

# NIAGARA SUMMIT 2026

SEAMLESS CONNECTIVITY,  
POWERFUL INTELLIGENCE

**NS**<sup>2</sup><sub>6</sub>  
TECH TRENDS

**TRIDIUM**

1:00PM – 1:50PM | THURSDAY

# THE WIRELESS FRONTIER: SEAMLESS INTEGRATION OF BLUETOOTH, WIRELESS, AND SMART SENSORS WITH NIAGARA



TRIDIUM

# SPEAKERS



KEVIN MAMAJEK  
Product Manager  
Tridium



NICK CAO  
Strategic Partnerships  
Manager | Milesight



MITCHELL DAY  
Director of Sales  
Distech Controls



MACIEJ OLDZIEJ  
General Manager  
LumenRadio

# SPEAKERS



NICK CAO  
Strategic Partnerships  
Manager | Milesight

# Next-Gen Building Empowerment: Architecting Scalable Smart Building Solutions

**Nick Cao**

Strategic Partnerships Manager

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## 01

### Evolution of Building Development

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Explore the transformative journey of building development and the rise of smart technologies.

## 02

### Reliable Wireless Technology

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Discover the advantages of LoRaWAN in enabling efficient, scalable, and cost-effective IoT solutions

## 03

### Introducing Milesight: A Leader in IoT Innovation

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Learn about Milesight's commitment to delivering cutting-edge wireless sensing devices and solutions.

## 04

### The Milesight Ecosystem: Performance and Potential

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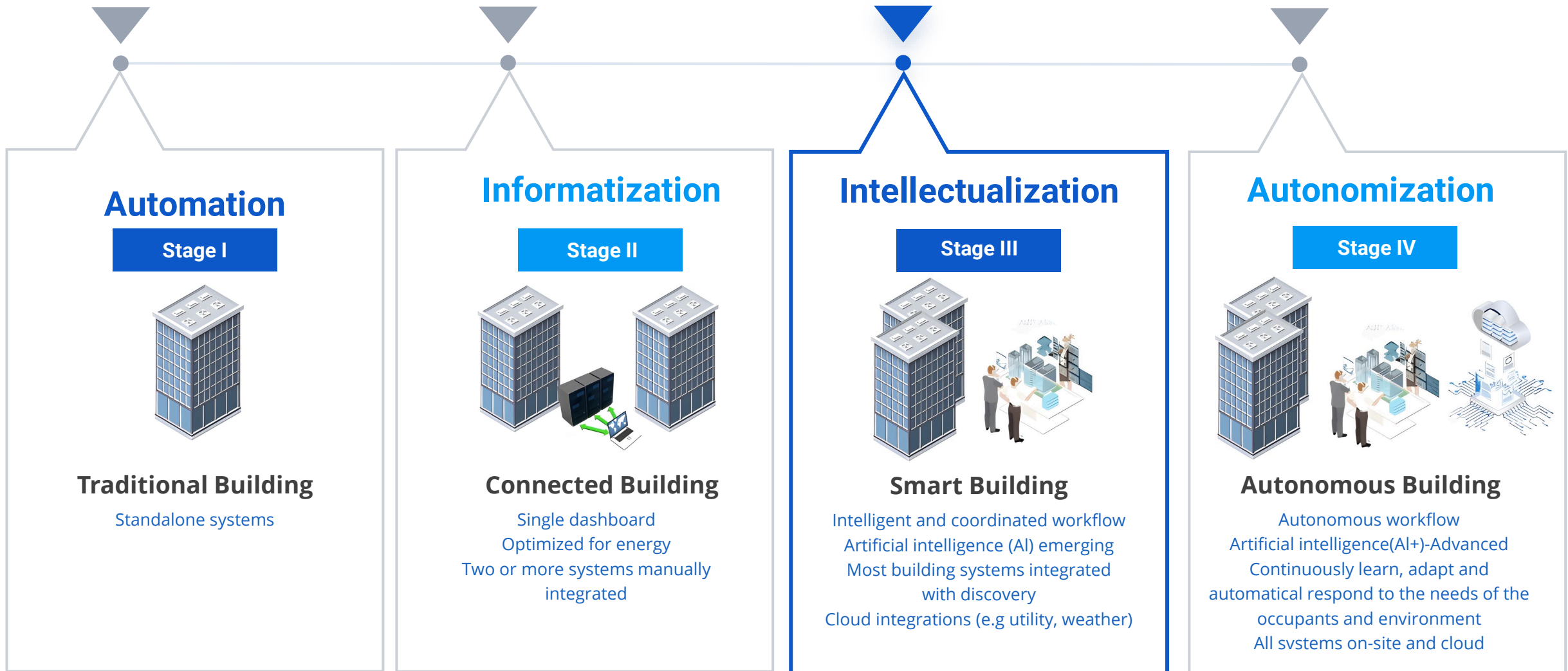
Understand how the Milesight ecosystem works and its proven impact

# 01

## Evolution of Building Development

Explore the transformative journey of building development and the rise of smart technologies.

# Developing Stage of Smart Buildings



# What is Needed for IoT in Smart Buildings Construction

## Rich Sensing Data:

Rich and accurate data from more dimensions collection and analysis.




## Easy Installation Devices:

Non-invasive setup that is quick to deploy, minimizing disruption and reducing installation costs.

