







Jason Bennett
Solutions and Design
Integration Specialist





Agenda

- The Niagara Community
- Introduction to Reflow
- Key Features
- Benefits to System Integrators
- Benefits to End Users
- Community Enrichment
- Training and Support
- Contact Information and Demo







Niagara Community



- The Niagara Community is a global network of developers, integrators, and users utilising the Niagara Framework for building automation and control systems.
- It fosters collaboration, knowledge sharing, and innovation among stakeholders in the building automation industry.





Niagara Community



- Members include system integrators, software developers, building owners, facility managers, and technology vendors.
- The community provides a platform for networking, professional development, and staying up-to-date with industry trends.

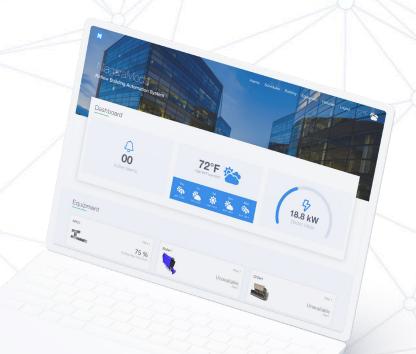


Introduction to Reflow TRIDIUM

Tech Specs – A few details to be aware of...

- Requires Niagara 4.6 or later
- Compatible with JACE 8000 equivalent or Web Supervisor
- Reflow inherits Niagara's Security model
- Module size of 8.5MB
- Weather & map features require an internet connection

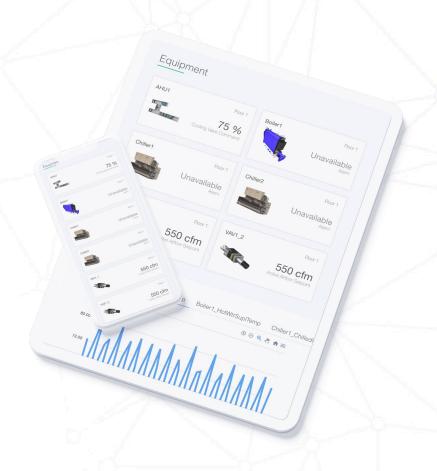








Overview of Reflow



- Reflow was designed to make creating equipment graphics, floor plans, and dashboards a quick and easy process.
- Histories, Schedules, and Alarms work instantly, with zero configuration needed. This saves time on projects while making your work look amazing, giving you a competitive advantage.







Reflow and the Niagara Community



Distributor

- Reflow enriches the Niagara Community by offering one solution giving the system integrator "one hat" to help manage those first impressions and enhance user experience, improve building performance, and facilitate client collaboration.
- Reflow empowers system integrators and end users within the community to create smart modern dashboards, more efficient buildings and helps contribute to the growth and success of the Niagara Framework.

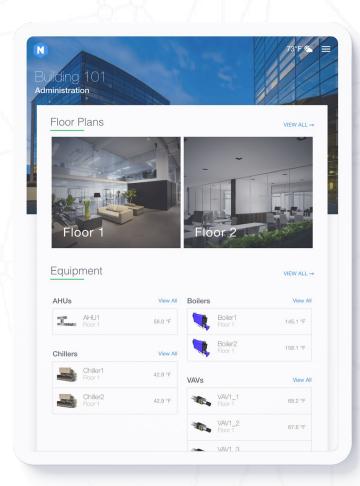








Key Features



- Responsive is built-in
- Enhanced user interface and visualisation capabilities
- Modern dashboards with simplified reporting and alarm monitoring functionalities
- Fully featured graphics and floor plan editor for scalability and flexibility for those diverse projects with multiple devices





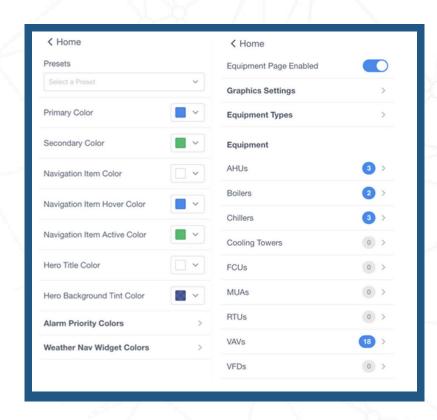
Benefits to System Integrators



TRIDIUM



Benefits to System Integrators



- Reduced development time and effort
- Streamlined no coding process (on/off) (drag and drop)
- Access to a growing library of pre-built dashboard widgets
- Increased collaboration opportunities







Benefits to System Integrators

1000+

Host IDs Licensed to date

30% Savings per project

potential





Benefits to End Users TRIDIUM

Benefits to End Users



- Enhanced building performance and energy efficiency overview
- Improved overview of occupant comfort and well-being
- Real-time monitoring and data-driven decisionmaking (at the work-face)
- Easy customisable dashboards and visualisations
- Cost savings through optimised system operation

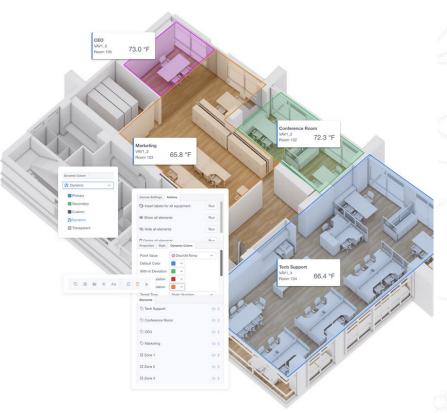




Versatility and Scalability TRIDIUM



Versatility and Scalability



- Configuration Backup
- Built-In Documentation
- Free updates and bug fixes
- Unlimited Buildings & Floorplans
- Easily scale up your sites by adding more devices
- Addons to supercharge Reflow





Community Enrichment TRIDIUM



Community Enrichment



- Encourages collaboration and knowledge sharing
- Promotes innovation and better creativity
- Fosters a supportive ecosystem of system integrators and end-users
- Expands the capabilities and reach of the Niagara Framework







Training and Support



- Built-In documentation
- One Sightsolutions Support Team
- OneSightTV YouTube Channel
- https://www.youtube.com/@OnesightTV











Contact





- Please see us at stand R4 and R5
- contact sales@onesight.solutions







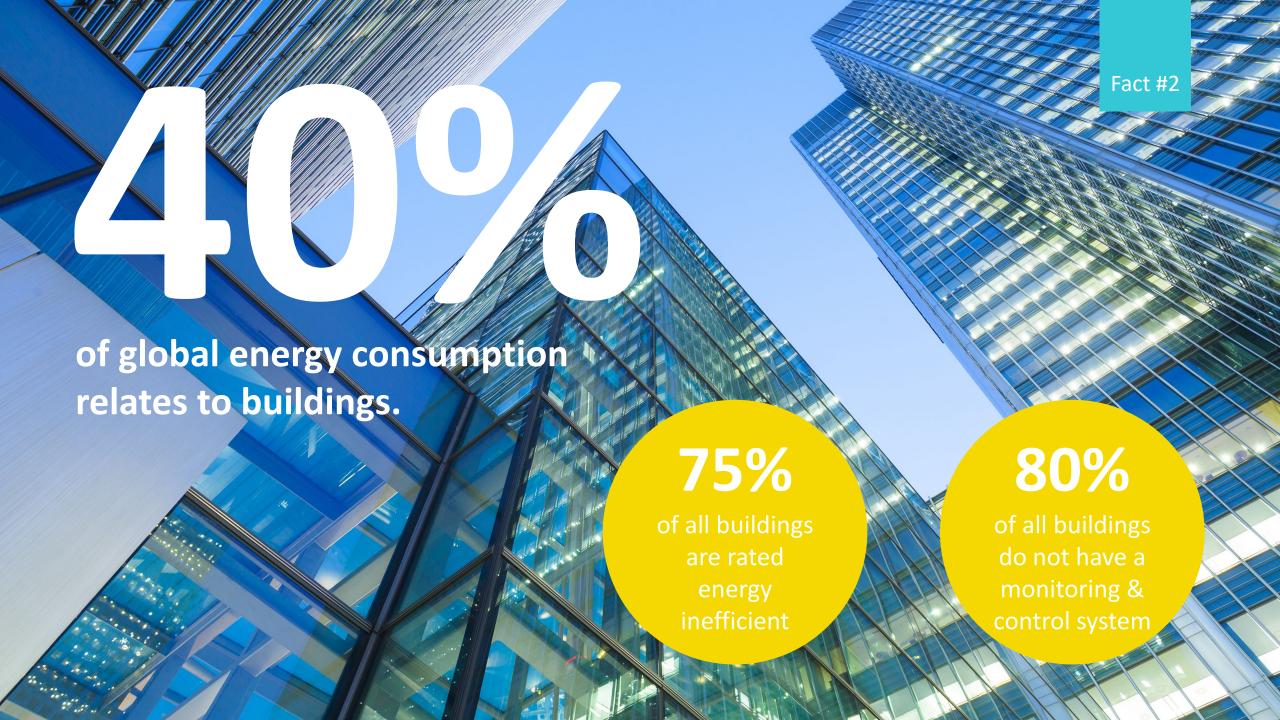














Conflict situation

Europe is built

Majority of buildings is not controlled, monitored and energy optimized

Old technology

BMS in the buildings is often outdated, not used or comes with an unfriendly UX

Slow renovation rate

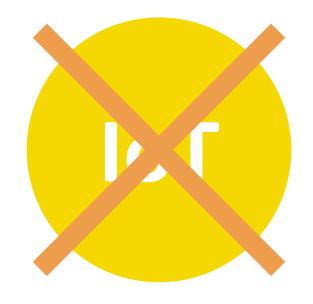
Only 0.4 – 1.2% of the real estates in the EU is renovated every year

