



Making Sense Of Data & Addressing Cost of Implementation Challenges
GLOBAL SMART WATER METERING & INTELLIGENT DATA UTILISATION CONGRESS 2024
Demonstrating ROI – Engaging Customers, Reducing Leaks & Addressing Climate Change

Congress: 6–7 March, 2024 Plus Workshops
Live In London, UK & Online

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DAY 1 – STRATEGIES FOR ENSURING DATA DELIVERS VALUE AND ADAPTIVE PLANNING

Evaluate The Total Investment In Obtaining Metering Data – Cost Analysis & Evaluation Methodologies

Streamlining Processes For Insightful Data Application – Optimizing Data Analysis Processing For Delving Deeper Into Customer Behaviour, Consumption Patterns And Establishing Alert Mechanisms For Leakage Management & Extreme Weather Events

Quantifying and Unlocking AMI Benefits Through Industry-Leading Trials & Rollouts

THE FUTURE OF AI AND INNOVATION Gain Insights Into How AI & Machine Learning Innovation Can Help Identify Consumption Patterns & Leaks

DAY 2 – SOLUTIONS FOR TECHNOLOGY PROBLEMS & IMPLEMENTATION CHALLENGES

Optimising Technology Choices, Procurement And Implementation Strategies

Striking A Balance Between Common Standards And The Flexibility For Utility Companies To Personalize Meters To Their Specific Requirements

Deciding On The Most Suitable Communication Technology For Specific Use Cases – Achieve Reliable Connectivity For Smart Water Metering

Ensuring Optimal Performance Of Smart Metering Technology: Battery Life, Environmental Conditions, & Protecting From Physical Damage

Don't Miss The Pre & Post Conference Practical Workshops 5 March & 8 March 2024

BRINGING TOGETHER METERING EXPERTS SHARING INSIGHTS FROM UK & AROUND THE WORLD INCLUDING:



Maria Humbelina Vallejo
Deputy Director of Commercial Services
 Canal de Isabel II



Tertius Rust
Head: AMI and Digital Transformation
 City of Cape Town



Gary Adams
Head Of Smart Metering Programme
 Northumbrian Water



Daniel Sullivan
General Manager, Research, Innovation & Commercialisation
 South East Water (Australia)



Richard Channell
Head of Smart Metering Strategy
 Thames Water



Adam Smith
Manager Smart Networks & Metering
 Yorkshire Water



Vadim Lyu
Managing Director, UK & Ireland
 Netmore IOT Solutions



Dr Michael Bold
Smart Metering Manager
 United Utilities

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Discover The Why, The ROI & How To Leverage Data To Deliver Value: Hear From Trials, Limited Rollouts & Full-Scale Implementation

Given the pressing impacts of climate change on global water supplies and the emergent need to optimise consumption and address leakage, the industry is steering towards innovative solutions. The imperative is unambiguous: utilise more granular data to induce behavioural changes and address the challenges posed by leakage and severe climate phenomena.

In essence, the emphasis at the **Global Smart Water Metering & Intelligent Data Utilisation Congress** is squarely on the intelligent exploitation of data, considering the comprehensive cost of acquiring such data and delving deeply into strategies for practical implementation. Numerous water utilities worldwide are evaluating AMI trials and commencing smaller-scale rollouts, leading to a unified, pivotal question: How can the industry quantify the tangible value and benefits of using

more granular data? In a world bound by financial constraints, those deciding to choose AMI over AMR are confronted with another pressing question: Is the ROI worthwhile?

Making Better Use Of Data And Addressing Implementation Challenges

Indeed, smart metering acts merely as an enabler; it identifies, quantifies, and directs actions aimed at reducing water usage and addressing customer leakage. Consequently, the actual utilisation of this data is crucial and is the focal point for most of the presentations on day one.

“Honestly, the data is there, but making it talk, making it reveal the secrets of customer behaviour, now that’s an art!”

Head Of Metering Projects, French Water Utility

You told us that understanding and streamlining data is like refining gold; it’s about meticulously processing the raw, extracting the valuable, and moulding it into insightful shapes that can adorn strategies and decision-making processes for reducing consumption, leakage and more.

“The challenge is not just in acquiring data, but in optimising its utilisation and calculating the return on investments. It’s a delicate balancing act!”

Director Of Smart Metering Projects, UAE

Did you know? An extensive focus on data analysis can lead to a 20% reduction in water wastage, highlighting the critical role of intelligent data usage in resource conservation!

Surprising, Or Not? The ongoing networking and data acquisition costs pose major challenges to water utility providers globally, demanding meticulous evaluations of the total costs involved in data acquisition and utilisation.

A growing need is emerging for compatible systems and integrated data platforms to facilitate seamless data handling and more informed decision-making processes.

Interesting Fact! Around 72% of European water utility providers we spoke to are utilising advanced data analytics and AI to optimise their processes and make more informed decisions.

And whilst intelligent data usage underpins the success of an innovative water project, there are many implementation challenges as well. Procuring 8 to 10 million smart water meters in Europe alone applies unparalleled pressure on supply chains worldwide! As manufacturers strive to keep up with this escalating demand, there is a growing contemplation on the robustness of supply chain capabilities and the timely delivery of required meters.

Practical Case Studies, Solutions And More

- **Learn how to realise the strategic benefits of smart water metering** through innovative approaches to ensure that investments in technology yield sustained value
- **Advance data analysis processing** to deliver crucial benefits by calibrating data analysis processing to navigate tomorrow's challenges proficiently
- **Achieve data-driven excellence in enhancing leak detection and fostering climate resilience amidst extreme weather events**
- **Discover actionable solutions on enhancing data granularity**, capable of revealing more intricate and frequent data
- **Hear how water utilities are integrating AI and Machine Learning to discern individual patterns and deliver predictive insights** and timely alerts on unusual consumption

Do you consider the current levels of data granularity sufficient to provide detailed insights into specific usage patterns? Is your organisation fully exploiting the capabilities of smart meters and AI technology to address water consumption issues efficiently?

Day one dives into the **transformative power of intelligent data analysis processing, exploring avenues to deliver unparalleled value and substantial ROI on data usage**. It's a journey through cutting-edge methodologies and groundbreaking strategies, offering insights into optimising the value derived from every piece of information.

Day two shifts the lens to **address the pivotal technological, telecommunications, and supply chain challenges**. Fully curated discussions will unfold around safeguarding metering technology against the unpredictability of weather and potential vandalism, integrating revolutionary battery technologies, and overcoming the hurdles of telecommunications coverage.

8 Hours Of Pure Networking + 18 Hours Of Strategic Presentations & Collaborative Learning

This year, we're offering a dynamic format featuring detailed, practical case studies, extended Q&As, and ample discussion opportunities. In tandem, we are organising **specialised workshops** on diverse aspects of data analysis processing and technology selection (see page 17).



