Aquis – Water Network Management

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Current challenge

▲ Water distribution networks on average monitored and managed with a very low degree of automation and instrumentation

▲ Historical and real time data = Reactive control of the network

Very limited info in the HMI for 80% of the Totex
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Reduce water distribution risks and costs

Water Network Management

Aquis-WNM helps Operations Managers and Control Room Operators to **reduce the risk and cost** of managing the water distribution network.

▲ Identifies potential breaches in service (outages, low pressure, water quality issues…) in advance.

▲ Provides more data for real time decision making vs current limited view

▲ Created for operation - No hydraulic knowledge needed

▲ Adds predictive capabilities to your SCADA
Aquis - WNM uses existing data and systems

Data sources

- SCADA: Real time measurements
- GIS: Asset data
- Hydraulic Models: + Asset data
- Customer / Billing: Contact / Address

WNM

Outputs

- Expand real time control
- Prediction
Enhanced real time and forecasting supervision

- Forecast network’s behaviour: Reaches where SCADA does not get
  - Predicts service pressure, flows, water age, etc.
  - Discrepancies between the current and expected situation of the network
  - Detection of malfunctioning / inaccurate equipment

- Pollution source tracing – Early warning
  - Minimize reaction times and risks
  - Forecasts pollution spread
  - Identifies most likely area where it started
  - Customer warning
Effect of planned and unplanned activities

▲ What-if scenarios based on real-time data

▲ Planned - For example, valve isolation due to maintenance repairs.
▲ Better understanding of the impact before it happens

▲ Unplanned - For example, pipe break in a critical service area
▲ Identify criticality of the event and impact in expected service
In summary

- Reduces risks of levels of service breaches (outages, low pressure and water quality issues)

- Enhances real-time network supervision with full network view

- Transforms network management approach from reactive to proactive

- Builds on your existing software infrastructure and investments.

- Easy to use: SCADA operators do not require in-depth hydraulics knowledge
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