



building & infrastructure
automation & controls

For the leading edge in Integrated Building Management System



Master Distributor for
India, Nepal, Bangladesh, Sri Lanka

DISTECH
CONTROLS™

MESSUNG GROUP

Since we pioneered India's first indigenous PLC in 1981, Messung has been at the forefront of industrial automation in India. Today, our competencies are as diverse as our portfolio - which today spans the fields of Automation & Controls, Workplace Technology and Electrical Engineering. In these, and many more emerging fields, we are constantly expanding and enhancing our market expertise to achieve - and deliver - the Leading Edge.

We work closely with businesses and users, understand their needs and challenges; identifying opportunities and technologies to bring the most relevant solutions that contribute to our customers' success.

Messung Group is founded on ethical business practices, and committed to social and environmental responsibility. Even as we help achieve breakthrough levels of performance, we stay focused on reducing the impact of our technology on the environment.

AUTOMATION & CONTROL

Building on almost four decades of experience in industrial automation, Messung today offers a variety of automation solutions not just for industry but for buildings & infrastructure, and for home, office & hotel applications.

Our portfolio of components, intelligent devices and integrated systems are flexible, scalable and reliable - to facilitate well-informed decision-making, efficient control and ease of operations.

STRATEGIC PARTNERSHIP – DISTECH CONTROLS INC., CANADA

Distech Controls is part of the multinational lighting company, Acuity Brands of USA. It was established in Canada in 1995 with corporate headquarters in Montreal, Canada. These headquarters were LEED certified in 2014.

Distech manufactures solutions for building automation and energy management with a steadfast commitment to R&D, quality and customer satisfaction. The company's passion for innovation is evident in its global product road map with an average of 15 new products per year.

Integrated Building Automation & Control

Messung Integrated Building Automation & Control provides the entire range of Integrated Building Management Systems (IBMS) for all types of buildings, from hospitals and hotels to shopping malls, IT and industrial establishments, corporate buildings, and infrastructure.

Integrated Building Automation & Control delivers the new standard in Building Management solutions, designed to meet the highest norms of green stewardship, scalability and durable performance. Our innovative, scalable and open IBMS solutions for greener buildings provide a sustainable foundation that supports and evolves with your building system's lifecycle, helping you achieve over 30% savings in energy and operational costs while maximizing occupant comfort and productivity.



LEVERAGE ON SOFTWARE TECHNOLOGY

Enterprise Platform

- Redundancy – high reliability and high availability.
- Redundant historian – integrated or separate database.
- Multi-buildings and multi-sites integration.
- Secured access, protected database, unlimited web clients.
- Niagara Framework platform integrated with -
 - Facility Management, Asset Management.
 - 21 CFR Part 11 Compliance.
 - Security System, Fire Alarm System.
 - Energy Management System, Tenant Billing.



EC-Net Supervisory Software

- EC-Net having multi-protocol, multi-function capabilities provide seamless and intelligent integration of -
 - HVAC
 - Access Control, CCTV, Fire Alarm,
 - Electrical, Energy Management
- Sophisticated alarm processing and routing, including e-mail and paging.
- Common platform provides global functions such as network control, monitoring, alarming, database and log management.
- Highly secured platform providing
 - User Authentication, Audit Trails meeting 21 CFR Part 11 compliance
 - FIPS 140-2 Level 1 Validated Encryption



Energy Management System

- Graphics oriented Web-based energy management solution.
- Fully customizable with personal dashboards.
- Assess energy efficiency.
- Identify systems causing energy waste.
- Complying ISO50001 energy management standard.
- Easily identify energy and operational performance outliers with comparative analytics and performance dashboards.
- Customize reports.



Tenant Billing Software

- Built on Niagara Framework.
- Real time metering and invoicing.
- Multiple meters per tenant – options Electrical, Thermal and Water.
- Automated monthly invoices can be scheduled on timely basis and automatically emailed as pdf.
- Web access for owners and tenants.
- Tenant manager has ability to add/delete, modify users through the web configuration.
- Invoicing can be generated in preferred currency.
- Powerful rate scheduling – nearly unlimited rates can be created.
- License based on number of tenants and meters.
- Configuration software allows to customize report.



21 CFR Part 11 Compliance

- Built on Niagara Framework.
- The FDA 21 CFR Part 11 regulations establish the acceptance criteria for the use of electronic records and signatures. Under which they will be considered equivalent to conventional paper records and hand written signatures.
- Electronic records and signatures, audit trail, alarms and archive.
- Data integrity and security.
- GMP Category 5, configurable software.
- Configurable and Customized report formats.



21 CFR Part 11

ECLYPSE SERIES BACNET IP DDC CONTROLLERS

ECLYPSE™



Supports BACnet® MS/TP Routing or Modbus RTU

Ethernet Communication - BACnet/IP, Modbus TCP



Control applications ranging from medium/large sized Air Handling Units (AHU) to central plant



Synchronize database of controller with supervisory software for trend logs and alarms with timestamp.



Built-in global functions - trending, alarming and scheduling stored locally in up to 4GB memory.



Multiple communication ports to integrate devices on Modbus RTU, BACnet MS/TP, M-Bus and Modbus TCP, to cost effectively connect meters, VFDs and other devices without additional gateways.

The ECLYPSE Connected System Controller has both fixed and modular yet scalable platform, allowing you to cost effectively address any HVAC application.