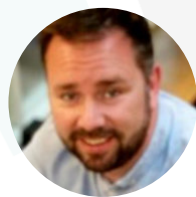
Bringing Together Metering Experts Sharing Insights From UK & Around The World Including:



Maria Humbelina Vallejo
Deputy Director of Commercial Services
Canal de Isabel II



Tertius Rust
Head: AMI and Digital Transformation
City of Cape Town



Gary Adams
Head Of Smart Metering Programme
Northumbrian Water



Daniel Sullivan
General Manager, Research, Innovation & Commercialisation
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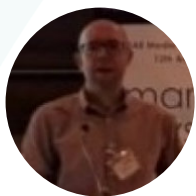
Richard Channell
Head of Smart Metering Strategy
Thames Water



Adam Smith
Manager Smart Networks & Metering
Yorkshire Water



Vadim Lyu
Managing Director, UK & Ireland
Netmore IOT Solutions



Dr Michael Bold
Smart Metering Manager
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Antonio Cagiano
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Samuel Loyson
Head of Smart Metering
SUEZ



Jeremy Heath
Innovation Manager
SES Water



Aiken Besley
Senior Advisor
Water Resources Environment Agency



George Crowder
Managing Director
Crowder Consulting



Jason Slade
IMDS Smart Metering Development Manager
Anglian Water Services



Dr. Mahmoud Al-Hader
Head of Asset Information
Al Ain Distribution Company



Will Lewis
Smart Metering Lead
Baringa



Nino Marino
Specialist Asset Management
Oasen Drinkwater



Doug Spencer
Head of Smart Metering
Anglian Water Services



Sean Audley
Azure IoT Technical Architect
Wessex Water



Angela Wallis
Technical Specialist Water Demand Management
Environment Agency

DAY 1 AGENDA AT A GLANCE – REAL-WORLD EXPERIENCES HIGHLIGHTING ROI & INNOVATIVE DATA UTILIZATION STRATEGIES

08:45	Chair's Opening Remarks
UNLOCKING ROI, ADAPTIVE PLANNING AND INVESTMENT RISK MINIMISATION	
08:50	Utility Business Case Study – Deploying New Technology To Deliver Value Beyond Billing
09:10	Securing Investment Success And Capturing Value To Reduce Water Losses
09:30	Strategic Level Cost-Benefit Analysis
09:50	Overcoming Data Acquisition Hurdles
10:10	Fully Curated Extended Questions & Discussion Session
10:30	Networking & Refreshments In The Exhibition Area
HOW TO EFFECTIVELY USE DATA FOR CUSTOMER BEHAVIOUR CHANGE	
11:00	Benefits Of Smart Metering Data Utilisation For Customers
11:20	Using Data To Understand Consumption
11:40	Demonstrating ROI By Using Data To Understand Dynamic Demand
12:00	Data Privacy And Consumer Engagement
12:20	Implementing Engaging Technologies For Data Visualisation And Presentation
12:40	Extended Curated Questions & Discussion Session
13:00	Networking Lunch In The Exhibition Showcase Area
USE OF DATA TO ADDRESS CLIMATE CHANGE, MAXIMIZE WATER EFFICIENCY AND REDUCE NEW LEAKS	
14:00	Qualifying The Benefits Of Smart Metering To Help Mitigate Climate Change
14:20	Solutions To Improve Data Granularity And Frequency For More Precise Insights
14:40	Using Data To Understand How Different Demographics Use Water At Different Times
15:00	Use Of Metering Data To Combat Water Waste In Businesses
15:20	Extended Curated Questions & Discussion
15:40	Afternoon Refreshments & Networking In The Exhibition Showcase Area
STREAMLINING DATA ANALYSIS PROCESSING, ADVANCED ANALYTICS AND AI	
16:10	Data Analysis Processing – Getting the Basics Right
16:30	Evaluate Potential Solutions To Handle Vast Quantities Of Complex Data
16:50	Cutting Through The Hype On AI – How Can It Be Utilised To Really Help?
17:10	Case Study On Initiating The AI Journey
17:30	Cost-Effective Solutions To Ensure Compatibility Of Data Integration
17:50	Data Processing – Weighing Up External Vs. In-House Solutions
18:10	Curated Extended Questions & Discussion
18:30	Chair's Closing Remarks & Close Of Day 1
18:35	VIP Drinks Reception & Networking

DAY 2 AGENDA AT A GLANCE – DEVICE SELECTION, NETWORK OPTIMISATION AND SUPPLY CHAIN

08:45	Chair's Opening Remarks – "How To Synchronise Devices, Networks & The Cloud"
STRATEGIES FOR COST EFFECTIVE DEVICE AND NETWORK OPTIMISATION	
08:50	Addressing Device And Network Optimisation Implementation Challenges
09:10	The Next Generation Of Smart Meter – Modular Design Innovations To Enhance Performance
09:30	Ensuring Optimal Technology Choices And Reliability Of Communication Protocols
09:50	Integration Of New Sensor Technology For Leakage Detection
10:10	Latest Advancements In Hydro Powered Smart Water Meter Technology For Energy Harvesting And Revolutionizing Data Transmission Frequency
10:30	Questions For Extended Audience Discussion
10:45	Morning Refreshment Break & Networking In The Exhibition Showcase Area
DEEP DIVE INTO COST-EFFECTIVE NETWORK AND COMMUNICATIONS SOLUTIONS	
11:15	Radio Technology Selection: Ensuring Data Quality & Maximising Battery Life
11:35	Evaluating The Benefits And Drawbacks Of LPWAN, LoRaWAN & Narrowband IOT
11:55	Cost-Effectiveness & Feasibility Of Satellite Technology For Data Transmission?
12:15	Seamless Deployment Of NB-IOT And Other Advancements In Varied Operational Terrains
12:35	Innovative Communication Technologies: Elevating Network Quality & Reliability
12:55	Extended Questions & Discussion
13:15	Networking Lunch Break
FUTURE-PROOFING SMART METERING: CONTRACTUAL CLARITY AND SUPPLY CHAIN RESILIENCE	
14:15	Synchronised Contract Management: Navigating Multiple Supplier Dynamics
14:35	Ensuring Manufacturing Meets Demand: Strategies For Supply Chain Robustness
14:55	Diversifying Network Providers: The Key To Long-Term Support
15:15	Curated Questions & Discussion
15:35	Afternoon Refreshment Break In The Exhibition Showcase Area
16:05	Cloud, Smart Meters, And Cyber Threats: Strategic Defence For Water Utility Data Security
16:30	Curated Questions & Discussion
16:50	Chair's Closing Remarks & Close Of Global Smart Metering & Data Utilisation 2024

FULL CONFERENCE AGENDA

DAY 1 – 6 March 2024

REAL-WORLD EXPERIENCES HIGHLIGHTING ROI & INNOVATIVE DATA UTILIZATION STRATEGIES

08:45 Chair's Opening Remarks

"Today, our agenda highlights three paramount themes –

Total Cost and ROI Analysis: The speakers will dissect comprehensive cost analysis and ROI methodologies, ensuring every investment in data acquisition is not just sound but transformative.

