

Intelli-FOCUS

DYNAMIC DATA CAPTURE, ANALYSIS and VISUALISATION for INTELLIGENT BUILDINGS



SMART Cognitive Ai driven BUILDINGS
for occupant satisfaction, lower emissions and higher profits

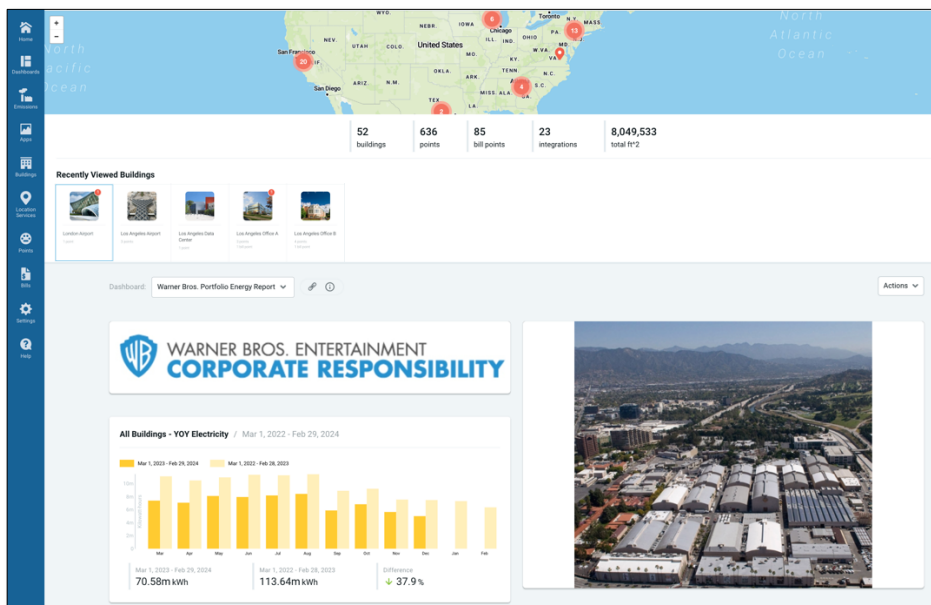
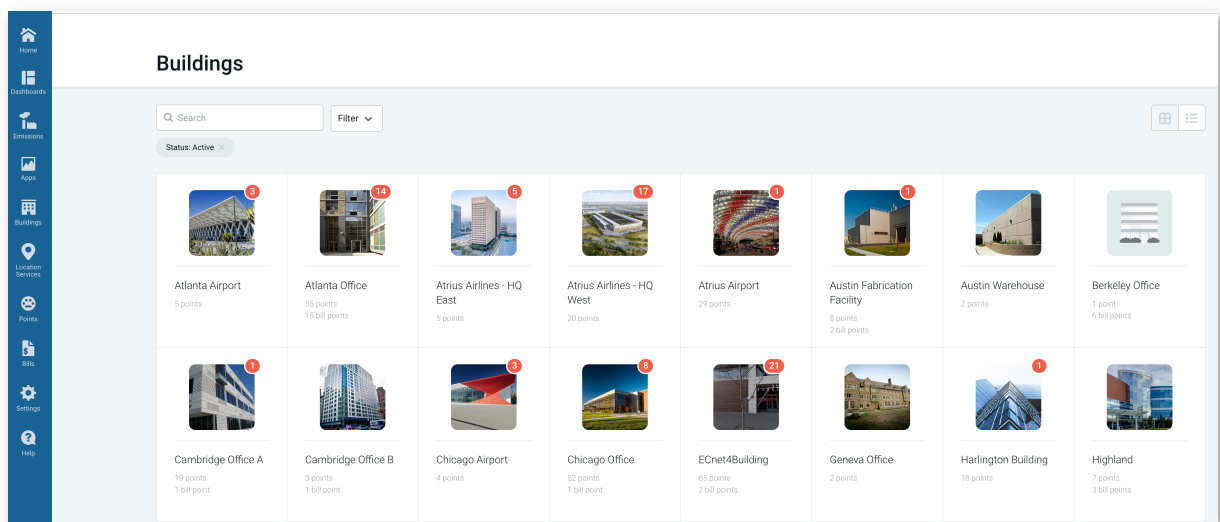
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High Performance Cognitive Building Solutions

The software team have engineered the first cradle to grave Cognitive Asset Solution with Ai, to upgrade and overlay conventional BMS/EMS/CNS and Project solutions.

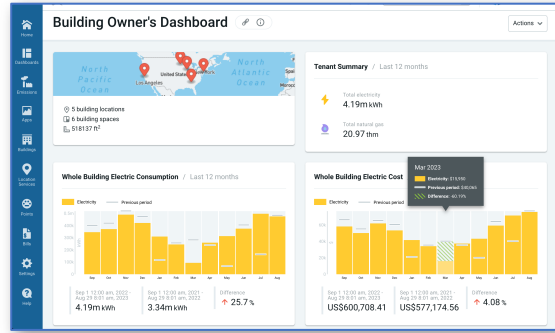
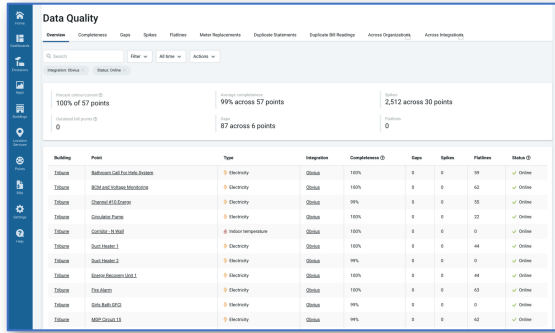
The embedded science enables the Ai to accelerate asset analysis and performance through continual monitoring, optimisation, commissioning and control, on a micro-incremental basis to satisfy the desired comfort and well-being setpoints, whilst optimising the energy efficiency and sustainability of the building's equipment, thus lowering operational costs.