Consisting of a control, automation and connectivity server, power supply and universal I/Os, select the type and quantity of modules to meet your exacting requirements, for up to 320 points incase of modular system and up to 32 points incase of fixed system.

Available with embedded ENVYISION, providing a completely autonomous solution for dedicated equipment control or building control applications, without the need for additional supervisory software for visualization.



Supports Modbus RTU

Ethernet Communication -
BACnet/IP, Modbus TCP



Simultaneous support of wired IP and Wi-Fi, including support of wi-fi bridge. Two Ethernet ports allow controllers to be wired in daisy-chain topology and enable an STP loop-free topology Configuration.



Advanced, built-in security features and authentication services, for robust IP-based implementation.



All models available with embedded ENVYISION web-based graphic design and visualization interface, for local hosting of application and monitoring graphics.



Internet of things(IoT) allows exchange of information and data on a cloud via IP enabled objects and devices.

ADVANCED DDC CONTROLLERS



BACnet MS/TP:

True peer-to-peer communication between controllers



LonWorks:

Uses the latest LONWORKS 2.0 technology, including the FT-5000 Neuron from Echelon



- Both controllers offering a robust, powerful, and feature-rich hardware platform.
- Suitable controller available with I/Os and proven applications from FCU to Chiller Plant.
- Ideal for any control requirement, ranging from 10-points to 76-points
- Fully programmable with EC-gfxProgram
- Select models allow for auto diagnostics and alerts
- 50 Series of controllers with live graphics color display
- Universal I/O for increased flexibility at installation
- Optional HOA with potentiometer with integrated feedback
- Real time controllers

ROBUST FIELD DEVICES



AV-Air Velocity

Thermal dispersion air flow station and transducers



CB-Wire & Cable

BAS network cable, patch cords, cat5e cable, low-voltage multi-conductor cable



CS-Current Sensing

Solid and split core current sensors, switches



DA-Dampers & Actuators

Damper actuators and dampers Class IA, I-II-III



FS-Fluid Sensing

Float switches, level transmitters, thermal dispersion flow, vane flow, water detectors



GS-Gas Sensing

Detection or control: CO₂, CO, Smoke, AQ, Combo, Duct, Outdoor, Parkades, NO₂



HS-Humidity Sensing

Duct humidity and temperature transmitters, OSA, room, Outdoor, Parkades, NO₂



ID-Inverter (Variable Frequency) Drives

HVAC drives, bypass, micro drives



LS-Light Sensing

Occupancy sensor (high-bay, ceiling, etc.) PIR or dual-technology, power packs, switchpods



ME-Meters

Flow/BTU: impeller insertion impeller, ultrasonic Power, three-phase power meter, electromagnetic, rogowski coils.



NC-Network Connectivity

BAS and network routers adaptors switches, communicating displays. aggregation and edge switches. network interfaces, mobile VPN.



PP-Panel Products

Wallmount enclosures, junction boxes, Nema1 Nema3A-Nema4, inner panels, accessories, prepackaged enclosures (power supply and panel).



PS-Pressure Sensing

Air flow, differential pressure air, low air differential, multi-range pressure, liquid differential pressure, liquid static pressure.



SC-Signal Converters

Analog to adjustable relay, analog to pneumatic, isolation modules, PWM to 4 or 8 relay multiplexer.



TS-Temperature Sensing

Allure™ ECW-Sensor Series, duct temperature sensors and transmitters. OSA sensors, duct averaging sensors, high-limit thermostats, low limit freeze switches, strap-on temperature sensors.



VA-Valves & Actuators

Ball valves spring/non-spring globe valves, butterfly valves, pressure independent valves (PICV), zone valves.

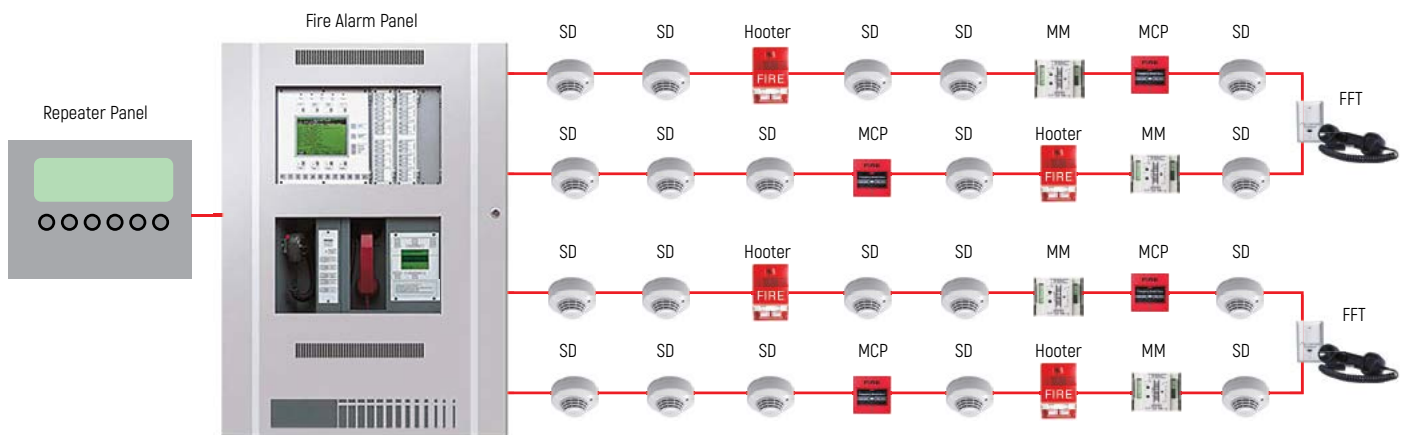


WI-Wireless

Allure™ ECW-Sensor Series, Wireless receiver, space temp/hum sensors, duct sensors, ceiling sensors, light switches.

