Remote gateway «Eyholz tunnel» – Aeschimann Automationssysteme ag

Challenges

The longest tunnel of the A9 Motorway with a **total length of 4230m** and a construction cost of MCHF 670, including MCHF 70 dedicated to security and supervision infrastructure was open to road traffic on April 2018.

The company **aeschimann automationssysteme ag needed data conversion from S-Bus data to OPC UA** as required by the federal roadway agency.

→ Elvexys' Solutions

Four XPG were deployed in this project for the data exchange between the field devices and the supervisory control system (SCADA).

The first phase of the data engineering and configuration has been done by Elvexys. Then a specific and cost effective training enables aeschimann automationssysteme ag to take over the signal engineering duty.

Thanks to the protocol gateway XPG with OPC UA integrated, the automation system deployed by our customer is fully compliant to the Swiss Federal Roads Office FEDRO 13031 specification.

Schematic
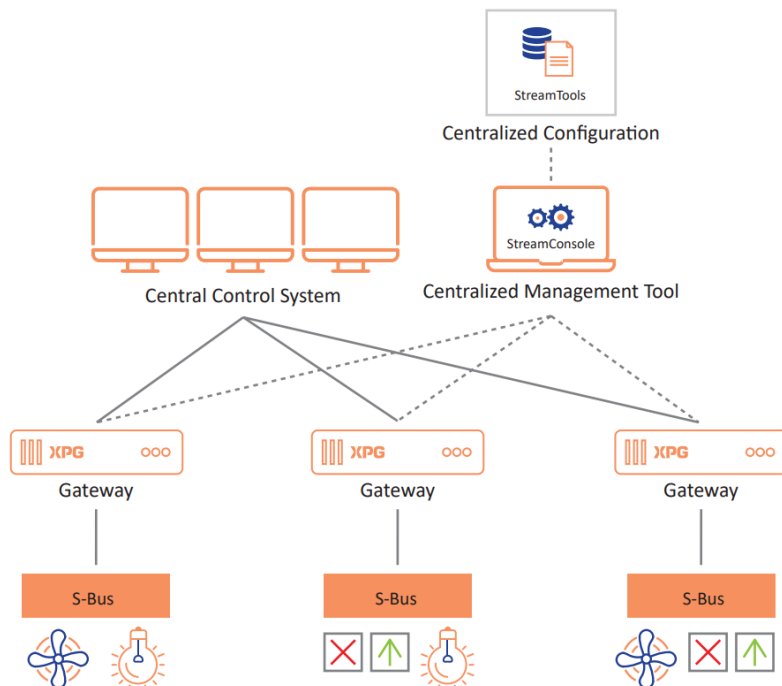
Hardware & Software

XPG gateways composed with:

- Robust 19" dedicated hardware for OPC UA Server
- Secured OS Linux ISOS (Industrial Secure Operating System)
- StreamBridge applicative module for protocol conversion

StreamTools

The Elvexys hosted engineering tool has been used, comprising secured access for users.

StreamTools includes mechanisms of uniqueness, versioning, locking and rights management to handle simultaneous user access.

StreamConsole

The management console is the real companion of commissioning engineer. Providing an efficient way to execute configuration, tests and maintenance tasks. It can be securely executed from remote and therefore has been approved for the highly secured OPC UA environment.

Standards

Communication

- S-Bus
- OPC UA Server

Management

- SSH
- NTP