

# From Field Sensors to Actionable Insights

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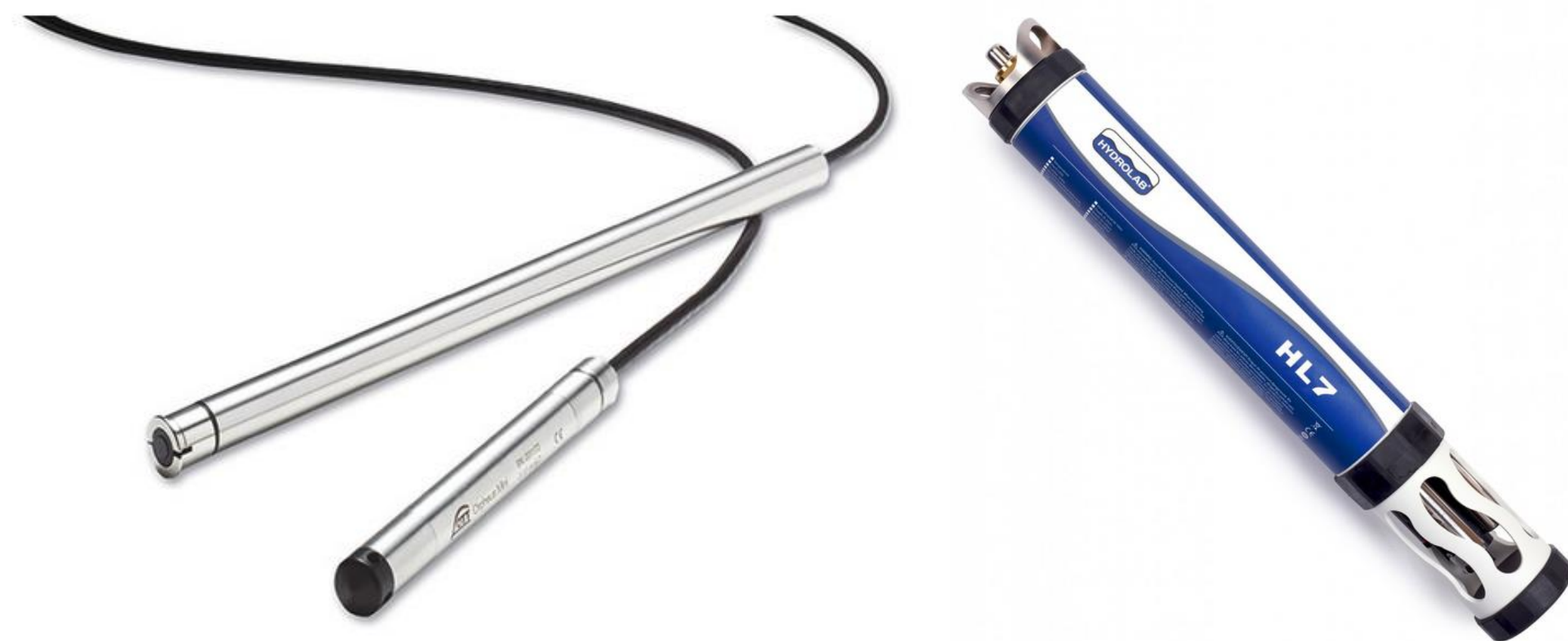
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## On-Site Logging

### ➤ Autonomous sensors

- Ability to measure continuously without an external controller or external power supply
- Internal memory for logging data
- *Pros:* Requires little infrastructure, equipment is portable
- *Cons:* Data retrieved in field, not suitable for long-term deployments