STRATEGIC PARTNERSHIP

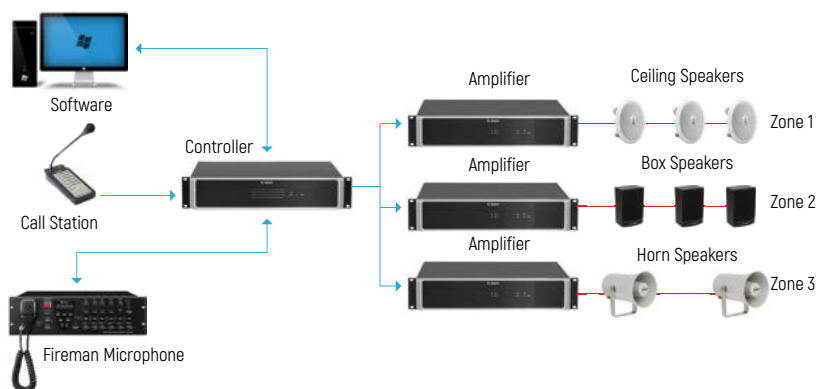
IP Based Fire Alarm System



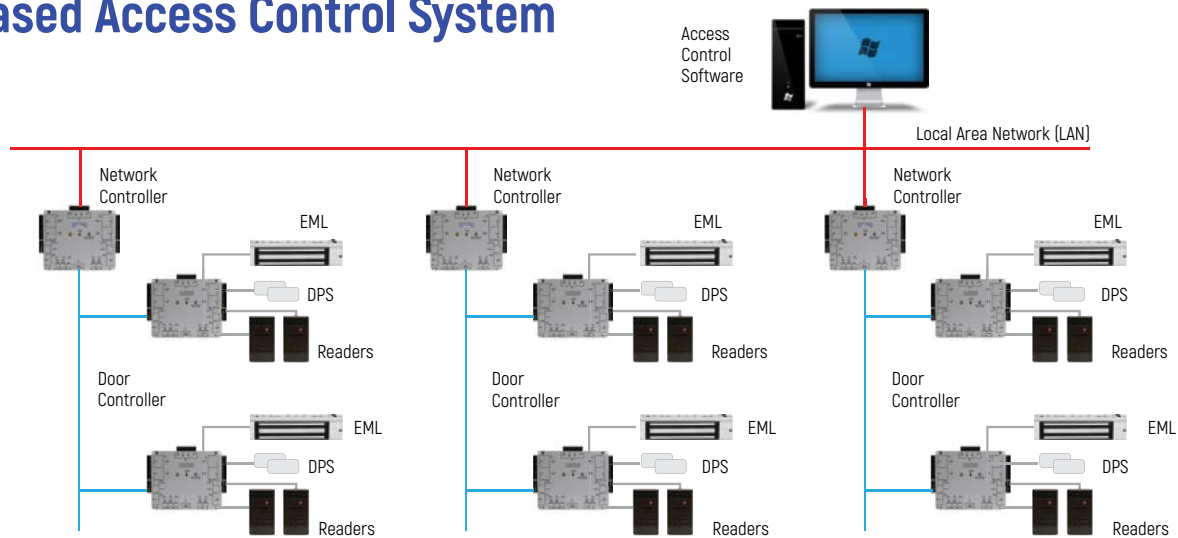
- Fire Alarm System (FAS) helps to ensure employee safety and the overall welfare of a business through detection and announcement to the occupants by guiding safe egress routes during the situation of distress.
- Addressable Intelligent Fire Alarm System from Messung consist of detectors and devices wired in loop, each with unique ID and location. These devices are directly connected to central intelligent fire alarm control panel that monitors the functionality and status of each device programmed in the system.
- In the event of fire, these devices detect smoke, heat, etc and help to generate audio and visual alarms as well as guide safe egress route.
- IP based fire alarm system when integrated with BMS can provide further safety and interlocks to safe guard humans and equipment like park elevators, open access doors, activate pressurization and exhaust fans, safe control of HVAC equipment, etc.

IP Based PA & Voice Evacuation System

- Advanced IP based system consisting of digital controllers/ router, powerful mixing amplifiers, stylish call stations and different type of high-quality speakers.
- PAS plays an important role in safe management of buildings. The voice messages from PAS guide the occupants what to do in case of emergency. People are most likely to follow the voice command to take the correct action during an evacuation.
- It provides flexibility to interface standard music player and dry contacts from other systems like fire alarm.
- Touch screen graphical user interface manages complete system.



