

LoRaWAN[®] Instant Fault Localisation at Oiken

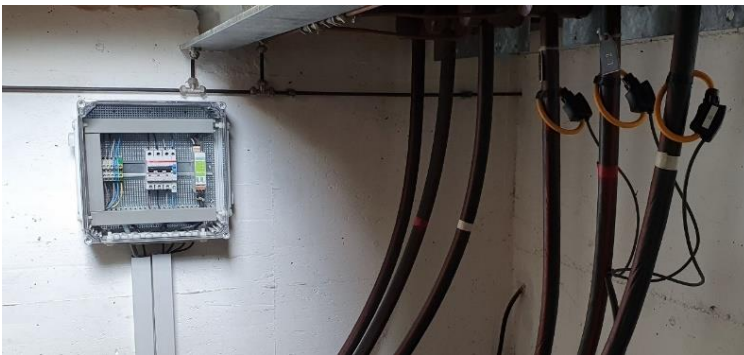
Elvexys is developing its product “LEM-302” to tackle the challenges of fault localisation and grid data analysis. Working with the Oiken operating department, Elvexys’ solution will allow to reduce fault search time by 4 to 8-fold.

Oiken’s Challenges →

Exploiting its own electrical grid and providing energy to more than 100’000 customers, Oiken is looking to come **up to date with latest IIoT solutions**.

One of Oiken’s greatest challenges are **faults such as short-circuits that may lead to partial collapses in their energy grid**. The swift search for these faults and the need to keep serving clients energy 24/7 are vital for utilities.

In addition to energy load measurements, Oiken needs a solution **to reduce fault search on its network**.



→ Elvexys’ Solutions

Providing **private LoRaWAN[®] Network**

LEM-302 Energy meter and alerting system

Brings **data from measurement node to SCADA**

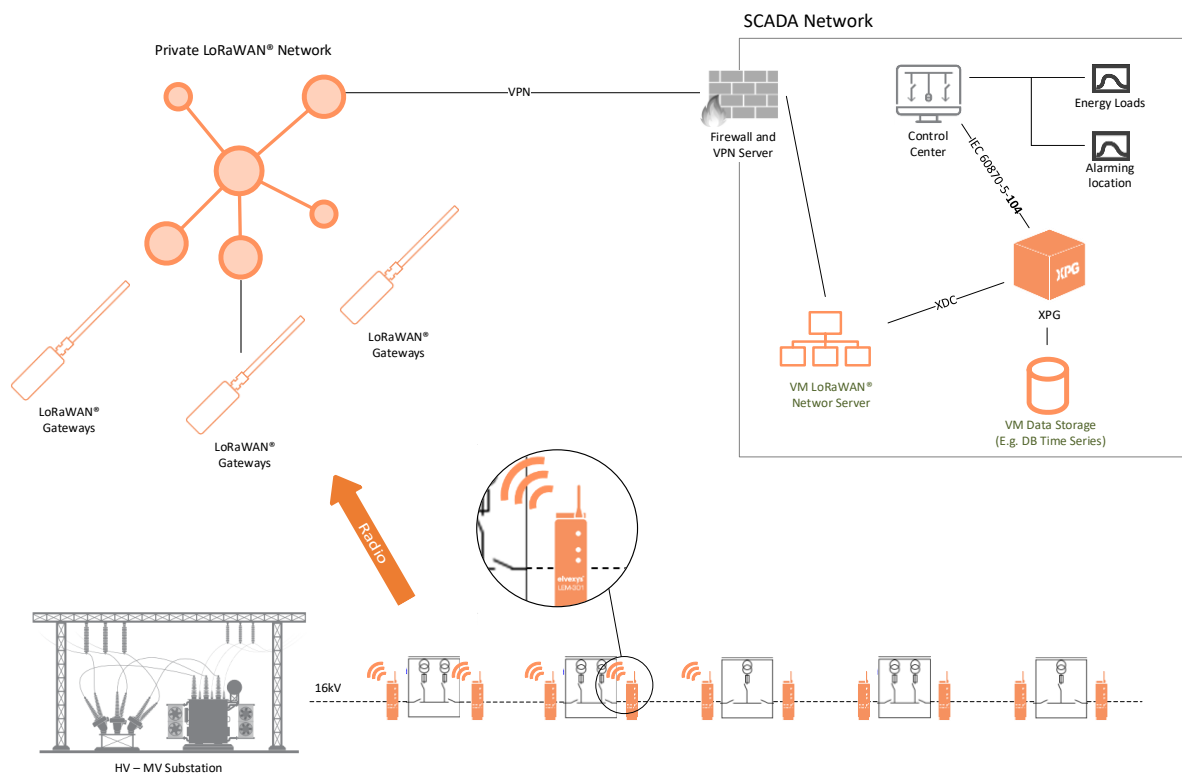
Data engineering

LoRa expertise

Why choose Elvexys?

- ✓ Client support for communication management
- ✓ High range transmission with LoRa
- ✓ Low-cost measuring point
- ✓ Easy set-up
- ✓ Installation flexibility

Schematics



Hardware & Software

LEM-302

LEM-302 is a LoRaWAN[®] enabled power monitoring sensor for IoT integrators and LoRa operators. The device works in 3-phase 4-wire systems and can measure up to 4 single phase circuits with high precision monitoring (B class).

Elvexys has built on latest iteration of the product "LEM-301" to implement instant LoRa communications for fault localisation and come closer to its clients' specific needs.

XPG Gateway

XPG is a product line based on StreamBridge, a modular multi-protocol communication gateway and ISOS (Industrial Secure Operating System) which is used for all communication applications, data processing and protocol conversion.

Distributed here in virtual machine version including a module to connect the LoRa server and convert the data to the control centre.

Protocols & Standards

- LoRaWAN[®]
- IEC 60870-5-104