### ➤ On-site data monitoring stations

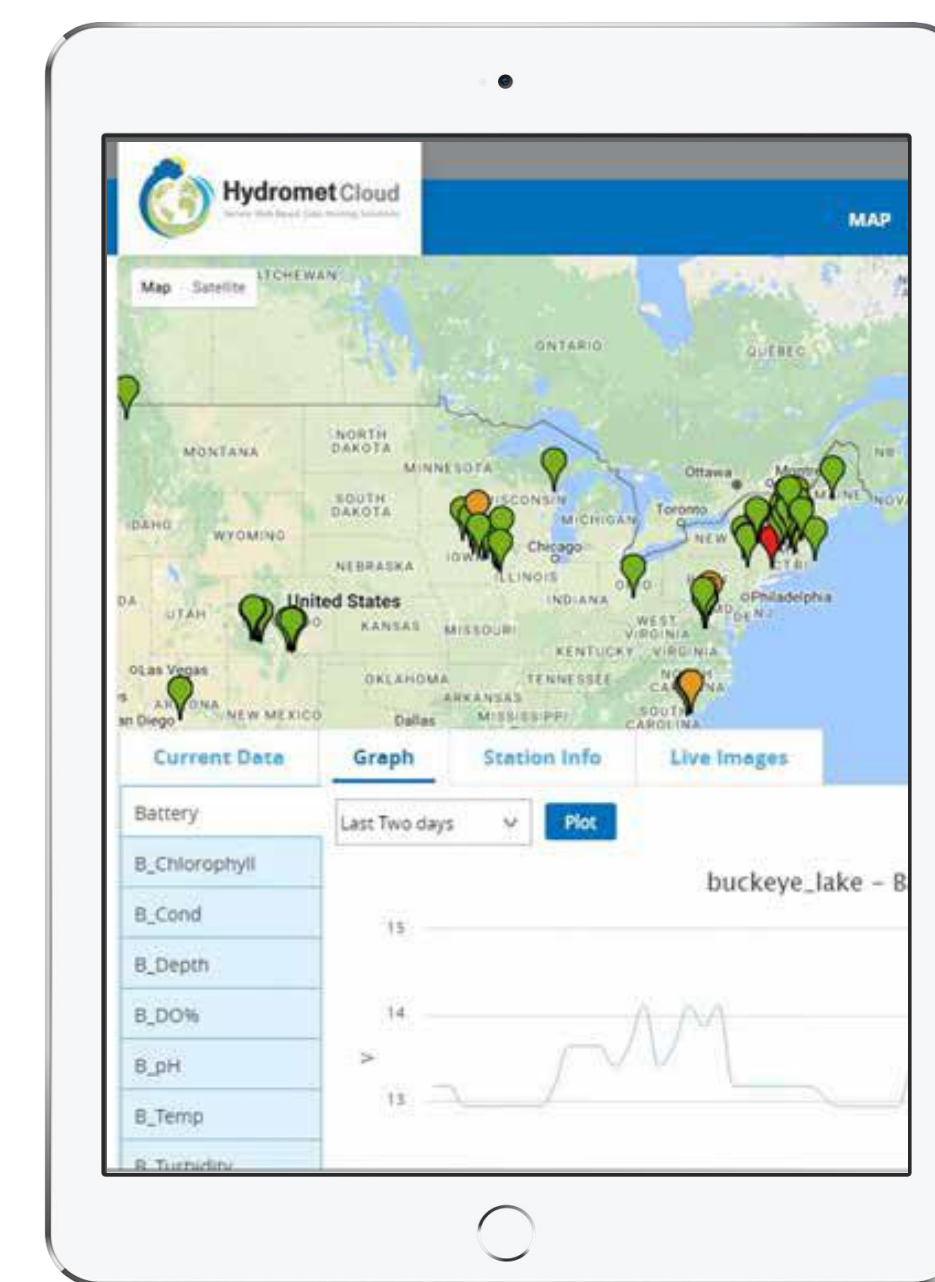
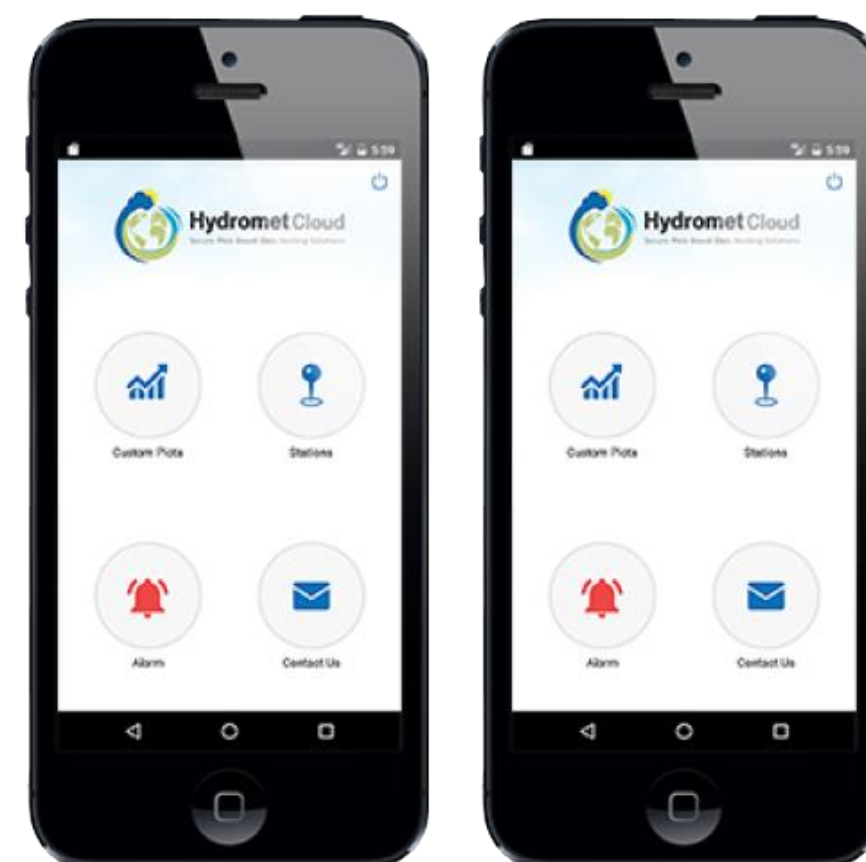
- Ability to measure continuously and integrate multiple sensors
- External power supply (solar panel, battery, etc.)
- Integrated or external datalogger
- *Pros:* Suitable for long-term deployments, modular/custom designs
- *Cons:* Data retrieved in field, additional infrastructure required



