



Tigernix Smart Water Asset Solution

Bringing Industry 4.0-powered Water Asset Innovation to
your Fingertips

BROCHURE

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Solution Synopsis

Tigernix introduces the Smart Water Asset Solution suite, specially developed for municipal water service providers around the globe and in Australia. This innovative suite offers comprehensive visibility into global water management, building its foundation on the three main pillars: performance, risks and costs. Powered by industry 4.0 tech like AI, Digital Twin, IIoT, and analytics to ensure a smooth flow of water asset performance, prioritising ESG (Environmental, social, and governance) metrics and adding social and environmental responsibility into the water asset industry.



Scalable Solution

- Optimised Catchment Management
- Track, Trace and Analyse Treatment Operations
- Smart Distribution Infrastructure Models
- Scalable Till Reticulation (Consumer Taps)



Eco-Conscious Commercialisation

- Maximised Energy Efficiency
- Reduced Chemical Usage
- Smart Sensor Integration
- Reduced Carbon Footprint
- Sustainable Infrastructure Development



ESG Metrics

- Water Conservation Efforts
- Sustainable Resource Management
- Community Health Impact
- Environmental Compliance Standards
- Corporate Governance Practices
- Wastage Management



Overall Optimisation

- Unified Visibility under One Screen
- Wise Asset Investment Planning
- Employee Allocation Aligning with Skills and Availability
- Gathering, Analysing and Simulation Dynamic Events
- Predictions Based on Historic and Real-Time Data

Statistics



\$1.4 billion expenditure per year on reactive water asset repairs and maintenance in Australia



Save \$700 million on reactive repairs and maintenance



80+ years old pipelines in Australia



No safe drinking water for 2+ Billion people around the world



25% of global facing dam failures



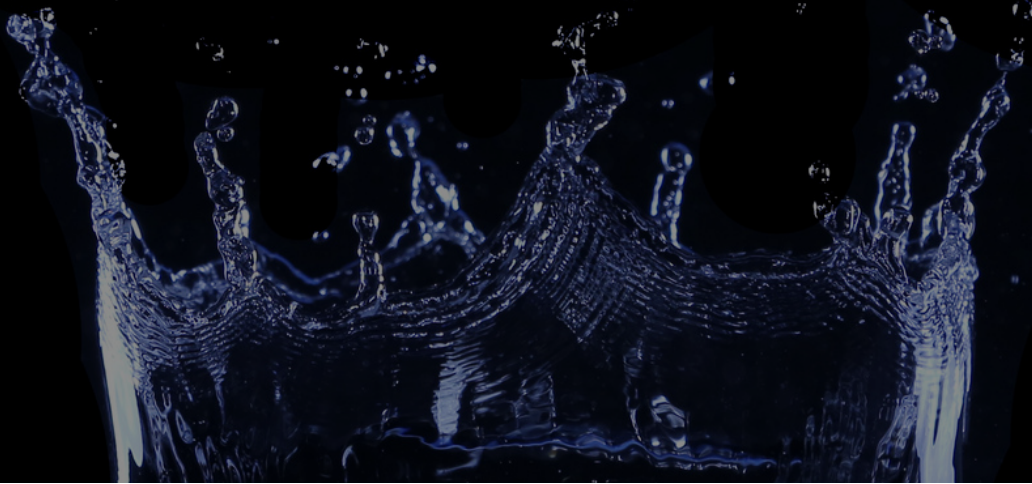
79+ million megalitres of industrial water consumption in Australia



1.8+ million megalitres of household water consumption in Australia

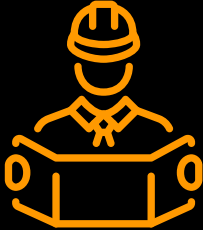


2.2% of population increment rate per year in Australia



Stakeholders

Asset Managers



- Early Detection of Leaks and Failures through Data Analytics
- Enhanced Overall Monitoring
- Proactive Responses to Issues
- Adherence to Water Quality Standards
- Minimising Risks to Infrastructure and Environment

Leadership Teams



- Strategic Decision-Making based on Justified Information
- Reduction of Costs through Pre-Planning of Asset Investments
- Avoiding Penalties for Breaching of Regulatory Standards and Obligations
- Better and Optimised Service Provision to General Public
- Future-Proof Readiness for the Upcoming Industry Challenges

Community



- Uninterrupted Water Supply
- Economic Stability through Commercial Growth
- Community Well-Being without Disruptions
- Disaster Readiness through Knowledge-Sharing
- More Focus on Responsible Water Usage
- Guaranteed Safety and Risk-Free Public Health

Digital Capabilities

Tigernix Smart Water Asset Solution is a consolidation of diverse Industry 4.0 capabilities, which are dragged together into one dashboard to provide you with an overall view of your water assets from the dam to the reticulation. These powerful technological pillars take the three major aspects, performance, risks and costs, under their control and clear the road for the water asset managers and decision-makers to offer an unchallenged and smooth water supply to the general public while making sustainability a main concern. With these 14.0 digital capabilities, the personalisation of your water asset systems, boosting ESG sensitivity and high levels of resilience to dynamics have become beneficial entailments.



