



THE DATA INFLUX

Transforming Data Overload into Business Insights

Gary Wong,
Principal, Global Water Industry, OSIsoft

IIoT
Silos
Assets
OPEX
Sensors
Conservation
CAPEX Meters
Energy Footprint
Big Data
Water
Infrastructure
Water Distribution
Consumption Flooding Leakage
Energy Management
Geospatial Drought
Real-Time Data
Water Quality
Wastewater

Introduction

“We have too much data” is the refrain we continually hear from water utilities. It’s no surprise that managing data from multiple sources and turning it into business insights presents a daunting challenge; however, data influx does not have to be a burden. When managed well, there’s no such thing as too much data, especially if your business is implementing a big data strategy – a topic that has implications and reach beyond the scope of this paper.

Before implementing a data strategy, you need to “walk before you run” and consider all sources of data that impact your business. The opportunities afforded by successfully managing data influx are enormous and include reducing water leakage, proactively managing aging infrastructures, and cutting energy costs.

Transform Data to Impactful Actions:

- Detect leaks faster
- Maintain and operate assets optimally
- Maximize investments
- Improve conservation
- Reduce energy costs

How to Take Advantage of the Data Influx

With automation and control systems in place, the water industry has dealt with some form of data overload for decades. Yet today, data is growing exponentially with a barrage of new data sources: smart meters, geospatial, weather, social media, and the boon of connected devices related to the Internet of Things.

No matter your role in the organization, you can transform your world with actionable information. The secret is empowering key stakeholders at every layer of the organization to effortlessly access data to better understand their systems, identify trends and gain actionable insights into real-time operations. The result is a transformation from reactive, data-driven decision-making to real-time, proactive decision-making.

The Data Influx Opportunity for Water Utilities

- ✓ Reduce Leaks
- ✓ Conserve Energy
- ✓ Prolong Asset Life
- ✓ Improve Customer Relations
- ✓ Reduce Operational and CAPEX Costs

Best Practices for Empowering People with Data

1

Replace short-term data initiatives with long-term strategy

Knee-jerk reactions and quick data fixes cost money in the long term and create complexity for accessing, sharing and interpreting data.

Optimizing the value of data requires a strategic initiative that ensures the whole organization can access and understand data to gain insight and make it actionable.

2

Focus on solving priority business issues first

Once a data strategy is set in place, often companies can stumble by trying to conquer too much at once. Focus on immediate needs and quick wins while building a strategic data infrastructure in parallel. At first, you may want to utilize your resources to mitigate leakage or reduce electricity costs in the water distribution system. Quick, tangible wins can deliver immediate value, help drive momentum, and act as building blocks for success across other organizational areas of the business.

3

Connect business insights with operational insights

Transformational data spans the entire business, from information technology (IT) systems to operational technology (OT) systems. Today, many utilities miss the opportunity to connect business information with operational information, which impacts the bottom line.

Whether trying to take advantage of real-time SCADA information with GIS, weather forecasts, financial data, or a myriad of other data sources, the collaboration between operations and IT is an untapped opportunity. By aligning IT and OT, utilities can take advantage of a full range of available data to transform operations.

4

Break down silos with a data infrastructure

Empowering people with a wider range of data and enabling a self-service model for operational intelligence requires a strategic data infrastructure approach. While SCADA plays a role, there are better ways to manage, combine and share data across the organization in a meaningful and efficient way.

A data infrastructure strategy enables the governance needed to standardize capturing, accessing and sharing of data across the organization in a reliable, consistent and meaningful way. By bringing together data previously locked in silos, organizations ensure that everyone is working from a single source of the truth and has access to meaningful information in real-time for proactive and actionable insights.

Requirements for a Data Infrastructure to Support a Successful Data Management Strategy

- Connect openly and easily to any data source, regardless of system, network, or sensor
- Easily configure easily without computer programming
- Deliver contextualized information when and where it is needed
- Provide full resolution data for rapid trouble-shooting

With a strategic data infrastructure that handle data velocity, volume, and a variety of needs, organizations gain the operational flexibility and agility that will impact the business today and in the future – no matter what new data sources and business needs arise.

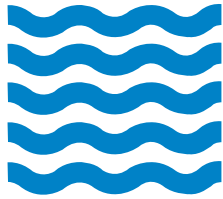
The PI System™ from OSIsoft Enables Utilities to Flexibly and Efficiently Manage the Entire Water Lifecycle



People can transform the world with easy access to contextual, actionable information.

Water Utility Transformations with a Data Infrastructure

Water utilities around the world rely on the PI System, a real-time data infrastructure from OSIsoft, to successfully manage large volumes of data and drive tangible business value:



Veolia Eau (France) reduced energy costs by 6% and improved leak detection by 7%. [Watch now](#)



Halifax Water (Canada) reduced water leakage by 40M litres per day, saving C\$600,000 annually.

[Learn more](#)



Yorkshire Water (UK) realized nearly £1M in energy savings within 12 months. [Learn more](#)



City of Calgary (Canada) uses data to improve flood predictions, mitigate risks and alert first responders.

[Learn more](#)



Water Corporation (Australia) estimates that it prevents \$1M in lost reputation. [Learn more](#)



Colorado Springs Utilities (USA) experienced a 30% reduction in resource allocation. [Watch now](#)



To learn how our customers leverage data successfully, visit: www.osisoft.com/corporate/waterutilities

About OSIssoft

OSIssoft, a global leader in operational intelligence, delivers an open enterprise infrastructure to connect sensor-based data, operations, and people to enable real-time and actionable insights. As the maker of the PI System, OSIssoft empowers companies across a range of industries in activities such as energy, exploration, extraction, production, generation, process and discrete manufacturing, distribution, and services to leverage streaming data to optimize and enrich their businesses. For over thirty years, OSIssoft customers have embraced the PI System to deliver process, quality, energy, regulatory compliance, safety, security, and asset health improvements across their operations. Founded in 1980, OSIssoft is a privately-held company, headquartered in San Leandro, California, U.S.A, with offices around the world. For more information visit www.osissoft.com.

Many ways to reach us

Follow |   

Call | +1 510 297 5800

Email | sales@osissoft.com

Visit | www.osissoft.com/corporate/waterutilities

About the Author

Gary Wong,
Principal, Global Water Industry, OSIssoft

Gary Wong has extensive international experience providing sustainable, strategic and cost-effective business solutions, particularly in the water industry. Prior to joining OSIssoft, he has held positions with Metro Vancouver and as a consultant directing both public and private sectors on sustainability, IT strategy, planning, operations, and engineering. Mr. Wong holds a Bachelor's Degree in Chemical Engineering, is registered as a Professional Engineer in Computer Engineering, holds an M.B.A. from the Queen's School of Business and is also a Certified Management Accountant.

Email | gwong@osissoft.com