Innovative Use of Data for Real-time Insights: With innovation at its core, many sessions will decode how to leverage data to predict customer behaviour, swiftly detect leakages, and manage the unexpected nuances of climate events.

AMI Metering Benefits: Speakers will unravel its core benefits, addressing the pressing challenges of its deployment in an ever-evolving market".

KEYNOTE PANEL – UNLOCKING ROI, ADAPTIVE PLANNING AND INVESTMENT RISK MINIMISATION

08:50 Achieving Smart Metering Program Deliverables & Optimising Value Extraction Through Data Utilisation

Quantifying and unlocking benefits through industry-leading smart water metering trials and Ami rollouts. Combined with strategic-level perspectives on how to use the data to ensure a clear ROI.

08:50 UTILITY BUSINESS CASE STUDY – DEPLOYING NEW TECHNOLOGY TO DELIVER VALUE BEYOND BILLING

Strategic Level ROI Analysis Beyond Billing For Anomaly Detection & Influencing Customer Behaviour

- Strategic planning to model different deployment strategies, assess potential ROI, and make informed decisions
- Assessing the ROI of deploying advanced metering technology, especially when the benefits extend beyond direct financial returns
- Deciphering how data from smart meters can be utilised to influence and guide consumer behaviour towards more sustainable water consumption
- Leveraging the granularity of data to identify leaks in real-time, drastically reducing water wastage and related costs

09:10 SECURING INVESTMENT SUCCESS AND CAPTURING VALUE TO REDUCE WATER LOSSES

Maximising Returns Through Data Utilisation For Reducing Losses & Enabling Quick Identification Of New Leaks, Amidst Water Scarcity Challenges

Dissecting the value of using advanced metering data to reduce water losses. Gain insights into the core challenges and best practices associated with utilising data for identifying new customer leaks promptly and effectively.

- Understanding the depth of customer water losses and the associated economic and environmental impacts
- Integrating IoT-enabled devices and sensors for higher granularity data capture
- Implementing automated alerts and developing agile response teams trained for immediate action
- Conclusions on ROI and payback

09:30 STRATEGIC LEVEL COST-BENEFIT ANALYSIS

Evaluating A Detailed Business Case, Including The Total Cost Of Obtaining Advanced Metering Data, Factoring In Every Aspect Of Networking And Communications

Selecting the ideal blend of technologies, balancing between proprietary networks and utilising telco infrastructures influences both cost and the business case.

- Conducting a holistic cost-benefit analysis on obtaining smart metering data, encompassing every nuance of networking and communications
- Leverage optimal networking and communication solutions to enhance data acquisition efficiency
- Adopting a value-oriented approach to smart metering investments to ensure significant and sustainable ROI
- Conclusions and takeaways – align cost-benefit analysis with strategic objectives to drive organisational success and data-driven decision-making

09:50 OVERCOMING DATA ACQUISITION HURDLES

Streamlined Smart Water Meter Deployment: Before USING Smart Metering Data, the Challenge is How to Collect, Process and Store it

The seamless integration of smart water meters is crucial for unlocking the vast potential of this technology to optimize water resource management and enhance customer engagement. However, the process of collecting, aggregating, and processing data from these meters can be fraught with challenges, ranging from network coverage issues and data quality concerns to data integration complexities.

- **Network Coverage and Reliability:** Addressing the challenges of ensuring comprehensive coverage across diverse geographies and challenging terrain, including the use of multiple communication technologies and strategic placement of network infrastructure

- **Data Quality Assurance:** Implementing rigorous data quality checks to ensure the accuracy and integrity of smart water meter data, addressing issues such as sensor calibration, data transmission errors, and data formatting inconsistencies.

- **Data Integration Challenges:** Overcoming the complexities of integrating smart water meter data with existing legacy systems and data silos, ensuring seamless data exchange and analysis.

 **Vadim Lyu**, *Managing Director, UK & Ireland,*
Netmore IOT Solutions

10:15 Extended Questions & Discussion Session

10:30 Networking & Refreshments In The Exhibition Area

OPTIMAL DATA UTILISATION FOR TIMELY AND INSIGHTFUL DECISION-MAKING

Transforming Data Into Meaningful Customer Engagement Tools To Manage Consumption

PANEL – HOW TO EFFECTIVELY USE DATA FOR CUSTOMER BEHAVIOUR CHANGE

11:00 Strategic Insights On Using Data To Engage Customers In Understanding The Value Of Water As A Scarce Resource

Unlocking behavioural change through the value of smart metering data. Insights from water companies that are successfully progressing in implementing engaging techniques, with an emphasis on data visualisation and

user-friendly presentations of usage data.

11:00 BENEFITS OF SMART METERING DATA UTILISATION FOR CUSTOMERS


Demonstrating How Utilizing Data From Smart Meters Can Bring Benefits To Customers, Beyond Greater Billing Accuracy

- *Instant Personalised Consumption Insights:* Understanding how smart water meters offer detailed, real-time information about individual water consumption patterns, allowing consumers to be more aware of their water usage habits
- *Cost and Water Efficiency:* Grasping how smart water metering data can pinpoint high-consumption periods and sources, enabling consumers to optimise their water usage and potentially reduce their utility bills
- *Leak Detection and Prevention:* Recognising that smart water meters can instantly detect unusual water flow patterns, alerting consumers to potential leaks, thus preventing water wastage and unexpected costs
- *Reduced Estimated Bills:* Eliminating the need for estimated bills, ensuring consumers are charged for their exact usage, preventing overpayments

 **Richard Channell**, *Head of Smart Metering Strategy,* **Thames Water**

11:20 USING DATA TO UNDERSTAND HOW DIFFERENT DEMOGRAPHICS USE WATER AT DIFFERENT TIMES

Going Beyond Hourly Data: Using Edge Computing and Data Analytics to Understand Consumption

 **Samuel Loyez**, *Head of Smart Metering,* **SUEZ**

11:40 DEMONSTRATING ROI BY USING DATA TO CREATE TOOLS FOR ENHANCED CONSUMER ENGAGEMENT

Optimizing Water Resources: Understanding Consumption Patterns, Losses, and Sustainability Across Domestic and Non-Domestic Sectors

Crowder have produced digital services solutions for the tactical use of smart meter data, together with all other consumption data streams, for estimating demand dynamically. The solutions incorporate types of customers, seasonal patterns, locations and network configuration.

The presentation will explain the dynamic estimation of demand and how it will become part of our client water operators management and planning processes. The benefits will be better prediction, better targeting of losses and better tools for utilisation of resources and improving energy efficiency.



George Crowder, *Managing Director*, **Crowder Consulting**

12:00 DATA PRIVACY AND CONSUMER ENGAGEMENT Addressing Concerns And Challenges Related To Data Privacy Which Need To Be Addressed To Advance Data-Driven Innovations And To Engage Consumers Effectively

As water utilities increasingly embrace data-driven innovations, a new set of challenges emerges, primarily revolving around data privacy. Drawing lessons from the rigorous European GDPR and the UK's Data Protection Act, this session unravels the intricacies of maintaining consumer trust through compliance, even as water utilities advance in their digital transformations.

