



坐落于火车站旁的新FHS中央大楼
The new central FHS building by the main station.

案例精选

REFERENCE PROJECT

实现超长

使用寿命的坚实基础

SOUND BASIS

FOR A LONG LIFE CYCLE

2013年7月, 圣加仑应用技术学院在火车站旁建起了新的大学中心。这一全新大楼采用了各种先进技术, 包括德特威勒提供的高性能F_A级通信网络。

In July 2013 FHS St. Gallen opened its new University Centre by the main station. The new building was equipped with cutting edge technology, including a high-performance Class F_A communications network from Datwyler.

FHS(圣加仑应用技术学院)是一所快速发展的大学, 以应用科学为主要学科, 现拥有大约3000名学生。它的办学理念是成为一个“孕育和培养创新思想的地方”, 对于火车站旁的FHS中央大楼尤其如此。这座大学中心的建筑面积达15000平方米, 投资总额超过1亿瑞士法郎, 是瑞士东部最大的新建公共建筑之一。

The FHS is a fast-growing university of applied sciences which now has around 3000 students. It sees itself as “a place where big ideas are born and nourished”. This is especially true of the central FHS block by the station. With around 15,000 square metres of floor space and an investment volume of well over 100 million Swiss francs, the University Centre is one of the largest new public buildings in eastern Switzerland.

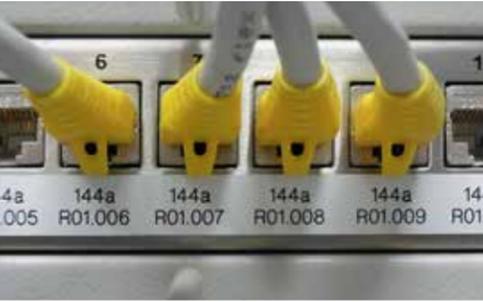
超长使用寿命 Long service life

大学的教学、研究和服务都享受到了新大楼带来的益处, 尤其是各种先进技术, 其中包括配备超高性能组件的通用通信电缆(UCC)。

The university's teaching, research and services are enjoying the benefits of the new building, not least the cutting edge technology. This includes universal communications cabling (UCC) with extremely high performance components.

“过去25年的经验告诉我, 良好的基础设施是使用寿命的关键, ”FHS建筑技术设施服务部的Harald Pintarelli解释道。“考虑到整栋大楼的既定生命周期在25到30年之间, 加上高水平的投资保护, 市建筑部门对标准1000MHz带宽的F_A级通用通信电缆系统进行招标。”

“My experience over the past 25 years has always been that a good foundation is essential for long service life,” explained Harald Pintarelli, Building Technology Facility Services at FHS. “With a view to the defined life cycle, which is between 25 and 30 years for the whole building, and a high level of investment protection, the Cantonal Building Department invited tenders for a Class F_A universal communications cabling system providing a standardised bandwidth of 1000 megahertz.”



The PS-GG45模块可与RJ45新插件“向下兼容”
The PS-GG45 modules are “downwardly compatible” with RJ45 connectors.



装有配线架的机架
A rack with patch panels.



共安装铺设了125千米的CU 7150 4P型数据铜缆和
4400个PS-GG45模块
125 kilometres of type CU 7150 4P copper data cable and
4400 PS-GG45 modules were installed.

德特威勒布线解决方案公司的解决方案脱颖而出。这套解决方案在大楼内采用了对称CU 7150 4P数据铜缆和PSGG45型模块。电缆和连接技术符合最高1000MHz的7_A类标准。支持的最大带宽高达1500MHz，为多媒体和万兆以上以太网的未来应用留出了充裕的储备带宽。

A solution from Datwyler Cabling Solutions was selected. On the floors this comprises symmetrical CU 7150 4P copper data cable and type PS-GG45 connectors. Cables and connecting technology conform to Category 7_A up to 1000 megahertz. They even support a maximum bandwidth of 1500 MHz, so provide extremely high reserve capacity for multimedia and future applications beyond 10 gigabit Ethernet.

铜缆和光纤技术安装

Copper and fibre optic technology installation

2012年1月到12月，圣加伦Huber+Monsch公司的远程信息处理专家安装铺设了约125千米的德特威勒数据铜缆和4400个模块。在用户终端，线缆被埋入护墙板线槽中，并端接在表面安装盒或FLF地插内。在大楼各个楼层，水平布线最终接入120个配线架。从主干网到数据中心，安装人员使用了约四千米的FO通用型24和48芯OM3光缆。德特威勒还提供了多种安全线缆，例如烟雾及排热系统和消防电梯的供电线缆。

Between January and December 2012 the telematics specialists at Huber+Monsch AG in St. Gallen installed around 125 kilometres of Datwyler copper data cable and 4400 modules. At the user end the connections were built into dado trunking, surface-mounted sockets or FLF floor boxes. On the floors of the building the horizontal cabling terminates at 120 patch panels. For the backbone into the data centre the installers used approximately four kilometres of type FO Universal OM3 fibre optic cable with 24 and 48 fibres. Datwyler also supplied a variety of safety cables, for example for the power supply to the smoke and heat extraction system and the fire service lift.

自2013年1月投入运行以来，新的通信网络不仅为FHS提供了高速数据传输，还集成了IP电话、音频系统、视频放映和无线局域网。WLAN接入点则通过数据电缆供电（PoE以太网供电）。

The new communications network, which has been in operation since January 2013, not only provides the FHS with high-speed data transmission, but also incorporates the IP telephones, audio systems, video beamers and WLAN. The WLAN access points take the power they need via the data cables (PoE, Power over Ethernet).

无故障运行

Trouble-free operation

FHS对UCC系统非常满意。“它符合所有高质量规范，”Harald Pintarelli说。“不仅是使用的材料，在认真细致的布线、连接和测试方面也是如此。在这方面，新网络从一开始就保持了顺畅运行。”

The FHS is very satisfied with the UCC system. “The high quality specifications were all met,” says Harald Pintarelli. “This applies to the materials used as well as to the careful routing, connection and measurement. In this respect the new network has been running without a single hitch right from the start.”

如今，所有用户都能享受超高性能连接。由于PS-GG45模块能够“向下兼容”RJ45新插件跳线，因而它们可以通过现有连接器连接所有设备。

Today extremely high-performance connections are available to users across the board. As the PS-GG45 modules are “downwardly compatible” with RJ45 connectors, they can connect all their devices with the current connectors.

Roger Hug
高级客户经理
德特威勒布线解决方案公司
Senior Account Manager
Datwyler Cabling Solutions AG
roger.hug@datwyler.com

