Automated Contaminant Source Location

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SAND2008-3913C

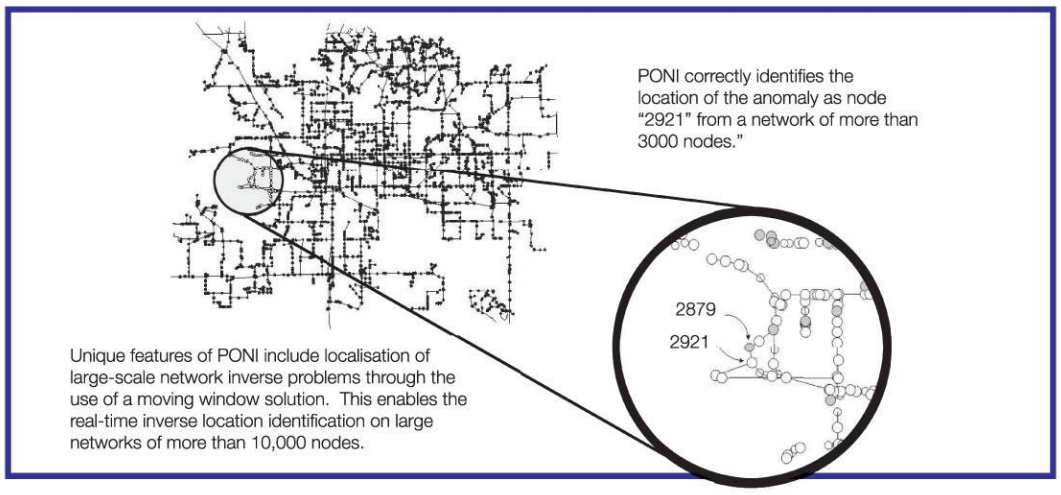
Sandia National Laboratories

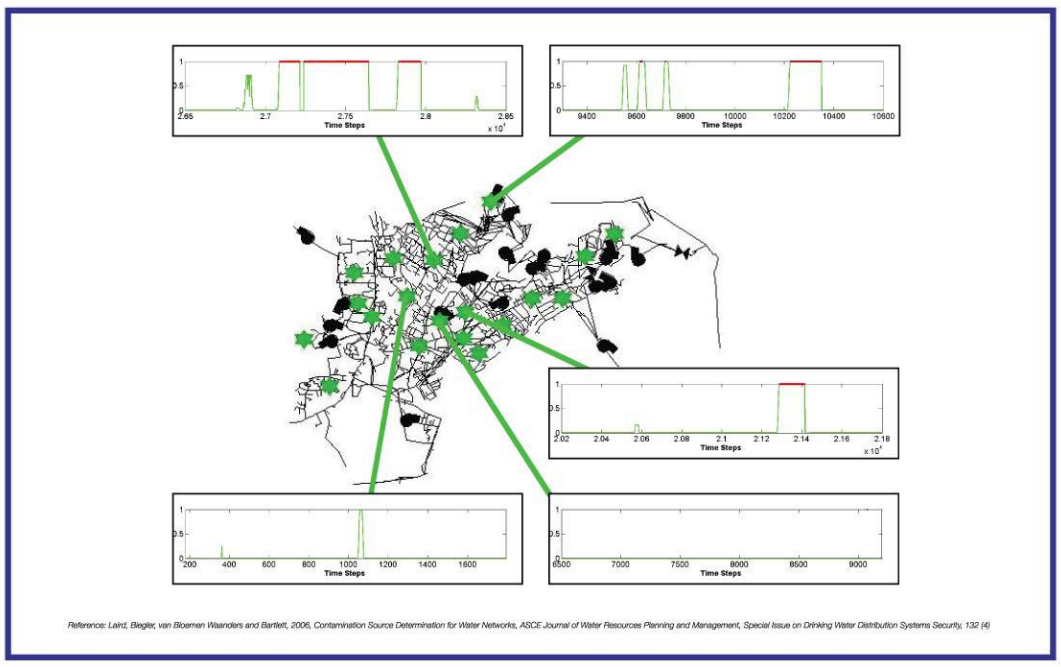
Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

Program for Online Network Inversion

The detection of anomalous water quality in a drinking water distribution network indicates the presence of a water quality event. However, it does not specify the location of the source of anomalous water quality.

The Program for Online Network Inversion (PONI) provides real-time, automated source location identification for water quality events identified by CANARY. This project will extend PONI to work with grab sample data and data quantifying clusters of consumer inquiries, to rapidly identify the location of anomalous water quality in the PUB distribution system. Historical data and simulated events will be employed to test this approach.





Advantages

1. Rapid and automated identification of the source location of the water quality anomaly

2. Improved reaction time to deal with contamination events during times of heightened security

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700 x 1800