Platforms to make LV Networks **fit for the future**

VisNet® Hub

Providing valuable insight into the operation and capacity of today and tomorrow's LV networks

Document Version: V2
29.07.24
PUBLIC

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VisNet®
From EA Technology

Product Brochure

VisNet® Hub

VisNet® Hub is EA Technology's production monitoring platform providing measurement and insights in LV distribution substations.

It has been designed to:

Push intelligence to the network edge

Increase visibility

Improve analysis capability

An LV Network Revolution

Our energy system is undergoing a transformation. Radical shifts are happening, changing the way we generate electricity, allowing us now to use low carbon electricity for new purposes – like powering the cars we drive, or the way we heat our homes. The wave of plug in electric vehicles is starting to build at an increasing pace with changes in policy, coinciding with increased customer choice and lower prices from the car-makers. The 2020s are expected to be the period of rapid consumer transition, which will put pressure on the one million Low Voltage underground cables and overhead lines that deliver power to our homes and businesses.

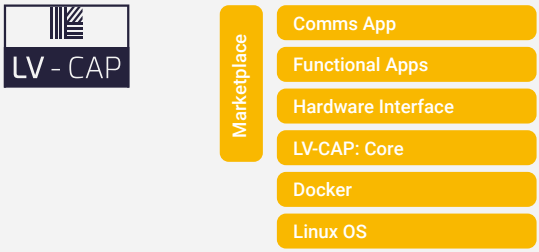
These extensive and in many cases aged, bits of infrastructure are critical to our society - providing the backbone to our very economy. However each cable has a finite capacity, which, if operated above this, causes damage; ultimately resulting in the lights going out.

The LV networks are highly passive in their operation and monitoring at this level is limited. With the above changes, network operators around the world are recognising the need to instrument these networks, but it needs to be done cost-effectively, and at the right pace.

Opening Up Networks

We see lots of equipment being deployed in a substation for a single purpose, yet most rely on the measurement of busbar voltage, feeder currents and possibly other peripherals. **The Hub** can act as a single platform in the substation to do this, and more.

It has been designed to push intelligence to the network edge, with local processing to reduce the need for heavy communications back to a central brain. Incorporating our Low Voltage Common Application Platform (**LV-CAP™**), applications and algorithms can be deployed onto the platform long after installation to expand the functionality of the units beyond simple measurement.



LV-CAP™ is a software platform, similar to Google's Android or Apple's iOS, but for electricity distribution substations. The platform comes with the **VisNet® Hub** and is capable of hosting Applications (or 'Apps').

What is VisNet® Hub?