GIS



IoT



**Cloud
Computing**



Big Data



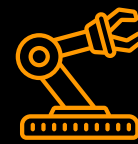
**Predictive &
Prescriptive
Analytics**



5G



Simulation



**Robotic
Automation**



AR & VR



Digital Twin

ESG-Sensitive Metrics You Can Track ...

- Energy Efficiency
- Pollution Prevention
- Sustainable Practices
- Data Security
- Ethics
- Regulatory Compliance
- Labouring Standards
- Green Infrastructure
- Waste Management & Recycling
- Compensation



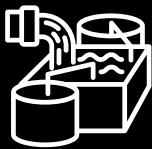
Tigernix Smart Water Asset Solution

Catchment Asset Solution



Having the capacity to offer interactive and intuitive visualisation of the health, performance, potential, and impending events of your catchment infrastructure, Tigernix Catchment Asset Solution embraces sustainable water management practices. The main focus of this solution is enhancing water quality and quantity, aligning with the demand of the rising population from residential to industrial use through its infrastructure and ecological resilience.

Treatment Asset Solution



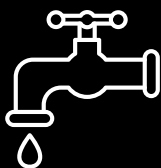
Tigernix Treatment Asset Solution is a redefined technological approach to getting rid of all the treatment asset-related obstacles aligning with the industry standards and the highest demand for quality-maintained water. This system streamlines treatment operations, boosting efficiency and performance allowing proactive maintenance for reduced asset-related and financial disruptions to ensure maximum performance within the treatment facility.

Distribution Asset Solution



Tigernix Water Distribution Asset Solution is a blend of advanced technological answers to address the challenges faced when the water distribution infrastructure is concerned. As this system is enriched with four analytical and managerial capabilities, it ensures a well-ordered flow of distribution asset management, maintenance, and improved visibility which ultimately leads to powerful reliance. It backs up the efforts to ensure secure, chemical-free water distribution through advanced technology safeguarding distribution assets against ageing, downtime and financial barriers.

Reticulation Asset Solution



Tigernix Reticulation Asset Solution brings the need for the complex task of managing and optimising the flow of water service pipeline networks under one roof with its features to efficient management, pipeline integrity, early reticulation asset detection, proactive maintenance, error-less overall operational background, etc. The capability to enhance environmental mindfulness while making the water supply profitable is highly encouraged by the unlimited power of this robust software solution.

Catchment Asset Solutions



Catchment Protection

- Dam Modelling for Maximum Resilience
- Timely Screens for Catchment Infrastructure
- Covering All the Impactable Areas through GIS Mapping
- Powerful Insights for Risk Mitigation and Management
- Assessing the Impact of Activities Such as Deforestation and Land-Use Changes to the Dam Infrastructure
- Simulation of the Extreme Weather Conditions
- Assurance of Your Catchment Investment Using Capex Investment Profiles
- Parallel Adherence with Changing Government Standards
- Detection of Each Inch with Groundwater Sources Mapping Tools
- Smooth Lining Up with OEE standards
- Optimising Reservoir Health with Temperature, Dissolved Oxygen, pH, Conductivity, ORP, Turbidity
- Model-Based Prediction for Trends and Patterns
- AI-Driven Catchment Analysis Schedulers



Ensure High-Quality Catchment



Dam Wall Protection

- Digital Twin Inspection for Comprehensive Dam Wall Protection with Accurate Assessment
- Simulation & Impact Analysis Based on Events and Dynamic Conditions
- AI-Powered Predictive and Prescriptive Algorithms
- Cloud-Based Wall Protection Management
- AI-Driven Alert Systems & Investment Profiling

- AI-Powered Early Warning System Combined with IIoT Sensor Networks
- Real-Time Impact Analysis of Dam Walls and Water Level Prediction Tools
- Virtual Simulation of Prospective Water Levels and Consequences
- Swift Flood Threat Notification System
- Employee Simulator Tools for Flood Conditions