- Understanding the scope and implications of the GDPR and UK's Data Protection Act for utilities
- Building consumer engagement strategies that inherently respect and prioritise data privacy
- Privacy-by-Design: Implementing data-handling processes that inherently prioritise privacy from the onset, ensuring compliance isn't an afterthought
- Data Minimization: Employing strategies that only collect essential data, reducing potential risks of breaches
- Utilising tools and practices to conduct frequent privacy audits, ensuring constant alignment with evolving laws and regulations



Tertius Rust, *Head: AMI and Digital Transformation*, **City of Cape Town**

12:20 IMPLEMENTING ENGAGING TECHNOLOGIES FOR DATA VISUALISATION AND PRESENTATION

Integrating Smart Metering Data With Customer Apps, Data Visualization Tools & Automated Alerts To Notify Customers Of Unusual Consumption

Turning raw data into engaging, actionable insights for customers. Leveraging visualization tools to boost customer engagement and foster trust.

- *Interactive Dashboards*: Designing and implementing dashboards that provide consumers with easy-to-understand visual insights into their consumption
- *Real-Time Alerts*: Developing systems that can

detect and notify users of unusual consumption patterns, aiding in quick decision-making

- *Consumer Reward Programs*: Looking into incentive-based programs that recognise and reward water conservation behaviours, promoting sustainable usage
- Fostering trust by being upfront about data usage policies, ensuring customers feel secure in their data's handling



Jason Slade, *IMDS Smart Metering Development Manager*, **Anghian Water Services**

12:35 Extended Curated Questions & Discussion Session

Questions Include:

- In the age of information overload, how do you ensure that your data-driven consumer dashboard stands out and engages the consumer effectively?
- How can utilities ensure that the crafted messages based on demographic water usage insights are culturally sensitive and effectively promote water conservation to different types of household types – including shared dwellings, extended families and single occupancy?
- What challenges have been faced when integrating platforms to gauge the success of engagement campaigns, and how were these overcome?

13:00 Networking Lunch In The Exhibition Showcase Area

DEMONSTRATING ROI ON THE USE OF SMART METERING DATA TO MITIGATE CLIMATE CHANGE

Maximise Water Efficiency, Target High Usage Households And Reduce Leakage

PANEL – USE OF DATA TO ADDRESS CLIMATE CHANGE, MAXIMIZE WATER EFFICIENCY AND REDUCE NEW LEAKS

14:00 Effectively Using Smart Metering Data To Combat Leakage & Maximise Water Efficiency Amidst Climate Change

The water sector remains on the cusp of a revolution, with vast untapped potential in smart meters and AI awaiting full utilisation to help mitigate the impacts of climate change. This panel explores the ROI and potentially transformative power of increasing data speed, granularity, and frequency, discussing cost-effective enhancements that could exponentially amplify the benefits of smart meters.

14:00 QUALIFYING THE BENEFITS OF SMART METERING TO HELP MITIGATE CLIMATE CHANGE

Climate Resilience Through Smart Metering: Combatting New Leak Challenges in Extreme Weather

Smart metering emerges as a game-changing tool, not only in reducing water consumption but, crucially, in managing new forms of leaks caused by extreme weather events. This session delves deep into the potential of smart metering data – emphasising its speed and granularity – to pre-emptively address the onset of new leakage patterns.

- *Strategic Value*: Understand the dual role of smart meters in reducing consumption and proactively managing leakage amidst climate change-related extreme weather events
- *New Challenges*: Examining emerging and unprecedented leakage patterns
- Discover the importance of timely and granular data in detecting, preventing, and managing new leaks
- How can utilities ensure they're maximising the potential of their smart meters for leakage management?

14:20 SOLUTIONS TO IMPROVE DATA GRANULARITY AND FREQUENCY FOR MORE PRECISE INSIGHTS

Assessing The Latest Innovations For Improving The Granularity, Frequency & Relevance Of Data Gathered, Enabling Water Utilities To Offer More Responsive & Tailored Services

Justifying ROI for implementing innovations to significantly improve the granularity, frequency, and relevance of the data gathered, enabling water utilities to offer more responsive and tailored services to their customers.

- Making the business case for upgrading to advanced sensors that can detect even minor changes in water flow or consumption for identifying subtle leakages and fine-grained usage patterns
- Transitioning to faster communication protocols like 5G or dedicated IoT communication channels that can transmit data in real-time, allowing for instantaneous analysis and feedback
- Employing dedicated platforms designed for real-time data stream processing to analyse and act upon data as it comes in, enabling immediate insights into customer usage patterns and potential leakages

14:40 USING DATA TO UNDERSTAND HOW DIFFERENT DEMOGRAPHICS USE WATER AT DIFFERENT TIMES

Combining Smart Meter Data With Demographic Insights & Consumption Patterns, In A Privacy Compliant Manner, To Tailor Feedback & Make Recommendations To Customers Accessing the true potential of data for enhanced decision-making & personalised customer engagement. Gain a holistic understanding of how data, when interpreted correctly, can play a pivotal role in addressing the pressing issue of water scarcity by driving informed consumer behaviour.

- Understanding the triggers that lead to behavioural change
- Adaptive Forecasting Models: Leveraging demographic-specific data to predict future water consumption trends and optimise resource allocation
- Digital Engagement Tools: Deploying digital platforms that allow customers to visualise and understand their consumption patterns, fostering more sustainable usage habits
- Alternative Data Dissemination Methods: Addressing challenges in areas with limited technological reach, ensuring every customer is informed and empowered



Dr. Mahmoud Al-Hader, Head of Asset Information, Al Ain Distribution Company

15:00 USE OF METERING DATA TO COMBAT WATER WASTE IN BUSINESSES

How Can We Design & Deliver The Capabilities And Processes To Realise The Benefits From Smart Meter Data

The business world is quickly realizing the impending need for water conservation. Often, inefficiencies in water use, marked by continuous flow and unchecked consumption, go unnoticed, leading to significant water waste. This session delves deep into the transformative power of metering data as a tool to pinpoint and rectify these inefficiencies. Yorkshire Water has recently gone through a process of designing the business transformations required to achieve improvements to customer service, reductions in leakage, PCC and NHH demand reduction. This presentation will share lessons learnt and customer response to the transition.

- Translating Data into Action: Learn how to interpret metering data effectively and design actionable

- plans for reducing water waste through leakage detection
- Identifying Red Flags: Understand the significance of continuous flow data as a primary indicator of water inefficiency in business operations
- Establishing better water network system, effective repair and maintenance

 **Adam Smith**, *Manager Smart Networks & Metering, Yorkshire Water*

15:20 Extended Curated Questions & Discussion

Questions include:

- Given the capital investment required for advanced sensors, how long, on average, does it take for a utility to achieve a return on this investment solely based on reducing water waste?
- Are there discernible patterns in high-usage households that can be generalised and acted upon, or is each high-usage scenario unique and requires a tailored approach?
- Beyond the initial identification, what proactive strategies can be employed to prevent continuous flow situations in business operations? How can businesses be incentivised to take action?