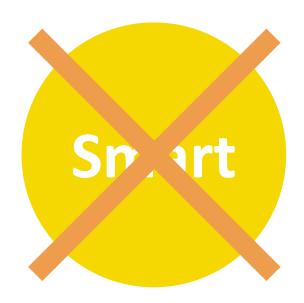
Digitization is demanded, but the technology used is outdated. We are not ready for a digital future with data democratization yet.



The solution?







No standartized protocols

No data democratization due to silo systems

No interface to existing systems



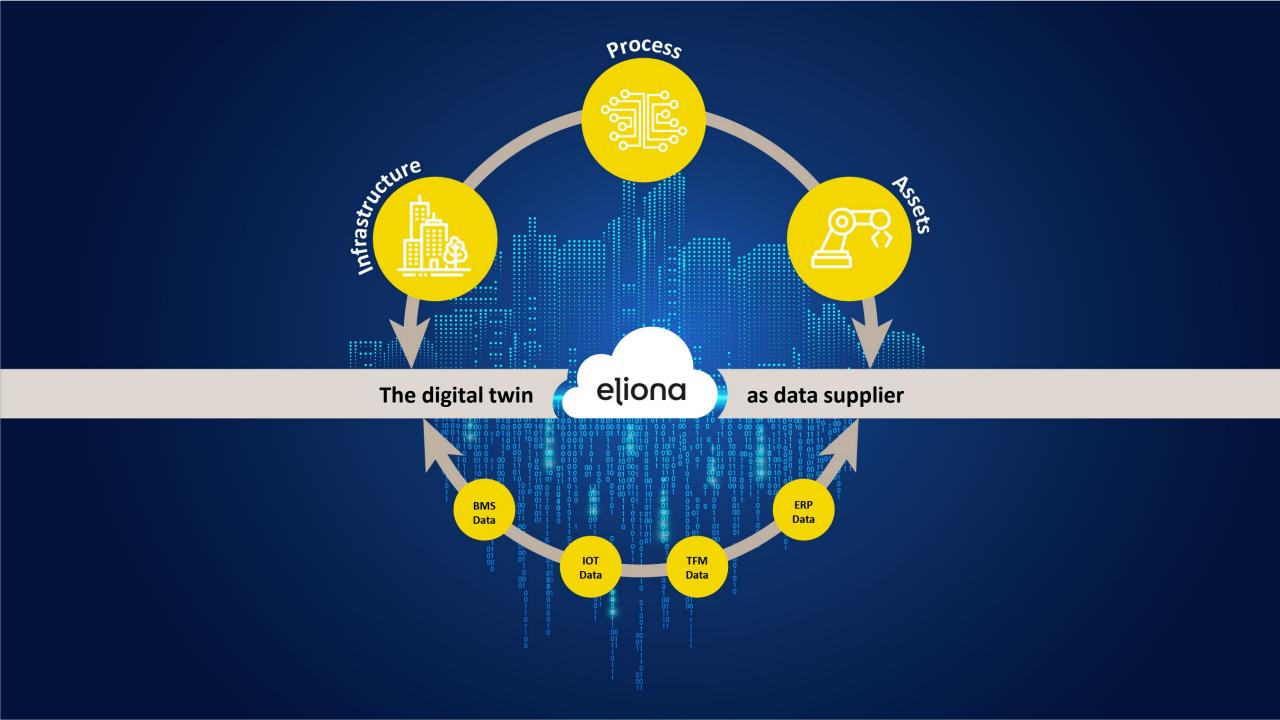
The solution!



Adaption to the real user needs and focus on UX

Reflection of typical use cases by experience

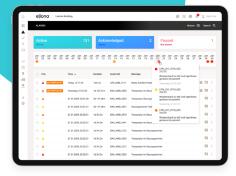
Deployment through building system experts



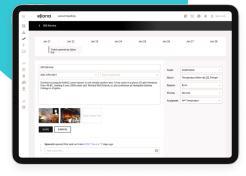
Data visualisation with individual dashboards



Central, rules based alarming & escalation



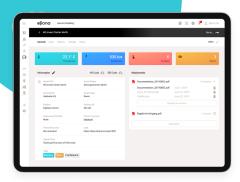
Ticketing



Historical data, analysis & reporting



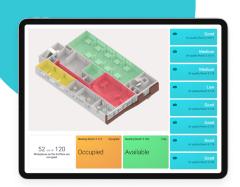
Asset & document management



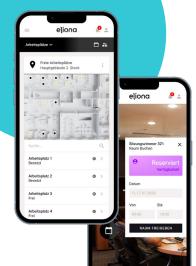
Map view in 2D, 3D and BIM



Views

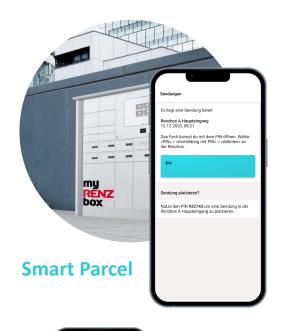


Smart Assist



And you can easily add IoT use cases through our partner network, to increase operational performance of your property and staff

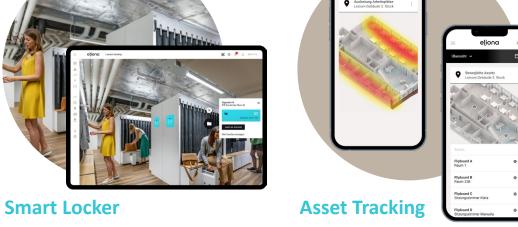


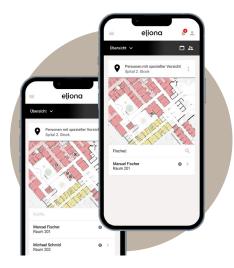




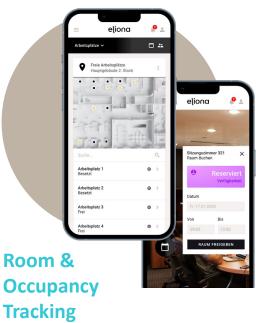












All this only one fingertip away ...



Highly scalable in size and function

Easy
engineering
with no /
low code

... for you as a System Integrator

1

Order your Eliona
Cloud instance

2

Create your project and set up the users

3

Map your Niagara® station with your Eliona instance and load the data in your project

4

Engineer your
Eliona project with
trends, alarms,
dashboards, views
and visual
elements like
floorplans, digital
twin with real time
data

Smart Building has never been easier!



Mail me: christian.heim@eliona.io or visit eliona.io











Ged Tyrrell Group CEO







Josh Sykes Associate Director





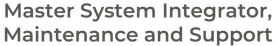
TYRRELL BUILDING TECHNOLOGIES GROUP













Smart Building, Analytics and ESG Reporting Platform

Tyrrell Building Technologies is a PropTech SaaS analytics, IoT/Automation, and engineering business helping clients optimise building performance reduce running costs and achieve their ESG goals.













W SP is a leading engineering and professional services consulting firm with over 66,000 passionate people globally. We help our clients achieve their ambitions by providing strategic advice, technical expertise, and a passion for impactful results.









