Key Features

Sensor Data Management
Integrated with the SCADA and GIS
GIS-MAP based Visualization
Cloud-based Delivery
Leakage Detection
Customer Analytics
Water Balance
Smart Alerts (Email, SMS)
Interactive Dashboards
Mobile Friendly

Getting Started

DataIntel™ is delivered through Visenti's secure Cloud; so don't have to invest in any servers or storage. Alternatively, it can also be installed on your own servers.

We will do the setup for you: integrate your sensor data as live feeds into DataIntel™, setup live analytics for you, and help you setup various dashboards, periodic reports, and anomaly alerts.

And as always, you pay as you go.

Talk to us…

Visenti Pte Ltd, a spin-off from MIT, is focused on supporting pipe network operators in monitoring their infrastructure and optimizing their operations. Visenti integrates patent-protected hardware, wireless data transmission and software services. The core technical team of Visenti bring tens of years of experience in pipe network hydraulic analysis, software systems and embedded sensing that is complemented by operations and execution expertise, and an expert advisory board from MIT and Technion.

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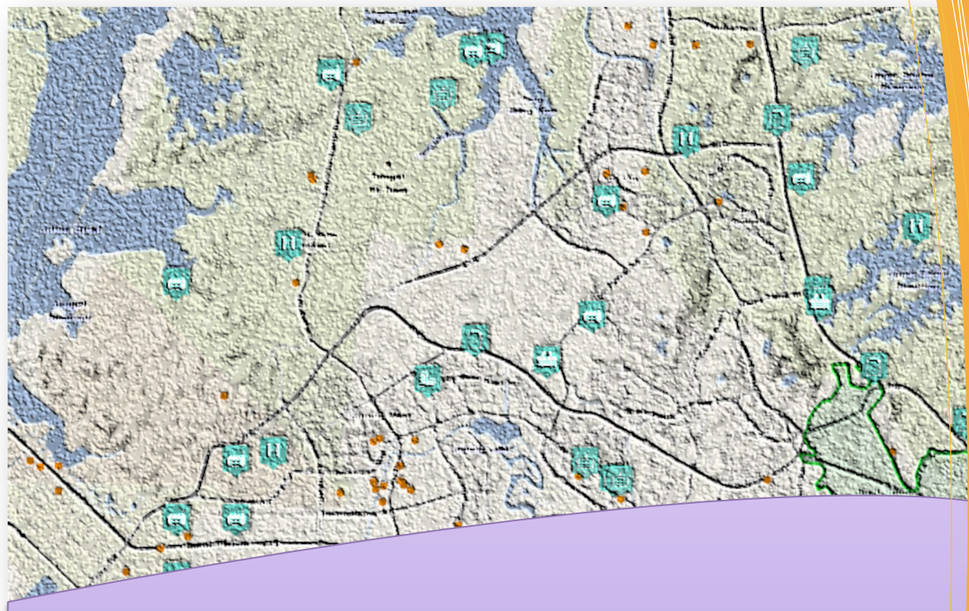
visenti



DataIntel™

Data Management & Automated Analytics 24/7

DataIntel™ Analytics at Work for You

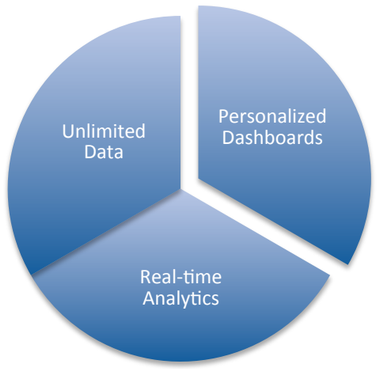
Data Management and Analytics at their Best

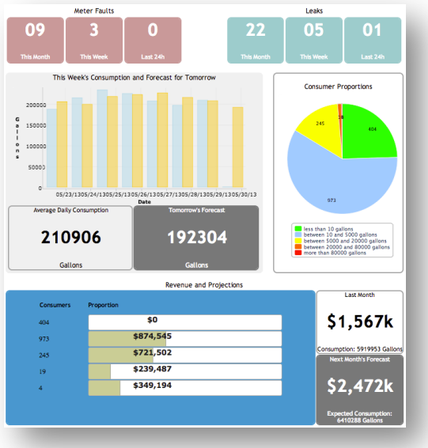
DATA MANAGEMENT AND ANALYTICS TO KEEP AN INTELLIGENT EYE ON YOUR ASSETS

Visenti's data analytics solution mines through the data supplied by a variety of sensors installed on water systems (flow, pressure, water quality, automated customer meters). It provides a wide range of real-time analytical capabilities to monitor, detect and notify on anomalies related to pressure variations, night flow, water quality issues, demand fluctuations and consumer-level Non-Revenue-Water (NRW) tracking for revenue protection.