## Seamless Integration Solution:

Superior compatibility to ensure smooth interoperability with existing systems and technologies.



-  Professional Sensing Devices
-  Reliable Wireless Technology
-  Well-established Sensing Solution

# 02 Reliable Wireless Technology

The Ideal Technology for Smart Building Connectivity

Discover the advantages of LoRaWAN in enabling efficient, scalable, and cost-effective IoT solutions



# LoRaWAN is a Strong Choice for Smart Building Applications

**Long-Range Communication:** Covers large areas within buildings and can penetrate walls and floors, making it ideal for multi-story structures.

**Low Cost:** License-free and Cost-Free ISM Bands.

**Effortless Installation:** Battery-powered with wireless communication, eliminating the need for wiring.

**Energy Efficient:** Delivers up to 10 years of battery life.

**High Connectivity:** A single gateway supports connections for thousands of devices.

**Enhanced Security:** Features robust encryption, advanced authentication, trusted algorithms, and private network support.

**Expansive Ecosystem:** LoRaWAN, backed by the LoRa Alliance, is widely adopted and supported by leading industry players, fostering a strong and growing ecosystem.

\* LoRaWAN technology is rapidly advancing, driven by increasing global adoption, expanding network coverage, and its ability to provide scalable, low-power IoT connectivity for smart buildings, cities, and industries.

# 03 Introducing Milesight: A Leader in IoT Innovation

Learn about Milesight's commitment to delivering cutting-edge wireless sensing devices and solutions

## ABOUT MILESIGHT

Milesight offers multi-potential sensing products that accurately capture the most relevant and significant data for a growing variety of needs and applications.

Across AI, 5G, IoT, and other forward-thinking technologies, we innovatively extend the technological potential to unique niches and scenarios. With a keen perception of data value, we prioritize adaptive agility to quickly respond to customer-specific challenges and deliver safety, efficiency, and business insights.

In collaboration with a diverse partner ecosystem, we are committed to realizing data value and making real and positive impacts in the fields of smart building, intelligent traffic, intelligent security, smart city, and beyond.



**67.70%+**

CAGR



SENSING

**56%**

R&D Team



**2000+**

Distributors and Partners



**120+**

Countries and Regions



**1,000,000+**

Milesight Devices Deployed  
Globally

# RICH PRODUCT LINEUP

## Sensing Nodes



Indoor Air Quality



Occupancy & People Counting



Temp. & Humi. Detection



Energy Efficiency Control & Monitoring



Environmental Sensing



Distance Detection



Water Leak Detection



LoRa® Controllers



IoT Weather Station

## Connection



LoRaWAN® Gateway



Industrial Cellular Routers



5G Suit

## Vertical Industries



Smart Building



Smart Retail



Smart Agriculture



Smart City



Cold Chain & Logistic



Smart Industry



Milesight IoT Cloud



DeviceHub



Milesight VPN



Milesight Development Platform

# MILESIGHT SENSING PRODUCTS EMPOWERED SMART BUILDINGS

The three main modules in Buildings are the core, and People Sensing empowers, creating a differentiated advantage.



## Facility Management

- Facility Protection & Maintenance
- Efficiently Management
- Meter Retrofits
- Smart Restroom Management



## Energy Management

- HVAC Management
- Lighting Management
- Energy Monitoring & Management



## Space Management

- Environmental Comfort Improvement
- Office/Workspace Space Management
- Smart Restroom Comfort
- People Caring
- Human Well-being Certification Assistance