15:40 Afternoon Refreshments & Networking In The Exhibition Showcase Area

OPTIMISING DATA ANALYSIS PROCESSING

Streamlining Processes To Make Sense Of Data & Apply Insight Intelligently

PANEL – STREAMLINING DATA ANALYSIS PROCESSING, ADVANCED ANALYTICS AND AI

16:10 Develop Sophisticated Data Processing And Management Solutions To Facilitate Efficient Decision Making & Detection

16:10 DATA ANALYSIS PROCESSING – GETTING THE BASICS RIGHT

Mastering The Basics Of Smart Meter Data Processing And Analysis: Streamline, Analyse, And Optimise For Effective Decision-Making


With the sheer volume of data smart meter devices generate, it is paramount to not only process this data efficiently but also to harness its potential for insightful analysis. This session will shed light on the foundational aspects of smart meter data processing and dive deep into strategies that foster intelligent data utilisation.

- Key performance indicators to measure and ensure data processing efficiency
- Implementing efficient data pre-processing techniques to cleanse and structure incoming data
- Leveraging modern cloud platforms for scalable and cost-effective data storage and processing
- Utilising dedicated analytics platforms tailored for smart meter data to draw actionable insights
- Continuously monitoring and tweaking data processing pipelines to adapt to changing data volumes and patterns

16:30 EVALUATE POTENTIAL SOLUTIONS TO HANDLE VAST QUANTITIES OF COMPLEX DATA

Implementing Sophisticated Analytical Tools And Methodologies To Derive Meaningful Insights From Collected Data

- Big Data Integration*: Design of systems to process large volumes of data seamlessly, ensuring that all collected data is readily available for analysis
- Real-time Analysis*: Employing advanced algorithms to analyse data in real-time, allowing immediate detection of anomalies such as potential leaks or unauthorised usage
- Predictive Analytics*: Using machine learning to predict patterns of water usage, potential maintenance requirements, and more
- Interactive Dashboards*: Developing customised dashboards for different teams to use

 **Sean Audley**, *Azure IoT Technical Architect, Wessex Water*

16:50 CUTTING THROUGH THE HYPE ON AI – HOW CAN IT BE UTILISED TO REALLY HELP?

Overview Of The Key AI Applications Relevant To Smart Data Analysis – Predict Potential System Failures, Ensure Continuity Of Supply, Enhance Efficiency, Reduce Leakages & Optimize Efficiency

- Understanding the AI Landscape*: Overview of the various AI methodologies relevant to smart meter data analysis
- Comprehensive exploration of applications where AI can transform smart meter data into actionable insights
- Global Case Studies*: A look at leading water utilities worldwide leveraging AI for data interpretation

17:10 CASE STUDY ON INITIATING THE AI JOURNEY

Key Considerations And Steps For Water Utilities Looking To Integrate AI-Driven Data Analysis

- *Data Hygiene*: Ensuring that the smart meter data is clean, structured, and stored efficiently, preferably in cloud-based systems
- *Start Small*: Beginning with pilot projects focusing on specific challenges such as leak detection or demand forecasting to understand the capabilities and limitations of AI tools
- *Collaboration and Partnerships*: Engaging with technology providers and AI specialists to gain access to cutting-edge solutions and expertise
- *Continuous Learning and Adaptation*: As the AI system processes more data and the algorithms evolve, regularly review and recalibrate the models to ensure accuracy and relevance

17:30 COST-EFFECTIVE SOLUTIONS TO ENSURE COMPATIBILITY OF DATA INTEGRATION

Combining Data From Diverse Sources And Systems, Like Billing And Usage Data, To Achieve Holistic Insights, Considering Careful Handling And Integration To Ensure Data Accuracy And Consistency

Water utilities often work with data from multiple, outdated systems, which can be siloed, leading to integration challenges. As water utilities expand smart metering projects, the volume of data will grow, and new data sources will emerge, making scalability a concern. Simply merging data isn't enough; utilities need to derive actionable insights from the integrated data for decision-making. This session weighs up the different solutions for integrating legacy systems with new data analysis processing workflows.

- Experiences on utilising data integration platforms or middleware that can connect to various data sources, enabling centralised data access and management
- Implementing data validation and cleaning techniques to check and rectify any data inconsistencies before integration
- Designing a data integration framework that is modular and scalable, allowing for easy addition of new data sources in the future
- Evaluating cloud-based data integration solutions that offer elasticity and can scale resources based on demand

17:50 DATA PROCESSING – WEIGHING UP EXTERNAL VS. IN-HOUSE SOLUTIONS

Evaluation Of Benefits And Advancements Offered By External Providers versus Tailored In-House Solutions, For Data Analysis Processing

In the digital age, every water utility grapples with the mammoth task of managing, processing, and deriving meaningful insights from data. With the advent of sophisticated data processing tools and methodologies, the dilemma often boils down to choosing between external providers or developing a tailored in-house solution. This session dives deep into the advantages, drawbacks, and innovations of both strategies, enabling attendees to make informed decisions about future-proofing their data management trajectory.

- The tangible and intangible benefits of outsourcing data processing to specialised external providers
- The strategic advantages of cultivating an in-house data management solution tailored to company-specific needs
- Evaluating the ROI of both strategies: cost, time, adaptability, and scalability
- Initial conclusions – Implementing a phased evaluation process to determine the suitability of external vs. in-house solutions for specific business needs.

18:10 Curated Extended Questions & Discussion

Questions include:

- In the realm of big data integration, what emerging technologies are showing the most promise in simplifying the seamless processing of massive data volumes?
- How do real-time analysis and predictive analytics interface, and what are the commercial implications of integrating both in terms of immediate fault detection and longer-term resource planning?
- While there's much enthusiasm around AI, what are the top misconceptions water utilities hold about AI's capabilities in smart data analysis? How can these be addressed?

18:30 Chair's Closing Remarks & Close Of Day 1

18:35 VIP Drinks Reception & Networking

DAY 2 – 7 March 2024

SELECTION OF TECHNOLOGY, NETWORK CHOICES, PROCUREMENT AND IMPLEMENTATION STRATEGIES

Optimising The Supply Chain & Contractual Relationships

08:45 Chair's Opening Remarks – "How To Synchronise Devices, Networks & The Cloud"

The industry is at a pivotal moment in the world of smart water metering solutions. Rewind a few years, and the primary goal was simple: capture accurate metering data to streamline billing and cut operational costs. Fast forward to the present, and the landscape has dramatically changed. Water utilities globally are navigating an evolutionary shift towards embracing comprehensive Internet of Things (IoT) solutions. Why? Because data is no longer just a by-product; it's the driving force. This transformation emphasises not just the value of data but also the urgency for standardisation. By standardising, the industry can curb expenditures and ensure a seamless connection of devices to the vast expanse of the Internet and the cloud. It's about creating harmony – a synchronised dance between devices, networks, and the cloud.

