维也纳劳工会的七类网络
Category 7 network for the Vienna Chamber of Labour

在已整修的维也纳劳工会总部，德特威勒电缆公司提供的*unilan®*首要解决方案 **(PS)** 结构电缆布线提供了快速的数据、声音和多媒体信号传输。德特威勒电缆公司还提供电梯电缆布线系统和功能完整性得以强化的建筑物电缆布线系统。

At the refurbished head office of the Vienna Chamber of Labour, unilan® Prime Solution (PS) structured cabling by Daetwyler Cables provides fast transfer of data, voice, and multimedia signals. Daetwyler Cables also provided the building's cabling systems with extended functional integrity and elevator cabling systems.

维也纳劳工会与当地工会合作，向企业和政府指出近三百万奥地利工人的社会、经济、职业和文化利益。在维也纳，该组织每年要对 400000 次左右的询问作出回复。每到第六次咨询时，就在位于维亚纳 4 区的总部进行面对面会谈。

Co-operating with local trade unions, the Chamber of Labour represents to business and government the social, economic, professional, and cultural interests of some three million Austrian workers. In Vienna the organisation answers about 400000 queries per year. Every sixth consultation takes place as a face-to-face meeting at the head office in Vienna's 4th precinct.

由于该劳工会的旧建筑物无法再容纳这样大量的咨询会，因此自 2006 年 6 月开始对旧建筑物进行了彻底整修，并增加了新建筑物和两个屋顶层，由此将设施扩展到 32000 平方米。

Since the Chamber of Labour could no longer accommodate the many consultations in its old building, starting in summer 2006 the old building was completely refurbished and given an addition and two new attic storeys – expanding the facility to 32000 square metres.

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经济分析

2007 年 7 月至 2008 年 8 月间安装的新通信电缆必须〝备用于 万兆位〞，且设计使用寿命为二十年。数据网络必须满足大规模传输无线电和电视信号。因此，规范要求水平电缆布线采用七类对称铜缆和 TERA™ 四腔连接技术的 F 级布线，主干网络采用合适的多媒体解决方案和大容量光纤电缆布线。

IT 部门的负责人 Gerald Berger 对这一选择做了解释：〝经济分析显示了电缆共享使TERA™成为赢家，因为它用更少的电缆实现了更高品质和更大传输量，同样也减少了静荷载和易燃建筑物质〞。

高性能

位于会议室座位和图书馆公共互联网工作站的壁装墙面插座、地插座和桌面盒都是定制的。德特威勒电缆公司为后者配备了 RJ45 插座以便与会者使用，同时确保集成电位均衡。使用 uninet® 7150 七类多媒体电缆实现至 unilan® 地板配线架的连接，由此提供高达 1500 兆赫的备用容量并为载波宽带电视信号和视频信号提供最佳屏蔽。

维也纳劳工会的这一新基础设施可靠地连接所有办公室应用程序，包括 IP 语音传输、WLAN 路由器信号发送、视频监视和楼宇控制系统的各部分。由于采用德特威勒电缆公司提供的 catTV® 面板，CATV 信号可以通过中性点接地应用电缆布线系统发送到设施中的各个数据出口。

冗余的 optoversal® 多模光纤电缆将地板配线架连接到会议室的数据中心。同所有机柜一样，服务器机架是德特威勒公司定制的模型，具有特殊监视阵列。

Economic analysis

The new communication cabling installed between July 2007 and August 2008 had to be "10 gigabit ready" and laid out for a service life of twenty years. The data network had to allow the transmission of radio and television signals at a large scale. Specifications therefore called for Class F cabling with symmetrical Category 7 copper cabling, TERA™ four-chamber connection technology for the horizontal cabling, a suitable multimedia solution, and high-capacity fibre optic cabling for the backbone.

Gerald Berger, Head of the IT Department, explains the choice: "The economic analysis showed that cable sharing makes TERA™ a winner, since it allows higher quality and greater transfer capacity with less cable – which also reduces the dead load and flammable building substance".

High performance

The wall outlets, floor-mounted boxes, and recessed boxes at seats in the conference rooms and at public Internet workstations in the library are custom designed. Daetwyler Cables equipped the latter with RJ45 outlets for visitors and integrated potential equalisation. Links to the unilan® floor distribution racks are executed in uninet® 7150 Category 7 multimedia cable, offering reserves of up to 1500 megahertz with optimised shielding for carrying broadband TV and video signals.

