Central Event Management Solution for the Water Sector

A must-have layer for water utilities to increase visibility, increase operational efficiency, improve customer service, reduce water loss, and ensure the optimal use of resources.

TaKaDu is a global software provider of **Central Event Management** solutions for the water industry, empowering utilities to manage their networks efficiently.

Our automated cloud-based service enables utilities to DETECT, ANALYZE and MANAGE network events and incidents such as leaks, bursts, faulty assets, telemetry and data issues, operational failures and more. By converting raw data into knowledge using big data analytics, TaKaDu provides greater visibility and actionable insights.

TaKaDu helps utilities to manage their network events proactively as well as greatly improve their reactive ability. TaKaDu is currently deployed in 13 countries worldwide, including Australia, Brazil, Chile, Israel, Romania, Spain, and the US. Customers include water utilities of every kind: small, super-large, rural, urban, private and public entities.

Key Benefits

- Early detection of network events (e.g. hidden leaks, faulty meters)
- Predictive analytics to detect anomalies
- Field-proven, patented IoT analytics solution
- Easy-to-use GUI
- Fast deployment (few weeks)
- Effective insights for multiple operational functions
- Savings in energy and operational costs
- Integration with other IT systems
- Reduced leakages and supply interruptions
- KPI measurements

"Since deploying TaKaDu in our network, we have achieved $16 million in savings from hidden (underground) leaks and prevented 6.5 billion liters of water loss based on an annualized calculation."

George Theo, CEO, Unitywater, Australia

Central Event Management Layer

TaKaDu acts as the central layer of the utility's operations for all network events detected by its analytics engine as well as other external alerting systems (acoustic loggers, customer calls, and more).

The TaKaDu system also integrates with other IT systems, such as work order, CRM, call center and asset management systems, and other components as part of a comprehensive Smart City solution.

Data Driven Actions

TaKaDu helps to align **People, Processes, and Technology (PPT)** by breaking organizations' silos, prioritizing assignments (repairs and investments) and providing insights into network performance. Using raw data from multiple sources (online or offline), the TaKaDu system provides all the knowledge and information about each event (e.g. start time, magnitude, priority, location, owner, etc.). We help utilities detect problems early, reduce water loss, shorten repair cycles and improve customer service.

A cloud-based SaaS platform, TaKaDu brings important information in an easy-to-use, flexible and scalable solution. TaKaDu's patented technology is deployed in leading utilities worldwide and has earned notable commendations, including the World Economic Forum ('Davos') Technology Pioneer Award and a Harvard Business School case-study.

How Does It Work?

In a similar way to Asset Management, TaKaDu's Central Event Management integrates all the utility's network data layers into a single knowledge layer about events, including events detected by other systems. By aggregating different data types, from different sources and by using data analytics, TaKaDu detects significant events (behavior changes and potential issues), which is the first phase in the event's full life-cycle.

The system then enables the user to manage the event, make data-driven decisions, prioritize, communicate with other people and track event changes.

The system provides managerial dashboards, actionable insights and detailed reports to leadership teams, delivering improved asset management and regulatory compliance.
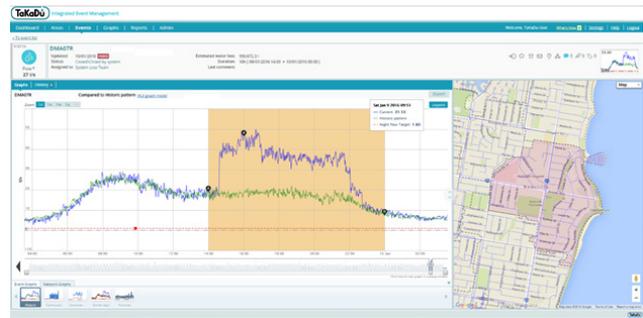
TaKaDu's Event Life-cycle Management – e.g. leak detection
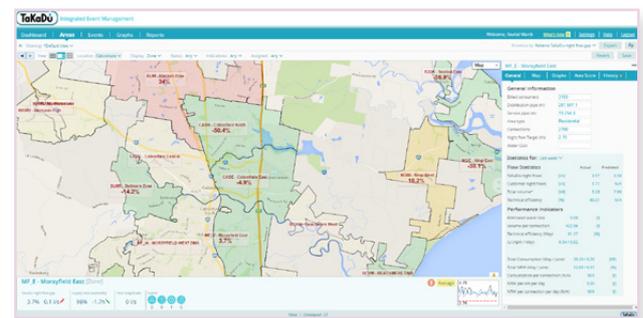
TaKaDu's Areas View – allowing utilities to visualize and analyze network performance on an area basis

TaKaDu's Management Dashboard – providing a strategic decision-making support tool

TaKaDu's Event Management
Greater visibility, leading to smarter decisions.

"Using TaKaDu enabled us to improve efficiency in our processes, increase visibility of our water services, and hence improve customer service. TaKaDu was a great achievement in our goal to provide our customers with a smart city strategy."

Félix Parra Mediavilla, Director General, FCC Aqualia, Spain

Central Event Management Solution
Key Highlights & Unique Characteristics

Core Technology Based on Big Data Analytics

- Statistic-based patented technology, which analyzes multiple types of data including: flow, pressure, water quality, reservoir level and any other data collected from the network

- Tailor-made algorithms for the water industry, fine-tuned over the last ten years working with customer data, for example predictive analytics for Pressure Reducing Valve (PRV) failure

- Core analytical engine based on anomaly detection. Anomalies – or events – are detected by using multiple statistical paradigms, including historical-based patterns of normal behavior and network-based predictions, by applying a correlation between similar zones

Central Event Management Solution = MANAGEMENT, not just Detection

- Supporting the event's full life-cycle from event detection, classification, and measurement of its characteristics (size, location etc.) to supporting information (user's comments, linkage to open work orders etc.) and repair verification

- Ability to prioritize operational activities based on events or different zones e.g. Event View vs. Area View, enabling predictive maintenance and planning, and optimal operational management on a short and medium-term basis

- Executive Management Dashboard allowing C-level managers to take decisions on planning, assets, KPIs, operational performance parameters, CAPEX and other long-term issues

- Ability to integrate network events (incidents) from several sources detected by TaKaDu's analytical engine and other external sources, such as acoustic loggers, pressure control systems, customer calls, etc.

- Fully integrated and powerful Business Intelligence Reporting Module (QlikView), enabling customized business reports

- Open platform for any external data source, or data exchange, for future integrations

Deployment and Setup

- Quick deployment without any on premise intervention: no hardware, software or customization needed. TaKaDu receives existing packs of data (network structure, historical data and GIS data) and undertakes a short setup process (4-6 weeks) from kick-off meeting until full deployment

- Integration with other organizational IT systems, for example: work order, asset management, CRM, GIS, etc. (optional)

SaaS Business Model (Software-as-a-Service)

- SaaS business model which does not require any CAPEX

- Cloud-based solution: no integration with any on premise IT network or security issues

- Updates and upgrades every few weeks for all users, available free-of-charge

Worldwide Customer Base

- Over 10-years industry experience

- Operational in 13 countries, spanning Australia, Europe, the Far East, South America and the US

- 30 utilities across the spectrum: public – private, urban – rural, small – large