SMART BUILDING TECHNOLOGY, ENABLEMENT AND BENEFITS



SECTION TOPICS





1.UDMI

2.**DBO**

3.DAQ

4.Project Examples



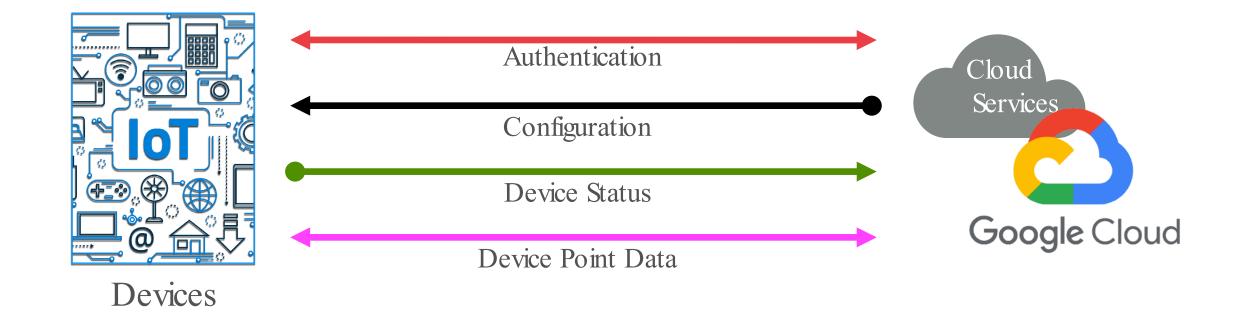




UDMI



Universal Device Management Interface







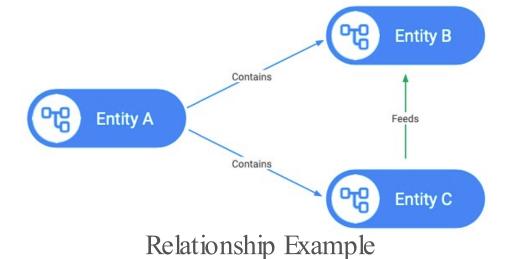


DBO

Digital Buildings Ontology



- Entities
- Entity Types
- Properties
- Relationships





Real World 'Entity' Example



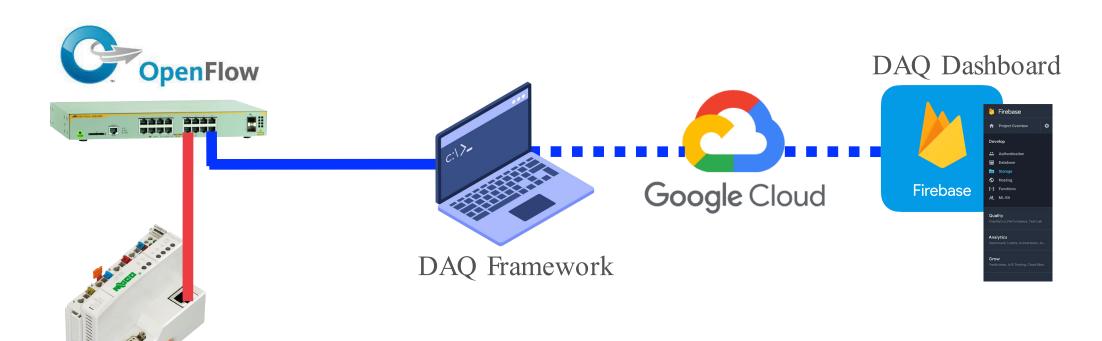




DAQ

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Device Automated Qualification



Test Device (Controller)







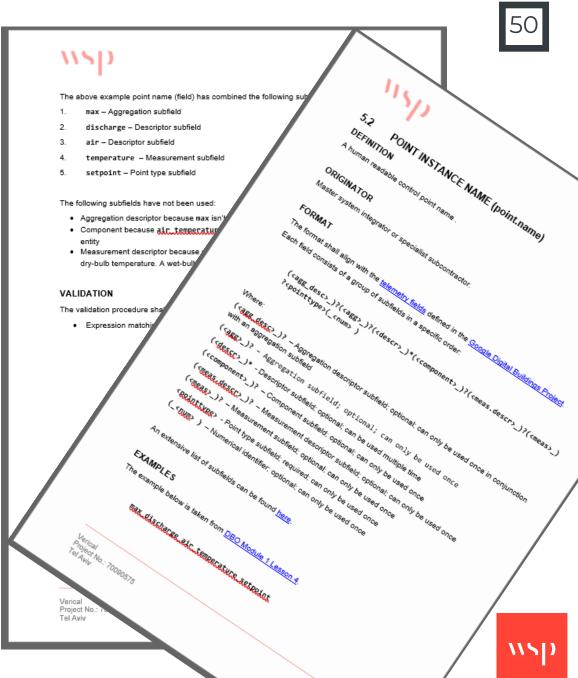


PROJECT EXAMPLES





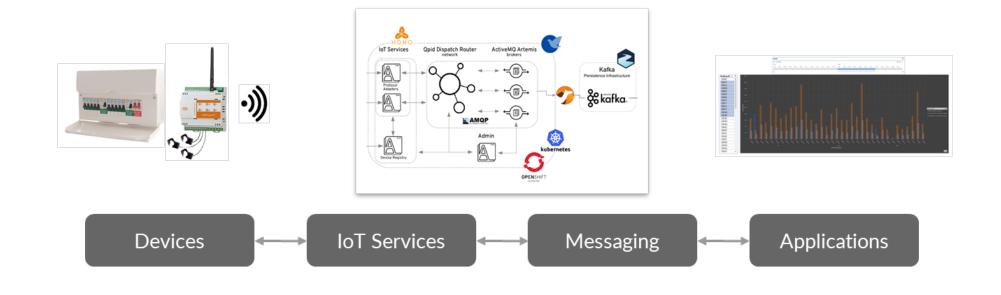






PROJECT EXAMPLES





579
Homes Monitored

7371 Unique Data Streams 500 million +
Data Points Collected



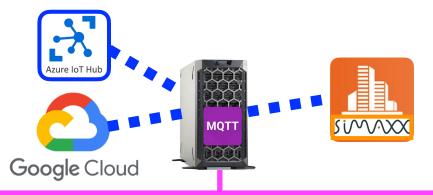




UDMI GATEWAY

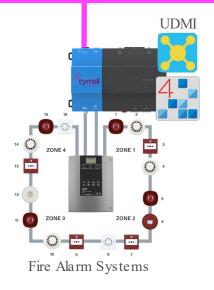
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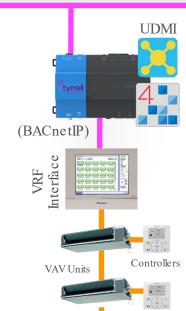
Dedicated Software Driver for Niagara 4





