CASE STUDY

CLINICAL RESEARCH IN BERNE: 800 LINKS IN A MINIMUM OF SPACE

Since the end of 2010 scientists in Berne's Clinical Research Centre have had a high speed communications network at their disposal. The system solution, which provides a large number of connections in a minimum of space, is from a single source: Datwyler.

The Department for Clinical Research (DCR), an institute of the Medical Faculty at the University of Berne, was commissioned to supply researchers at the Inselspital with the best possible infrastructure. Over 45 independent research groups in almost every field of biomedical research benefit from the products and services provided by the DCR.

This meant that when the Inselspital Foundation decided to replace the existing building on Murtenstrasse with a new building a few years ago, the general contractor appointed, Berner Baumag Generalbau AG, had exacting standards to meet. In addition to maximum possible flexibility in the allocation of space and ecologically sound construction, this included universal communications cabling designed not only to current technical standards but also for future applications.

Between August 2009 and December 2010 there emerged a compact, aesthetically pleasing building with a flexible space-utilising concept and modern laboratories. Despite its glass façade the Clinical Research Centre was constructed as a low energy building and is heated by remote heating. A stable, high-performance cabling system from Datwyler was used for data and voice communication (voice over IP). It was installed by the Berne company Elektro Burkhalter AG with electrical engineering consultants CSP Meier AG acting as site manager.

Future-proof solution

"The customer wanted universal communications cabling with Category 6A cables and correspondingly high-performance RJ45 connection technology which could transmit future 10 gigabit Ethernet applications" says Markus Gautschi, Elektro Burkhalter's Telematics Project Manager. The structured network also had to be easily expandable and come as a complete system solution from one company.

DCR choose for Datwyler cabling with symmetrical data cables of type Uninet 7702 4P and screened Keystone connection technology. The latter is based on Datwyler RJ45 modules which can be connected with-out a specialised tool (toolless) and are attached to patch panels and data sockets on the Snap-in principle. The connecting sockets and patch panels are part of the Datwyler portfolio as well.

"This is a good open system which in our experience is easy to work on and also has a very favourable price-performance ratio", stresses the Telematics Project Manager.

800 links in four months

Between August and November 2010 Elektro Burkhalter's teams cabled nine floors in the new building, including three basements. Using approximately 30 kilometres of data cable they created around 800 links and lined them up with 500 connecting sockets and around 45 patch panels. All the material was supplied by Heiniger Kabel AG, EDP Networks Division, in Köniz.

Fibre optic cables from Datwyler now run from the server room in the first basement, which at the same time connects to the Inselspital network, into two floor distributors on the building's first and fourth floor. From there the copper cabling is routed to the workrooms and laboratories vertically and

along the ceilings in a star-shaped configuration. Consolidation points were also created in the labs to access the lab benches. In special laboratory areas the data lines were connected to waterproof sockets with covers.

"We were very pressed for time, and the building has a lot of technology in an extremely small space", says Markus Gautschi, but thanks to the rapid installation of the Datwyler system solution – sometimes with 30 skilled personnel at the same time –, good coordination with the other domestic and building technology teams, and Heiniger Kabel's exceptionally high delivery performance, the structured Ethernet network was handed over on time. The system has come into operation gradually since November 2010 as equipment has been brought in and installed in the new building.

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