VisNet® From EA Technology

VisNet® Apps:
Reactive and
Proactive Reliability

Remarkable Apps For Reliable Networks
Quickly detect and respond to potential and actual
faults and outages in your electricity networks.

www.visnet.tech

Remarkable Apps
for Reliable Networks

The low-voltage (LV) distribution network has been in operation for over a century, with much of the infrastructure significantly degrading over time. As demand on this ageing network grows, particularly with the integration of low-carbon technologies (LCTs), fast issue detection and resolution are essential to maintain a stable power supply.

To meet these challenges, network owners and operators are increasingly relying on automation and intelligent data processing to efficiently manage assets, prevent failures and identify areas for reinforcement.

VisNet® Apps coupled with the VisNet Hub provide a cutting-edge solution, using configurable on-device algorithms to filter and process relevant data directly from your network. Insights are visualised

through our intuitive Detect Pro user interface, offering a clear view of performance. Operating within a secure, encrypted environment,VisNet® Apps ensure data protection. Seamless over-the-air (OTA) updates allow for easy installation of new apps and features, while regular firmware updates keep your system optimised.

With VisNet® Apps, the VisNet Hub, and Detect Pro, you can efficiently monitor and enhance your network.

VisNet Reliability Apps:
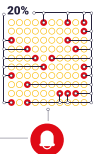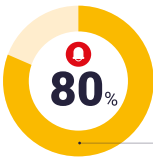## Finding the Faults... Fast!

Stay one step ahead with our powerful insights and innovative solutions.

The VisNet® Reactive and Proactive Reliability Apps deliver the support you and your network need. Alongside fast identification and resolution of issues through real-time monitoring, the Apps offer alerts for loss of supply and pre-fault activity, as well as identifying fault type and location. This data is analysed using advanced algorithms that can determine the health of the cable circuits that make up your LV network.

DID YOU KNOW?

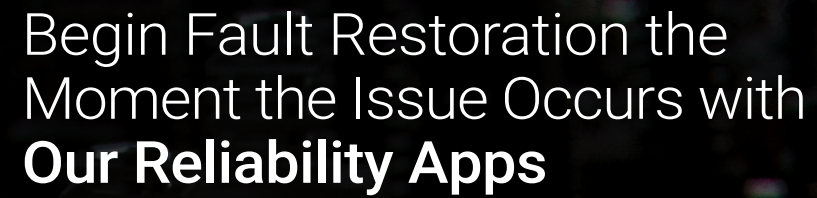80% of faults are from 20% of LV circuits. We can tell you which ones!

DID YOU KNOW?