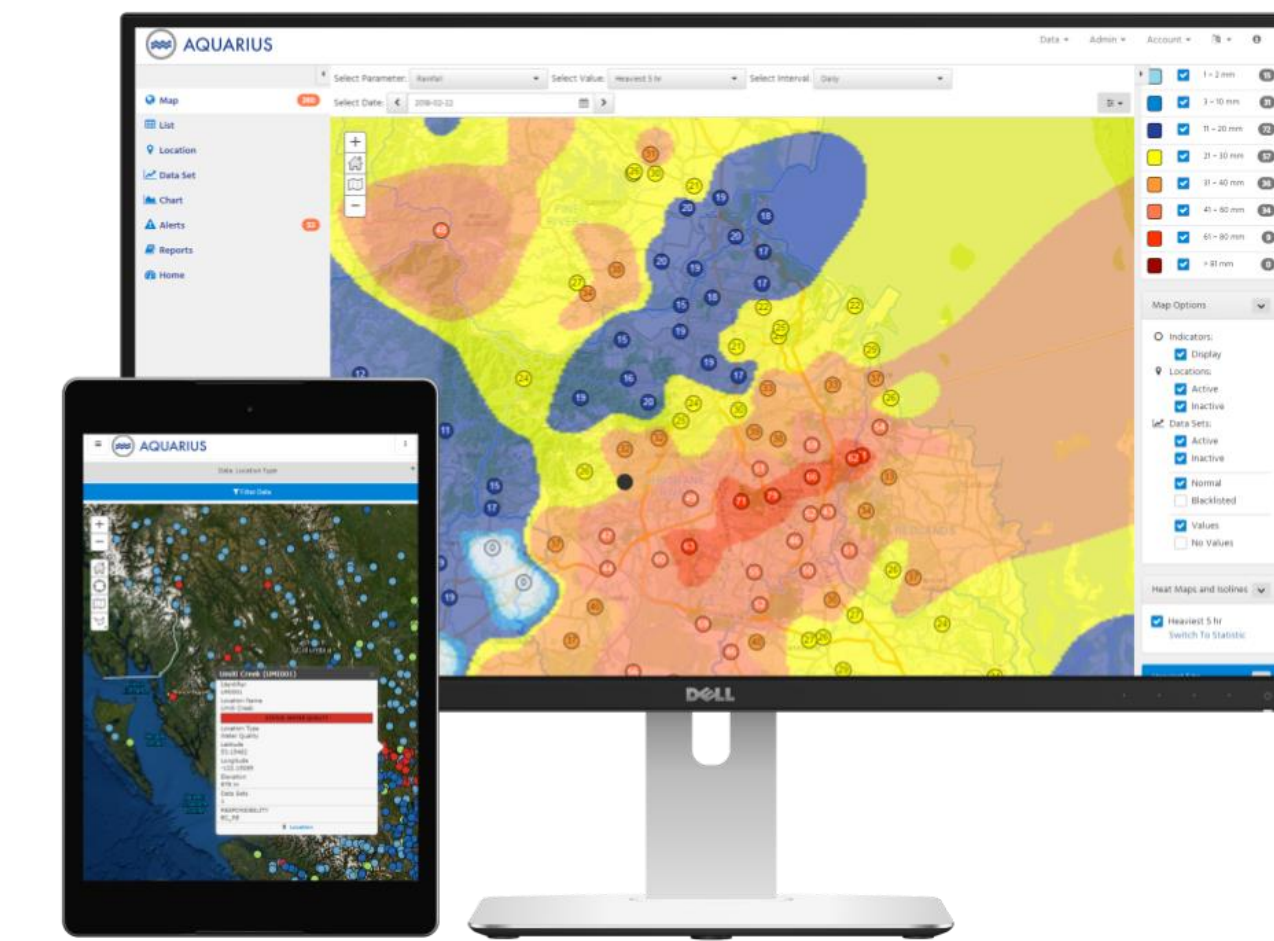
## Telemetry: Data Only

### ➤ Remotely connected

- Transmit data from the field to any device, and instantly publish to live public websites
- Remote two-way communication to configure equipment and monitor station status
- Transmissions through cellular (e.g. Verizon, AT&T) or satellite networks (e.g. Iridium, GOES)
- Real-time alerts via email, text message, or voice message



## Telemetry: Data Management



- Data Visualization
- Analytics
- Sharing
- Reporting
- Decision Support
- Alerting

Correct Signal Drift From Continuous In-situ Sensors

Easily Combine Field Visit Data with Continuous Data Sets



Apply Data Grades & Qualifiers

Lossless Data, Edits May be Reversed

Auto-Remove Invalid Data & Investigate Outliers

- Database architecture should scale to an organization's needs.
- Robust tools that compare historic time-series or discrete data with a defensible audit are required.