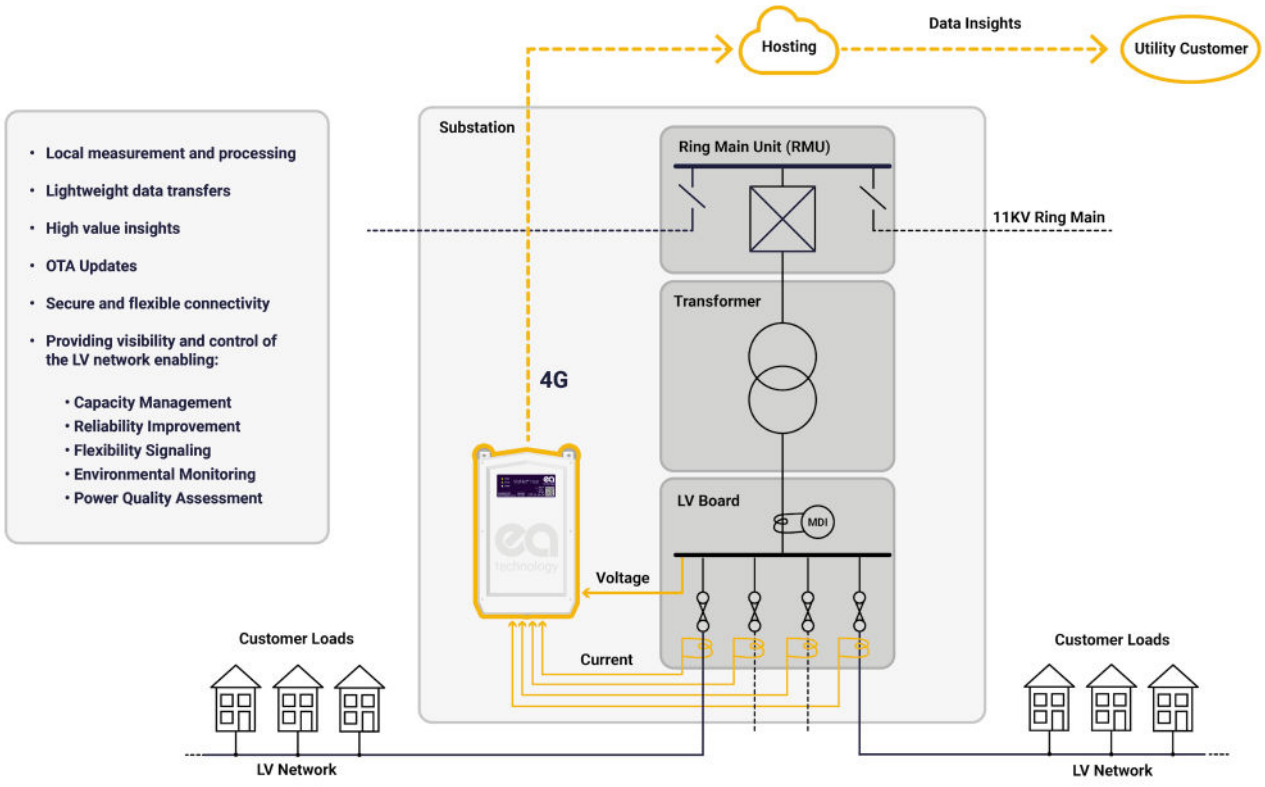
The Hub is a monitor that checks voltage and current data on every LV feeder giving insight about load, faults and condition information across the network. It measures three phases, plus neutral for up to six Low Voltage feeders, busbar voltage and battery status. Sending information back to cloud-based data systems via the 4G telecommunications network.

The Hub is a cost effective, flexible monitoring platform for LV distribution substations. LV-CAP™ provides an upgrade platform and path for enhancing the capability of the substation, whilst minimising the risk of stranded assets. The platform:

- Allows insights to be mined from data locally and consolidated centrally.
- Can be combined with a tailored suite of locally developed software Apps, allowing operators to distribute intelligence across the network and optimise data transfer volumes in this data rich environment.
- Provides local intelligence to allow credible decisions to be made.

This rounded solution gives DNSPs (Distribution Network Service Providers) the opportunity to have full visibility and control of their LV network, at the lowest possible cost.

The Hub allows agile network wide analysis and response as well as reduced data transmission



VisNet® Hub Capability

- **The Hub** provides comprehensive network visibility with its capability to monitor 6 feeders and communicate via GPRS (4G)
- Capacity to capture multiple events up to 100th harmonic, sampling at 16kHz
- Communications defined by Applications, DNP3, HTTPS & IEC61850
- Compact and neat design (Size 430 x 266 x 71mm (h x w x d))
- Enclosure protected to IKO8, IP 55
- Can be upgraded to support emerging standards i.e. IoT-NB, LTE Category M and 5G
- Efficient reporting of either 10 minute or 30 minute intervals, with a rapid communication path for serious events within this timeframe

VisNet® Hub Compatibility

- **The Hub** also integrates with the **VisNet®** range of equipment to provide LV network control and automation capability
- **The Hub** can also take inputs from other sensors to monitor the substation environment, presence detection and equipment condition
- Information from **The Hub** can be used with software modelling tools to improve their accuracy

To book your demonstration or to get further information and advice please contact us on +61 (0) 7 3256 0534 or email **au.sales@eatechnology.com / www.visnet.tech**

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