Smart Building Network

















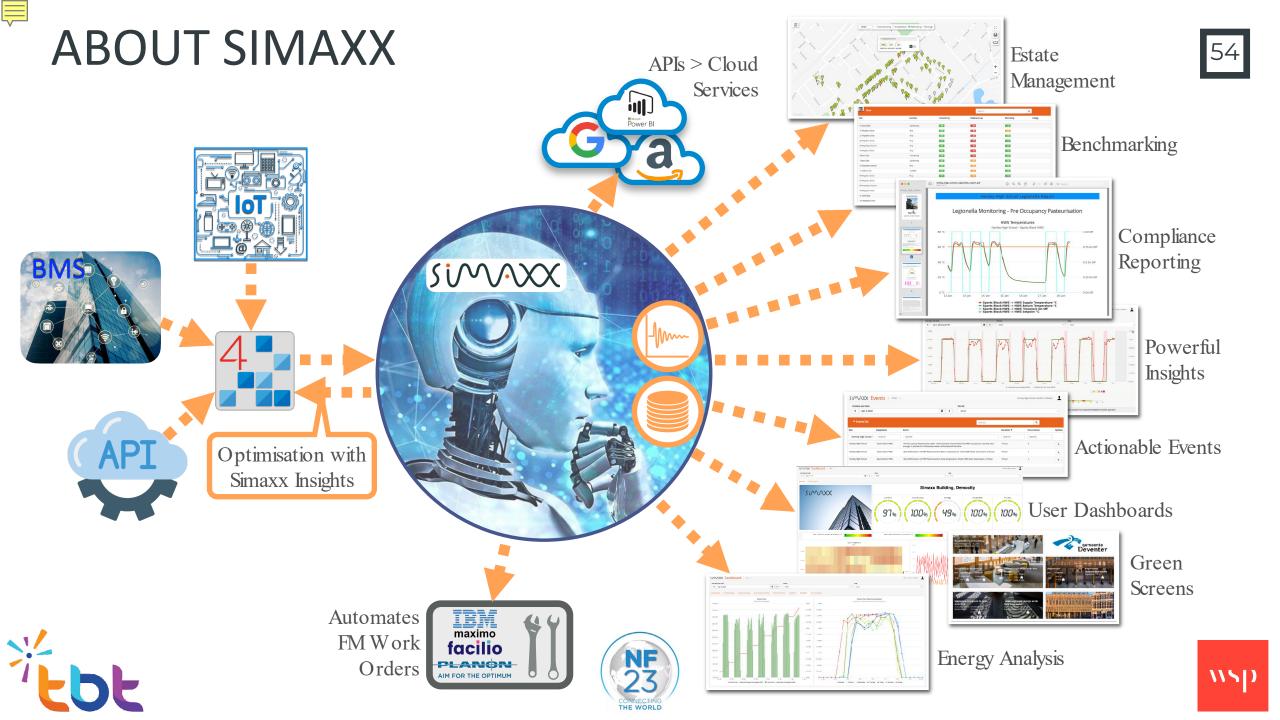


ESG MADE EASY







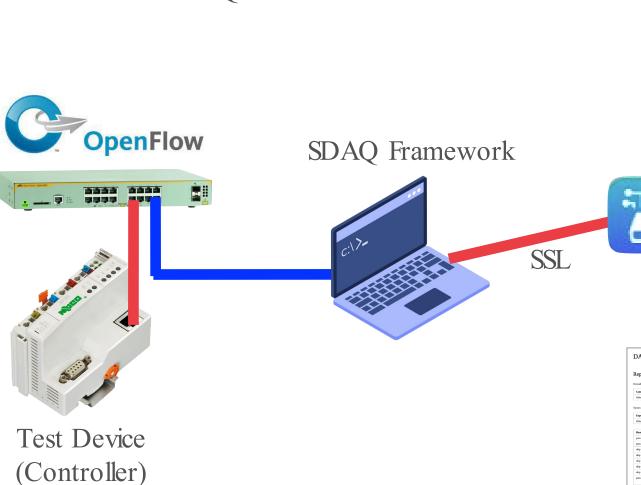


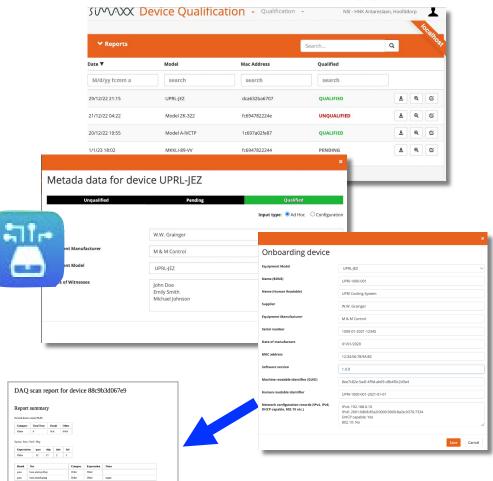


SIMAXX DAQ AND S-DAQ

Simaxx DAQ App

Device Automated Qualification















SIMAXX DAQ AND S-DAQ IMPLEMENTATION



QMILEGROUP

- 350,000 sq ft Grade A offices
- 190-room hotel
- •40,000 sq ft provisional retail
- Smart Building provision
- Full systems integration
- Ounified data schema









EBMS IOT CONTROLLER





Unrivalled Capability with intel.

- Elkhart Lake Fanless Dual core 1.3 GHz
- 16GB DDR RAM
- 32GB eMMC
- Intel Edge Controls for Industry (ECI) with virtualisation and deterministic control

Fully Featured Expandable Hardware

- 8 x Universal Outputs
- 4 x 230VAC 2Amp Relay Outputs
- 6 x Universal Inputs and 6 x Digital Inputs
- 2 x Ethernet Ports
- 2 x USB3.0 Ports

- 2 x RS485 Ports
- 1 x Side RS485 IO Module Connector
- 1 x RS232 Port
- Expansion up to 93 External I/O
- M.2 Option Slot







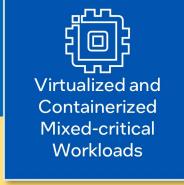


INTEL CAPABILITY FOR SMART BUILDINGS



nte Disruptive capability through Convergence of OT and IT











TSN











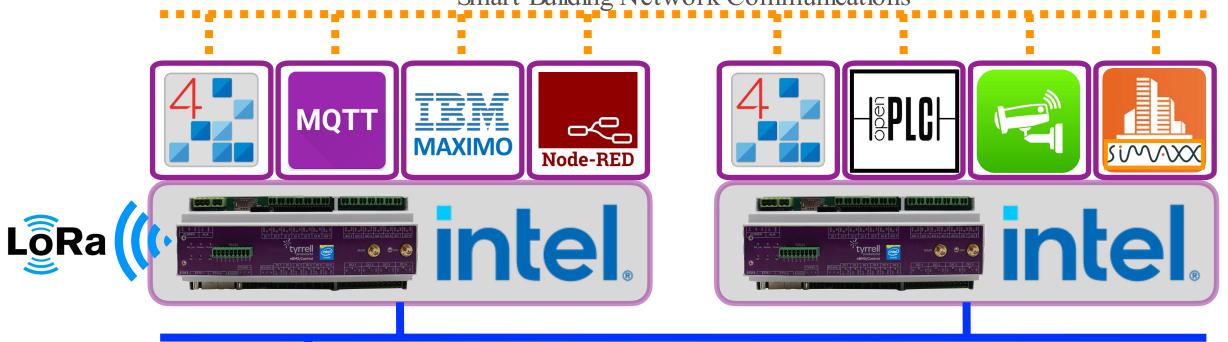




UNRIVALLED CAPABILITIES









Orchestration Server

Increased System Scaleability

High Availability Architecture

Analytics at the Edge

Portability, Agility + OTA

Reduced Investment and Operating Costs













Ged Tyrrell Group CEO











Josh Sykes Associate Director





LINKSPER

Introduction to the Independent Data Layer



Version 1

VAYANDATA

Niagara Developer for >10 years

Appliance Architect for multi-sites

Specialized on tasks automations and data structuration



Toolbox for Niagara

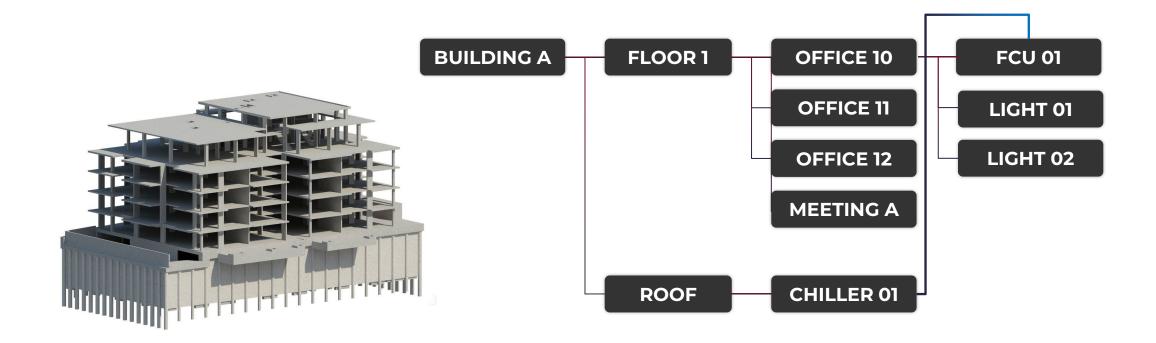
Active Toolset





Data Modeling

Creating Digital Models



LINKSPER



BOS Apps

















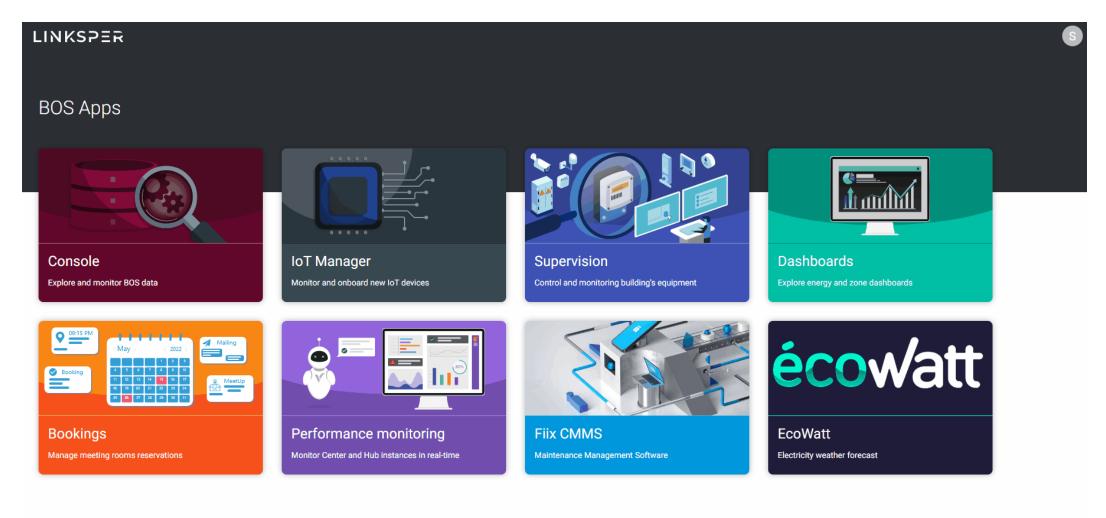
Designed by VayanData v2.0.50.0

Equipment Integration

How to scale integration while structuring Data?



