Remote leak pinpointing solution
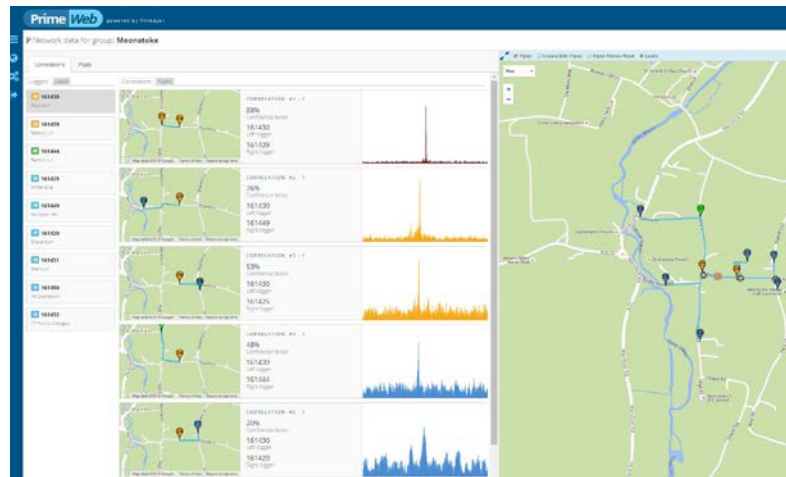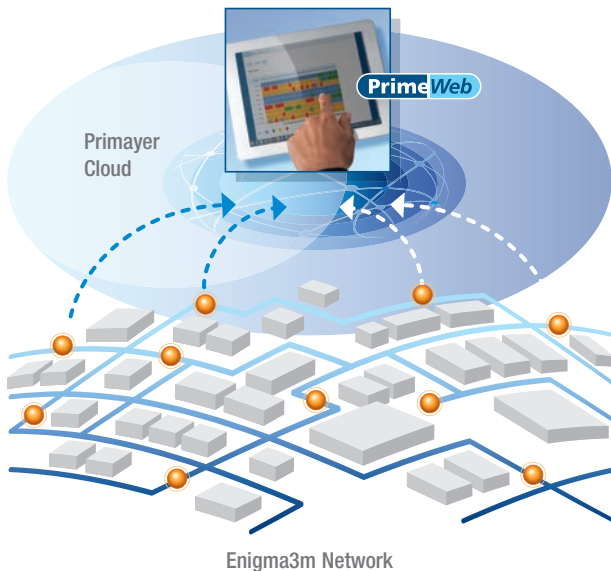
The *Enigma3m* correlating noise loggers utilise 3G / GPRS communications to provide remote location of leaks in water distribution networks. Enigma3m is deployed in underground chambers and requires no costly above ground technology.

Features

- **Correlation processing for accurate leak positions**
- **Daily transmission for improved efficiency and reduced leak run time**
- **Simple installation – no above ground radio repeaters required**
- **Data available at any location via PrimeWeb on a web browser**
- **Leak listening for confirmation of leak noise**
- **Logger GPS location stored**
- **Embedded roaming SIM for optimum network communication**

Enigma3m Network

Correlation thumbnails displayed with logger and leak positions

Rapid leak location

The *Enigma3m* correlating loggers transmit daily leak noise data via the 3G or GPRS communication networks. This data is sent to a server. The data provides leak alarms and also enables the user an opportunity to listen to the noise thus helping to confirm it is leak noise. Furthermore, correlation can be performed from many loggers to accurately locate leak positions. To enable accurate correlations a daily logger time synchronisation is carried out by a new technology.
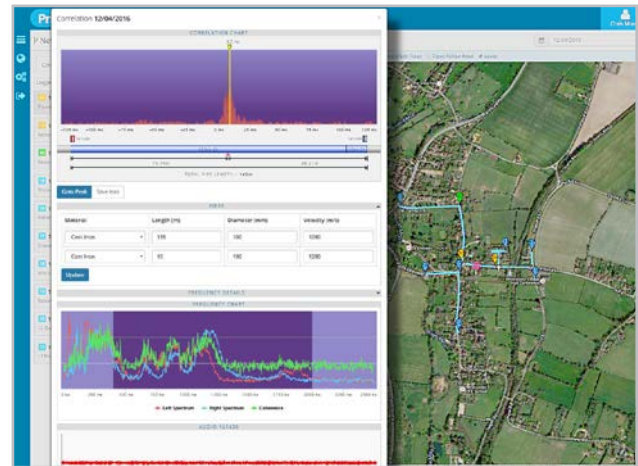
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technology for **network management and leakage control**

Logger characteristics

- High sensitivity sensor
- Powered for up to 5 years (dependent upon 3G/GPRS signal conditions)
- Submersible to IP68
- Small size
- Large data memory

Data for leakage management

When data arrives at the server it is accessed and analysed using the PrimeWeb utility tool. PrimeWeb also provides a database and on-line viewing facility for network flow, pressure and leak alarms from XiLog+ data loggers and Phocus3/3m noise loggers. It is accessible on any device with internet access. Logger positions can be shown on Google Maps and coded to show leak alarms. Historical data is available. Indication of leak positions on Google Maps together with 'street view' visualisation of the leak position aids management for leakage teams.

Correlation function displayed with frequency spectrum and coherence.

Street view provides visualisation of leak location

Programming with Comms Module.

Products

Enigma3m correlating logger – GPRS only	**BXG 301**
Enigma3m correlating logger – 3G / GPRS	**BXG 303**
Enigma3m correlating logger – 3G (North America)	**BXG 304**
Communications Module	**BXG 901**

British Patent Number: 2555053.

*Google Maps is a registered trade mark of Google Inc.

Information in this document is subject to change without notice.

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