



Minkels VariCondition® HD actively manages the cooling for high-density equipment, which provides Swisscom with significant cost savings.

Swisscom relies on Minkels high-density (cooling) racks and monitoring services

Swisscom, the largest telecommunications company in Switzerland, has its own data centres including Zurich Herdern and Olten. Together, they provide space for more than 1,000 racks that support telephony (mobile and landline), digital TV and internet services. Swisscom attaches great importance to modularity and energy-efficiency in its two data centres. The high-density (cooling) racks, monitoring, and also security are supplied by Minkels.

The telecommunications market is undergoing rapid change. Telecom providers must be able to respond to new developments, even in the data centre environment. Due to the need for flexibility and capacity, Swisscom opted for high energy densities by implementing modularity within a compact data centre environment for its data centres in Zürich Herdern and Olten.

Swisscom supplies more than 150 services in wired and wireless communications from two fully redundant data centres. Both consumers and business clients are dependent upon the performance in the data centres for telecom and internet services, such as Mobilfunk, Festnetz, Internet and Digital TV. From its data centre in Zürich Herdern Swisscom provides its clients services such as Swisscom TV, as well as landline, mobile and VoIP telephony.

“Swisscom attains high-energy densities and modularity in its data centres thanks to the solutions supplied by Minkels.”

MINKELS VARICONDITION® HD

High energy densities and a strong modular concept are important for Swisscom so that they can maintain the data centre infrastructure for these uptime-sensitive services as dynamic and flexible as possible. The solutions provided by Minkels play an important role in achieving these goals. In Zürich Herdern the racks are stacked in eight groups. Each group has a



capacity to connect up to 38,400 fibre cables. This means that up to 2,400 fibre cables can be connected to each rack. Swisscom uses Minkels VariCondition® HD – modular racks with integrated high density cooling, monitoring and cable management for energy densities of up to 24 kW for housing its high-density equipment.

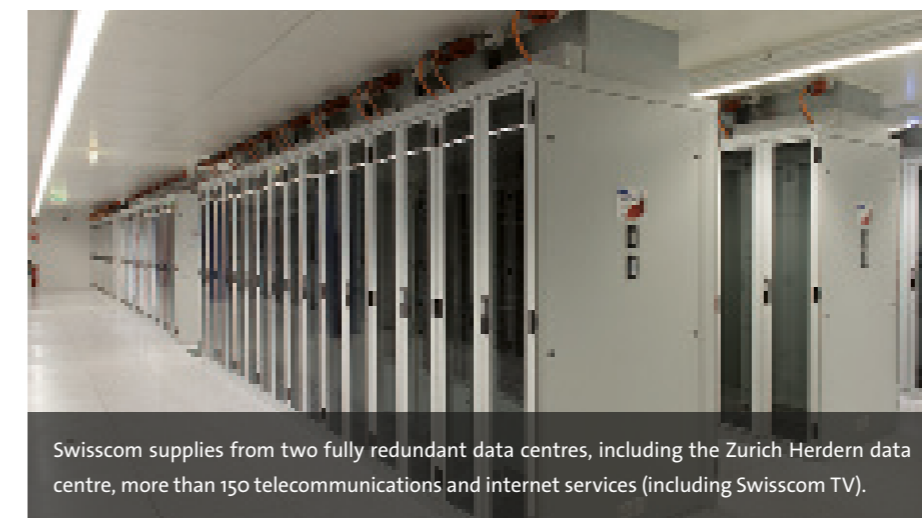
The cooling is managed by the Minkels VariCondition® HD racks. Cold air is brought in under the floor. The airflows are then routed through the racks using airflow optimisation accessories. The warm air produced by the servers is then removed by exhaust fans in the roofing of the racks. The Minkels VariControl® monitoring system, with temperature sensors installed in the right places in the rack, ensure a constant climate in the racks and proper management of the cooling system. The temperature difference of 12.5 degrees Celsius

between warm and cold airflows provides maximum energy-efficiency in the racks.

Thanks to actively managing the cooling via Minkels VariCondition® HD, Swisscom can limit energy usage of high-density equipment and realise significant cost savings. By actively managing climate and energy, Swisscom has been able to double the capacity in its racks. This means that the Swisscom data centre infrastructure is operating at peak efficiency.

RACK SECURITY

Not only system uptime, but also data security is important for Swisscom. For this reason, the telecommunications company has opted to add additional security to the racks. Minkels supplied electromechanical door handles with IP communication that can only be opened by authorised individuals. Alerts can be sent via SNMP or GSM if the rack doors are opened by an unauthorised user.



Swisscom supplies from two fully redundant data centres, including the Zurich Herdern data centre, more than 150 telecommunications and internet services (including Swisscom TV).

Swisscom always selects its partners and suppliers carefully. Expertise, on-time delivery and the provision of solutions are important requirements that Minkels must also fulfil. The professionals of Minkels AG, the Swiss branch of Minkels, ensured an on-time delivery of the requested solutions in close collaboration with other suppliers involved in the data centre project. The modular design of Minkels VariCondition® HD provides Swisscom with the guarantee that the data centre environment will fulfil the organisation's needs – even if those needs change due to the dynamics in the telecom market. ■