



www.milvian.group  
aqueduct@go.milviangroup.com

# AQUEDUCT

## Building Management For Modern Facilities

### INTRODUCTION

#### **Smarter Infrastructure. Healthier Spaces. Sustainable Operations.**

Like the ancient aqueducts that transformed civilizations with a constant, reliable flow of resources, Aqueduct™ delivers a steady stream of actionable intelligence to optimize modern facilities. From cutting utility costs to improving indoor air quality and achieving ESG goals, Aqueduct empowers facility teams with AI-driven, real-time insights and control.

Built for facility managers, sustainability leaders, and building operators, Aqueduct combines digital twins, advanced sensors, and automation to modernize building operations with confidence.

Ready to bring your next big project to life? Let's explore how leveraging AWS technology, paired with a solid business case, can maximize value for your generative AI, IoT, or micro-services applications. Connect with us today to get started!

[Request a Demo](#)



## Optimize Operations with AI-Driven Intelligence

Aqueduct seamlessly integrates across critical building systems, offering a single interface to monitor, analyze, and control key aspects of your infrastructure — in real time.



### Indoor Air Quality Monitoring & Control

Continuously track and optimize CO<sub>2</sub>, humidity, temperature, and particulate levels to ensure occupant well-being.



### Real-time Water Leak Monitoring & Control

Detect leaks instantly and automate shutoff actions to prevent damage and reduce wastage.



### Real-time Electricity Monitoring

Gain instant visibility into electrical load, usage patterns, and inefficiencies across equipment and zones.



### Real-time Gas Monitoring

Ensure safety with continuous gas-level tracking and automated alerting for potential leaks.



### Digital Twin Technology

Visualize your building systems in real-time for faster diagnostics, smarter planning, and improved performance.



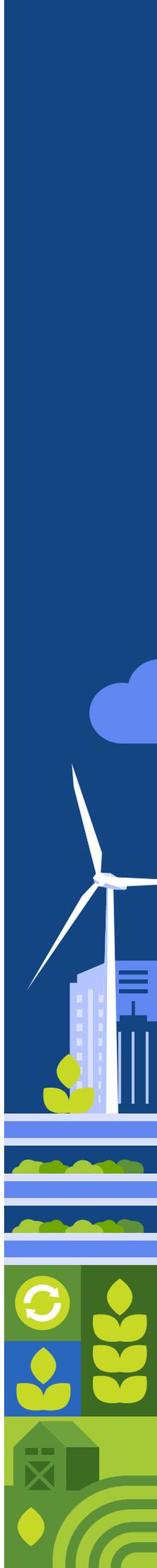
### Device Health Monitoring

Track equipment performance and maintenance status to prevent unexpected downtime.



### GenAI-Enabled Insights

Leverage Generative AI to surface hidden inefficiencies, automate reports, and uncover optimization opportunities.



## Reimagining Building Efficiency with Aqueduct



### Scalable & Future-Proof

Aqueduct seamlessly integrates with any device or protocol (LoRa, MQTT, Modbus, BACnet, OPC-UA), ensuring compatibility with both legacy and modern systems. Its robust, secure architecture guarantees uninterrupted data flow and long-term scalability.



### Continuous Monitoring & Sensor Health

Proactive sensor health monitoring prevents data gaps and downtime, ensuring uninterrupted insights for smarter, faster facility management.



### AI-Powered Predictive Insights

AI analyzes real-time and historical data to optimize HVAC, lighting, and energy usage—cutting costs and preventing inefficiencies before they escalate.



### Generative AI for Smarter Decisions

GenAI transforms raw data and manuals into prescriptive recommendations, helping teams automate actions like ventilation adjustments or energy load shifting.

## The Business Case for Aqueduct

### Measurable Impact

- 15–30% energy savings through AI-driven HVAC optimization
- 40–60% reduction in equipment failures with predictive maintenance
- Lower compliance costs by preventing fines and streamlining reporting
- Healthier indoor environments improve productivity and reduce absenteeism

### Transparent Costs & Payback

With clear insight into CapEx, OpEx, and Total Cost of Ownership (TCO), Aqueduct delivers a typical payback in under two years — and sustainable savings long after.

## Empowering Every Role in the Facility Ecosystem

### For Facility Managers

Aqueduct empowers your team to stay ahead with real-time alerts, centralized monitoring, and intelligent automation.

- Reduce operational risks and costs
- Respond faster to anomalies and maintenance issues
- Simplify building operations with intuitive dashboards

### For ESG & Sustainability Teams

Track resource consumption, emissions, and wellness metrics — all in one place — to meet modern compliance and climate goals.

- Report Scope 1 & 2 emissions with data transparency
- Identify trends in energy, gas, and water usage
- Benchmark indoor environmental quality across facilities

### For Occupant-Centered Environments

Create healthier, more adaptive indoor spaces where comfort and sustainability go hand in hand.

- Maintain optimal air quality for wellness and productivity
- Detect environmental changes in real time
- Tailor control systems for dynamic occupancy patterns



## Why Milvian Group?

An AWS Advanced Partner, Milvian Group combines IoT sensor data with AI/ML to optimize facility operations. With deep expertise in managing complex building systems and driving sustainability goals, we deliver solutions built for today's connected, intelligent spaces.

**Transform your facility management processes with Aqueduct™ — the first step toward smarter, healthier, and more sustainable buildings.**

[www.milvian.group](http://www.milvian.group)

1-833-645-8426 | [aqueduct@go.milviangroup.com](mailto:aqueduct@go.milviangroup.com)

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