

Retrofit of IEC 61850 OT Network – Solvay

Challenges

Solvay needed to **retrofit the OT network of Tavaux chemical factory** with the latest technologies **IEC 61850 MMS**.

The Tavaux plant relies on the **distribution of 175 MW**, comprising more than 30 electricity distribution or transformation rooms.

Elvexys was involved to help the customer to **define the OT network design** offering the **best trade-off between cost, resilience and scalability**.



→ Elvexys' Solutions & Services

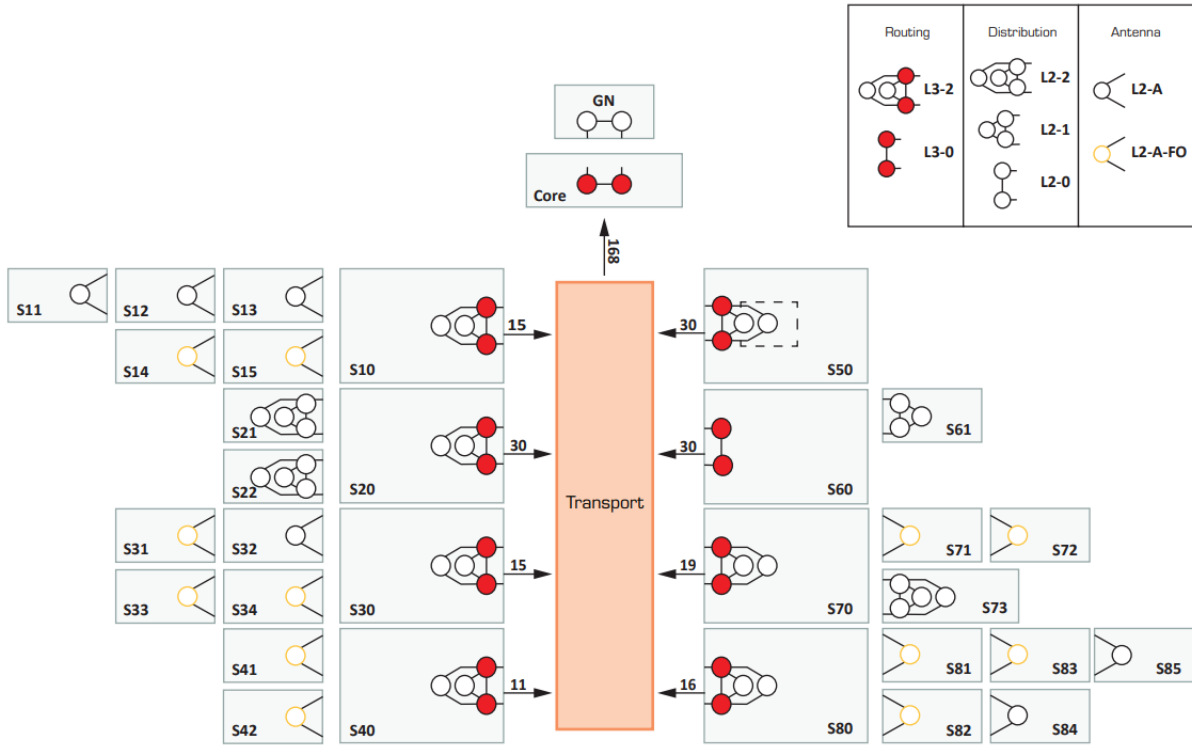
Consulting on OT Network, including:

- **IEC 61850 network design:** vlan, subnetting, routing
- **Optical fibre upgrade capability, optical power budget computation**
- **Bandwidth planning**, on future IEC 61850 MMS & Goose traffic
- Redundancy protocol selection between: **HSR, PRP, MSTP**

Why choose Elvexys?

- ✓ Cost reduction thanks to material incompatibility detection during design phase
- ✓ Higher ROI due to network design simplification
- ✓ The solution provided is future proof at a measured cost

Schematic



Hardware & Software

The analysis was carried out taking into consideration the following equipment:

- Siemens Ruggedcom RST 2228
- Siemens Ruggedcom RX 1501
- Moxa G7728
- Cisco IE 4010
- CISCO IE 2000
- Huawei NE05E-SQ
- Huawei NE05E-SR

Standards

- IEC 61850
- MMS
- GOOSE
- HSR
- PRP
- MSTP
- VRRP/HSRP

Time synchronisation

- PTP (IEEE 1588v2)
- NTP