS with ratings between 60 and 120 kVA, 25 CROSS static switches (100 to 600 A), almost 14,000 remotely monitored battery blocs and four 2.7 MW emergency power generators. The biggest challenge for the Vodafone Information Systems project was that all installations and security measures had to be performed during the operational running of the data centre.

#### Availability factor of 99.999999%

In order to confirm that the energy network, distributed over several buildings, functions correctly, Vodafone Information Systems undertakes an Integrated Systems Test (IST) every six months involving a total disconnection from the public network. During a recent 'engineered' black-out, an independent advisor confirmed the switch onto the secured UPS and generator bus created an unparalleled availability factor of 99.999999%. This value equals a theoretical downtime of only 0.0053 minutes per annum and proves the quality and dependability of the power protection infrastructure provided by Chloride.



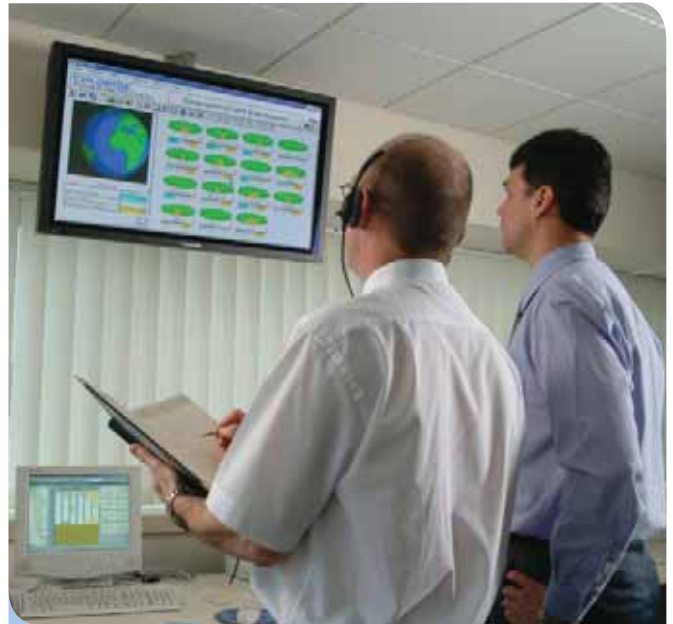
# CHLORIDE

## Client testimonial

Andreas Rueter, Technical Senior Manager of Vodafone has to explain again and again to technically interested visitors from all over the world that there are only a few companies who are able to manufacture and manage UPS systems of a size and quality required by Vodafone. The comprehensive investment in power protection is essential on economic grounds; should the data centre fail for only a brief moment, it would result in considerable financial losses.

## LIFE.net remote monitoring and diagnostics

Vodafone is one of 8000 customers worldwide (2000 in UK) who subscribe to LIFE.net remote monitoring and diagnostics. LIFE.net is one of the key Chloride products available to support the customer and our field service engineers, allowing us to monitor an extensive array of system, load and environmental information in real time. In the event of an alarm/emergency or risk, the 24/7 manned UK Service Centre is immediately and automatically contacted by the LIFE.net system. This enables us to guide the customer's facilities people in controlling, operating and managing the system. Certainly whilst this system enables us to identify overload, sequence of events and fault diagnosis and to back up our service people remotely it also provides for 'peace of mind'.



24/7 manned UK service centre

For more information please visit our website

[www.chloridepower.com](http://www.chloridepower.com)

Chloride is an international provider of secure power solutions for business continuity for customers worldwide. Our innovative solutions and services protect business critical systems and processes from the damaging effects of poor quality electrical power and power interruptions.