

## CASE STUDY

# FTTO – TAKING FIBRE INTO THE OFFICE

At its new site in Ilanz Raiffeisenbank Surselva is using a Datwyler communication network installed as a “Fibre-to-the-Office” solution. Having fibre optics in the office means that the bank is best equipped for any extensions to the network and for future technologies.

Raiffeisenbank Surselva, which will celebrate its 75th anniversary next year, has built a modern new residential and commercial block on Glennerstrasse in Ilanz/Glion. It was opened on 7th October 2013 after almost two years under construction. The new company site in the Swiss canton of Graubünden extends over two of the building’s five floors and parts of the basement. Among other things it includes a welcoming customer lobby and offices for the 16 staff members currently employed.

Das Licht GmbH of Ruschein was in charge of electrical design. When it came to selecting a suitable communications cabling system the decision was made to go for a fibre optic system from Datwyler. This was installed as a Fibre-to-the-Office solution on the bank’s premises. The high-performance fibre optic connections are terminated in flexibly usable floor boxes near the workstations, on mini switches that serve as media converters. In addition to power sockets the switches in the floor boxes provide users with plenty of standard RJ45 connections for PCs, printers, telephones, projectors and other devices.

### Investment in the future

“The electrical designers and I initially had a solution with Category 7 cables in mind,” explained Bank Manager Gabriel Casutt, who has a solid technical background himself. “But there is simply no argument when instead of a lot of thick copper data cables you can use thin fibre optic cables which provide a high degree of investment security into the bargain.” Technical development will continue to make rapid strides, of that Casutt is convinced. “Having fibre optics in the office means that we are best equipped for any extensions to our network and for future technologies.”



Installation was effected in two stages within the six weeks immediately prior to the move. It was carried out by local company Derungs AG which was also responsible for all the other electrical installations in the new premises.

“An installation with fibre optic cables is tricky. You have to be careful and handle everything with velvet gloves, especially when splicing and connecting up,” reports Gion Neuwirth, the project leader in charge. He says that Datwyler’s advice and support prior to installation and in the days immediately preceding handover were very welcome in this respect.

The special Datwyler cables, which were developed for FTTH in-house cabling, are of stranded loose tube design with an external diameter of only 2.8 millimetres. The halogen-free, flame-retardant sheath is still robust enough to protect the fibres under tough installation conditions, for instance when running them into duct systems which are already in use.



### **Copper workplace connections**

The Derungs team routed the easy-to-install indoor cables radially into the premises, from the central distribution room on the first floor via a fire-resistant duct system in the raised floor. This meant bridging distances of up to 70 metres. In the offices two fibres from each of the 4-fibre cables were connected to a mini switch supplied with electricity from a

power supply. Each switch currently provides users with five RJ45 connections. "In a couple of years there will be Microsens switches which will have ten or more connections," says Casutt. "This gives us the further option of expanding our network as required without re-cabling."

The bank's voice-over-IP telephones had to be integrated into the new network in the final days before the move. The challenge was to use the switches to operate two networks simultaneously – that of the bank IT and of the external provider. Thanks to an on-site weekend operation it was possible for Datwyler, Optonet, Derungs and the bank manager himself to perform this task successfully in a short space of time. "Network operation has been absolutely stable since then," says Gabriel Casutt.

In retrospect, Gion Neuwirth also reports positive results: "Punctual delivery, excellent product quality and support beforehand and on site: cooperation with Datwyler was perfect right to the end."

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