



IWN Flagship Data Management Solution

Standard offer to bring IWN flagship benefits to the broader water community

Through our relationship with IWN and understanding of water corporation's needs, a standard offer has been secured to allow participants to gain the benefits demonstrated by the OSIsoft™ PI System™ and ultimately to deliver a world-first community data model showcasing Victorian innovation.

Executive Summary

The IWN Flagship program focussed on big data management with a broad aim to identify, trial and evaluate data solutions leading the Victorian water industry into the future.

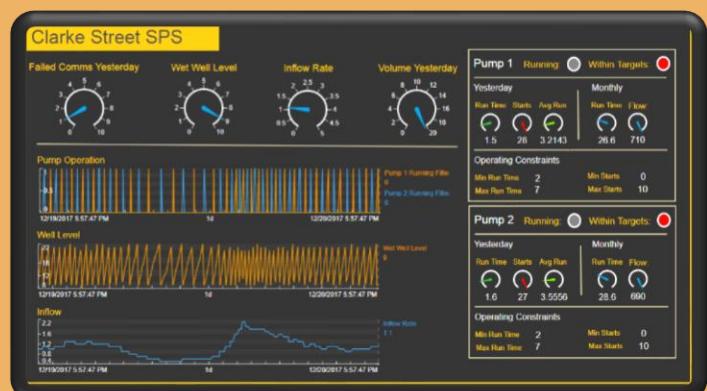
OSIsoft and GTS showcased the PI System, already widely used in the water industry, but with a unique community data architecture.

The vision is for a flexible data platform giving individual participants control, but with a shared data repository in the cloud providing DEWLP with independent access to industry data as well as centralising and standardising analysis heavy lifting.

The potential benefits to participants include:

- A shared platform with common analytics developed once and shared by all
- Reduced effort in collecting and processing data from systems, emails, files and 3rd parties
- Reduced asset maintenance and operational costs
- Reduced risk of spills or outages
- Improved customer experience

Following the successful trial, OSIsoft and GTS now offer a unique opportunity for water corporations to subscribe to this world-leading platform and utilise the GTS Water Applications originally developed for the IWN Flag ship Data Management Solution.



**An IWN cloud analyses
and reporting service**

**Greater operational
insight and efficiencies**

**Simplifying complex
data management**

**Sharing IP and services
across the water
industry**





The flexibility of the PI System™ to integrate data from anywhere and allow users to define analyses and displays allowed the solution developed for the IWN to solve diverse business challenges.

Features

Overview

The solution developed for the IWN is built on OSIsoft's PI System providing a world-leading data infrastructure, offering performance, reliability, scalability and remarkable flexibility.

This flexibility is a key and crucial feature. To have an open data model, the ability to implement user-defined analyses and displays and to be able to interface with virtually any system and data source allowed the flagship to showcase solutions to diverse business challenges.

ESC Reporting

A common challenge described by participants was the time-consuming manual process to collate and deliver reports for DEWLP, and the fact that the performance against KPIs is difficult to measure. We demonstrated capturing relevant data and dashboarding these critical KPIs in real time as well as simplifying reporting into Excel taking out most of the effort and providing useful insight to staff.

IoT Devices

As water corporations explore the benefits offered by IoT devices, the need to protect, manage and use the data these provide is increasingly important. We showed the capabilities of the PI System to collect and integrate data from any device on any network simplifying data management and maximising potential benefit.

Asset Monitoring

Analysing asset operation beyond the scope of control systems plays an important role in effective and efficient asset and maintenance management. We leveraged the flexibility of the PI System to build analyses that showed operators pump performance and operation details in real time.

RDII

Rainfall infiltration can have a significant cost to water treatment operations but is often difficult to analyse and the effects of remediation difficult to measure. We showed that an industry standard calculation could be implemented that exposed RDII impact allowing analysts to identify worst affected catchment areas and to assess remediation efforts.

Water Quality

Maintaining water quality within safety targets is a core function but managing and consuming water quality data can be a challenge. We showed that the PI System can receive files emailed from laboratories, automatically load these files, evaluate against targets and raise alerts; as well as giving analysts greater ability to gain tactical and strategic knowledge from the data through dynamic dashboards.





The solution developed for the IWN demonstrated significant data management efficiencies, operational and maintenance savings, and the substantial benefits of a communal system accessible by all subscribers.

Benefits

Efficient Data Management

The benefits of making decisions informed by quality data will be self-evident and indeed all participants in the IWN flagship were all actively seeking to collect and analyse data in order to do so, but were hampered by inefficiencies preventing timely data insight and reducing effectiveness of existing tools.

