

CASE STUDY

LUCERNE MIGROS COOPERATIVE: ON TARGET IN EVERY RESPECT

Datwyler was appointed prime contractor by the Lucerne Migros Cooperative to upgrade the complete IT infrastructure of their Central Swiss Operations Centre.



Migros is the largest retailer in Switzerland. Established in Zurich in 1925, ten regional cooperatives form the core of the conglomerate. One of the largest is the Lucerne Migros cooperative. Established in 1941, it operates over 50 branches in the cantons of Lucerne, Zug, Ob- and Nidwalden, Uri and Schwyz.

The Migros Central Swiss Operations Centre is based in Dierikon. In 2017 the cooperative decided on a comprehensive modernisation project so that even in future it would be able to cope with the steadily increasing demands on the logistics and production site. In addition to a sizeable loading and container bay and a new automation system for fruit and vegetable picking, upgrading the IT infrastructure in all parts of the building was an integral part of the project.

Overall assessment

Early in 2018, Datwyler was commissioned by the cooperative to create a detailed concept for boosting IT availability. This included the construction of a new second local data centre on the site of the Operations Centre. The

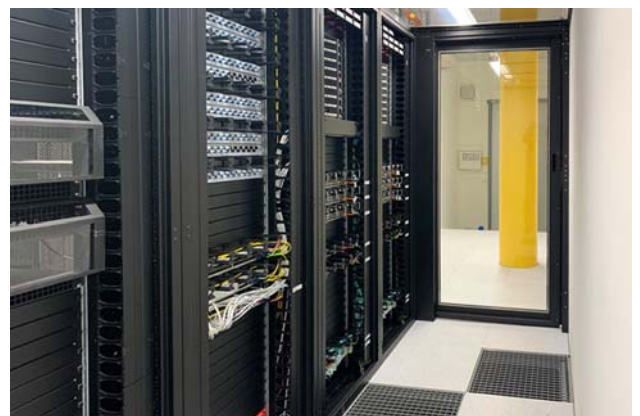
proposed upgrade gave those in charge of IT the opportunity to close the legacy infrastructure gaps and significantly increase IT availability.

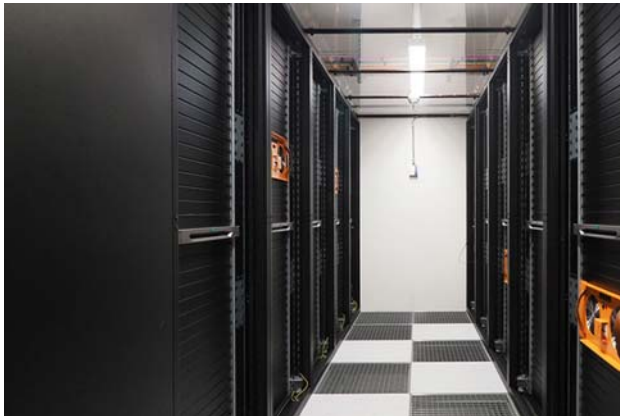
The concept included technical specifications for the layout of the new data centre, the climate control system, the power supply including UPS and emergency generator sets, the network architecture, safety and fire protection as well as for improving the efficiency of the existing local data centre. Among other things Datwyler suggested replacing the campus cabling based on multimode fibre optic cables with a redundant single-mode cabling system.

Those in charge were convinced by the holistic approach to the infrastructure and the knowhow reflected in the concept submitted. In May 2019 Datwyler was awarded the contract to act as prime contractor for the construction of the three systems.

Combination of new building and rebuilding

The new building comprises a 70 square metre computer room designed for an IT load of 74 kW and three ancillary





rooms for the electricity distribution networks and the extinguishing system. Today the main room houses 14 server racks and five network cabinets which are divided between two cold aisle containments. The cooling air is supplied via a raised floor, all the requisite cables are carried in runs above the racks.

The electrical supply from the subdistributors, the earthing and the intelligent PDUs inclusive of monitoring servers and software are also supplied by Datwyler.

The IT cabling system is based on a “HD-DCS” fibre optic solution with preassembled MTP trunks (OM4 multimode and single-mode). 588 copper links were installed here in addition to 864 DPX fibre optic links. The high-performance Class E_A network also consists of preassembled Datwyler cables and components.

A smoke suction system (very early fire detection) and a nitrogen extinguishing system take care of fire protection. The latter is incorporated into the existing fire alarm system.

The entire project was coordinated and supervised by the relevant Datwyler team. The close collaboration of all those involved – from client to service partners – proved its worth: after an integral acceptance test in which the whole system was checked, the new Migros Lucerne data centre was handed over in February 2020.

The existing server room was extended by an additional network rack row. By analogy with the new building 516 new Category 6_A links and 774 DPX fibre optic links were created here – during regular operation. The electrical supply was expanded commensurately.

The whole upgrade was carried out seamlessly thanks to good preparation and close cooperation with the IT department at Migros Lucerne and the installation companies involved. It was inspected and accepted in October 2019.

No operational disruption

The new campus cabling system was also set up during regular operation. Originating from both data centres eight kilometres of “Datwyler FO Universal” cable with 12, 48 and 96 fibres were laid and terminated in “OV-CH” splice boxes in the racks. In this project as well Datwyler was responsible for planning and coordination, documentation and acceptance.



“With Datwyler as the prime contractor we opted for an experienced and capable partner,” explained Patrick Rastetter, Head of IT Infrastructure at Migros Lucerne. “Thanks to the close cooperation between our team, the planning experts and the proven service partners, Datwyler was on budget and met all the agreed time schedules.”

(January 2021)