Easy integration at scale

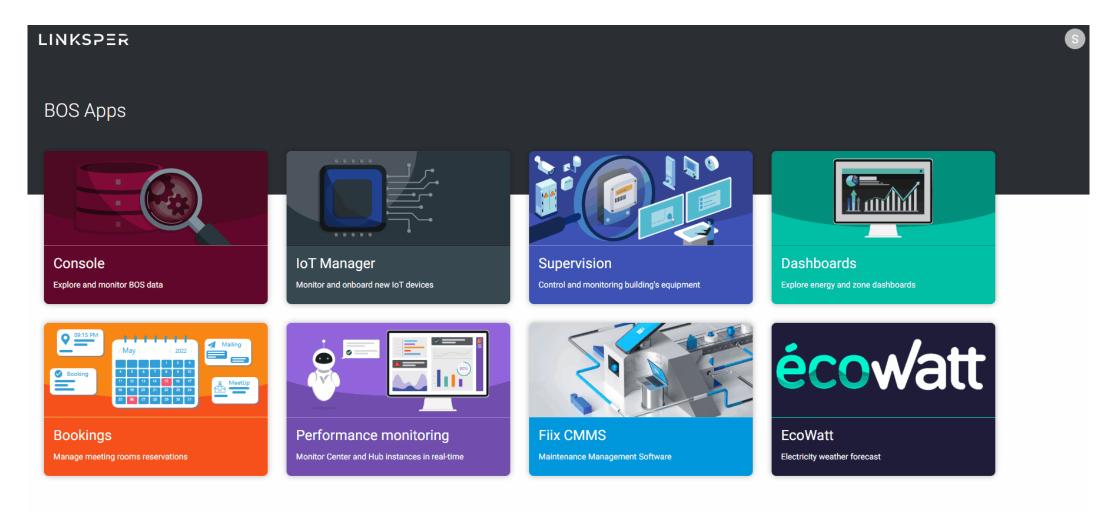


Designed by VayanData v2.0.50.0

Building a highly structured database

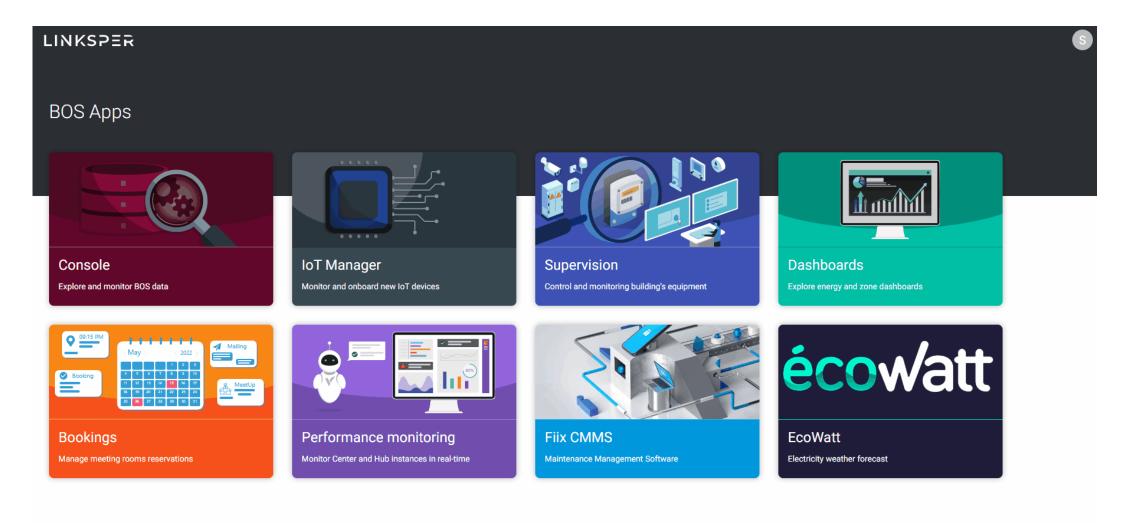
TO DO

Automated Hierarchies Builder

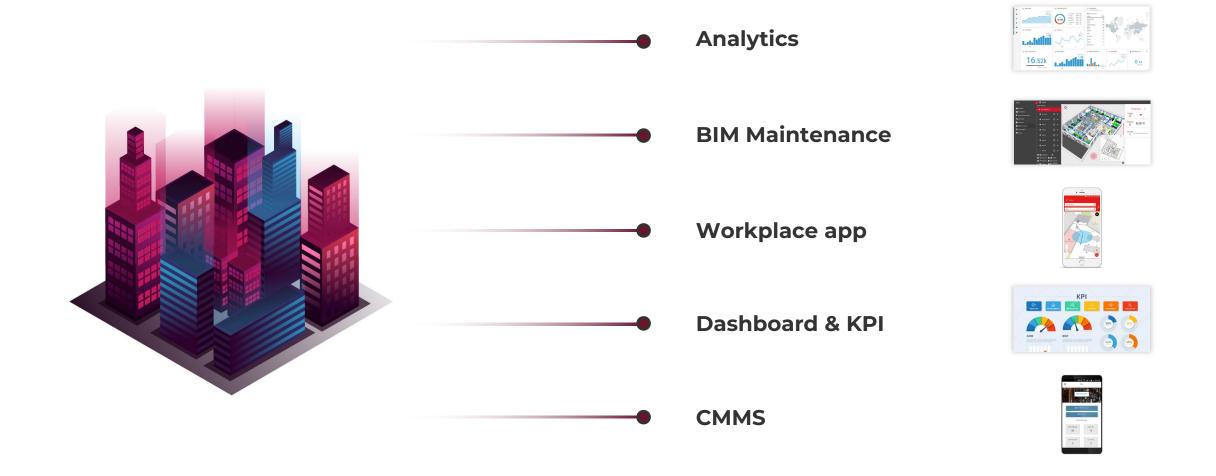


Designed by VayanData v2.0.50.0

Leveraging the highly structured data

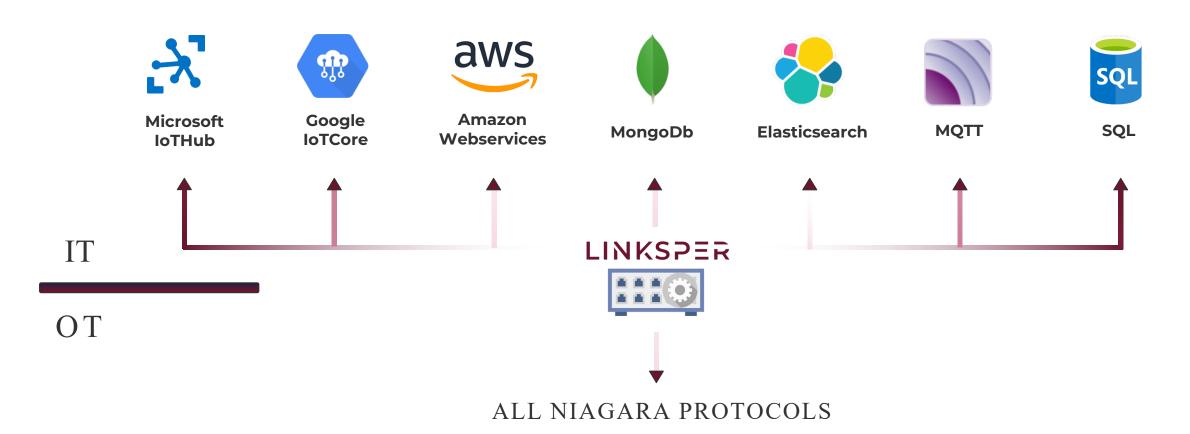


Connecting to 3rd parties

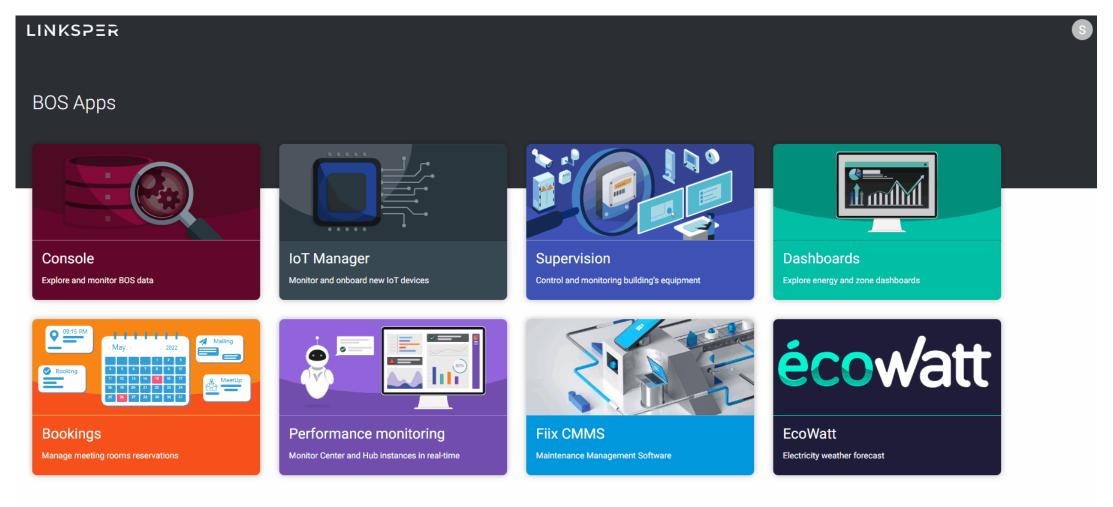


Embeded connectors

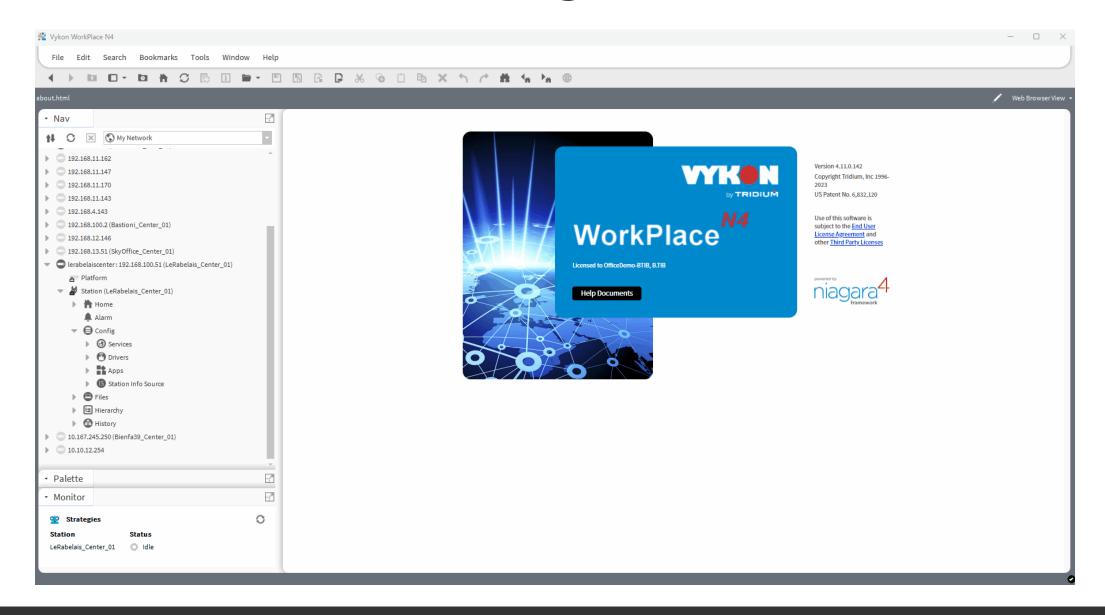
Linksper includes native connectors



Easy connectors deployment



All of it is built in the Niagara Framework!



QUESTIONS?







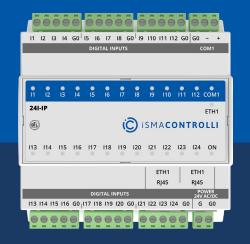
Innovative Community Solutions by iSMA **CONTROLLI**

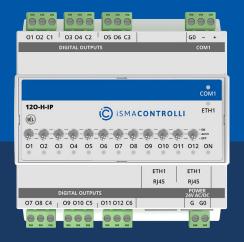
Niagara Forum 2023





The new MAX Multiprotocol I/O Modules with seamless Niagara integration









ASTRAL BACnet

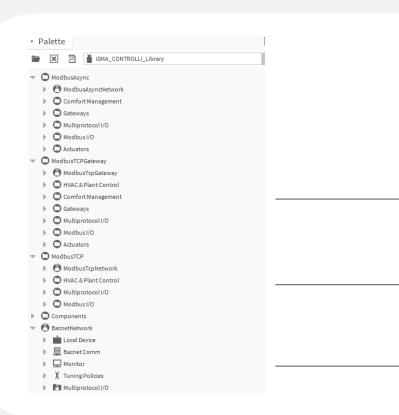


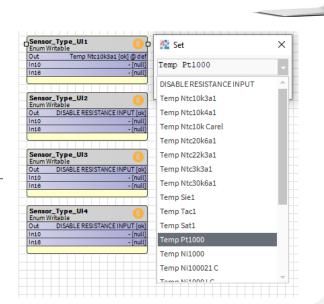
iC Lib

(C) ISMACONTROLL

Solutions Library for Niagara

Facilitate the configuration and integration of iSMA CONTROLLI products in Niagara with a single, complementary Niagara module.







California (Alaka



MAC36

Hybrid IoT Controllers

nowered by Contract of the Con



Award Winning Solution

MAC36NL as a mini-BMS platform



ControlTrends Awards 2020

