

CASE STUDY

HIGH-SPEED INSTALLATION IN DATA CENTRE OF TECHNISCHE WERKE KAISERSLAUTERN

Security, high availability and energy efficiency: these are the key requirements of Technische Werke Kaiserslautern (TWK) for its new "Datacenter4you". High-speed connections are guaranteed by Datwyler's economical, prefabricated FO BreakOut cabling system, which Avalan was able to install in only three weeks.



Since 1991 Technische Werke Kaiserslautern (TWK) has been active as a regional service provider for energy and water suppliers and bus operators and, from 2000, as an IT and TC outsourcing partner for utilities and waste management firms. Since September 2010 TWK has also been providing companies outside the sector with a broad spectrum of ITC services. This was made possible by the construction of "Datacenter4you", one of Europe's most modern and secure data centres.

Within six months two autonomous server rooms with around 420 square metres of floor space and a design capacity of 1.6 megawatts were erected on a 1500 square metres building site. They currently accommodate 14 enclosed rows of racks with a total of 160 server cabinets which are supplied with cooling air – over the year around 80% of it free cooling – by way of a raised floor and cold aisles.

The servers are accessed from two separate WAN rooms by redundant fibre optic and copper connections (1 gigabit) via the raised floor. On the data centre premises Avalan installed around 14 kilometres of Category 7 Uninet 7080 data cable with RJ45 connectors and 6900 fibre optic connections with

the Datwyler BreakOut Solution (BO System). This fibre optic system is based on compact multiple cables (trunks) with 48 FO mini cables – OM3 Multimode and OS2 Singelmode – which are prefabricated with LC connectors at both ends. As the external diameter of the trunks is only 1.84 centimetres, in the rack rows each multiple cable in a 1 U distribution panel can be connected to pre-assembled LCD couplings.

According to Thomas Freis, Avalan's Sales Director, the BO System is far more economical and faster to install than other FO systems, particularly compared with in situ splicing. Without the prefabricated BreakOut cable it would have been impossible to fit into the specified time slot of just under three weeks. If nothing else, the fire protection requirements militated in favour of a very thin, light fibre optic solution.

Bertold Willig, IT Director, says that the high capacities of the Datacenter4you form a sound basis for future TWK offerings and functions, including Smart Metering and Fibre-to-the-Home. In view of business trends in the collocation and outsourcing fields, TWK reckons on a Return on Investment of maximum eight years.

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