

CASE STUDY

CATEGORY 7 NETWORK FOR THE VIENNA CHAMBER OF LABOUR

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

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 numbers some 80,000 members and answers about 40,000 queries per year. Every sixth consultation takes place as a face-to-face meeting at the head office in Vienna's 4th precinct.

Since the Chamber of Labour could no longer accommodate the constantly rising number of consultations in its old building, a construction project was started in summer 2006. It involved the complete refurbishment of the old building as well as two new roof floors and an additional building – expanding the premises by a third to 32,000 square metres altogether.

Highest performance

The new communications 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 connection technology for the horizontal cabling, a suitable multimedia solution, and high-capacity fibre optic cabling for the backbone. The Chamber's economic analysis showed that cable sharing makes TERA a winner.

Custom-built solutions

The wall outlets, floor-mounted boxes, and recessed boxes at seats in the conference rooms and at public Internet workstations in the library are tailor-made. Datwyler equipped them with RJ45 outlets for visitors and integrated potential equalisation. Connections to the Datwyler floor distribution racks are executed in Uninet 7150 Category 7 multimedia cable, offering reserves of up to 1500 megahertz and an optimised shielding for carrying broadband TV and video signals.

The new infrastructure in the Vienna Chamber of Labour reliably transmits all Office applications, Voice over IP, signals from the WLAN routers as well as video surveillance and parts of the building control system. Thanks to Datwyler's catTV panels, CATV signals can be distributed to every data outlet in the facility via the application-neutral cabling system.

A redundant installation of 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 Datwyler with special surveillance arrays.

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 and monitored the material processing. "Besides that, we had about a tenth of the cabling tested to verify the manufacturer's stated values and the contractor's acceptance and measurement reports", tells Gerald Berger. Hence not a single problem was encountered during commissioning of the net-





work, which currently provides a maximum data transfer rate of 1 Gbit/s.

Safety cable with extended functional integrity

Datwyler also scored by providing cable with extended functional integrity for the preventive fire safety systems. The fully tested system especially convinced through 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, Polst project manager

in charge of the installation job. The electricians appreciated the installation advantages of the Datwyler solution and delivered a professional installation conforming with the relevant standards and test certificates.

Last but not least, Datwyler also delivered some special cables and power-supply cables to operate the eight elevators in the new head office of the Chamber of Labour.

Full satisfaction

"The costs for cabling and all associated components were within the budget. Since commissioning, the network has functioned well. We are especially pleased with the quality of the connection technique, which drastically reduces disruptions. Furthermore, the new infrastructure provides us with great reserve capacity for the future and numerous multi-use options", tells Gerald Berger.

The project manager at Polst 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."

(February 2009)