A fundamental and immediate benefit of the solution developed for the IWN is the elimination of inefficiencies by automating the capture, analysis and presentation of data:

- Manual processes are eliminated allowing staff to play a more valuable role
- Data is accessible in real time to be consumed when and where it's needed, enabling tactical decision making
- Data history is stored indefinitely and easily accessed through dashboards or shared with existing BI tools to support strategic decision makers

Operational Intelligence

The business challenges addressed by the IWN flagship demonstrated to participants the potential to progress beyond the limitations of their current systems to explore and realise the benefits of moving towards condition-based maintenance or evaluating the effectiveness of maintenance activities.

The solution developed for the IWN empowers participants with the right tools to gather the required data, analyse it, visualise it, raise alerts with it, and even integrate with other systems to automate maintenance workflows.

A medium-term benefit of the solution developed for the IWN is that it facilitates these initiatives as demonstrated by the pump operation, pump performance and RDII solutions.

For example, users will easily identify when an asset is operating inefficiently and can elect to continue to do so or carry out maintenance (as opposed to performing scheduled maintenance). This enables users to make more effective decisions and potentially create savings.

Asset managers have access to long term data to evaluate performance of specific manufacturer's or models to better inform capital replacement decisions.

Asset managers can compare asset performance before and after maintenance activities. This enables measurement of the effectiveness of the maintenance and facilitates determination of the maintenance activity which may have introduced a problem that would otherwise go unnoticed.

Similarly, for challenges like RDII, analysts can point to which catchment areas are adding the most cost to water treatment to allocate effort to the right areas; and can measure the effectiveness of remediation to make decisions about whether to change remediation approach.

Community Solution

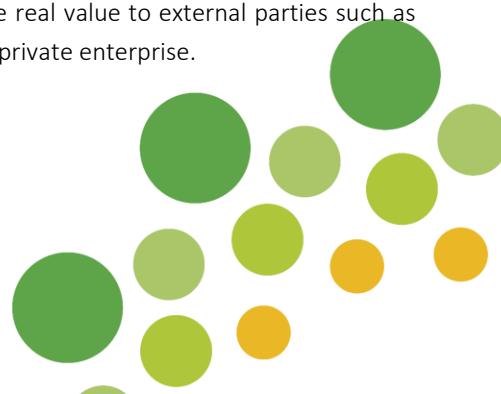
The final category of benefit lies in the community nature of the solution developed for the IWN. If every water corporation were to independently implement solutions to challenges in common with others the cost overall would be an order of magnitude higher than a single solution. This communal approach can therefore be demonstrated as a saving to the customer

The solution doesn't take away the independence of each water corporation but does provide a shared platform allowing common components to be built once and shared by all.

We imagine a world first cloud component jointly managed by the water community with ongoing refinement and development undertaken for the benefit of all participants generating millions in savings for the Victorian water industry.

Ancillary benefits of creating this state-wide repository are that DEWLP may have independent access to data allowing them to self-serve ESC data or to run their own analyses.

Building a comprehensive state-wide water industry data repository may also have real value to external parties such as academic institutions or private enterprise.





IWN has negotiated a substantially reduced price to establish a foundation PI System™ allowing participants to gain the clear substantial benefits of the tools already developed.

About

GTS Group Australia Pty Ltd.

GTS was founded in 2011 with the aim of being Australasia's first choice for real-time data management services through the core principles of building lasting relationships and providing exceptional services.

Our team of over 25 highly skilled Engineers represents the best of the best; not only Australasia's largest specialist team in Real-time Data Management and Systems Integration, but also the most accredited OSIsoft integration partner based in the region.

GTS provides a diverse range of services from consulting and business case development through to post-implementation support.

We offer our customers:

- A respected and trusted integration partner with expertise in all aspects of real-time data management solution implementation
- Specialist skills in a wide range of technologies and software platforms, in particular OSIsoft's PI System
- Expertise in software design and development
- A strong customer focus with excellent performance supported by customer testimonials
- A well-established support framework currently providing 24x7x365 support for our solutions nationally
- A focus on quality, backed up by ISO9001 accreditation overseen by a quality manager
- Demonstrated ability to support innovation
- Partnerships with best of breed global technologies

GTS has a passion for seeking out opportunities and innovations that unlock the value in your data and create success for your enterprise.

For more information, visit www.gtsgroup.com.au.

OSIsoft.

With the belief that people with access to data can transform their world, OSIsoft created the PI System to capture and store real-time sensor-based data. For over 30 years, OSIsoft has delivered the PI System with the singular goal of connecting people across operations to data and operations.

Today, the PI System is embedded in critical infrastructure and involved in some of the largest data initiatives around the globe. Sixty-five percent of the Global 500 process companies use the PI System to help transform operations. Our customer base includes Fortune 100 and Fortune 500 companies in power generation, oil and gas, utilities, metals and mining, transportation, critical facilities and other industries.

OSIsoft remains faithful to its original mission – to push the edges of innovation and create software that brings high fidelity data from disparate operational sources to people in all corners of our customers' enterprises – wherever, whenever and however it is needed.

For more information, visit www.osisoft.com.