The new infrastructure in the Vienna Chamber of Labour reliably links all office applications, voice over IP, and signals from the WLAN routers, video surveillance, and parts of the building control system. Thanks to catTV® panels by Daetwyler Cables, CATV signals can be distributed to every data outlet in the facility over the application-neutral cabling system.

A redundant installation of optoversal® multi-mode fibre optic cabling connects the floor distribution racks to the chamber's data centre. The server racks, like all cabinets, are custom-built models by Daetwyler with special surveillance arrays.

每到第六次咨询维也纳劳工会时，就在位于维亚纳 4 区的总部进行面对面会谈。

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品质保证

数据网络和所有电气安全电缆都是由来自 Brunn am Gebirge 的电气承包商 Polst 安装。为了加快获取建筑官员的批准，维也纳劳工会对场地进行了全面检查，监视了安装工作并对十分之一左右的电缆系统进行了测量。Gerald Berger 报告称，在网络调试期间没有遇到任何问题。该网络当前提供的数据传输速率最大为每秒 1 千兆。

Quality assurance

The data network and all electrical safety cabling were installed by the electrical contractor Polst from Brunn am Gebirge. To speed approval by building officials, the Vienna Chamber of Labour conducted comprehensive inspections of lots, monitored the installation work, and had about a tenth of the cabling measured. Gerald Berger reports that not one problem was encountered during commissioning of the network, which currently provides a maximum data transfer rate of 1 Gbit/s.

具有电路完整性的安全电缆

德特威勒电缆公司还为建筑物提供功能完整性得以强化的电缆系统。经过充分测试的 *pyrosys®* 系统因其经济和技术上的优势而尤其令人信服。"我们使用单撑或多撑电缆夹 — 也就是所谓的 Hermann 夹 — 铺设了楼板下大约 90% 的电缆"，Polst 的项目主管 Peter Hein 如是说。电气技师正确评价了 *pyrosys®* 解决方案的安装优势，并提供了符合相关标准和测试证书的专业安装。

Safety cable with circuit integrity

Daetwyler Cables also provided cabling systems with extended functional integrity for the building. The fully tested *pyrosys®* system is especially con-vincing due to its economic and technical advantages. "We laid about ninety percent of the cable with single- and multi-support cable clamps – so-called Hermann clamps – under the floor slabs", explains Peter Hein, project leader at Polst. The electricians appreciated the installation advantages of the *pyrosys®* solution and delivered a professional installation conforming to the relevant standards and test certificates.

让德特威勒电缆公司引以为豪的是可以继续为该劳工会的新总部提供安装：该建筑物的八部电梯都使用德特威勒公司配线部门提供的电梯电缆和电源电缆运行。

Daetwyler Cables boasts a further installation in the new head office of the Chamber of Labour: the building's eight lifts operate with elevator cables and power-supply cables from the Harnessing unit.

电缆共享使 TERA™ 成为客户的首选。

Cable sharing made TERA™ the first choice.

服务器机架是具有
特殊监视阵列的定制模型。
*The server racks are
custom-designed models with
special surveillance arrays.*

具有电路完整性的电缆系统：经过充
分测试的 *pyrosys®* 系统以其经济和技
术上的优势而出类拔萃。

*Cabling systems with circuit integrity :
The thoroughly tested pyrosys® system
stands out above all for its economic and
technical advantages.*

十分满意

〝所有系统部件费用都在预算之内。自从调试以来，网络一直运行正常。我们对连接技术的品质感到非常满意，它极大地减少了问题的出现。同时，新的基础设施为我们提供了很大的备用容量，可用于未来众多运用的选择，〞Gerald Berger 说道。

Full satisfaction

"All system components were in the budget. Since commissioning, the network has functioned well.We are especially pleased with the quality of the connection technique, which drastically reduces problems. And the new infrastructure gives us great reserve capacity for the future and numerous use options", tells Gerald Berger.

Peter Hein 同样也给出了赞许：关键是在建筑物中实施的测试方案，安装了足够的测试段，并广泛组合了拥有所需全部测试证书的优质产品 — 也就是我们可以轻松有效使用的产品。此外，每个方面的产品和项目支持都很合适。〞

Peter Hein also gives a favourable summary: "Decisive were the test scenarios conducted in the building, the installation of adequate test sections, and the extensive portfolio of high-quality products with all required test certificates – products that we can work with easily and efficiently. In addition, product and project support were appropriate in every regard".

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