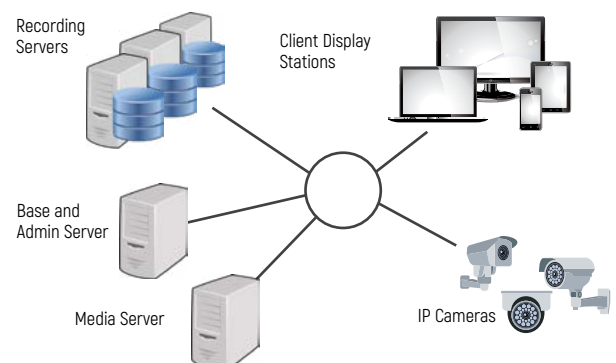
IP Based Access Control System



- Modern ACS helps to protect people and assets by controlling access to work area through smart systems.
- It allows access to legitimate visitors and also records their movements.
- The smart system consists of smart cards cum readers, biometric identification, face recognition, methodology along with access control software.
- Integrate with CCTV, fire alarm, intruder alarm and employee's time and attendance systems.
- Some of the advantage of seamless integrated systems are –
 - Open security doors in the event of fire.
 - Record CCTV footage in case of burglar alarm or intruder alarm.
 - Generate report on personnel tracking.

IP Based CCTV System

- IP based CCTV system is comprised of a network of security cameras and collective functions and is monitor from video feeds on an internal system of monitors.
- CCTV surveillance systems are more often used to monitor large areas such as retail stores, hospitals, datacenters, banks as well as public spaces like airports and metro stations.
- Internet protocol in security cameras turns them into digital video cameras that transmit video footage via computer network.
- The advantages of IP CCTV systems –
 - High resolution, remote access, redundant storage and wireless.
 - High scalability, NVR redundancy and high coverage area.
 - Powerful analytics, virtually unlimited clients and large videowall for all feeds.



UNIFIED AND INTEGRATED BUILDING MANAGEMENT SYSTEM

EC-Net Supervisor

- Master Scheduling
- Network Management & Integration
- Device Configuration
- Centralised data, logging, archiving & Alarming



ENVYSION™

- Web-based Design and Visualisation Interface
- Embedded in ECLYPSE™ Connected System Controllers or hosted on EC-Net™



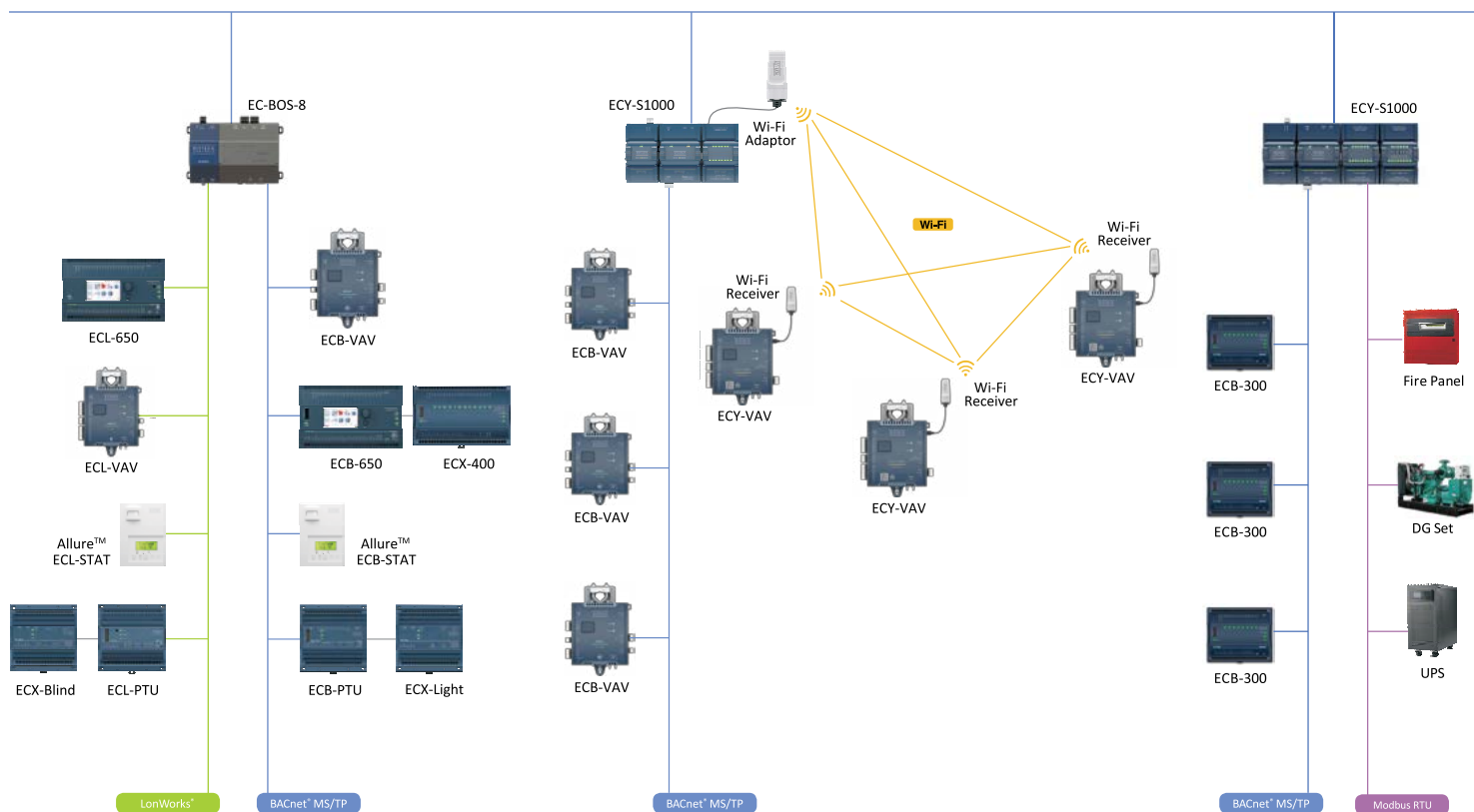
Web Browser

- Web-based Graphical User Interface
- Remote Access Control & Monitoring



powered by
niagara
framework®

Internet



powered by
niagara
framework®

ASHPAC **BACnet**™

LonWorks

Modbus

OPC
FOUNDATION

HTML
5

M-Bus

KNX



Mobile Apps

- Input and Output Values Override
- Time schedules Management
- Personalised Room control Parameters



