CASE STUDY

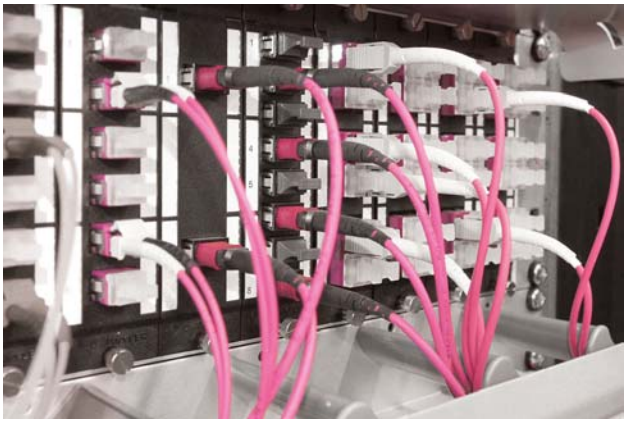
FUTURE-PROOF DATA CENTRE CABLING FOR SWISSCOM

Swisscom operates one of Europe's most modern and efficient data centres in the Bern-Wankdorf Business Park. The "Datwyler Data Centre Solution" was selected for the high-speed fibre optic links.

Swisscom, Switzerland's leading telecommunications company, has been operating its data centre (DC) in Bern-Wankdorf since late 2014. On four floors and a usable floor area of 4000 square metres, which can be expanded as required, the DC will in future house approximately 5000 servers with around 10,000 customer systems.

It is one of the very few in Europe to have Tier IV certification guaranteeing optimum availability of data and systems. An innovative cooling concept enables it to achieve the best possible energy usage values. This excellent performance in the energy sector was honoured with the Swiss Federal Department of Energy' s "Watt d'Or" and with the "Brill Award" from the United States Uptime Institute.

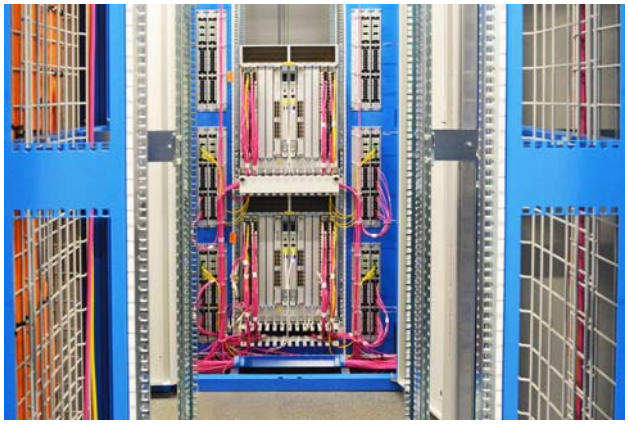
In the spring of 2013 Swisscom evaluated a comprehensive premium quality cabling solution for the high speed fibre optic links in the new data centre. "The cabling system had to meet the requirements of the premises and be compatible with the active infrastructure. It also had to be consistent with our general logic, i.e. be expandable and switchable without interruption," said Rudolf Anker, Head of Data Center Services and New Data Centers Project Manager at Swisscom.



Preassembled top quality solution

"We had only a very narrow window of around two weeks to install the cables and modules when constructing this DC," explained Thomas Gygax, Data Center Hardware Operations & Fulfillment at Swisscom, "so at an early stage Swisscom opted for a preassembled cabling solution with MTP multi-fibre cables. That was the only way we could meet the installation times prescribed by the building".

The "Datwyler Data Centre Solution" was selected, the determining factors being its high quality and the excellent optical and geometrical values of the connector assembly. It thus also met the extremely stringent technical values demanded by Swisscom.



"The decision in favour of Datwyler was made not least due to the experience we had when cabling the Zollikofen DC", explained Gygax. "During the current project we made contact with Datwyler very early on, and once again were very satisfied with their work."

All the fibre optic links were executed with preassembled cables and system components from Datwyler. Altogether around 90 kilometres of fibre optic cable were laid using the highest-performance OM4 multimode and OS2 single-mode fibres.

Around 2300 kilometres of fibre

The racks were fitted with around 3000 FO DCS plug-in modules, each cassette with six LC quads, and 850 MTP front panels. These are interconnected by more than 1200 24- and 48-fibre MTP cables. The total length of fibre is 2273 kilometres – the same as the distance between Bern and Moscow. In addition there are other "Datwyler Data Centre Solution" system components such as special fanout cables together with many modular subracks, patch management trays and accessory parts.

According to Thomas Gygax the chosen system provides excellent future viability as regards technical development. "This MTP multi-cable solution ensures that at a later date we can migrate from an LC connector to a 40/100G solution and work with MTP switches and servers," he explained.

Since the opening Swisscom has been constantly upgrading the data centre and continuing to use Datwyler cables and components.

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