KEYNOTE PANEL – STRATEGIES FOR COST EFFECTIVE DEVICE AND NETWORK OPTIMISATION

08:50 Exploring The Benefits & Challenges Of Implementing Advanced Smart Meters & IOT Solutions Considering Device & Network Optimisation

08:50 ADDRESSING DEVICE AND NETWORK OPTIMISATION IMPLEMENTATION CHALLENGES

Strategic Choices In Advanced Metering Technology – Balancing Radio Types, Battery Life, Data Transmission, Network Reach & Cost

- Assessing the balance between radio type, battery power, and network coverage to ensure consistent meter readings.
- Avoiding vendor lock-ins by exploring interoperable technologies and promoting competitive market scenarios
- A thorough evaluation of short-term vs. long-term costs, considering both device procurement and operational expenses
- *Adaptive Data Transmission Protocols*: Automate data frequency based on battery health and network conditions
- *Modular Design Adoption*: Facilitate easy battery replacement and upgrades without overhauling the entire system
- *Collaborate with Manufacturers*: Foster partnerships

to develop customisable, flexible, and adaptable meter designs based on specific utility needs



Antonio Cagiano, Head of Metering, **Acquedotto Pugliese SpA**

09:10 THE NEXT GENERATION OF SMART METER – MODULAR DESIGN INNOVATIONS TO ENHANCE PERFORMANCE

Designing Future-Ready Smart Water Meters: Considering Size, Battery Longevity, Humidity Protection, and Data Transmission

What is the vision of smart meter manufacturers for the next generation of water meter designs? Do they aim to optimise size, ensure battery replacement without sacrificing humidity protection, and balance data transmission with battery longevity and network optimisation."

- *Humidity Challenges*: The Direct Impact on Battery Longevity and Design Solutions
- *The Balance Act*: Data Transmission Frequency vs. Battery Life
- *The Importance of Modular Designs*: Flexibility, Adaptability, and Future-Proofing



Jeremy Heath, Innovation Manager, **SES Water**

09:30 ENSURING OPTIMAL TECHNOLOGY CHOICES AND RELIABILITY OF COMMUNICATION PROTOCOLS

Optimal Device & Technology Choices For Reliable Network Communications & Coverage

Strategising for success: navigating technology and vendor selection for reliable smart meter communications.

- Understanding the evolution and capabilities of communication technologies like NB IoT, and LoRaWAN
- Assessing the balance between technology reach and reliability, especially in challenging terrains
- *Device and Network Optimization*: The critical role of adaptable parameters in ensuring extended battery life and seamless communication
- *Multi-Protocol Strategy*: Implementing a hybrid approach utilizing both LoRaWAN and NB IoT to ensure comprehensive coverage and reliability


09:50 INTEGRATION OF NEW SENSOR TECHNOLOGY FOR LEAKAGE DETECTION

Permanent Non-DMA Based Leak Localization in drinking water networks using pressure and acoustic sensors placed at the household level.

The main objective is to demonstrate the potential of non-DMA-based leakage localization in the Water Distribution Network (WDN), for new and existing leaks, using acoustic- and pressure sensor data, acquired from sensors placed at the household level. i.e., a digital water meter with built-in pressure and acoustic sensor (PiaBox).

 **Nino Marino**, *Specialist Asset Management,*
Oasen Drinkwater

10:10 Latest Advancements In Hydro Powered Smart Water Meter Technology For Energy Harvesting And Revolutionizing Data Transmission Frequency

 **Gary Adams**, *Head Of Smart Metering Programme,*
Northumbrian Water

10:30 Questions For Extended Audience Discussion Include The Following...

- Is it possible to quantify the cost savings for water utilities achieved through the adoption of universal standards?
- What are the primary technical barriers faced when attempting to integrate devices, networks, and cloud platforms from diverse manufacturers using these universal standards?
- How can the industry ensure that “open standards” remain genuinely open and don't lead to subtle forms of vendor lock-in?
- As technology continues to evolve, how will these universal standards adapt? Is there a framework in place for their periodic review and enhancement?
- *Future Roadmap*: Looking ahead, how do you envision the next phase of universal standards, especially with emerging technologies on the horizon? How will these new technologies be integrated into the current standard framework?

10:45 Morning Refreshment Break & Networking In The Exhibition Showcase Area

PANEL – DEEP DIVE INTO COST-EFFECTIVE NETWORK AND COMMUNICATIONS SOLUTIONS

11:15 Selecting The Optimal Communication Tech for Smart Water Metering: Ensuring Reliability in Difficult Terrains

11:15 RADIO TECHNOLOGY SELECTION: ENSURING DATA QUALITY & MAXIMISING BATTERY LIFE

Impact Of Radio Selection: How The Choice Of Technology Can Make Or Break Data Quality

This session provides water utilities and vendors a detailed overview of the intertwined relationship between radio technology choices and the resultant data quality and battery sustainability. It's not just about the “now”, but about being future-ready, adaptable, and ensuring the choice of technology today doesn't limit advancements tomorrow.

- Preparing for future shifts to more efficient radio technologies
- *Meter Types & Their Implications*: Built-in radios vs. add-on enhancements
- *LoRaWAN Implementation*: Leveraging its benefits while NB IoT is still in refinement for battery longevity
- Moving away from mechanical meters with add-ons to authentic smart meter designs with integrated radio tech

11:35 EVALUATING THE BENEFITS AND DRAWBACKS OF LPWAN, LoRaWAN & NARROWBAND IOT

Compare Cost Effective Wireless Telecommunication Solutions For Diverse Deployment Scenarios That Offer Wide Coverage Suitable For Remote Or Hard To Reach Locations

- An introduction to LPWAN, LoRaWAN, and Narrowband IoT – understanding their individual technical foundations
- Exploring how these technologies enhance communication in remote or hard-to-reach areas
- Deployment Scenarios: Real-world case studies showcasing successful deployments, challenges faced, and lessons learned.
- A step-by-step guide to match the right wireless communication technology with specific utility scenarios
- *Future-Proofing*: Techniques to adapt and evolve with the ever-changing landscape of wireless telecommunication, ensuring sustained benefits

11:55 COST-EFFECTIVENESS & FEASIBILITY OF SATELLITE TECHNOLOGY FOR DATA TRANSMISSION?

Satellite Technology in Smart Metering: Assessing Cost-Effectiveness & Feasibility for Data Transmission

Discover the advantages, limitations, and economic viability of satellite technology for seamless data transmission.

- *Satellite Tech Demystified*: Grasping the basics of satellite technology and its role in smart metering data transmission
- *Economic Analysis*: A detailed look into the cost structures associated with satellite technology for data transmission
- *Range & Reliability*: Understanding the reach and consistent performance of satellite technology, especially in remote areas
- *Real-World Adaptation*: Case studies on successful utility companies that have incorporated satellite tech and the results they've achieved

12:15 SEAMLESS DEPLOYMENT OF NB-IOT AND OTHER ADVANCEMENTS IN VARIED OPERATIONAL TERRAINS

Ensuring Seamless Network Integration in Both Urban and Rural Scenarios

How to seamlessly integrate new technological advancements like NB-IoT in diverse operational terrains, understand the real-world benefits of such integrations, and learn practical solutions to overcome challenges related to technology deployment.