Predict Flood Level

Treatment Asset Solutions



Water Treatment Diagnostics

- Simplifying the Complexity in Treatment Processes
- Real-Time Asset Data Interpretation and Analysis
- Technological Probe into Asset Integrity
- Dispensing Treatment Equipment Guidance through Electronic Q&M Manuals
- Enhanced Treatment Facility Endurance Using Building Management Model

- Simplified Data Collection through Digital Twin Visualisation
- Technology-Powered Material Oversight
- AI & ML Powered Asset Deterioration
- Real-Time Operator Profiling for Treatment Facility Tasks
- AI-Based Critical Maintenance Scheduling



Water Treatment Maintenance System

- Data Anomaly Detection Automation
- Employee Training Modules for Varied Condition Understandings
- Investigating the Potential Impact Strength of Treatment Failures
- Surpassing Challenges via Extreme Case Simulations
- Enhancing Safety with Integrated Alarm Systems



Water Treatment Failure Analysis

- Cloud Backed-Up Collaboration and Communication Platforms
- Meeting ESG Standards via Automated Treatment Compliance
- Tech-Powered Dashboards for Comprehensive Treatment Overviews
- AI and ML-Driven Continuous Operational Flow Optimisation



Treatment Optimisation Technologies

Distribution Asset Solutions



Distribution Network Maintenance

- Live Monitoring via Digital Twin 3D Technology
- Pipe Leak Predictions through Data Fusion Enablers
- Hypothetical and Actual Simulation Modules
- Technology-Driven Concentrated Asset Renewal Plans
- In-Depth View through Pipe Valve Criticality Assessments

- Tech-Driven Fire Flow Capacity Boosters
- Integrated Data Analysis for BI-Decisioning
- Adaptive Water Network Redesign with Technological Input
- Strategic Energy Consumption Management Tools
- Optimised Flushing Strategies for Blockage Prevention



Distribution Network Performance Analytics

- Pipe Network Visualisation with 3D Modelling
- Smooth Water Distribution Flow with Smart Algorithms
- Statistical Models Driven Automated Pipe Configuration Tools
- Embedded Analytical Tools for Enhanced Reporting Capacity
- Unified View via AI-Driven Pipe Profile Dashboards



Pipe Monitoring

- Advanced Algorithm Encouraged Specifically Tailored Investment Profiles
- Avoiding Penalties Using Technology-Enabled Compliance Adherence
- AI-Driven Responsible Water Security Management
- Enhanced Employee Safety with Emergency Response Planning



Water Distribution Network Integrity

Reticulation Asset Solutions



Water Main System Monitoring

- Live Monitoring via Digital Twin 3D Technology
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Water Main Condition Assessment

- Pipe Network Visualisation with 3D Modelling
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Leak Detection And Control

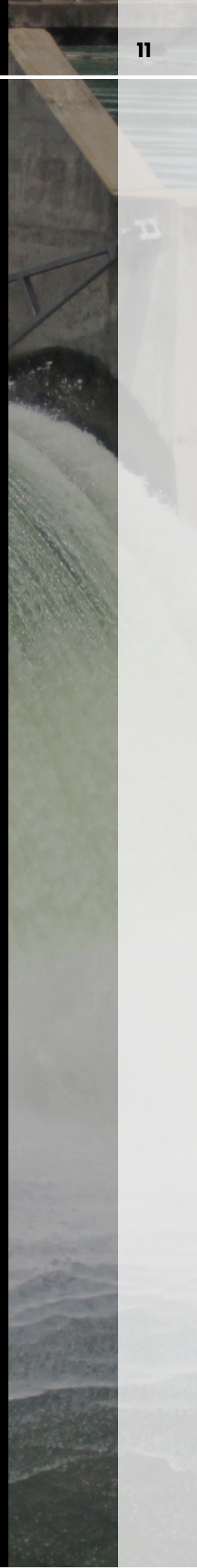
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Valve Management

You Are Strengthened with Tigernix

- ✓ Full-Scale coverage for catchment, treatment, distribution and reticulation
- ✓ Bringing consolidated I4.0 technologies together under one roof
- ✓ Surpassing conventional limitations to address rising water demand
- ✓ Full coverage for each industry aspect under one solution saves money
- ✓ A comprehensive look into the potency of failures under a singular view
- ✓ Striking the Balance balance between finances, budget and regulations
- ✓ Smooth and unchallenged flow of performance, risks and costs
- ✓ Gaining a financial upfront while adhering to the ESG standards



Why Trust Us?

SINCE 2006



5+

Countries Served



17+

Years of Experience



10+

Smart Asset Suites



55+

Employees



5+

Industrial Domains



10+

Digital Capabilities



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