Reliable power supply for airports.
ABB updates the RTU network control system.

Zürich Aiport is Switzerland’s largest airport. In 2015, the airport was used by 26.3 million passengers and 265,095 flights. The airport also acts as a cargo hub, handling more than 400,000 tons of cargo annually.

For an airport like the one in Zürich, reliable power supply is the highest priority. The power supply of the airport includes more than two main supplies from two independent substations each in all its sectors. The airport also has several emergency power supply groups. The 16kV medium voltage (MV) network is divided into autonomous sectors. Each sector has an MV distribution station (so-called terminal station) as well as several transformer stations. The transformer stations include a main connection to a terminal station with ring connection option among the transformer stations. This concept increases the power supply reliability in the buildings.

If power failure occurs in the automatic mode, the system will try to re establish the power supply via an alternate route as fast as possible.

Scope of delivery
ABB delivered the expansion and upgrades for the proven RTU560 remote Terminal Unit with HMI, communication devices, Relion® REF615 protection relays, providing the expertise for the efficient completion of the project together with the engineers at Flughafen Zürich AG.

System Key Figures
The ABB control system handles and monitors several generators and generator types in the primary switchgear (e.g. ABB, Panel Gardy, Schneider, Siemens).

- Approx. 8000 process signals in the entire system
- 1 central control system with a control station
- 6 sectors with control stations
- 5 sectors with 16kV medium voltage power supply
- 1 sector with emergency power supply
- 25 16kV/400V transformer stations
- 126 MS protection devices
- Upstream communication: IEC 61850, IEC 60870-5-104
- Downstream Communication/Process connection: IEC 61850, SPAbus, RP570, Parallel...
Custom benefits
The modern control system is designed in a very flexible and cost-effective way, ensuring high reliability with its proven RTU560 technical platform.

Customer feedback
"ABB has provided a timely, streamlined and reliable solution, tailored exactly to the needs of power supply. The hardware from the previous system could be largely taken over to the new one: Our earlier investments were not lost as a result."

Rolf Gisler, Power Supply Engineering Manager, Flughafen Zürich AG