# FACILITY MANAGEMENT

## Efficient Management

### Centralized HVAC Control



WT Series

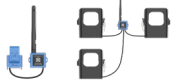
### Centralized Lighting Control



WS Series

## Facility Protection & Maintenance

### Power Status Monitoring



CT Series

### HVAC Performance Monitoring



WT Series

IAQ Series

### HVAC Pipe Monitoring



TS Series

EM Series

## Restroom Management

### Restroom Cleaning Schedule Management



People Sensing



WS Series

### Restroom Supplies Management



WS Series



EM Series

## Meter Upgrades

### Remote Metering



EM300-DI



UC Series



# ENERGY MANAGEMENT

Milesight

## HVAC Management

Unified Manual Dispatch & Local Automation Adjustment



WT Series

Data-Driven Control: Real-Time Local Interaction



IAQ&WS Series

VS Series

Data-Driven Control: Energy-Saving Strategy Optimization



CT Series

TS Series

EM Series

## Lighting Management

Smart Lighting Control



WS Series

Restroom Supplies Management



VS Series

## Energy Monitoring

Data-Driven Control: Real-Time Local Interaction



WS Series

Data-Driven Control: Energy-Saving Strategy Optimization



WS Series

CT Series



# SPACE MANAGEMENT

## Environmental Comfort

### Temperature and Humidity Control



IAQ&EM Series



WT Series



VS Series

### Noise Monitoring



WS302

### (E-)Cigarette Detection



GS601

NEW

## Workspace Management

### Space Optimization



VS&DS Series

### Footfall Monitoring



VS Series

### Sanitation Management



VS Series



## People Caring

### Human Comfort & Safety



VS373  
Fall Detection

## Smart Restroom Comfort

### Restroom Air Quality Management



GS301

### User Satisfaction Management

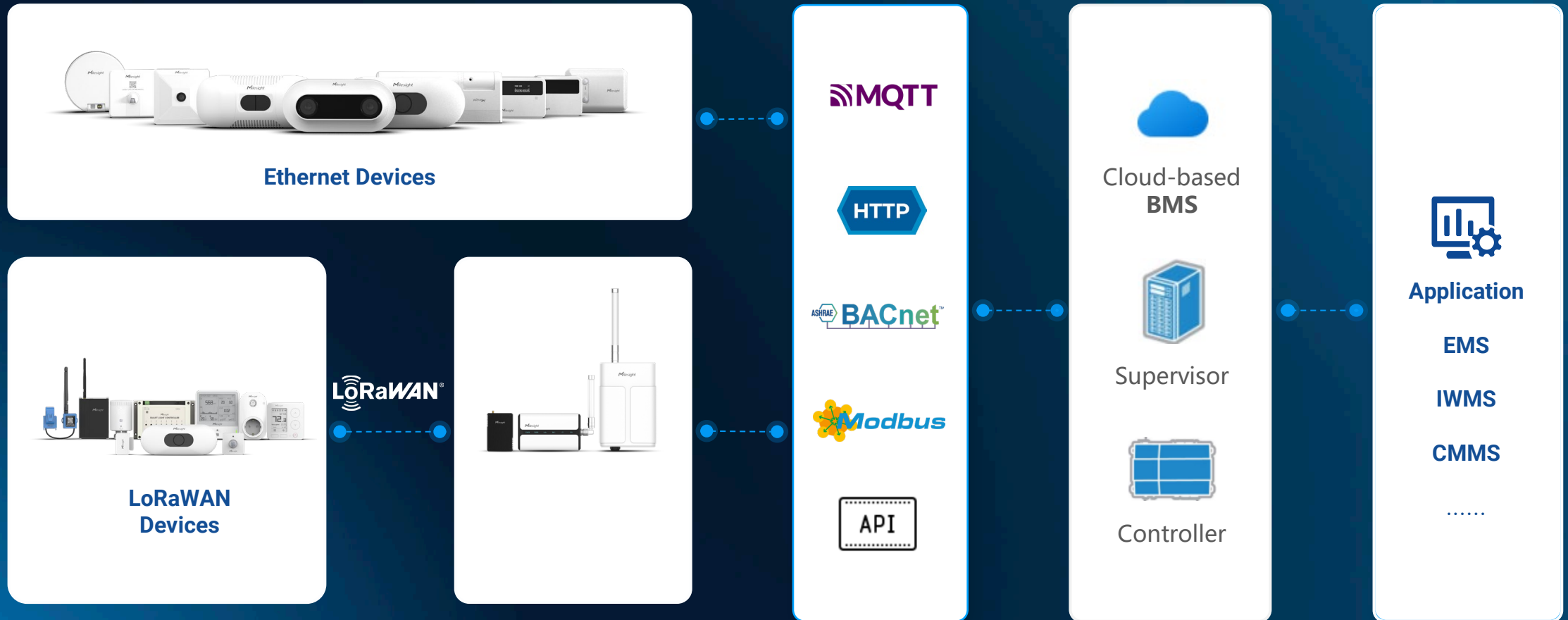


VS350



Display

# SMOOTH INTEGRATION IN SMART BUILDING



# SEAMLESS INTEGRATION WITH NIAGARA

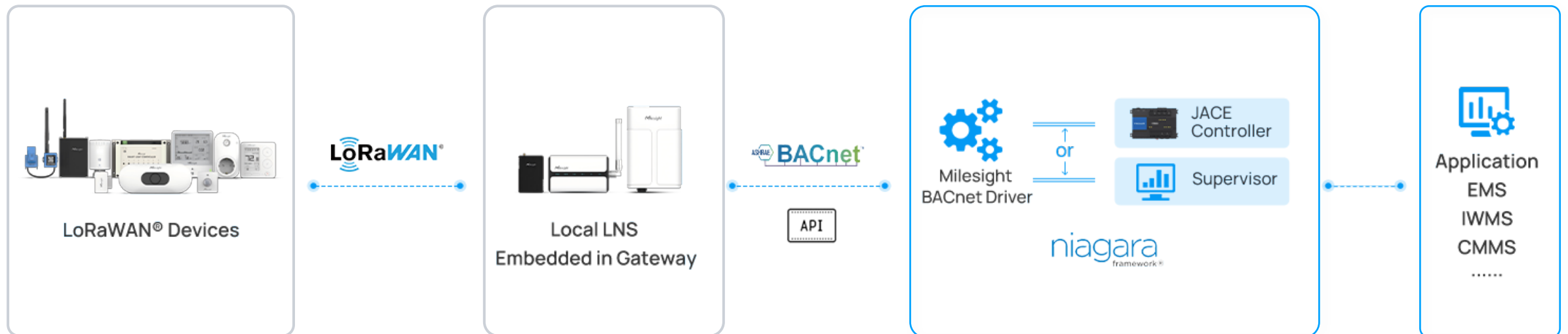


Empower Smart Buildings with Effortless LoRaWAN Gateways Integration in Niagara

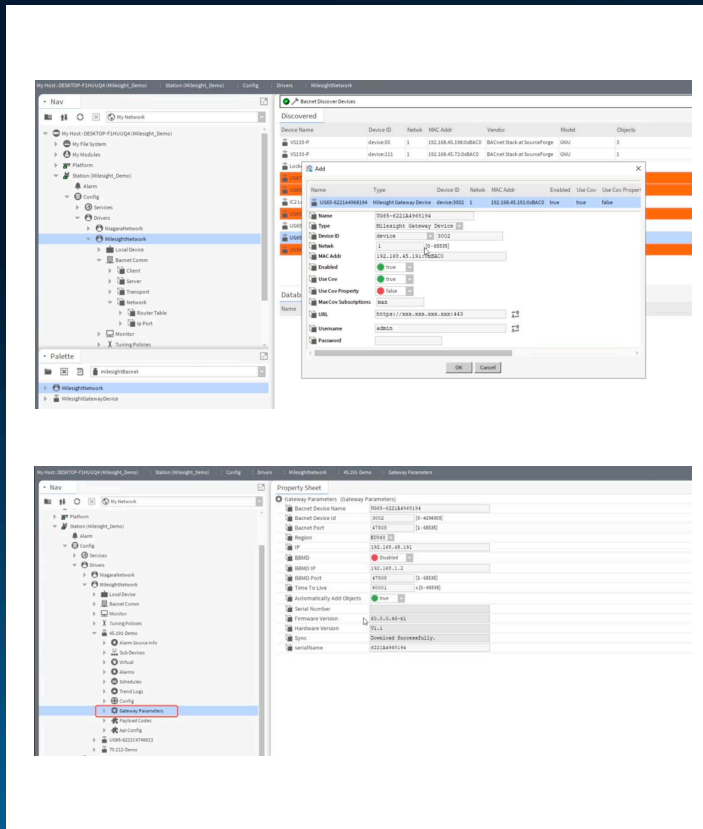
**Milesight BACent Driver** for seamless integration between Milesight devices and Niagara or Niagara-based BMS.

## Key Benefits

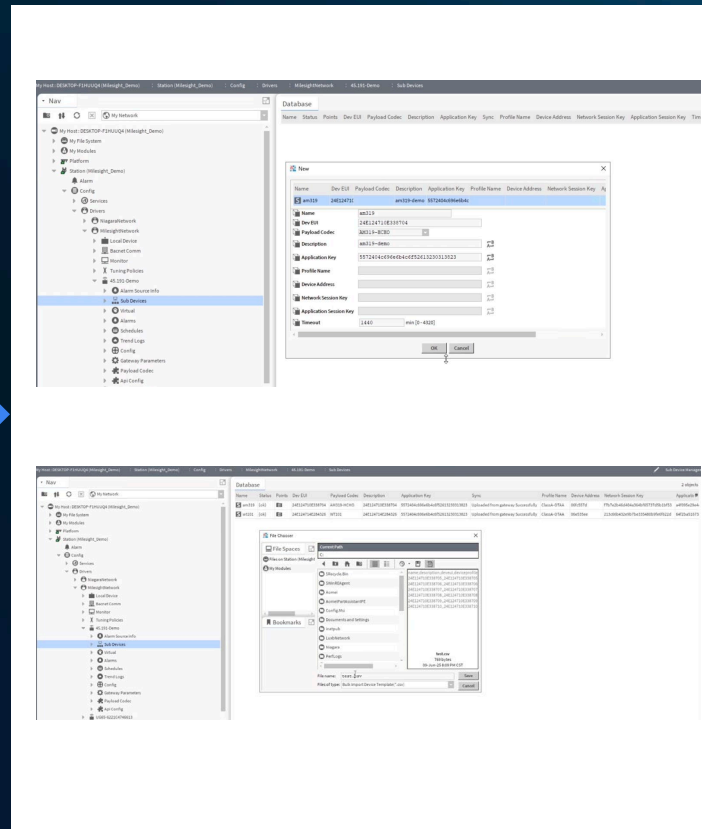
- Effortless Integration, No Extra Coding
- Unified Configuration in Niagara Workbench
- License-Free, Lower Project Costs
- Easy Expansion and Maintenance