BIG DATA MANAGEMENT FOR WATER

DataIntel™ supports integrating data from any data source, with unlimited number of sensors and at any rate (up to thousands of samples per second). It supports many sensor types (pressure, flow, water quality, acoustic etc.) with the ability to load data in directly from databases, SCADA systems, manual uploads, handheld field devices and even from drive-by systems.

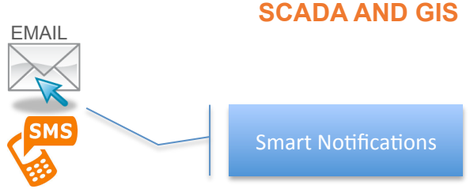




VALIDATION ESTIMATION AND EDITING (VEE)

Accurate analytics begin with accurate data. Our comprehensive VEE module ensures that data captured from sensors is validated and missing data estimated before analytics are carried out. A user-friendly interface is provided to flag sensors that provide invalid data in real time. Our VEE system learns the normal/good data from each sensor to automatically correct invalid or fill in missing readings. Users are provided with the option to edit these automated estimates.

INTEGRATED WITH SCADA AND GIS

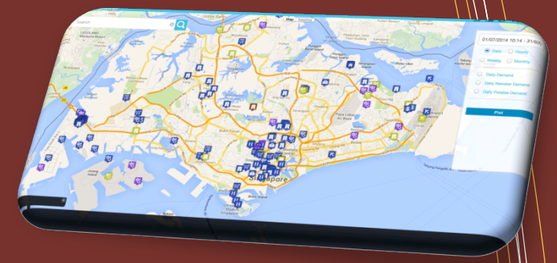


ADVANCED ANALYTICS 24/7

DataIntel™ allows setting up analytics as directed by users on any data series such as Pressure, Flow, Level, Pumps, Water Quality and AMRs. These analytics are carried out as soon as the data is delivered to DataIntel™ and notifications are sent to the subscribers via Email/SMS in real-time. Examples of analytics that can be set include, but not limited to, tracking set point violations on pressure/flow, detecting longer term baseline shifts in flow/night-flow, detecting trend changes in water consumption, detecting increased salinity or loss of disinfectant to indicate water quality issues, and detecting sensors that are offline.

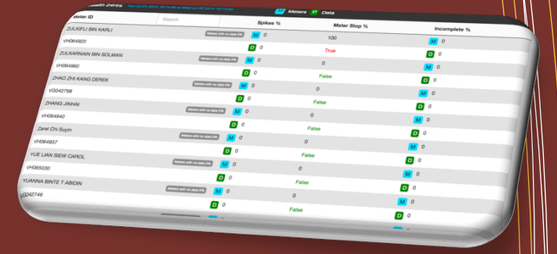
GIS INTEGRATED

DataIntel™ is integrated with the map-based GIS system that shows the geographical locations of sensors on an interactive map and overlays assets such as pipes, valves and hydrants on the map. The GIS system can be any of the industry standard mapping system. It allows the user to locate the sensors in the locality, identify geographical landmarks and roads. For AMRs, it allows identification of building structures of customer premises and find customers of a certain type such as hotels, schools, hospitals etc.



SENSOR HEALTH AND COMMUNICATIONS MANAGEMENT

DataIntel™ provides effective means to track the performance of the sensors network installed at all levels, ranging from sensor failures, issues with actual readings sent by the sensors and the health of the communications network.



CONSUMER-END LEAKAGE MANAGEMENT

Through dedicated analytics on AMRs, DataIntel™ learns the consumption patterns of consumers and determines the expected consumption on various trend scales such as daily, weekly, monthly, seasonal and yearly. Sophisticated algorithms are then applied to detect anomalies in consumption such as:

- Top-N Accounts Revenue Protection
- Usage on Inactive
- Unreported Usage
- Night-flow Tracking

DMA WATER BALANCE

Where flow meter data is available from the boundaries of a District Metered Area (DMA), DataIntel™ provides a very comprehensive system for water balance for the purpose of detecting possible leaks inside the DMA. Since the accuracy of water balance based leak detection depends upon the accuracy of the flow meters, our system provides intelligent estimates for faulty or missing flow meter readings, taking into account the consumption patterns and weather effects in the DMA.

DataIntel™ pre-processes the flow meter data and compares that with the total consumption in the system. A growing disparity between the two measurements is first corrected by taking into account faulty meters before any alarm is raised. This smart water balance approach helps in dramatically reducing the number of false positive alerts.