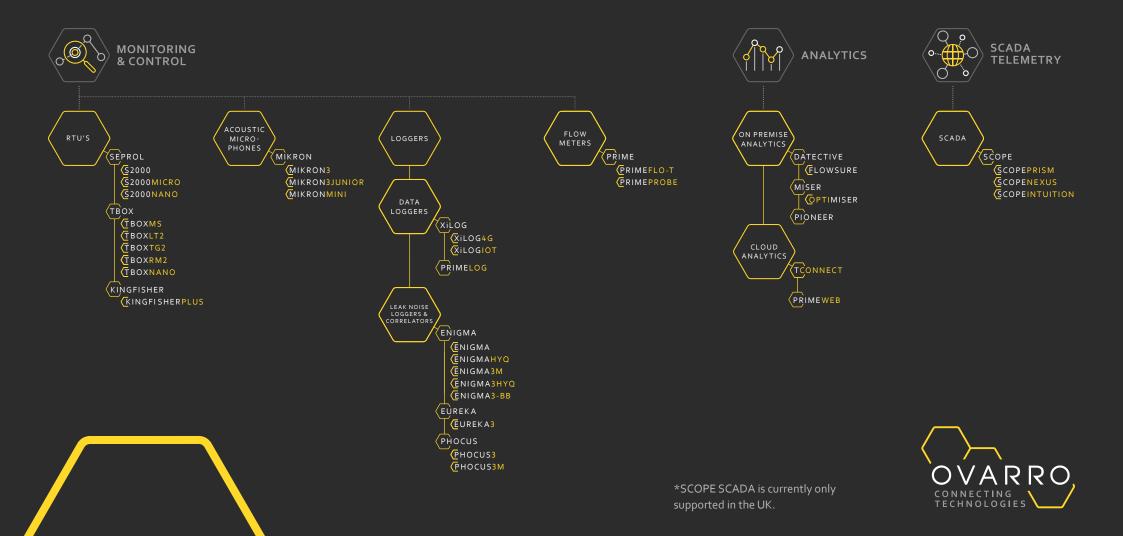
# WE CONNECT BIG DATA TO MAKE A BIG DIFFERENCE

MONITORING & CONTROL | LOGGER TECHNOLOGY





## Our connected technologies support critical assets and national infrastructure around the globe.



## Trusted, secure, actionable insights that enhance situational awareness, one data point at a time.

Our mission has always been to advance productivity, safety and security. 40 years ago that meant pioneering industrial automation for the steel industry in the North of England. Today, we use data to make a difference.

Through innovation and collaboration, we help support business critical assets and national infrastructure around the globe with industry-leading, data-driven solutions that enable organisations to work smarter and more effectively.

Our connected technologies and channel partner network span a number of sectors including Water, Oil and Gas, Broadcast, Telecoms and Transportation and Power.

And while the solutions we provide are designed for industry, the benefits they bring reach far and wide; enabling millions to access clean water, keeping people safe at work, and maintaining stability and reliability on the transport networks global citizens rely on every day.

The technical nature of our work has evolved over the years, but one thing has remained constant: our reputation was built on the strength and length of our relationships.

For that legacy to continue, we go to great lengths to ensure everyone at Ovarro lives and breathes our company values, because we believe collaboration, integrity and respect should extend beyond the walls of our business and encompass every aspect of our work.

Our solutions are proven, trusted and reliable. But we know that would count for nothing if our customers didn't say the same thing about our people.

That's why we work so hard to show our customers that we understand them and their business, and that we're fully invested in their success by continuing to innovate and create new products and services – connecting technologies for a better today and a brighter tomorrow.

Welcome to Ovarro.



OUR DATA LOGGERS & LEAK
NOISE LOGGERS / CORRELATOR
TECHNOLOGY







## Data logger for water network surveys

PrimeLog+ is a small, robust and submersible battery powered water data logger designed to meet a wide range of applications. Available in single and dual channel variants; it is ideal for network modelling applications with  $\pm 0.1\%$  accuracy.

Large memory enables logging at a higher resolution reliably and securely. Its advanced features make it an indispensable tool for any analyst. Once deployed our water data loggers can be relied upon to deliver instant results and their ease of use and field reliability is proven. The rapid USB local communications allow fast interaction with the device and improves efficiency when multiple devices are to be interrogated.

#### FEATURES & BENEFITS AT A GLANCE:



#### Compatible with all common flowmeters

Integrates with existing hardware



#### Sensor accurate to 0.1% bar

- Ideal for modelling networks



#### Large memory

- Logs up to 500 million readings including max, min, mean and total values
- Comprehensive data analysis



#### Battery life up to 5 years

- Low maintenance



#### IP68 Rated

- Easy to use in harsh conditions
- Submersible and waterproof up to 4 metres







## Water network data logging with remote communications

Our most secure advanced industrial range of data loggers with remote communication options and exceptional data integrity. Available in multi-channel models for use with a wide variety of sensors for clean and waste water network monitoring. They are extremely easy to program, deploy and use.