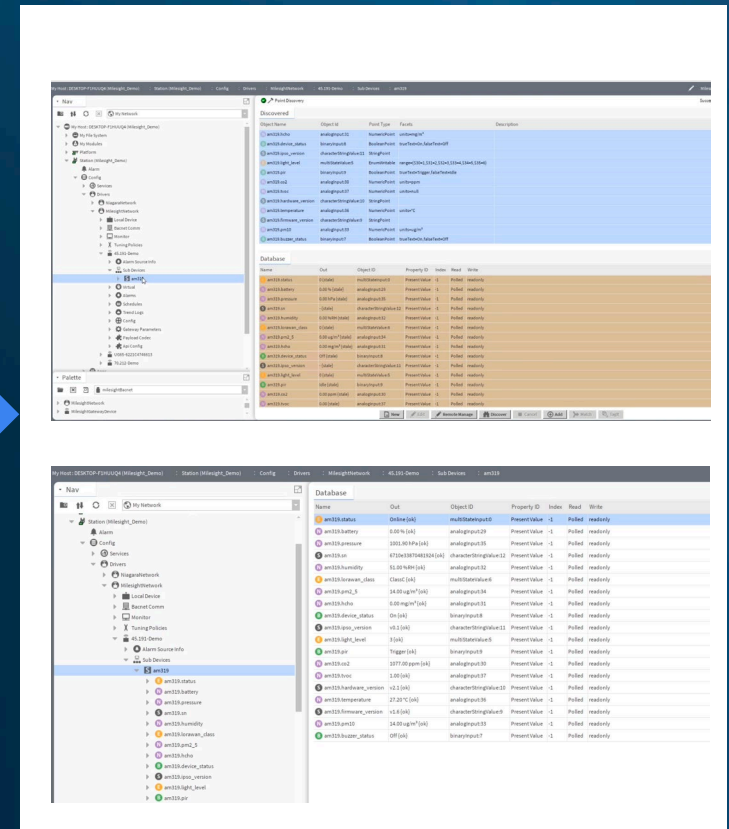
# SEAMLESS INTEGRATION WITH NIAGARA



Milesight Gateway Adding and Setting



Milesight Sensor Adding and Bulk Importing



Data Points Discovering and Loading

# INNOVATION BUILDING INTEGRATION



Strong Connectivity, Flexible Integration



## EG71 Building IoT Gateway

- **Powerful Edge Performance**

Quad-core industrial-grade processor with large memory ensures stable performance for large-scale device connectivity and edge processing.

- **All-in-One Protocol Support**

Modbus TCP/RTU, BACnet IP/MS/TP, MQTT & HTTP(s).

- **Comprehensive Communication Interfaces**

RS485, KNX, M-BUS, I/O, LoRaWAN, Wi-Fi, 4G & Ethernet devices.

- **Secure & Customizable Edge Platform Support**

Offers secondary development capabilities (Python SDK and Node-RED) to build customized BMS systems.



Building IoT Gateway

# SUCCESS STORY OF INTEGRATION



**Position**  
Trieste, Italy

**Milesight Partner**  
OpenSense

## Background & Challenges

Over 100 existing residential buildings needed an electricity and heat consumption monitoring system. These buildings are residential condominiums where hundreds of people live, so it was not possible to carry out cabling and building work.

## Heat and Energy Consumption Monitoring over 100 Residential Buildings in Italy

Applied Products	Installation location	Results
UC100-868M	Meter Box (Electricity Meter & Heat Meter)	The UC100 IoT Controller collects data via Modbus from the field instruments in mechanical rooms and boiler rooms
UG56-868M	Meter Box	Given that Milesight UG56 Industrial LoRaWAN® Gateway supports for BACnet/IP to integrate into existing Building Management System (BMS).

## Benefits

Easy integration with BMS using BACnet and allows the real-time monitoring without interruption. The smart transformation has accelerated its ability with centralized platform.



# SUCCESS STORY IN SMART BUILDING



## Position

Ontario, Canada



## Milesight Partner

Peak Power



## Background & Challenges

- Poor Signal
- Excess Maintenance
- Extra Expense

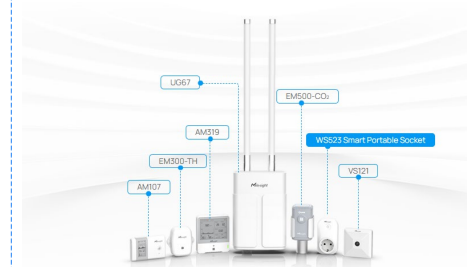
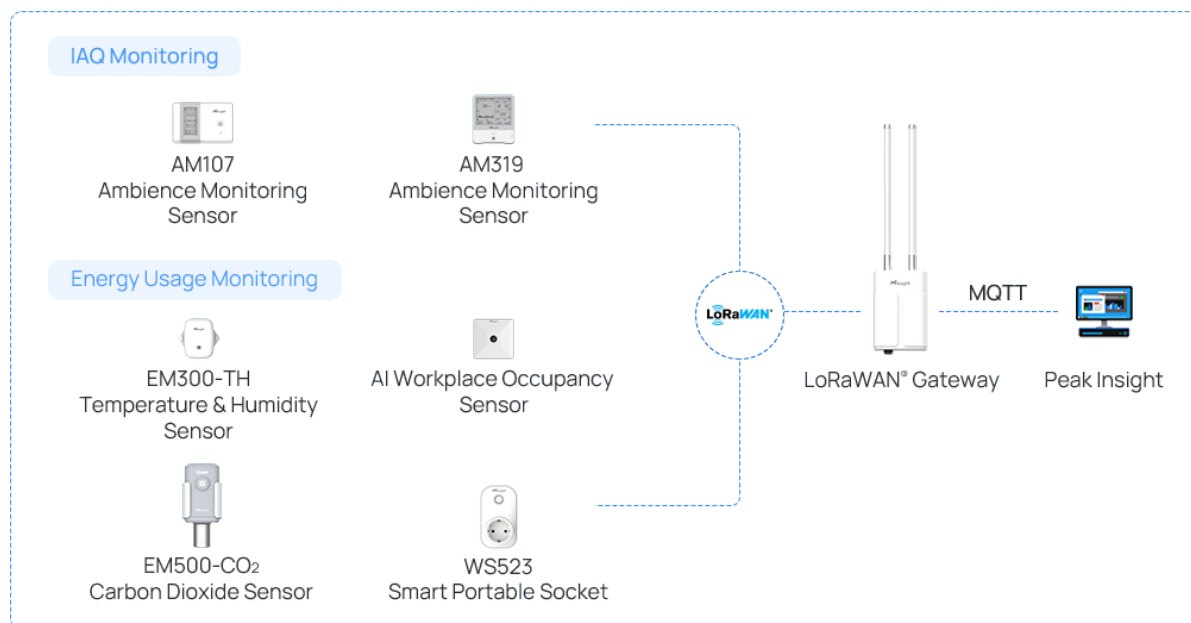
## Milesight 4,400 Sensors Energize 62 Energy Efficient and Comfortable Buildings in Canada \$250,000 Saved each Quarter