- Significance of technology compatibility in diverse operational environments: urban vs. rural
- NB-IoT's advantage using existing mobile phone networks and its transformative impact
- Challenges faced when integrating new technological advancements with existing systems
- Develop a comprehensive technology integration blueprint catering to specific challenges of urban and rural settings.

12:35 INNOVATIVE COMMUNICATION TECHNOLOGIES: ELEVATING NETWORK QUALITY & RELIABILITY

Latest Advancements in Communication Technologies That Promise Superior Network Performance

- An overview of the latest breakthroughs in communication technologies and their impact on network quality
- *Role of 5G & Edge Computing*: Delving into how these technologies reshape network performance and reliability
- *From Wi-Fi 6 to Li-Fi*: Understanding the next generation of wireless communication and its potential advantages
- Best practices to integrate new communication technologies without disrupting existing infrastructure
- Strategies to fortify network security with the adoption of new communication methods

12:55 Extended Questions & Discussion, including:

- Given the rapid advancements in radio technology, how can water utilities ensure they're making forward-looking choices that won't become obsolete in a short time frame?
- *LoRaWAN vs. NB IoT*: As NB IoT continues its refinement process, how do its potential benefits compare to those already being realised by LoRaWAN, especially in terms of battery longevity?
- In scenarios where both satellite technology and traditional telecommunication means (like LPWAN) are viable, what are the deciding factors in choosing one over the other?
- What are the most significant challenges water utilities face when integrating NB-IoT, especially in urban settings with dense existing infrastructure? Feedback from urban network planning professionals.

13:15 Networking Lunch Break

STRATEGIC CONTRACTUAL AND SUPPLY CHAIN SOLUTIONS

Ensuring Long-Term Technology Viability and Support While Addressing High Demand and Potential Disruptions

PANEL – FUTURE-PROOFING SMART METERING: CONTRACTUAL CLARITY AND SUPPLY CHAIN RESILIENCE

14:15 Gain Insights Into Ensuring Long-Term Support For Your Chosen Technology, Managing Contracts Efficiently, And Fortifying Your Supply Chain Against Unforeseen Challenges

Develop robust strategies to enhance supply chain resilience, including increased collaboration with logistics and manufacturing partners and strategic planning for installer availability

14:15 SYNCHRONISED CONTRACT MANAGEMENT: NAVIGATING MULTIPLE SUPPLIER DYNAMICS

Dive Deep Into Drafting Contracts That Harmonize The Roles Of Multiple Stakeholders, Providing Assurance That Providers Will support the Chosen Technology

Address the challenges of working with varied suppliers and discover strategies to streamline cooperation and avoid disputes.

- Key Principles of Effective Contract Drafting
- Harmonizing Stakeholder Interests for Mutual Benefit
- Implementing a Modular Contract Structure for Flexibility
- Utilizing Legal Tech for Automated Contract Management
- Periodic Review Mechanisms to Adapt to Evolving Needs

14:35 ENSURING MANUFACTURING MEETS DEMAND: STRATEGIES FOR SUPPLY CHAIN ROBUSTNESS

Developing Contingency Plans To Ensure A Continuous Supply Even Amidst Rising Smart Metering Demands

- Understanding the Dynamics of Smart Meter Manufacturing globally and key supply chain risks
Identifying Potential Bottlenecks in Production
- Proactive Strategies to Scale Manufacturing
- Collaborative Forecasting with Suppliers
- Implementing Lean Manufacturing Principles

14:55 DIVERSIFYING NETWORK PROVIDERS: THE KEY TO LONG-TERM SUPPORT

Safeguarding Against Technological Obsolescence To Ensure Consistent Support

- Risks of sole reliance on a single network provider
- Evaluating network providers for reliability and longevity
- The importance of contractual clauses for future support

15:15 Curated Questions & Discussion, including:

- Given the complexity of dealing with multiple stakeholders in smart metering projects, how can utilities ensure that contracts are both comprehensive and flexible enough to adapt to changing circumstances without incurring legal disputes?

- Considering the global dynamics of smart meter manufacturing, which regions pose the highest supply chain risks and how can these risks be mitigated proactively?
- With the rapid pace of technological evolution, how can utilities ensure they aren't locked into obsolescence due to sole reliance on a single network provider?
- What key metrics or evaluation criteria should utilities prioritise when assessing the reliability and longevity of potential network providers? Insight from network infrastructure and evaluation specialists.

15:35 Afternoon Refreshment Break In The Exhibition Showcase Area

SECURING SMART METER DATA

Understand and Mitigate the Cybersecurity Risks in Today's Cloud-Reliant Utility Environment

16:05 CLOUD, SMART METERS, AND CYBER THREATS: STRATEGIC DEFENCE FOR WATER UTILITY DATA SECURITY

Implementing Robust Cybersecurity Measures Tailored for Smart Metering Systems

Acquire a deeper understanding of the cybersecurity threats specific to smart metering and cloud integration. Learn practical strategies to safeguard critical data, to bolster defence mechanisms against potential cyberattacks.

- Develop and implement a comprehensive cybersecurity framework specifically tailored for smart metering
- Conducting periodic risk assessments and threat modeling for smart meter systems
- Implementing encryption, secure access controls, and regular monitoring to ensure data integrity

16:30 Curated Questions & Discussion

Questions include

- Given that one-size-fits-all cybersecurity approaches can be inefficient, how should utilities customize their cybersecurity frameworks to address the unique challenges and vulnerabilities inherent in smart metering systems?
- As utilities transition to cloud-based data storage and management for smart metering, what are the emerging cybersecurity threats specific to cloud integration, and how can these be proactively mitigated?

- Real-world Threat Modeling: Can you provide examples of recent real-world cyber threats targeting smart metering infrastructure? How did the involved entities respond, and what lessons were learned?
- Monitoring and Anomaly Detection: Given the vast amount of data generated by smart meters, how can utilities effectively monitor this data for anomalies that might indicate a cybersecurity breach? Are there specific AI or machine learning tools that have proven effective?
- Supply Chain Cybersecurity: As smart meters often involve components from various suppliers, how can utilities ensure that their entire supply chain adheres to stringent cybersecurity standards?

16:50 Chair's Closing Remarks & Close Of Global Smart Metering & Data Utilisation 2024

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PRE-CONFERENCE WORKSHOP A

Practicalities Of Turning Raw Data Into Engaging, Actionable Insights For Customers

Purpose of the Workshop: This intensive half-day workshop delves into the multifaceted challenge of transforming complex, raw data into clear, actionable customer insights. In today's data-driven age, it's essential for water utilities to communicate data findings in a manner that's not just comprehensible but also compelling and actionable for the end-users. Making sense of vast datasets is no longer enough; the real skill lies in translating this into actionable strategies that resonate with customers. To influence them to take action to reduce water consumption.