The best product in the IoT Product of the Year category at the American ControlTrends Awards.

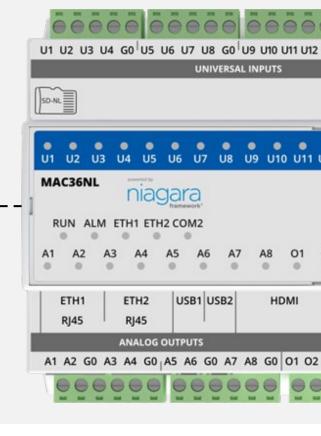
BCIA Awards 2021

The finalist in the Technical Innovation of the Year - Products category of the 2021 Building Controls Industry Association (BCIA) Awards.

AHR Expo Innovation Awards 2022

The best product of the Building Automation Category of the 2022 AHR Expo Innovation Awards.





ISMA CONTROLLI



MAC36NL

Continuous Update process



Powered by Niagara N4 Framework.

Supported versions of Niagara N4.4 N4.6, N4.7, 4.8, 4.9, 4.10(LTS), 4.11, 4.12.

Coming soon N4.13!







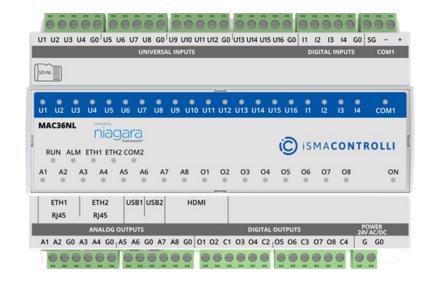


















MAC36PRO

The fastest Hybrid IoT Controller powered by Niagara

Improved HDMI performance

Working with an HDMI screen as efficient as on a PC workstation.

Powerful Quad-core processor

Improved support of Niagara Framework's latest functionalities.

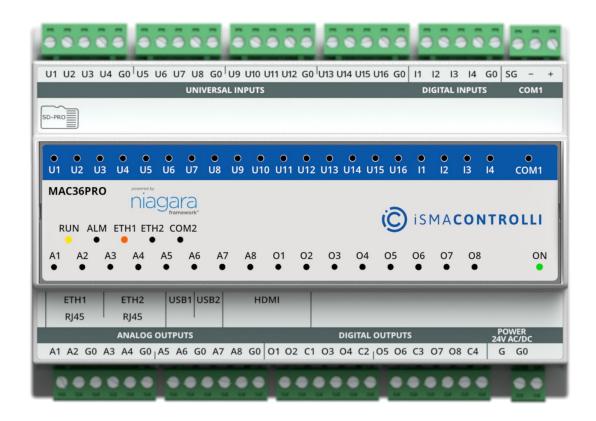
Increased memory and storage

More space and better efficiency during commissioning, programming, and end-use.

Be ready for the new Niagara features

Artificial Intelligence, Machine Learning, IoT Connectors, Web wiresheet 2.0.





(C) ISMACONTROLLI

High-end technology for embedded devices in the building.

The IoT-ready nano EDGE ENGINE provides unprecedented capabilities for a microcontroller-based device and takes them to the next level.