Energy Management

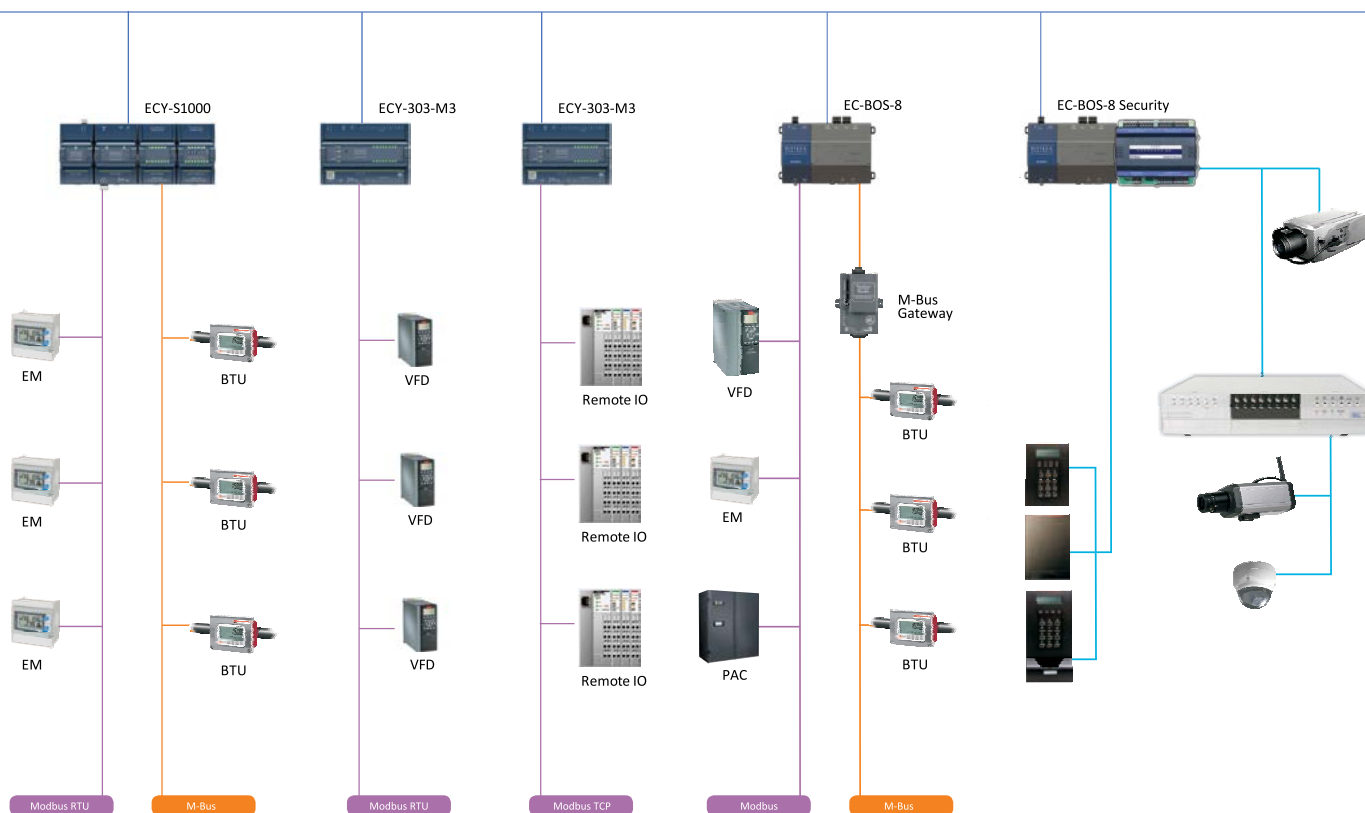
- Energy Monitoring & reporting
- Personalised Energy Dashboards



EC-Net Security

- Access Control Solution
- From Single Door Installation to Multi-building Deployment