Why This Workshop is Important: Water utilities are awash with data, but the value lies in its translation. If data can't be understood, or if its significance isn't clear, then its power is lost. This workshop emphasises real-world application by allowing participants to discuss specific challenges and share solutions in an interactive format. Participants will tackle concrete problems, such as ensuring data relevance, honing visualisation techniques, and crafting narratives that drive customer engagement.

Learning Objectives & Takeaways:

- Understand the principles of data translation and its importance in customer engagement
- Learn best practices in data visualisation and storytelling
- Engage in hands-on activities to turn abstract data into tangible insights
- Share and learn from challenges faced by peers in an interactive discussion format

Time: 09:00–14:00

PRE-CONFERENCE WORKSHOP B

AI & Machine Learning For Smart Metering Water Data Analysis & Automation

Purpose of the Workshop: The smart water metering sector is rapidly evolving by incorporating AI and Machine Learning. This transformation promises smarter decision-making, automated processes, and efficient water management. However, the shift is not without its challenges. This workshop aims to demystify the integration of AI and Machine Learning in smart water metering, emphasising its relevance in data analysis, automation, and enhanced communication protocols.

This workshop promises a harmonious blend of theory, practice, and interaction, ensuring participants are equipped to harness the power of AI in smart water metering effectively.

Why This Workshop is Important: AI and Machine Learning offer unprecedented tools to meet the demands of analysing vast quantities of smart metering data. For instance, handling massive datasets from smart meters manually can lead to overlooked insights or delayed interventions. Automated AI-driven analysis can predict potential leakages, analyse consumption patterns, and suggest targeted interventions in real time. Practitioners need to understand these advancements not just theoretically but also practically, navigating the actual challenges they'll encounter on the ground.

Learning Objectives & Takeaways:

- Understand the foundational concepts of AI and Machine Learning in the context of smart water metering
- Learn the strategic and technical aspects of integrating advanced data analytics tools into water management systems
- Navigate the choice and challenges of communication technologies in smart metering.
- Engage in interactive problem-solving sessions addressing real-world challenges faced by the industry

Time: 14:00–18:15

**Workshops take place in person only and will not be live streamed*

POST-CONFERENCE WORKSHOP C

Middleware, Software & Workflow For Integrating Smart Water Meter Data

Purpose of the Workshop: In an era marked by technological advancements, integrating smart water meter data is paramount for informed decision-making. This workshop will unpack the technical nuances and workflow strategies associated with middleware and software tools, equipping practitioners with the skills to harness data for insightful outcomes. As water utility sectors increasingly leverage smart meter technology, understanding how to seamlessly aggregate, analyse, and action this data becomes pivotal.

Why This Workshop is Important: Modern water utilities are inundated with data from smart meters, but turning this raw data into actionable intelligence remains a challenge. Efficient middleware and software systems are the cornerstone of effective data integration, offering solutions to common problems such as data silos, redundancy, and real-time analysis delays. By streamlining data workflows, practitioners can rapidly respond to water usage anomalies, predict system failures, and optimize resource allocation.

This workshop provides a holistic view of the smart water meter data integration landscape, ensuring participants are well-equipped to navigate the intricacies of middleware, software, and workflow strategies effectively.

Learning Objectives & Takeaways:

- Grasp the fundamentals of middleware and its role in smart water metering
- Discover the best software tools tailored for water meter data integration
- Navigate the challenges and pitfalls of real-world data integration scenarios
- Master workflow strategies for efficient and insightful decision-making

Time: 09:00–14:00

POST-CONFERENCE WORKSHOP D

Practicalities Of Integrating Robust Cyber Security Measures Into Smart Metering Systems

Purpose of the Workshop: The rise of smart metering systems brings unparalleled advantages in data precision and operational efficiency for utility companies. However, as these systems become more connected, they also become vulnerable to an array of cyber threats. This workshop aims to address these vulnerabilities by focusing on integrating robust cybersecurity measures tailored to the unique challenges of smart metering.

Why This Workshop is Important: Smart meters are fast becoming the backbone of modern utility management, but their connectivity also makes them targets for cyberattacks. Breaches can lead to data theft, service interruptions, or even sabotage. By integrating cyber security measures designed specifically for these systems, we can safeguard critical infrastructure and maintain the trust of consumers.

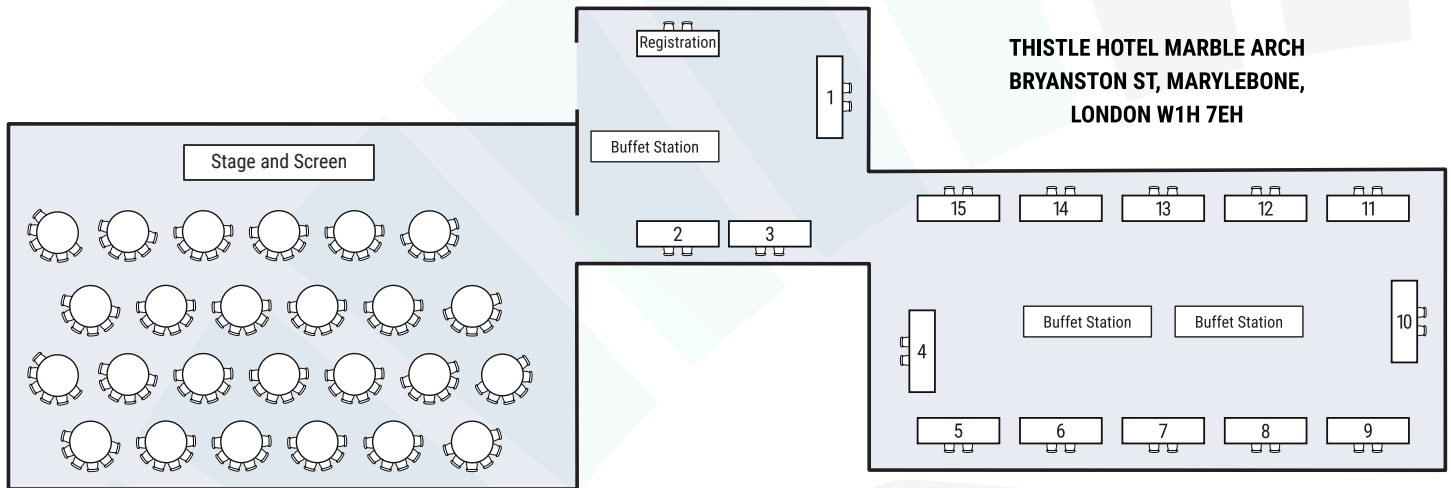
Learning Objectives & Takeaways:

- Understanding the cyber vulnerabilities specific to smart metering systems
- Identifying and implementing tailored security protocols
- Integrating real-time monitoring and rapid response mechanisms
- Adapting to evolving cyber threats while maintaining system functionality
- Through this workshop, attendees will gain a comprehensive understanding of the cyber threats facing smart metering systems and will be equipped with practical strategies to integrate robust security measures, ensuring the safety and reliability of critical infrastructure.

Time: 14:00–18:15

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