Smart Field devices



Smart controllers



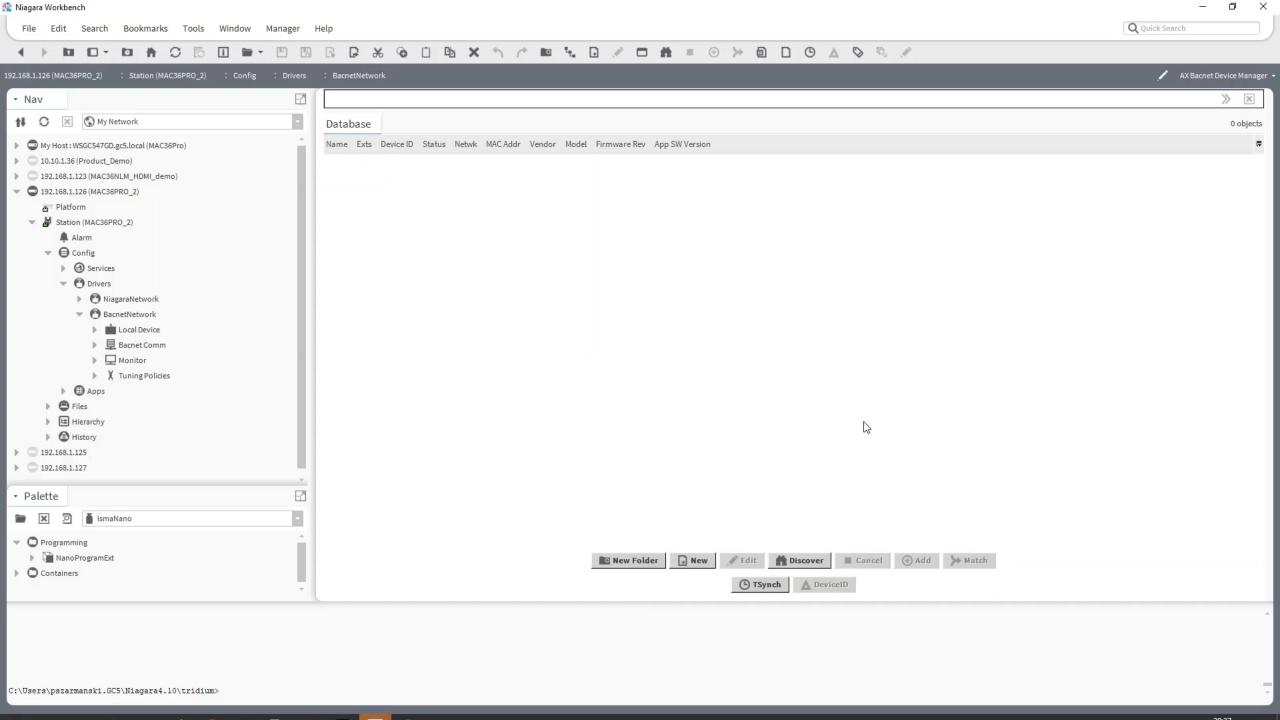
Experience real-time programming of nano EDGE ENGINE devices directly in Niagara Framework.

- Real-time programming using Workbench
- Plug'n'play experience

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- Native support for all nE² components
- One tool for integration, programming and maintenance







Innovative Community Solutions by iSMA **CONTROLLI**

Thank you Pawel Szarmanski

iSMA CONTROLLI S.p.A. pawel.szarmanski@ismacontrolli.com











WHO WE ARE

NETIX.AI is an IoT & AI based automation solution provider, leverages its innovative strategies, analytic algorithms and brand agnostic solutions to transform your facilities into safe and sustainable edifices.





INNOVATION AND SUSTAINABILITY

OUR SOLUTIONS

- loT and AI Solutions for Buildings & Industrial
- Enterprise Solutions
 - iICCC SaaS based Command Control Center
 - Property Management Platform
 - Asset Management Platform
 - Energy Management Platform
 - Facility Management Platform
 - Leading the BMS Transformation Legacy System Upgrades
 - Smart Cities Connected Buildings & Remote management
 - iBMS intelligent Integrated Building Management System
 - Smart Meters, Smart Thermostats & Gateways
 - NETIXAl Sustainability Financed Solutions





NETIX – IoT & AI SOLUTIONS PROVIDER

Legacy System Upgradation



ESTEEMED BANK - 11 BUILDINGS INTEGRATION **Enterprise Solutions**



CITYWALK - 15 BUILDINGS INTEGRATION

Remote Connectivity



AL WASL - 93 BUILDINGS INTEGRATION OVER RF NETWORK OVER **50 sqKm** Right To Repair



MAZAYA-3 TOWERS INTEGRATION



Our Financed Models

TRANSFORMING TODAY TO CREATE A BETTER TOMMOROW

At NETIX.AI, we aim at providing flexibility to meet the expectation of the customer. We offer a wide range of customized fully financed models by taking into consideration the potential savings of the facility.



POPULAR MODELS

▶ iIBMS as a Service - 3 Year Contract*

Under this model, NETIX.AI will finance the IoT, Automation and/or BMS Transformation solutions, offering the upgrades as an individual service for the facility.

The customer will enter into a monthly fixed amount re-payment plan with NETIX.AI, for a contract duration of 3 years. The re-payment amount will be agreed by both parties and will include the cost of the solutions, commissioning and annual maintenance fees.

▶ iIBMS & Energy as a Service – 5 Year Contract*

In the scenario that higher savings can be achieved at the customer's facility through the implementation of other energy conservation measures, NETIX.AI will undertake the financing and commissioning of all the conservation measures, including the Netix IoT, Automation and/or BMS Transformation solutions.

The re-payment amount will be agreed by both parties and will include the solutions, commissioning and annual maintenance fees of NETIX.AI Platform and other energy upgrades as suitable to the facility.

▶ BMS & Energy Upgrades on Shared savings model - 10 Year Contract*

This model includes the implementation of a full-fledged Energy Savings contract, based on the potential savings of the facility. NETIX.AI will undertake the complete financing of the project, both in terms of CAPEX and OPEX. NETIX.AI has in-house engineering strengths, enhanced by reliable manufacturers of various solutions. Repayment of the upgrades will be made based on the performance of the project, with energy and other building OPEX savings to be split between both parties at pre-agreed ratios.



NETIX.Al Industrial Exchange (NIX)

What is the NIX product?

A *connectivity platform* to simultaneously collect actual process, machine, and shop floor data from multiple sources, (pre-) process, store, and forward to multiple internal and external third-party applications and services.

-Enables *remote monitoring*, and quick decision-making and provides *data feed* to any *dashboarding* tools and *advanced analytics* applications.

Benefits



Realtime Energy Monitoring and Production visibility



Insight driven Decision making



Improved line/machine asset utilization



Reduction in Carbon Footprint



Resilient and compliant modern architecture to support 24 x7 operations



Automation integrated (PLC, IoT..)



The NIX platform offers the following abilities:

CREATE YOUR OWN DATA MODEL

NIX platform provides a framework for you to define your equipment, materials, processes, and the relationships between them

COLLECT YOUR PLANT FLOOR DATA

NIX connects to your equipment and existing industrial historians, collecting time series and event data from your plant floor using the configuration of the central data model.

INTEGRATE YOUR BUSINESS SYSTEMS

Your business uses more than just time series data. When you connect other data sources like your ERP and quality systems into your configuration, NIX "stitches" them together in the model removing inefficient data silos

BUILD OF DEPLOY YOUR USE CASE APPLICATIONS

"Headless" backend for manufacturing that provides all your data through one API.

You can buy, customize pre-built applications, if they suit your business or build your own.

SCALE YOUR SYSTEM

NIX is built to provide infinite horizontal scaling without adding servers and license costs



Digital Connected Factory

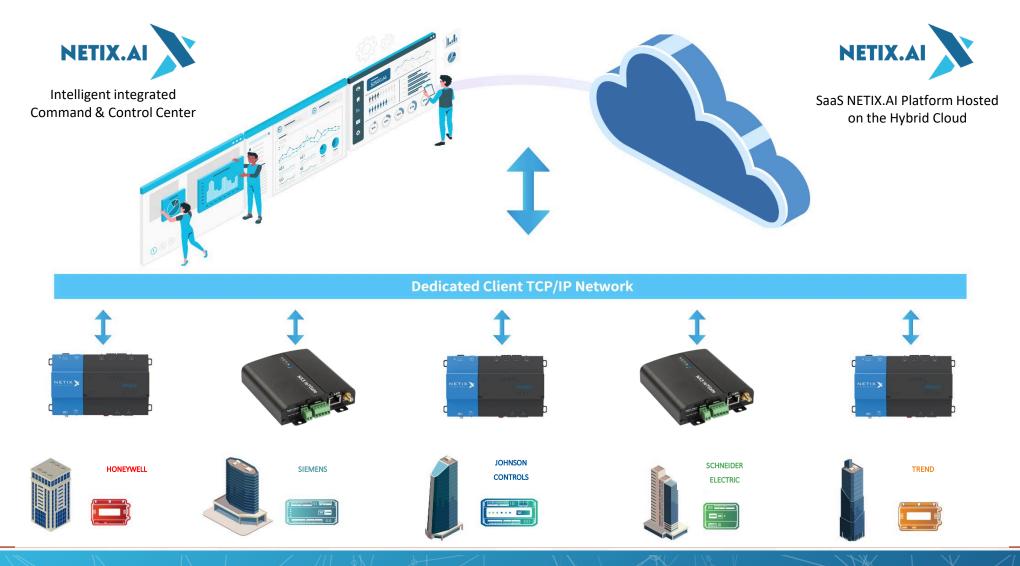


Challenges for Multiple Property Owners





NETIX.AI SOLUTION



Predictive Maintenance

- > Creates Algorithms to initiate proactive maintenance
- > Generates Automatic Work orders based on events