Milesight's partner, Peak Power, is a Canadian cleantech pioneer revolutionizing energy management by integrating battery storage, grid-interactive buildings, and bi-directional EVs into a single decarbonization platform to drive net-zero goals and financial benefits.



## Benefits

Data-Driven Analyses / Accurate Insights / Remote and Automated Management / Superior Indoor Air Quality / Energy-efficient and Eco-friendly Building



# 04 The Milesight Ecosystem: Performance and Potential

Understand how the Milesight ecosystem works and its proven impact

# BUILDING AN ECOSYSTEM OF COLLABORATION



Create Win-Win Opportunities

Scale Sales Opportunities and Replicate Proven Solutions

Deep Integration and Feasible Industry Solutions

Identify and Partner with Key Ecosystem Players

Focus on High-Growth Market Segments



**MILESIGHT PARTNERS**


*Milesight*

**THANKS FOR WATCHING**




**Stay in Touch on Milesight Social Media!**

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# SPEAKERS



MITCHELL DAY  
Director of Sales  
Distech Controls

# University of Glasgow: Wireless Room Control with Niagara

883,000 sq ft | University of Glasgow

## Challenge

- Wiring window sensors across multiple floors was **cost-prohibitive and limited by controller I/O capacity**.
- Required a scalable, low-disruption approach in an **active university environment**.

## Tech Approach

- **Wireless EnOcean sensors** deployed across floors to eliminate hard-wired connection
- Integrated via gateways into **Eclipse controllers (edge control and data normalization)** and connected to the **Niagara Framework (EC-Net Facilities)**
- Enabled **local control logic** (window open = heating off)



# University of Glasgow: Wireless Room Control with Niagara

883,000 sq ft | University of Glasgow

## Outcome

- **Reduced installation time and cost** and complexity by eliminating extensive wiring
- **Removed controller I/O constraints** through scalable wireless integration
- Enabled **room-level energy optimization** (window open = heating off)
- Data normalization, control, monitoring, and system-wide, centralized visibility **through Niagara**
- **Scalable architecture** for future expansion



# Hospital Retrofit: Wireless Meter Integration with Niagara

70-Year-Old Fully Operational Hospital | University of California San Francisco Health

## Challenge

- Connecting distributed **water meters in a 70+ year-old**, fully operational hospital.
- Limited access, complex layout, and minimal tolerance for disruption.

## Tech Approach

- **Wireless LoRaWAN-enabled water metering** (4 points), integrated into the **Niagara Framework via LoRaWAN-BACnet/IP gateway**

## Outcome

- **Low-cost** deployment with minimal infrastructure requirements
- **Near-zero disruption to hospital operations**
- **Rapid install** with limited labor time



**"For years, the cost of wiring and powering sensors held us back from getting the visibility we needed.**

**LoRaWAN changes that — long battery life, deep indoor reach, and low-cost deployment mean we can finally connect meters, equipment, and hard-to-reach spaces at a scale that actually makes sense."**

Gabe Sandoval

Sr. Controls and Commissioning Engineer, UCSF Health



# 20+ Years Partnering with Tridium

Trusted Tridium OEM Partner since 2004, Perennial Platinum-level



Lead with **Niagara Framework as Supervisory Solution** for Distech Controls controller network

Global **ecosystem of Niagara-certified System Integrators**, fully supported by Distech

Ongoing enablement with **in-person, virtual, and self-paced training** for technicians and operators

**Continuous innovation** with solutions designed and **optimized around Niagara**

**Open** by design.  
Built to **perform**.  
Delivered **together**.  
**20+ years** with Tridium.  
  
Let's build **what's next**.

