

IEC 61850 Substation – Romande Energie

Challenges

Renewal of the infrastructure and equipment, update of the standards in accordance with IEC 61850 & IEC 60870-5-104. Signals are sent **from the IEDs to the Gateways using the IEC 61850 protocol**, then **converted to the 60870-5-104 protocol** in order to be **sent to the Romande Energie control centre**.

Creation of a local HTML view to be able to visualize the signals from a web browser. Configuration and deployment of a fully independent backup channel.

Development of SmartRTU with IEC 61850 communication acting as Server:

- IEC 61850 driver for SmartRTU
- ICD Datamodel for SmartRTU to be used in the IEC 61850 Engineering Tool (Helinks STS-SD)
- Engineering of main and backup channel can be done in one Tool/project file.

→ Elvexys' Solutions & Services

Configuration of XPG Gateway

Configuration of NTP Time Server

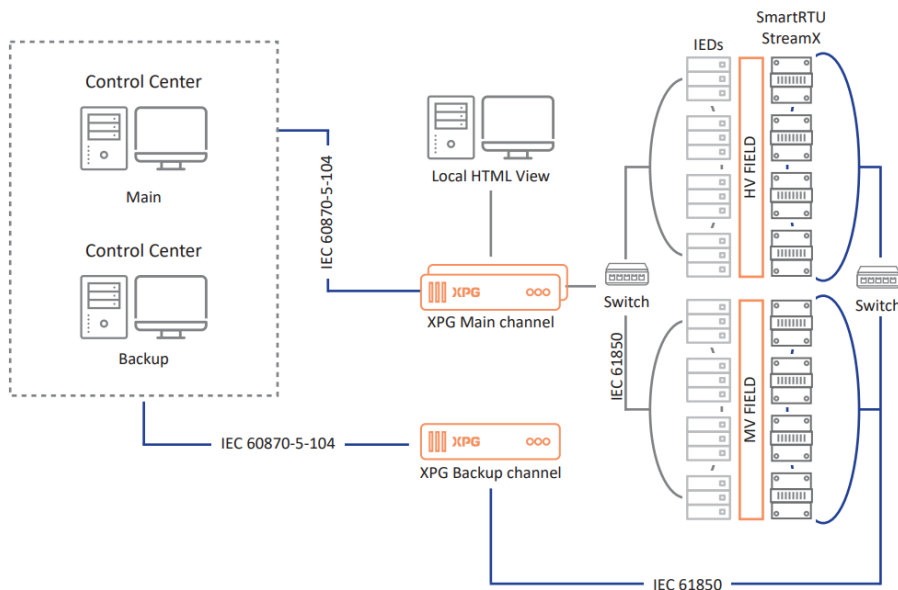
Configuration of SmartRTU StreamX

FAT (Factory Acceptance Test) / SAT (Side Acceptance Tests)

Maintenance and support

Designing HTML view

Schematics



Why choose Elvexys?

- ✓ Standardised solution
- ✓ Centralisation of data from the field
- ✓ Advanced remote management and maintenance solution

Hardware & Software

XPG Gateways

XPG is a modular multi-protocol communication gateway which runs on ISOS (Industrial Secure Operating System), both engineered and designed by Elvexys. It is also a chosen hardware which is used for all communication applications, data processing and protocol conversion.

StreamTools

This engineering tool is deployed at Elvexys in accordance with a strict security policy, including secure access for users. StreamTools includes uniqueness, version management, locking and rights mechanisms to manage simultaneous user access.

NTP clock

Regarding the IEC 61850 substation configuration.

StreamConsole

StreamConsole is the remote gateway management tool which allows configuration and monitoring for the client.

- Manage StreamBridge and ISOS
- Update configuration
- Update firmware
- Manage log files
- Start / stop services

Helinks

Helinks STS-SD is the StreamX plugin for Helinks STS, an Independent IEC 61850 engineering tool, which improves the possibilities for maintenance and subsequent modifications. For more info about STS visit helinks.com

Industrial PC for HTML view

Standards

- IEC 61850
- IEC 60870-5-104
- SNMP V3
- NTP