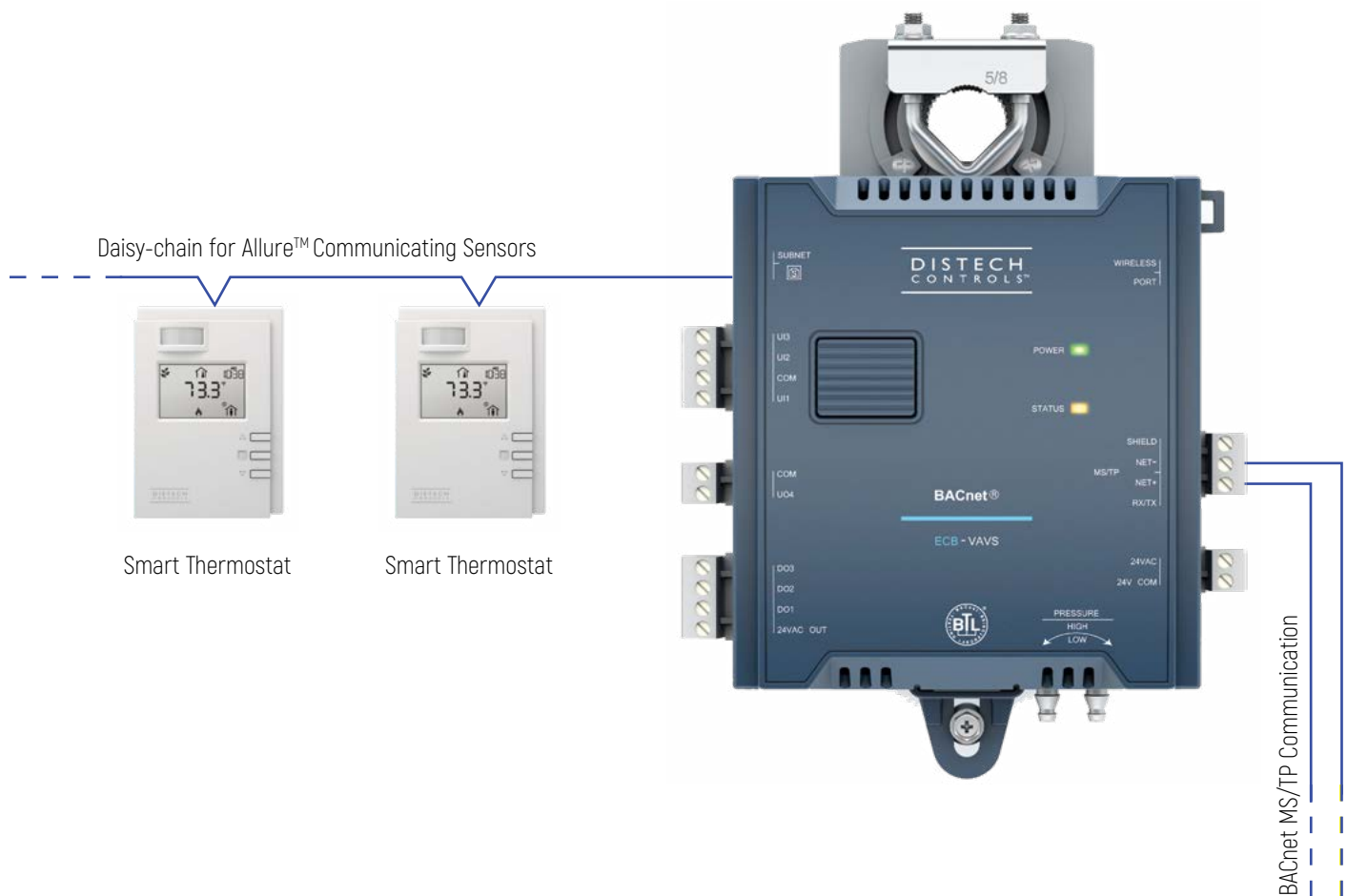
Ethernet, TCP/IP, BACnet/IP, XML, HTTP, HTTPS, oBIX, FOX



ADVANCED BACNET MS/TP ECB-VAV CONTROLLER

Powerful range of 32 bit controller offered in both LonWorks and BACnet MS/TP versions – full open protocol compliance.

Controllers are fully programable for complete flexibility and scalability.



Key features

- Integrated brushless DC motor actuator with intelligent damper control algorithm and true position feedback.
- Integrated drift free and zero calibrated flow sensor optimized for low flow performance.
- Compliance with open building automation standard B-ASC.

Onboard I/Os

- 2 universal inputs with high precision 16 bit A/D.
- 2 digital output (triac)
- 1 universal output
- Built-in differential pressure transducer featuring polarity free connection.

FUTURISTIC BACNET IP AND WIFI ENABLED ECY-VAV CONTROLLER

The Eclipse Connected VAV Controller series are designed to control any variable air volume box application "out-of-the-box" with preloaded, configurable applications and embeded ENVISION Viewer, for local hosting of application graphics.



Robust and Compact Design

- High performance, small footprint design
- Metallic pitot tubes and anchor points for improved sturdiness and lasting performance
- Color-coded, two-part rising cage terminations facilitating wiring

For All Your VAV Applications

- 4 universal inputs with high precision 16-bit AD
- 4 digital outputs (Triad)
- 2 universal outputs
- Built-in differential pressure transducer featuring polarity insensitive polarity-free connection
- Integrated damper actuator with brushless DC motor
- Local trending, alarming and scheduling functions

