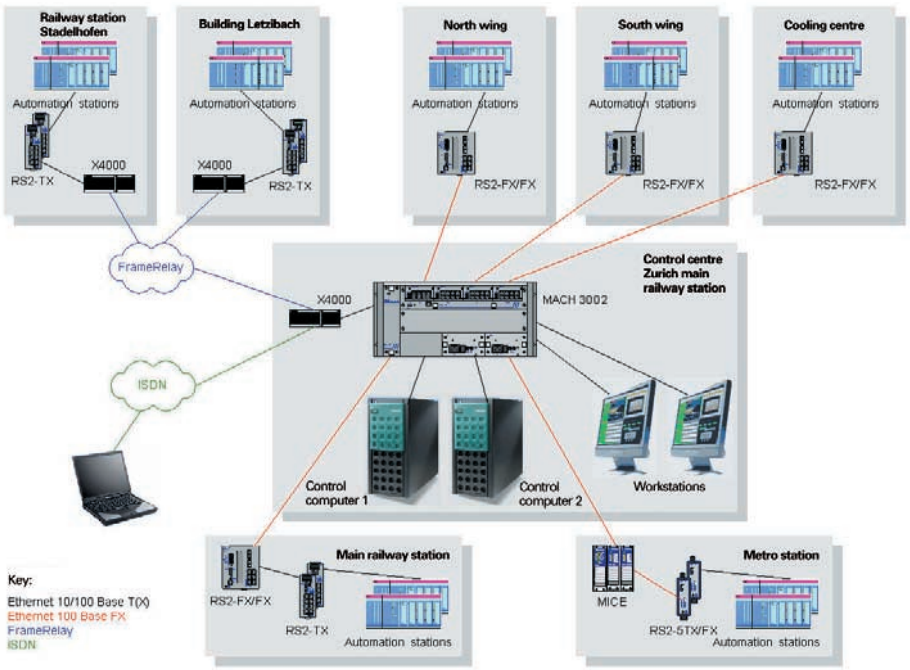
Communication routes set in Zurich's main railway station

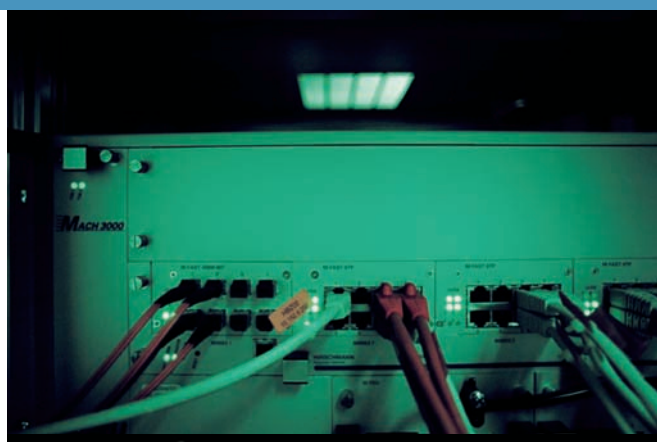
Modernisation of the building services at the management level

EIOM

Numerous shopping arcades and railway stations in the periphery require complex building services. For the communication between the management system and automation stations, a data network based on the Ethernet standard was installed. High availability thanks to a homogeneous concept, redundancy at crucial points and industrial standard equipment ensure smooth operation around the clock in the transport hub of Zurich.

Network diagram





Key products

INDUSTRIAL
ETHERNET
Rail Switch
RS2-FX/FX

INDUSTRIAL
ETHERNET
Rail Switch
RS2-TX/TX

Multiprotocol
Router
X4000

HiPerformance
Modular Gigabit
ETHERNET Switch
MACH 3002

Building Automation

HIRSCHMANN

Germany
Hirschmann Electronics GmbH & Co. KG
Automation and Network Solutions
Stuttgarter Straße 45-51
D-72654 Neckartenzlingen
Tel. +49-7127-14-1479/ -1480
Fax: +49-7127-14-1495/ -1496/-1502
E-mail : ans-hi-line@nt.hirschmann.de
www.hirschmann.com

Austria
Hirschmann Austria GmbH
Oberer Paspelsweg 6-8
A-6830 Rankweil-Brederis

Switzerland
Hirschmann Electronics GmbH & Co. KG,
Neckartenzlingen
Zweigniederlassung Uster
Seestraße 16
CH-8610 Uster

France
Hirschmann Electronics S.A.
24, rue du Fer à Cheval, Z.I.
F-95200 Sarcelles

UK
Hirschmann Electronics Ltd.
St. Martins Way
St. Martins Business Centre
GB-Bedford MK42 OLF

Netherlands
Hirschmann Electronics B.V.
Pampuslaan 170
1382 JS WEESP
Postbus 92
NL-1380 AB Weesp

Spain
Hirschmann Electronics S. A.
Calle Trespaderne, 29
Edificio Barajas I, 2ª Planta
E-28042 Madrid

Hungary
Hirschmann Electronics Kft.
Rokolya u. 1-13
H-1131 Budapest

USA
Hirschmann Electronics Inc.
30 Hook Mountain Road – Unit 201
Pine Brook, New Jersey
07058, USA

Singapore
Hirschmann Electronics Pte. Ltd.
3 Toh Tuck Link
#04-01 German Districentre
Singapore 596228

One management system for open integration technology

Open, standardised system interfaces facilitate step-by-step modernisation of the building management system.

First the interface for the operators is replaced. A new man-machine interface provides for modern, up to date control of the complete highly complex infrastructure. In the second step, the extensive infrastructure of automation stations is subjected to a process of replacement while continuing in operation.

The openness and flexibility of Leicom at the management level enable controllers from different manufacturers and generations to be integrated into the system.

Old and new automation equipment is connected over the homogeneous communication network, this facilitates modern distribution and access for automation data. The user interface is straightforward and safe to use without the operating organisation having to include different product specifications in the concept. Leicom provides the basis for the "smoothed" financing of surgery on the nervous system of a building complex.

Project parameters

- 65 existing automation stations in the main railway station
- 5 existing automation systems outside the main railway station
- Control computer with redundant system
- Energy measurement as basis for energy billing

Requirements

- Full coverage network based on ETHERNET
- Central switch for optical fibre (100BASE-FX) and twisted pair (100BASE-TX)
- External railways stations connected via FrameRelay
- Remote access via ISDN
- Network access for notebooks at the automation stations

Solution

- MACH3002 with optical fibre and twisted pair
- Optical fibre for longer connections
- Full coverage 100 Mbit/s switched
- Router with FrameRelay WAN protocol and ISDN for remote access
- Linux server operating system
- APROL control system software for:
  - Communication with the automation stations
  - Information display and alarms
  - Control
  - Energy data acquisition
  - Data analysis
- Operation via PC
- Export functions for energy data
- Features:
  - 2 control computers
  - 1 Gigabit ETHERNET Switch MACH3002
  - 3 Multiprotocol Router X4000
  - 6 Rail Switches RS2-FX/FX
  - 9 Rail Switches RS2-TX/TX

Why Hirschmann?

- Homogeneous product family
- Expandability
- Industrial standard products
- Manageable components

References

- Payserv, Zurich
- Canton hospital, Basel
- Swisscom, Bern

Other Hirschmann application notes:

- Connectivity
- Enterprise Networking
- Automation Networking
- Factory Automation
- Process Automation
- Transport Automation

Your Hirschmann representative

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Leicom AG, Leit- und Kommunikationstechnik
Harzachstrasse 5, CH-8404 Winterthur