A robust logger that transfers data reliably and securely via HTTPS over a wide range of communications networks.



#### FEATURES & BENEFITS AT A GLANCE:



#### Increase communication up-time

- Multiple state of the art antennae which when combined with our 4G modem ensures reliable and secure communication with your data logger, with 2G / 3G fall-back
- Improved operational efficiency with the low power IoT variant that increases battery life and sub-surface signal penetration



#### Data in one place with Primeweb & SCOPE\*

- Reduce the number of applications you need to look at by having all your logger and leakage data from Ovarro in Primeweb
- SCOPE SCADA users will significantly benefit from the integration of XiLog with the SCOPE system



#### Reduced set-up time

- Easy to use Android app allows simple wireless configuration of the XiLog



#### Flexible and secure access to your data

- With the XiLog API you can send your logged data to PrimeWeb or your preferred data hosting platform



#### Multiple-channel options

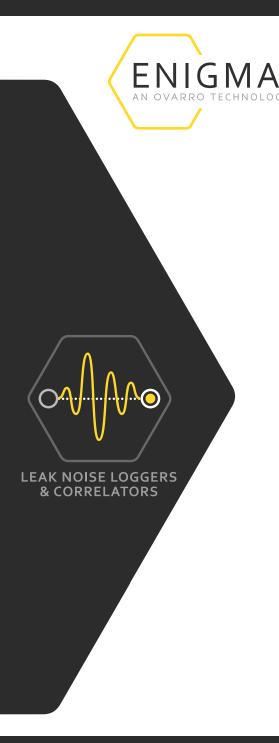
- $\,-\,$  Qualify events confidently with dual flow and pressure logging
- Increase situational awareness from PRVs with dual pressure inputs
- Analogue input offers a wide range of flexible sensor options to suit your applications

#### SUITABLE APPLICATIONS:



\* SCOPE SCADA is currently only supported in the UK





## Remote leak pinpointing solutions

Our multi-point correlation systems allow utilities to monitor the water network and locate leaks very accurately from their desktop or laptop. The precise positions of leaks are found thanks to advanced, innovative, time-synchronisation, correlation and data analysis.

## ENIGMA3M

Advanced, correlating, noise logger with accurate time-synchronisation for pinpointing leaks remotely. All hardware is safely below ground due to powerful antenna and communications.



## ENIGMA3HYQ

Advanced, correlating, noise logger with accurate time-synchronisation for pinpointing leaks remotely in plastic and metal pipes of any diameter.



#### FEATURES & BENEFITS AT A GLANCE:



#### Advanced accelerometer sensor

- Pinpoints quiet hard-to-find leaks
- Fewer loggers deployed per km of network



#### Innovative correlation analytics

- Pinpoints leaks very accurately
- Simple but effective data enables water companies to meet regulatory targets



#### Modem for remote operation

- Monitor leakage in large networks
- Save manpower and money



#### Flexible deployment - fixed or semipermanent

 Save CapEx and OpEx by enabling strategic deployment across large networks



## Highly sensitive hydrophone sensor installed inside the pipe

- Can cover the whole network whatever the pipe diameter and material
- Long distance between fittings means fewer loggers deployed, so reducing costs



#### Innovative correlation analytics

- Pinpoints leaks very accurately in pipes of any material
- Simple but effective data enables water companies to meet regulatory targets



#### Data sent daily to cloud analytics platform PrimeWeb

- Leaks are found and fixed fast
- Data is readily available anywhere anytime



#### Position of logger located by GPS

- Manage assets with less manpower



## On site leak pinpointing solutions

Our R&D team work closely with utility technicians and partners' field teams to design and develop products that are easy to use. We also offer leak detection training so that a utility or partner can quickly learn how to use the technology and be in the field searching for leaks.



An advanced multipoint correlation system for locating leaks in buried pipes.



## ENIGMAHYO

An advanced multipoint correlation system for locating leaks in buried pipes of any material over long distances.



#### FEATURES & BENEFITS AT A GLANCE:



#### Finds and records leaks at night

- Avoids interference from consumers' daytime water usage
- Avoids costly night working



#### Advanced logging and correlating

- Multi-point correlation at up to 8 points
- Detects and pinpoints several leaks in one deployment



#### Three sound samples

- Discriminates consumer usage from nonrevenue water loss



#### Powerful 24-bit data processing and analysis

- Pinpoints difficult-to-find leaks



#### Highly sensitive hydrophone sensor

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## (ENIGMA3-BB

An adapter for enabling installation in existing meter box chambers, increasing options and coverage in the planning and location of your fixed network system.



#### FEATURES & BENEFITS AT A GLANCE:



## Building on the Enigma<sub>3</sub>hyQ with an innovative hydrophone design

 All the benefits of the Enigma<sub>3</sub>-BB with increased leak detection capabilities.