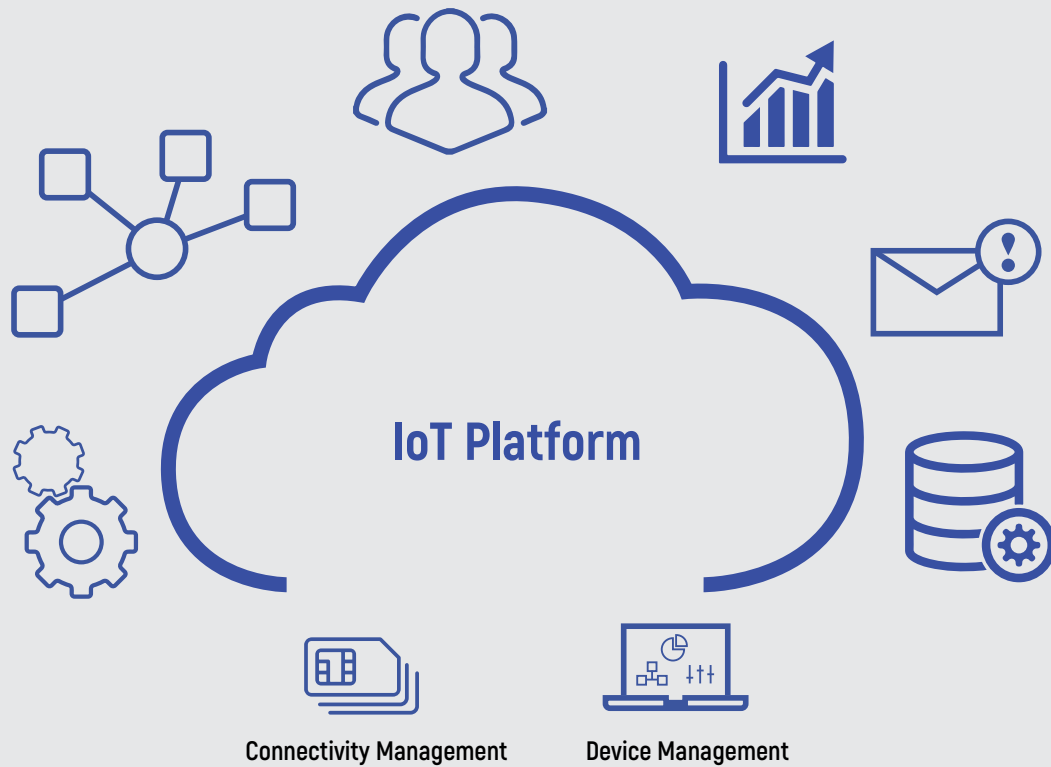


PoE

IoT

Web server

INTERNET OF THING (IOT) DIGITAL TRANSFORMATION

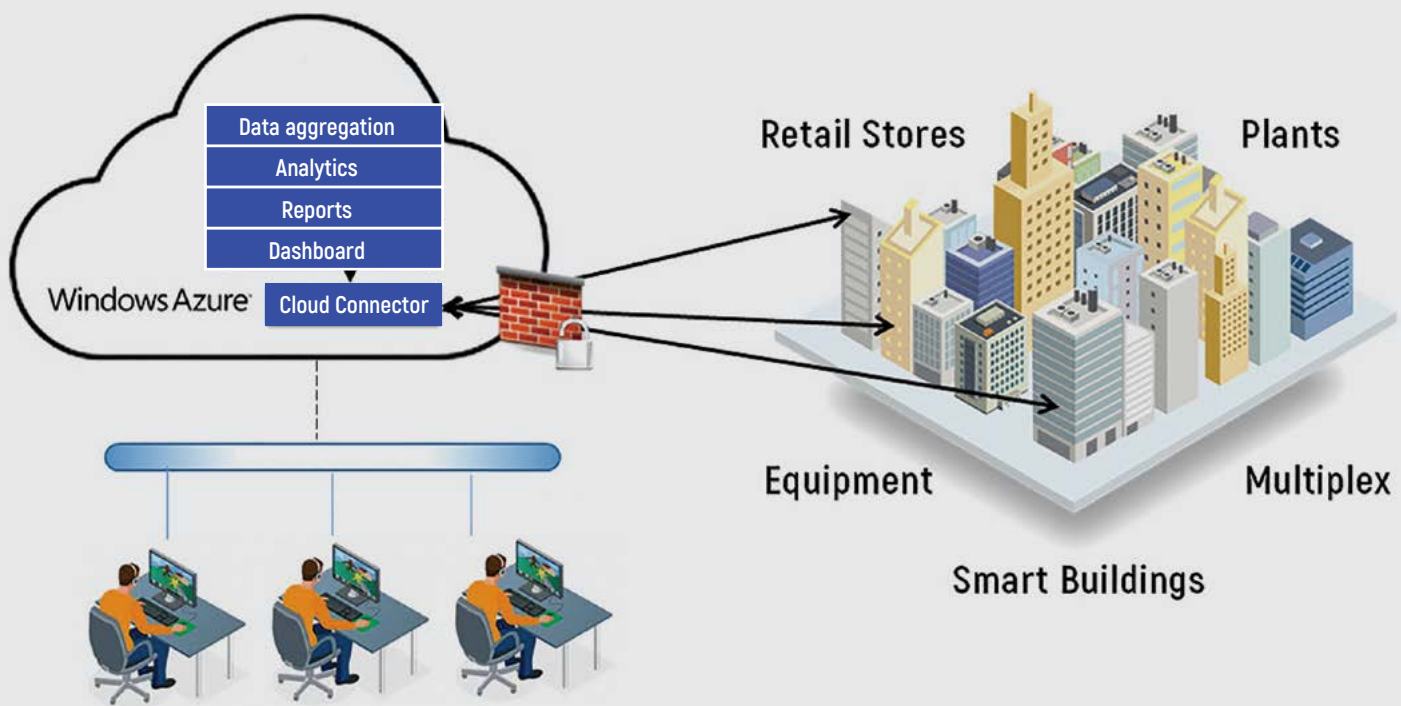


Building blocks

- Application, analytics and systems that provide user experience.
- Operational application to remotely monitor, maintain and update deployed products.
- Cloud data platform to securely collect, store, organize and analyze the data.
- Connectivity for secure data transmission and to manage deployed products remotely.
- Connected device to collect data from sensors, meters and field controllers.