**DISTECH**  
**CONTROLS™**



# SPEAKERS

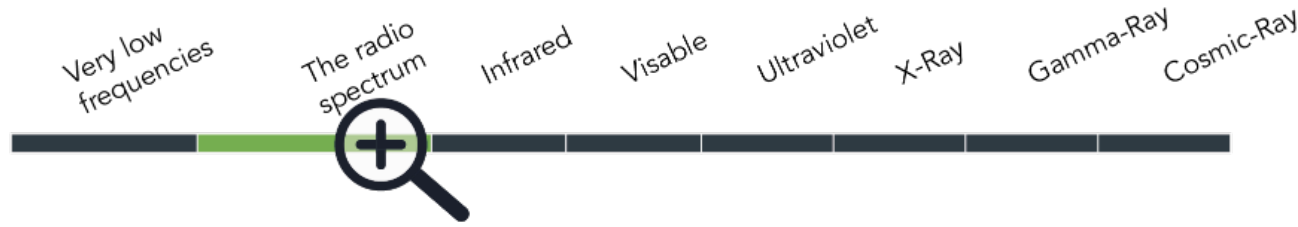


MACIEJ OLDZIEJ  
General Manager  
LumenRadio

# Wireless Experts Since 2018



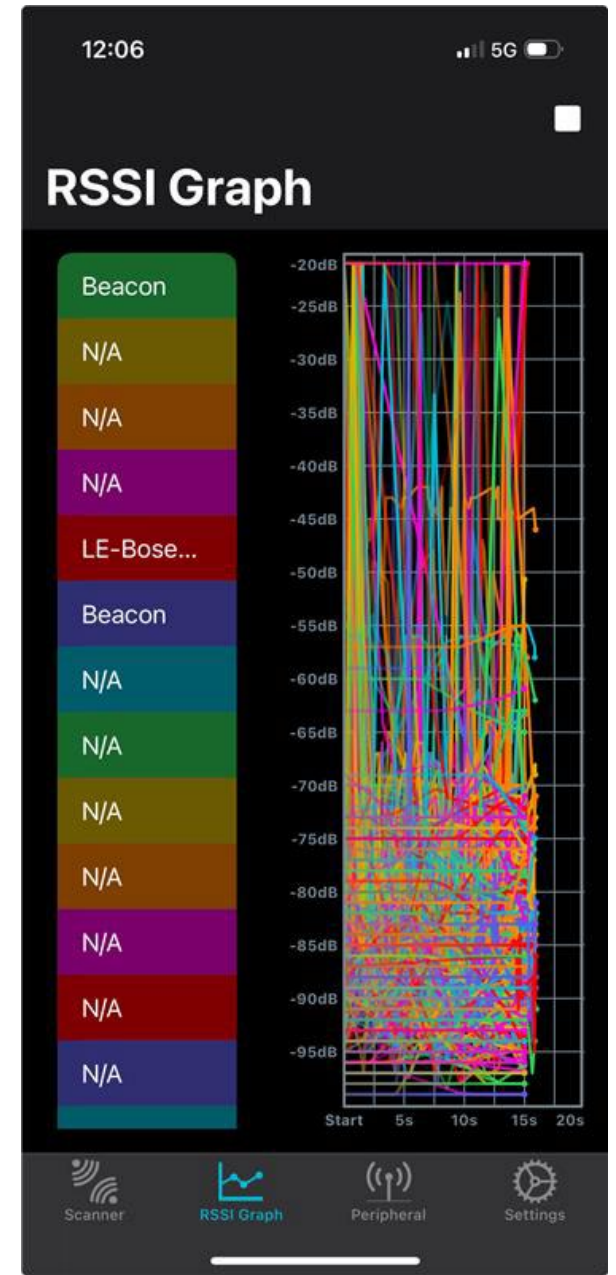
# 2.4 ghz is out of Space



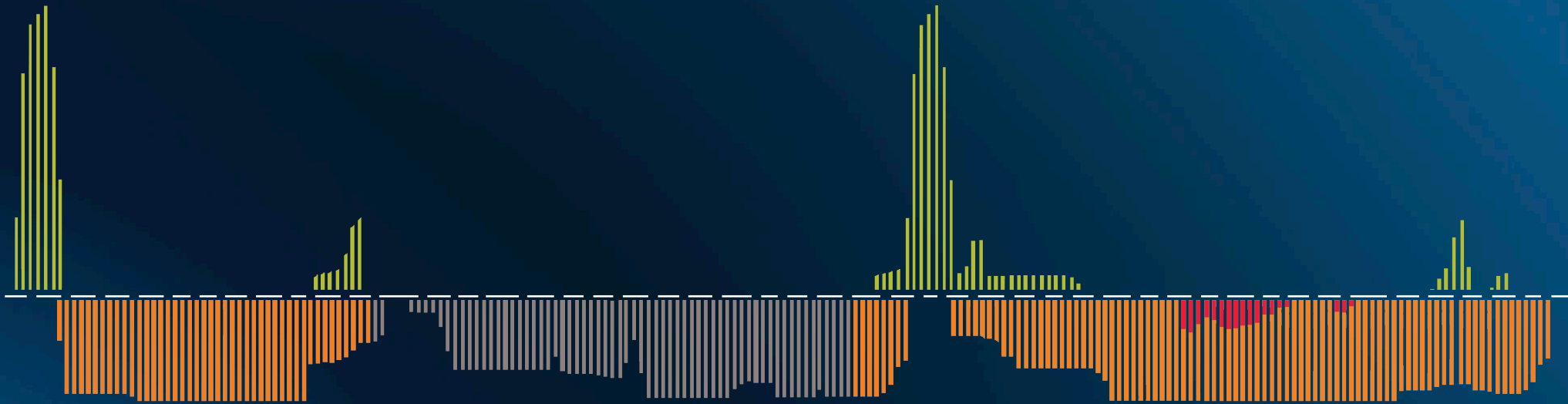
The radio spectrum



2,4GHz



# Wireless Without Worries



Patented technology that predicts on a millisecond basis how the frequency spectrum will be utilized going forward and uses this to adapt to the best available and least congested frequencies.