#### Hydrophone does not need hydrant fitting

- Reduced risk of asset damage
- No leakage due to frost plug
- Can be fitted to existing boundary boxes



#### Flexible logger placement

- Utilise current infrastructure for placement
- No impact to customer metering
- Enables shorter distance between sensors



#### Increased operational efficiency

- No flushing operation needed
- Improved communication up-time





## High performance local leak location

Touch screen correlator with powerful filtering options for all pipe materials.





A system of correlating noise loggers and ground microphone for optimum leak location and confirmation.



#### FEATURES & BENEFITS AT A GLANCE:



#### 16 bit digital online and offline correlation

- Pinpoints leaks accurately so fewer holes dug, minimising disruption
- Enables leaks to be fixed quickly even before customers are aware



#### Powerful adaptive filter in Eureka 3+ variant

- Finds leaks that are often missed



#### Rugged, portable and easy to use

- Touch screen operation
- Long intervals between servicing
- More leaks found per man per hour
- In case battery charging from mains or vehicle



#### Position of sensor located by GPS

- Manage assets with less manpower





### Widespread water network leak detection

Our acoustic logger systems are fitted at access points, such as valves or hydrants, providing rapid identification of the presence of leaks by monitoring acoustic noise.

## (PHOCUS3

A noise logger designed for detecting and localising water leakage. It enables water suppliers to quickly and efficiently locate leaks in the water network. Its wireless communications allow both 'lift and shift' or permanent deployment.



## PHOCUS3M

Combines specialist leak noise detection and versatile communications technology to create a fixed network of loggers to monitor leakage. The logger samples pipeline noise at one-second intervals during each of three sample epochs during the night when background acoustic noise is lowest.



#### FEATURES & BENEFITS AT A GLANCE:



#### Data collected locally via wireless communication

- Cost effective leakage management
- Ideal for sites with poor signal strength
- Live leak listening through wireless communications



#### Flexible deployment

- Infra-red for lift and shift and radio for semi-permanent installation
- Enables loggers to be deployed more efficiently and effectively saving costs



#### Powerful post-processing data analytics

Detects leaks reliably and accurately



#### Modem for remote communications

- Enables monitoring of leakage in large networks and reduces manpower



#### Connected to PrimeWeb analytics platform

- Advanced data analytics, with GPS map visualisation pinpointing location
- Alarm notification
- Daily updates for reduced leak runtime



#### Advanced data sampling

Discriminates leakage from usage and reduces false alarms



#### Flexible deployment

- Fixed, semi-permanent or lift and shift
- Saves CapEx and OpEx by allowing strategic deployment across large networks



#### Market leading advanced antenna

- Best in class below ground connectivity
- Reduces OpEx by limiting downtime
- Reduces the need for above ground costs such as planning, or damage caused by third parties







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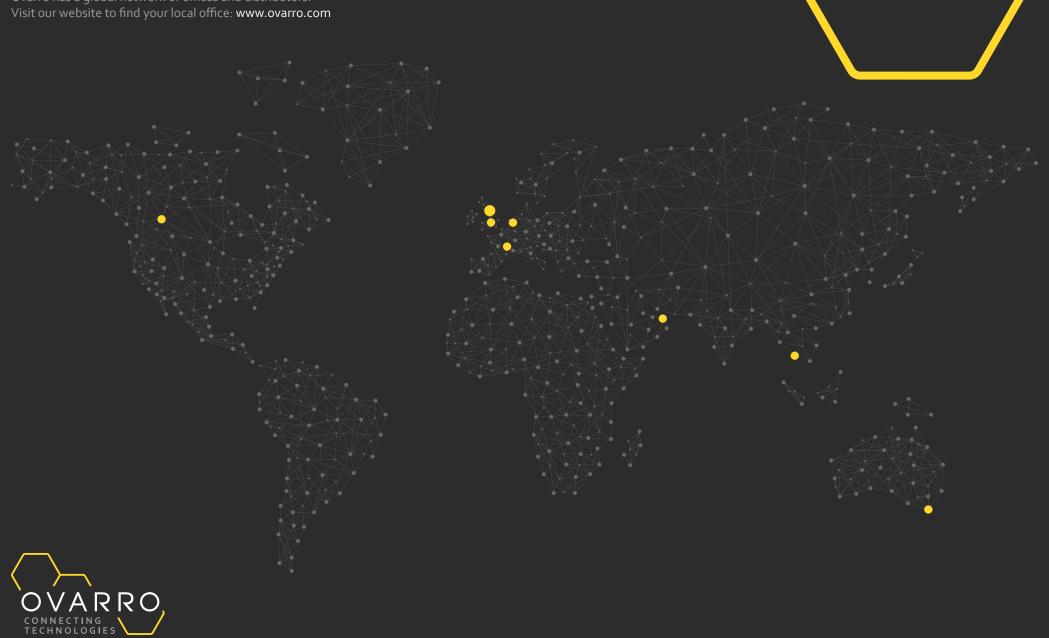
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