

## CASE STUDY

# URI CANTONAL HOSPITAL, ALTDORF: FUTURE-ORIENTED COMMUNICATIONS TECHNOLOGY

Uri Cantonal Hospital in Altdorf opts for a high-performance IT infrastructure solution from Datwyler IT Infra which allows plenty of reserve capacity for future data transmission technologies.

The renovation and new build of Kantonsspital Uri began in spring 2019. An investment of over 100 million Swiss francs will initially fund a new building by summer 2022, then in the following years an existing building will be renovated, and finally the buildings dating from the sixties will be demolished – all without significantly restricting the operation of the hospital.

The new hospital will see the inhabitants of Uri benefit from a modern infrastructure and a high quality of healthcare. It will comprise three operating theatres, two nursing stations, an outpatient clinic, a gynaecological unit with a maternity ward, modern treatment and therapy rooms, a restaurant and grounds.

In choosing a modern IT infrastructure the main concern of the hospital, Boess Sytek AG, the electrical designers commissioned, and the consortium carrying out the work was to find a structured cabling solution which could not only cope with the present requirements of an ef-



fective hospital operation, but would also ensure fast and secure transmission of all data and applications in future. This applies to the copper and fibre optic network as well as the racks and other IT components.

In preventative fire safety the cabling should guarantee system circuit integrity in the event of fire. There was also the issue of the relevant standards and guidelines which had to be complied with in the individual power supply areas.

In both areas – communications and safety technology – the choice fell on Datwyler IT Infra. In Datwyler the hospital knew it could rely on a partner with high quality and forward-looking solutions, some of which even exceed current standards. A further advantage for the hospital is that only one contact is responsible for the complete system, in addition to which production and services are located in the same municipality.





"From the outset it was clear that we could count on the cooperation of Datwyler and Bettermann for the safety cables, because we have had very positive experiences with this combination," explained Samuel Käslin, the project manager in charge at EWA-energieUri AG. "So as far as structured cabling solution was concerned we agreed without hesitation."

### Reserves for the future

Installation was taken over by ARGE Elektro KSU, a consortium of Uri electricians overseen by EWA-energieUri AG. Type CU 7702 4P Category 7<sub>A</sub> copper data cables are used for the communications network, which allows plenty of reserve capacity for future data transmission technologies. Terminated on compact KS-TC Cat.6<sub>A</sub> modules, it also enables a remote power supply of up to 100 watts.

In the fibre optic network the ARGE used preassembled multiple cables (trunks) with single-mode and OM4 multimode fibres, the "legs" (breakouts) of which Datwyler assembled in the desired lengths. The multiple cables are terminated on OV-S panels. Patch management trays are used for neat patch cable routing.

The network racks needed in the cantonal hospital – currently 13 of them – were delivered by Datwyler as specified with perforated doors, the appropriate ventilators,

cable guides and PDUs separately colour-coded for normal and emergency electricity.

On the campus FO Outdoor cables connect the computer rooms and server rooms in the old and new building. The floor distributors in the equipment rooms – one on each of the four floors – are made redundant using FO Indoor cables. On the floors themselves just under 2000 IT connections were created with copper data cable. All the services are covered by these connections, including telephony, Internet, monitoring and WLAN.

### Stringent fire safety regulations

The system circuit integrity cables to supply the safety-relevant systems – for example emergency and escape route lighting, emergency power, UPS and the smoke and heat extraction system – were delivered by Datwyler to match the specific area of application and the cable support and routing system installed. Safety cables of Euroclass B2ca-s1a,d1,a1 were installed in compliance with the relevant fire safety regulations and standards.

In this project Datwyler is acting not only as consultant, supplier, fabricator and logistics service provider, but is also on site to help resolve issues arising during installation. "Our Datwyler contacts are very dedicated people, and so far we have found a prompt solution to every problem. As project manager, this is very important to me in a major project like this," emphasised Samuel Käslin.

"As things stand today I find the solution in the structured cabling area very future-orientated," summed up the project manager. "In the new building we have also created enough reserve space to expand the system in future."

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