Machine Learning & Al

> Automatic equipment analysis > Increases efficiency and reduces maintenance & energy costs

Remote Alarm Management

> Creates Algorithms to initiate proactive maintenance > Generates Automatic Work orders based on events

Operations & Control

- > Take over control of systems remotely to operate as per SME advice
 - > Ability to change setpoints > Maintenance histories
 - > Past potential problems

> MTBF / MTBR



Easy Access

- > Access to Community Management team anytime, anywhere
- > Easy and quick access to information for key decision making

KPI/Dashboards

> Defined KPIs for Operational control > Provides report KPIs, Historical analysis & trends

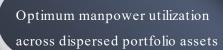
Future Provisions

- > Provision to connect all other building systems like Access control, CCTV, Fire Alarm etc.
 - > Provision for predictive customer management

In-depth auto diagnosis

> Identifies cause of alert > Identifying potential problems > Identifying remedies > Sends full information to the CMMS system for technician reference

NETIX.AI Deliverables





Predictive asset maintenance and
Auto diagnosis and correction

Equipment performance monitoring

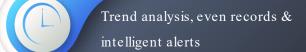


Early Detection of problems & Increased asset life-cycle

Data analytics & machine learning



NETIX.AI





Event records and Eagle eye view for decision makers



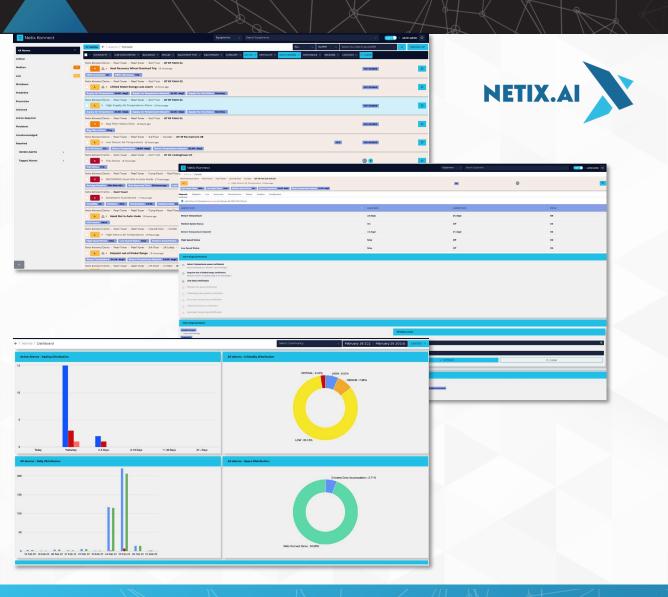
Work order integration with CAFM - Netix Konnect

Environmental responsibility, Energy Optimization & Cost Saving









Real-time Fault Detection and Diagnostics

Optimize your operations with fully automated, context-aware monitoring

Real-time Alarm Management

- Al & ML driven alarm correlation and real-time diagnosis
- Intelligent false alarm differentiation and root cause analysis

Intelligent Workflow Automation

- Extensive FDD + asset rule library for simple and complex conditions
- Smart workflow Engine to automate complex use cases
- Real-time condition/threshold based monitoring for improved asset life



Energy Performance Analytics & Reporting

Portfolio-wide centralized insights

- Live metrics and insights on portfolio-wide centralized dashboards
- Baseline comparison to track ideal asset and energy performance across portfolio

Drill-down Performance

- Drill-down and peak energy analytics with consumption heatmaps
- EnPI based regression analysis and performance benchmarks

Fully customisable Dashboards and Reporting

- Intuitive UI to customise and create widgets or reports on your own
- User-defined text, image and readings based cards
- Role-based sharing of dashboards with operators and supervisors on same page







DRIVING ESG WITH NETIX.AI

ENVIRONMENT SOCIAL GOVERNANCE



40-50%

10-15%

80%

30-40%

Reduction on Building Operational Costs

Reduction on Building Energy **Profiles**

Reduction on critical breakdowns using predictive condition algorithims

Enhancement of manhour utilization through fault detection diagnostics



Reduced manpower related OPEX



Reduced **Energy Costs**



Reduced FM costs



Optimised Manpower



Detailed Records



Monitored Equipment Performance

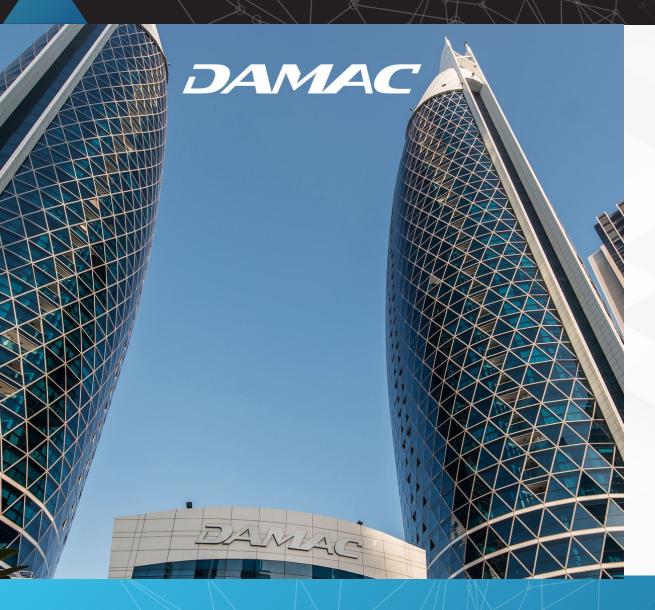


ODS Global, NETIX AI Platinum Partner, is successfully managing the preventive maintenance of the BMS across multiple properties from EMAAR portfolio. Being a NETIX AI Platinum Partner enabled ODS Global to be a vendor neutral service provider.

- Optimized operations and enhanced the performance output of BMS & ETSacross 30 plus Communities, 5 Master Communities serving 20,000 villas and close to 200 buildings. The platform currently hosts 40k assets & 400,000 data points managing optimization of assets and energy efficiency.
- Maintaining 5 different brands of BMS with equal efficiency and approach, similar to the manufacturer's guidelines:

 Honeywell | Siemens | Trend | Johnson Controls | Schneider
- Managed and undertaken to upgrade systems with as little intrusion as possible, enabling a seamless transition at minimal cost.
- Improved life cycle of the DDC controllers and field peripherals, helping in reducing downtimes of the BMS.





When ODS Global started the project, as NETIX AI Platinum Partner, multiple towers had their BMS systems offline. ODS has successfully managed to bring the systems back, online, with minimal cost impact to the client. This enabled DAMAC to save a considerable amount on the energy bills of these properties.

- Optimized operations and preventive maintenance for 30 buildings

 Performed maintenance for 7 different brands of BMS, resulting in streamlined and centralized asset management.
- Honeywell | Alerton | Siemens | Sauter | Saia Burgess | Schneider | Centraline
- Improved the life cycle of fixed assets.





ODS Global, NETIX AI Platinum Partner, won the upgrade and maintenance of 3 Mazaya Towers' buildings, where the client saved 75% of their costs since they didn't have to replace the complete system, by upgrading to Netix Solutions instead.

- Integration of all the systems and assets of three towers onto the Alpowered intelligent integrated Command and Control Centre; maintenance of the same.
- Achieved proactive, organized and systematic management of energy use in all three towers.
- Transformed facilities into smart connected building system.































KEY REFERENCES UAE



First Abu Dhabi Bank, Abu Dhabi, UAE



Mazaya Business Avenue, Dubai, UAE



Tadawul Tower, Riyadh, KSA



Emirates Airlines Staff Accommodation, Dubai, UAE



City Walk, Dubai, UAE



DWC Headquarter Building, Dubai, UAE



Al Jaddaf Residence, Dubai, UAE



Masdar City, Abu Dhabi, UAE



Darwish Tower, Doha, Qatar



Mirdif City Centre, Dubai, UAE



93 Al Wasl buildings, Dubai,



Etisalat Digital 77 buildings, Dubai,



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