瑞士电信面向未来的数据中心布线

FUTURE-PROOF DATA CENTRE CABLING FOR SWISSCOM

瑞士电信在伯尔尼万克多夫商业园区运营着一座欧洲最现代化、最高效的数据中心。

Swisscom operates one of Europe's most modern and efficient

data centres in the Bern-Wankdorf Business Park.

"德特威勒数据中心解决方案" 被选中用于高速光纤连接。

The "Datwyler Data Centre Solution" was selected for the high-speed fibre optic links.

瑞士电信是瑞士领先的电信公司，自2014年底以来，一直运营其位于伯尔尼万克多夫的数据中心 (DC)。在4个楼层以及一处4000平方米 (可按需要扩展) 的可用建筑区域内，未来DC将容纳大约5000个服务器及其对应的约10000个客户系统。这里拥有欧洲极其少见的四级认证，可以确保数据和系统的最佳可用性。创新冷却概念使其能够达到最佳的能源使用价值。这种在能源领域的出色表现使其荣获了瑞士联邦能源部颁发的"瓦特奖 (Watt d'Or)"以及美国Uptime研究所颁发的"布里尔奖 (Brill Award)"。

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.

2013年春天，瑞士电信评估了一个用于新数据中心内高速光纤连接的综合优质布线解决方案。"该布线系统必须满足场地要求，并兼容活动基础设施。同时，它还必须符合我们的通用逻辑，即持续可扩展和可交换，" 瑞士电信数据中心服务主管兼新数据中心项目经理Rudolf Anker表示。

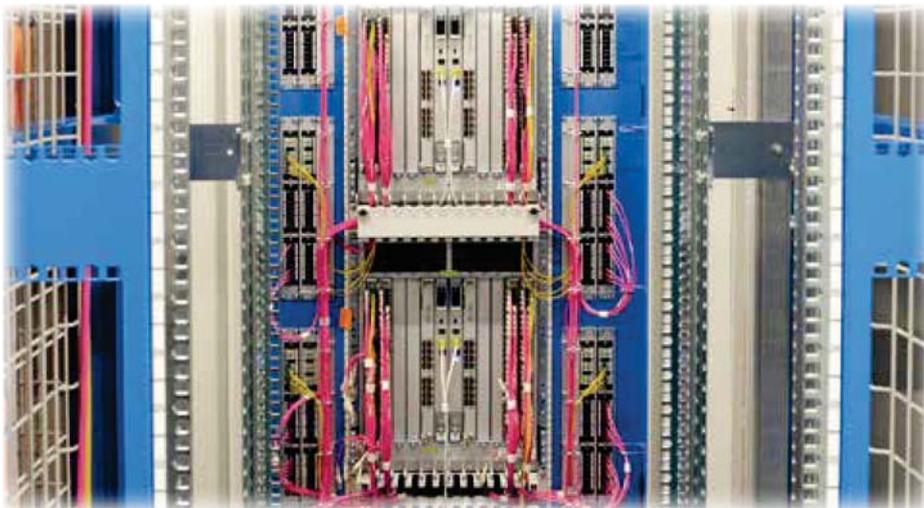In the spring of 2013 Swisscom evaluated a comprehensive premium quality cabling solution for the high-speed fibre optic links in the new data centre. "The cabling system had to meet the requirements of the premises and be compatible with the active infrastructure. It also had to be consistent with our 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.

预装顶级质量解决方案

"在这个数据中心施工时，我们只有一个大约两周的很窄的窗口期来安装线缆与模块，" 瑞士电信数据中心硬件操作与实践部门的Thomas Gygax 解释说，"所以在初期阶段，瑞士电信选择了带有MTP多纤光缆的预端接布线解决方案。这是我们能够按照建筑要求而满足安装时间的唯一方法。

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 multifibre cables. That was the only way we could meet the installation times prescribed by the building."

伯尔尼万克多夫数据中心的交换机布线
Switch cabling in the Bern-Wankdorf data centre

"德特威勒数据中心解决方案"被选中的决定性因素在于其高品质的卓越光缆以及连接器组件的几何价值。因而它还满足了瑞士电信极其严苛的技术价值观。

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.

"选择德特威勒的决定不仅仅源于我们在为Zollikofen数据中心布线时的经验,"Gygax解释说,"在当前项目期间,我们很早就接触了德特威勒,并再次对他们的工作表现感到非常满意。"

"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."

所有的光纤连接均采用德特威勒的预端接线缆和系统组件完成。利用最高性能的OM4多模光纤和OS2单模光纤,共安装铺设了大约90千米的光缆。

All the fibre optic links were executed with pre-assembled 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.

约2300 千米光纤

机架上装配了大约3000个FO DCS插件模块,每个光纤接续盒配有6个四口LC连接头,以及850个MTP前面板。这些设备之间由超过1200条24和48芯MTP电缆相互连接。光纤总长度为2273千米,相当于伯尔尼与莫斯科之间的距离。此外,还有其他"德特威勒数据中心解决方案"系统组件,如特殊的扇出电缆以及许多模块子机架、跳线管理支架和附属配件。

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.

Thomas Gygax表示,所选择的系统在技术发展方面提供了良好的未来可行性。"该MTP多线缆解决方案确保稍后我们可以从LC连接器迁移到40/100G解决方案,并配合MTP交换机和服务器工作,"他解释说。

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.

自开业以来,瑞士电信不断升级数据中心,并继续使用德特威勒的线缆和组件。

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

瑞士电信的**Rudolf Anker (中) 和Thomas Gygax (左)
以及德特威勒的Beat Schertenleib**
**Swisscom's Rudolf Anker (centre) and
Thomas Gygax (left) with Beat Schertenleib, Datwyler**

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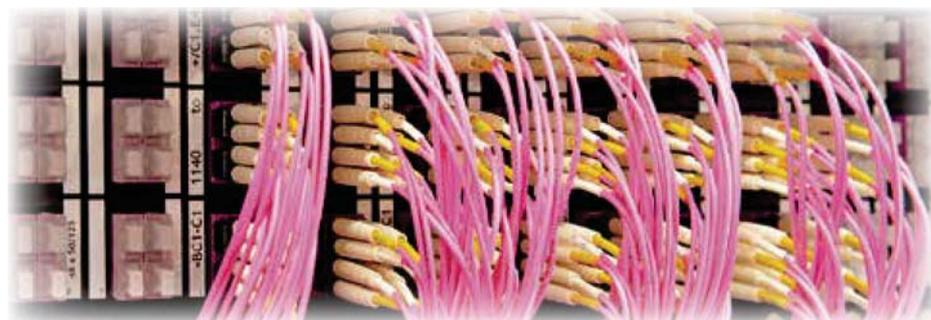**beat.schertenleib@datwyler.com**

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德特威勒的预端接线缆和组件
Preassembled cables and components from Datwyler