# Wireless MS/TP Mesh: Retrofits Made Easy



Application & OEM agnostic



Native BACnet communication



Self-forming and self-healing

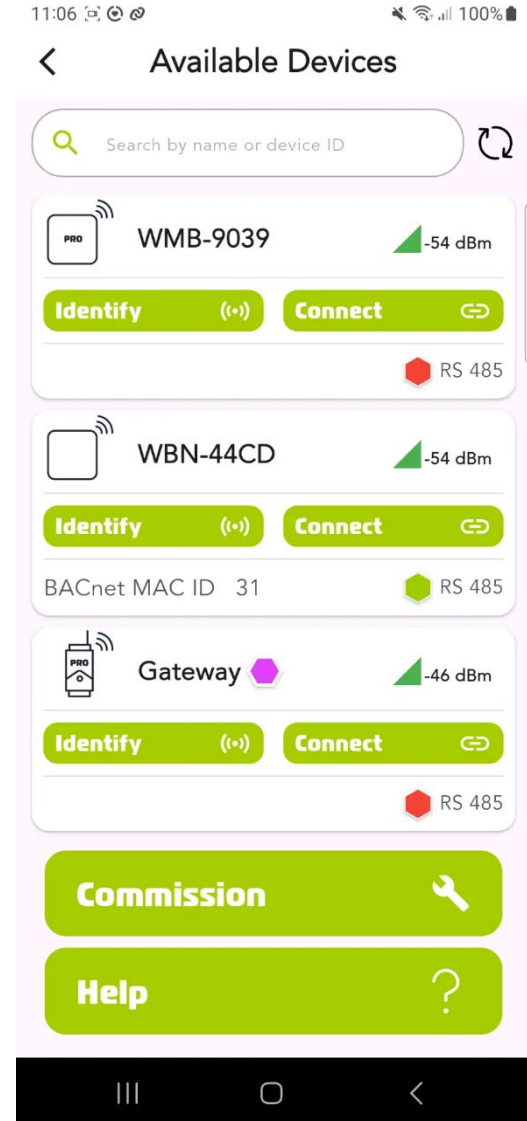
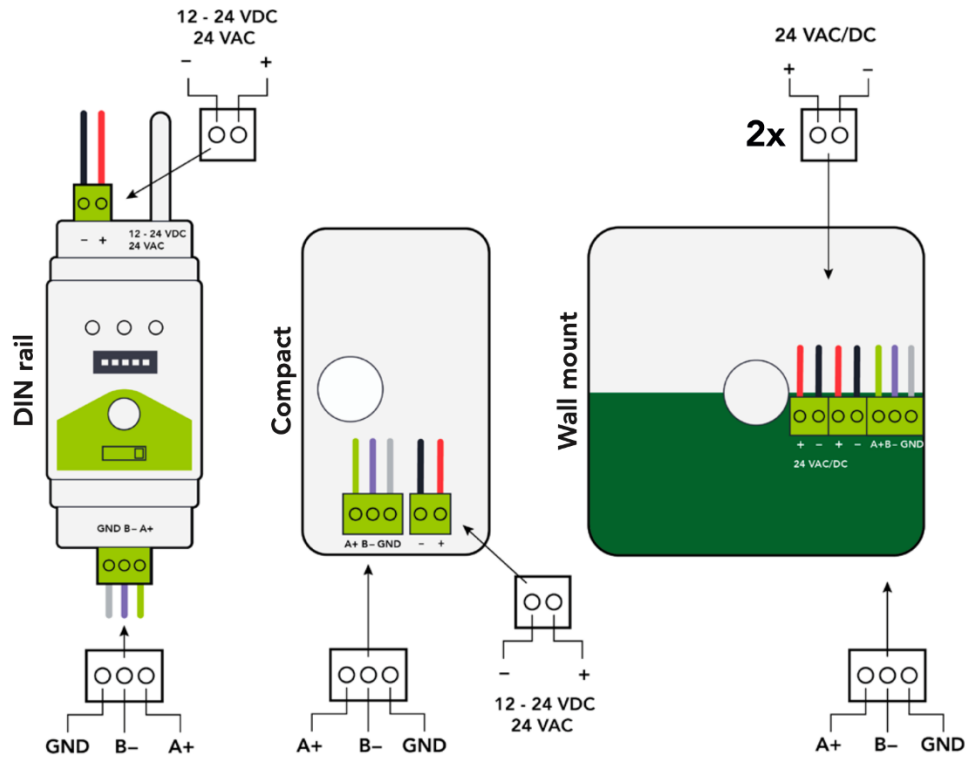


Secure, stand-alone, and encrypted



Flexible range and network size for bespoke installs

# Plug-and-Play Install



# RTU Retrofit: Jersey City, NJ



- **Challenge:** LTE antennas & timeline
- **Setup:** JACE to 6 RTUs
- **Savings:** Completed in 3 hours vs 1 week of wiring
- **W-BACnet Deployment:** 7 Wireless Devices

# FCU Retrofit: Austin, TX



- **Challenges:** Tenant & business disruption
- **Setup:** 40 FCUs connected to BACnet routers via IP riser
- **Savings:** ~90% labor savings
- **W-BACnet Deployment:** 6 wireless BACnet networks per floor



*May the **FREQUENCIES**  
be with you*