Key offering

- Security – holistically from the device, through the network connection, to the cloud, end user applications and enterprise system.
- Scalability – design to wide scale deployment.
- Time-to-market – existing or new applications, infrastructure, adding IP/GSM connectivity and integrating different systems.



Technology

- Deployment on standard cloud platforms – MS Azure, AWS, Google, etc.
- IP or GSM based connectivity
- HTTPS, TLS and SSL certified security.
- Based on REST API and MQTT protocols.

Advantages

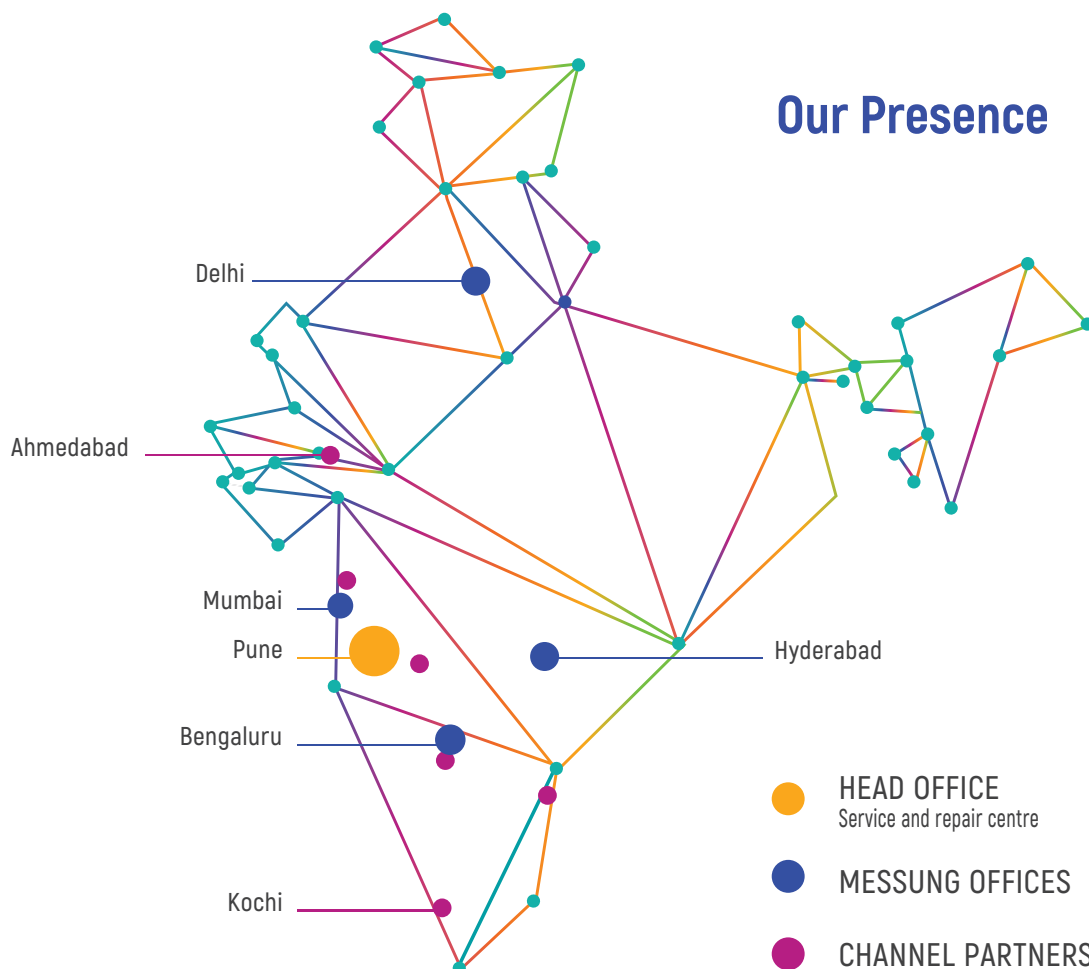
- Remotely control & monitor equipment, plants and buildings from the command center.
- 24/7 monitoring of equipment usage status, energy consumed, HVAC operations etc.
- IoT platform other capabilities like maps, KPI reports, consumption reports etc.
- Add-ons such as alarm escalation, customized dashboards, mobile apps.
- Predictive maintenance/analytics possible.
- Single console view of multiple sites located in different geographic locations.



Service & Support

Our commitment to customer service through the entire product life cycle furthers the value of our technologically superior solutions. We provide clients with reliable after-sales support, through our area offices and network of system integrators across the country.

Our team of well-trained Sales & Service personnel ensures every Messung product is backed by excellent service, with prompt delivery of spares and engineering support to optimise performance and minimise downtime.



Project References

Commercial Buildings



Ascendas - IBMS



Century Bhavan - IBMS



Prestige TMS Square - BMS

Government Infra



High Court - IBMS



IIT Madras - BMS



ECIL - BMS

Hotels



Country Inn Hotel - BMS



Solitaire Hotel - BMS



Arth, Westin - IBMS

Malls



Reliance Mall - BMS



Enugu Mall - BMS



H&M Store - BMS

Data Centers



Bank of India - BMS



Maruti Suzuki - BMS



Union Bank of India - BMS

Pharmaceutical



Cipla Ltd - BMS



Biocon Ltd - BMS



Zydus Cadila - BMS

Industrial



Bosch Ltd - BMS



Varroc Engg. Ltd - BMS



Molex India Pvt Ltd - BMS



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