Our Reactive Reliability App provides real-time alarms of LV fuse operations, alerting you faster to loss of power to customers, up to 120minutes faster!
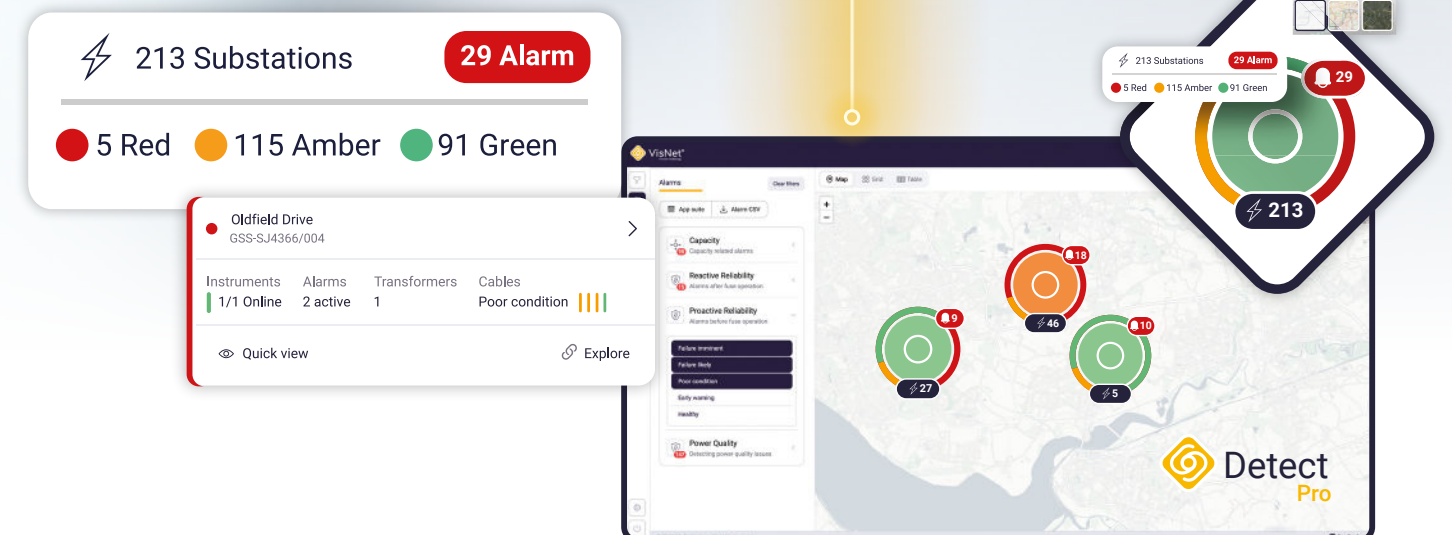
Begin Fault Restoration the Moment the Issue Occurs with **Our Reliability Apps**

Our VisNet® Apps can be remotely deployed onto your VisNet Hub to provide valuable insights into your network. Using VisNet Detect Pro or your own user interface, the data from our Apps are presented in an easy to understand, meaningful, and actionable way. Both the Reactive Reliability and Proactive Reliability Apps monitor circuit condition highlighting through alarms and alerts where a problem is occurring or may occur in the future. By selecting these alerts you can see the severity of the problem and devise solutions to deliver a fix.

Turn Data Into **Actionable Insights**

When it comes to network operation, having comprehensive data is crucial. However, it's not enough to simply collect this data. To truly benefit from it, we need to present it in a way that is meaningful and actionable. That's where VisNet Detect Pro comes in.

VisNet Detect Pro is designed to be your window into your data. With 24/7 web-based access, you can easily view all the captured and calculated data. But what sets this system apart is how it presents the information to you.
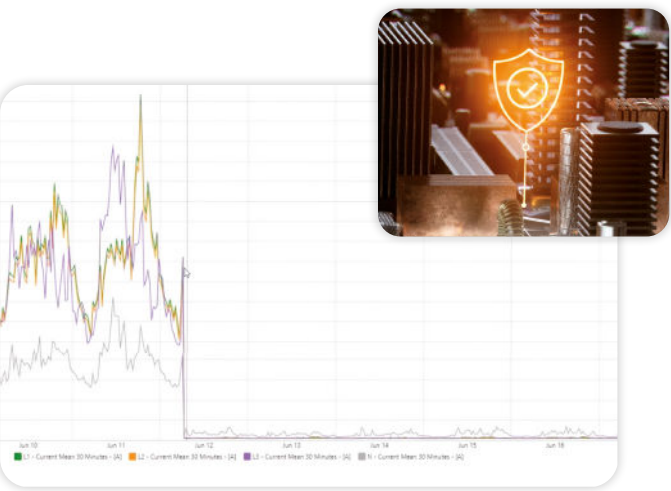
The user interface of VisNet Detect Pro is built for effective visualisation. It allows you to quickly identify any network issues at a glance. And if you need to dive deeper, you can drill down into the details to understand exactly what is causing the problem. Gain a clear understanding of your network operation and take control of any issues that arise.

DID YOU KNOW?

Our Proactive Reliability App service typically locates the exact location of LV cable defects 32% of the time, is within 5m 49% of the time, and within 10m 59% of the time.

