SASensor®

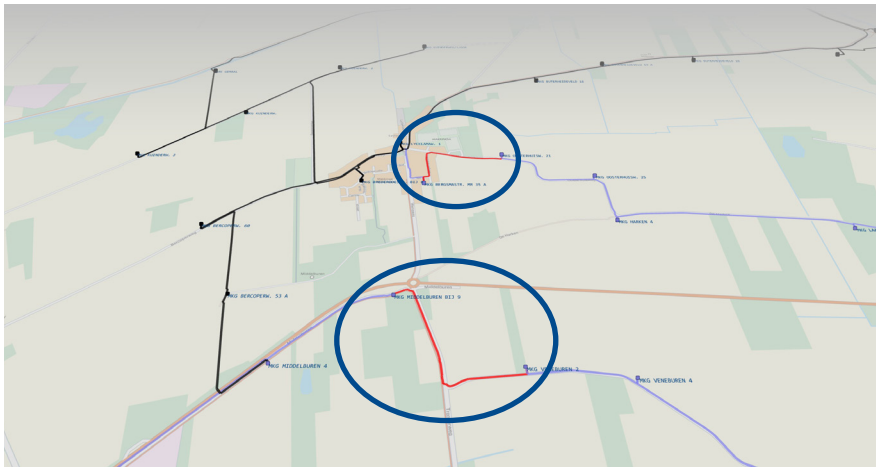
Locamation
smart smart grid solutions

CASE STUDY

65-1ENI

Reduce Customer Minutes Lost and Customer Interruptions at Alliander

Alliander wanted to reduce Customer Interruptions and Customer minutes lost by digitising their grid. They installed SASensor to monitor, control and protect the MV substation and integrate the generated information into the IT infrastructure.



Clear directions for technical staff.

Challenge

Drastically reduce the amount of Customer Minutes Lost and Customer Interruptions by digitising the electricity grid and automatically present the information to the Control Centre.

Solution

- Use SA*Sensor* to provide high-quality data for fault location purposes.
- Use SA*Sensor* pre-fault information to identify disruptive cable faults before they happen.
- Apply Smart Cable Guard to accurately locate discharge sites.
- Integrate available data in existing IT infrastructure for fluent process flow.

Benefits

- Reduction of Customer Minutes Lost by 15%.
- Prevent 5% of Customer Interruptions and associated Customer Minutes Lost.

These results are expected in case of a full roll out

"We are going to smarten our distribution grid. The technology supplied by Locamation will play a major role in this task. Recently we have decided to equip all network nodes with SASensor technology."

Peter Molengraaf, CEO Alliander *

alliander

"Working together with other companies, as well as local authorities, is crucial to implementing smarter power solutions that benefit communities. It's not only about reliability and sustainability; people are also looking at the financial impact."

Pascal Bleeker, COO, Locamation

Locamation
smart smart grid solutions

*) Source: Early 2011 during cooperation start-up with Locamation (press release)

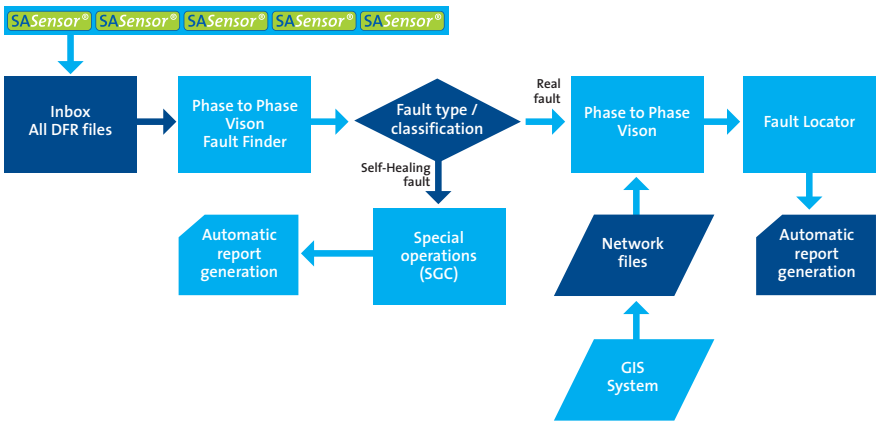
Details

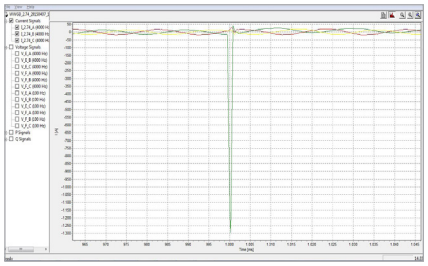
For cable faults, the DFR file is captured and sent to the supervisory system which calculates distance to fault based on impedance and automatically dispatches a report to the control room.

Prior to disruptive failure due to insulation breakdown, cables can begin to generate self-healing faults, i.e. high current for half a cycle. These are picked up by the SA*Sensor* system at 4kHz (information is sampled at 28kHz.), a waveform captured and information sent to the Supervisory System.

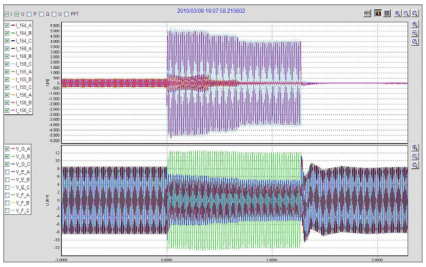
When 2 of these faults are identified within a period of 10 days;

- The network is reconfigured to remove customers from the feeder wherever possible.
- "Smart Cable Guard" is installed to pinpoint the fault location and the cable is repaired.

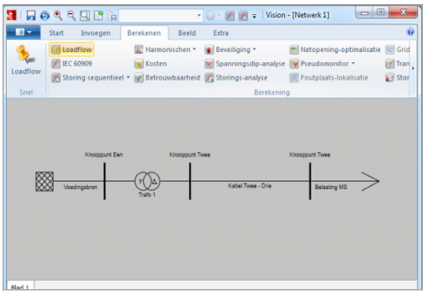




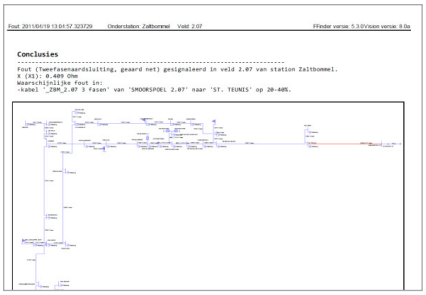
Example of a self-healing fault.



Example of short circuit leading to interruption of delivery.



"Vision" software calculating distance to fault.



Fault report with all relevant details of the fault.

About Alliander

Alliander operates energy networks which distribute gas and electricity to large parts of the Netherlands. With their work they facilitate businesses, homes, transport and recreation. Alliander is helping to bring an open and sustainable energy market closer.

About Locamation

Locamation is a developer of innovative hardware and software technology for smart grids. Locamation's main customers are operators of Electrical Distribution and Transportation networks. Locamation is located in Enschede (NL) and is owned by Alliander, Wadinko and Yellow&Blue.

Locamation B.V.
Colosseum 11
7521 PV Enschede
The Netherlands

T: +31(0)88 1660100
E: info@locamation.com
I: www.locamation.com

Sales Support
E: sales@locamation.com

For the latest product information visit:
www.locamation.com