10m **59%**   **5m** **49%**

213 Substations   29 Alarm
5 Red   115 Amber   91 Green

Oldfield Drive
GSS-SJ4366/004

Instruments	Alarms	Transformers	Cables
1/1 Online	2 active	1	Poor condition

Quick view   Explore

Detect Pro

The Apps Your **Network Needs**

Transformer 1

🔔 **Way 3: High St/Central Drive**

Feeder Alarms	L1	L2	L3	N
Fuse Blown	🔔	🔔	🔔	🔔
Feeder Short Term Overload	🔔	🔔	🔔	🔔
Feeder Long Term Overload	🔔	🔔	🔔	🔔
Reverse Power	🔔	🔔	🔔	🔔
Phase Imbalance	🔔	🔔	🔔	🔔

Latest Impedence	L1	L2	L3
Impedence Value	107.6	107.6	88.1
Impedence Type	Phase	Phase	Loop

Reactive **Operations App**

Reactive. Reliable. Remarkable.

Our Reactive Operations App provides real-time monitoring and alerts for loss of supply, along with detailed insights on the fault type, location, and the overall health of the cables that make up the network.

The App analyses data gathered by the VisNet® Hub to allow operational teams to quickly detect and respond to faults and outages, reducing Customer Interruptions (CI) and Customer Minutes Lost (CML). Maximising network reliability and minimising downtime, the App also supports asset management and operational planning teams to optimise maintenance schedules and guide long-term investments.

The many benefits of our Reactive Operations App include:

- **Fuse blow identification:** providing immediate alerts when a fuse blows, allowing for rapid response and ensuring DNOs know of faults before a customer call, enabling fast power restoration.

- **Impedance to fault data:** pinpointing the origin of faults with high accuracy.

- **Fault type identification:** helping operators understand the nature of the issue.

- **Fault energy:** supporting asset management teams to evaluate the impact that fault events may have on the ageing of local assets.

Proactive **Operations App**

Proactive. Protective. Powerful.

Our Proactive Operations App uses pre-fault data to identify potential faults and outages in the distribution network.

The technology has been expertly designed for network operators and maintenance teams who need to resolve potential issues before they occur and cause a loss of supply. The App uses data from VisNet® LV monitoring hardware, allowing maintenance teams to anticipate, as well as prevent faults and outages, ensuring a reliable power supply to customers, meaning maintenance and repair costs are minimised.

Packaging insights from pre-fault data, the App provides network operators with a comprehensive overview of their LV assets' condition.

The many benefits of our Proactive Operations App include:

- **Pre-fault waveform capture:** shows the characteristics of the fault.

- **Impedance to pre-fault:** pinpointing the origin of potential faults, guiding network operators on where to focus their efforts.

- **Circuit condition:** categorising LV circuits from 'failure imminent' to 'healthy', helping operators prioritise proactive responses.

- **Event trending:** tracking changes in circuit condition over time, identifying trends that might indicate deteriorating assets and supporting timely intervention.

🛡️ **DID YOU KNOW?**

You can cut customer outages by up to 120 minutes by responding to VisNet Hub alerts!

⏱️ **120 Minutes**

🛡️ **DID YOU KNOW?**

We predicted 71% of LV faults which subsequently occurred within a year.

Capabilities For
A Changing Market

The electricity network is undergoing a period of rapid consumer transition, including the growing popularity of electric vehicles and heat pumps. Pressure is increasing on the LV underground cables that deliver power to our homes and businesses.

As the pressure society puts on the LV networks grows, ensuring the reliability of those networks becomes increasingly crucial. Our Reliability Apps deliver the support you need.

DID YOU KNOW?

Over 50% of feeders identified by our VisNet reliability apps as Failure Imminent will fault in the next 6 months.

50% Failure Imminent

To book your demonstration or to receive further information, please contact us on:
+44 151 347 2313, email: **sales@eatechnology.com** or visit: **www.visnet.tech**

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