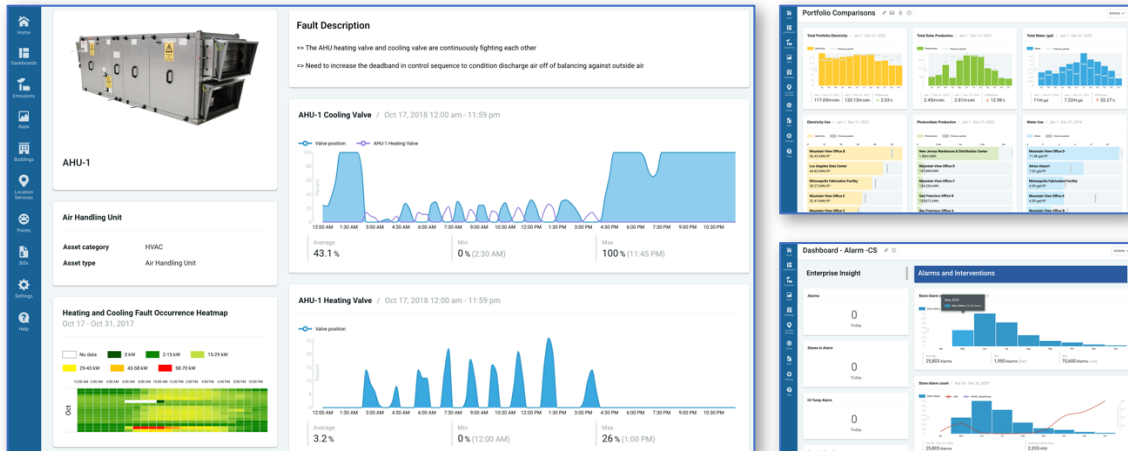
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Data Quality, Integrity, Automated Utility Bill Collection and Validation, with Data Audit Trail & Compliance
Stakeholders' dashboards with integrity and honesty

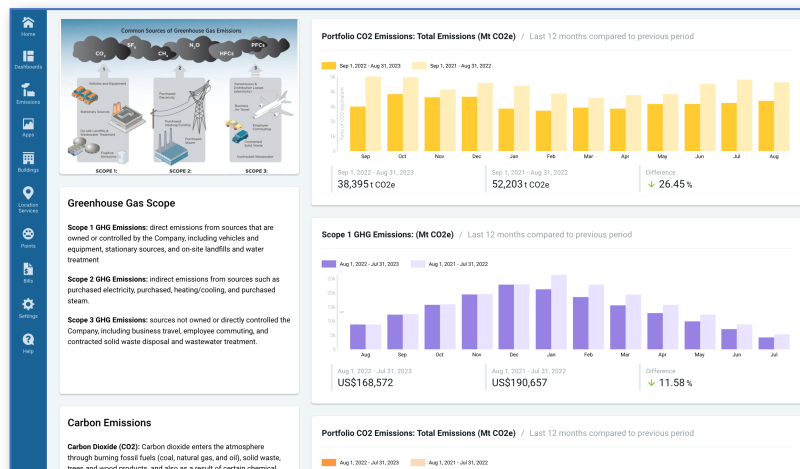


Asset Monitoring, Optimisation, Control, Well-Being, Reporting and Alerting
Automated notifications and email reporting



Emissions Reporting Scope 1,2 & 3

Track, monitor, and reach your emission reduction goals with audit & data quality features



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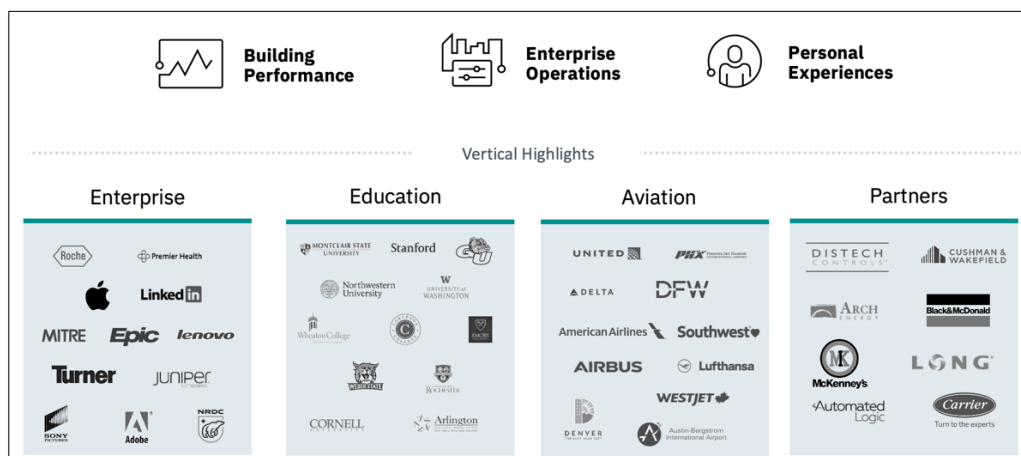
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Occupant Engagement with Public Dashboards

Improve transparency, motivate action, and hold your organization accountable to meeting your goals.



Global Clients Core Platform



Global platform current building count: 10,969 | Total global building area: 704,724,388 sq.ft.
 Total building count in UK: 205 | Total building area in UK: 654,154 sq. meters or 7,041,256 sq.ft.
 Implementation is project dependant, but can be as little as a few days.

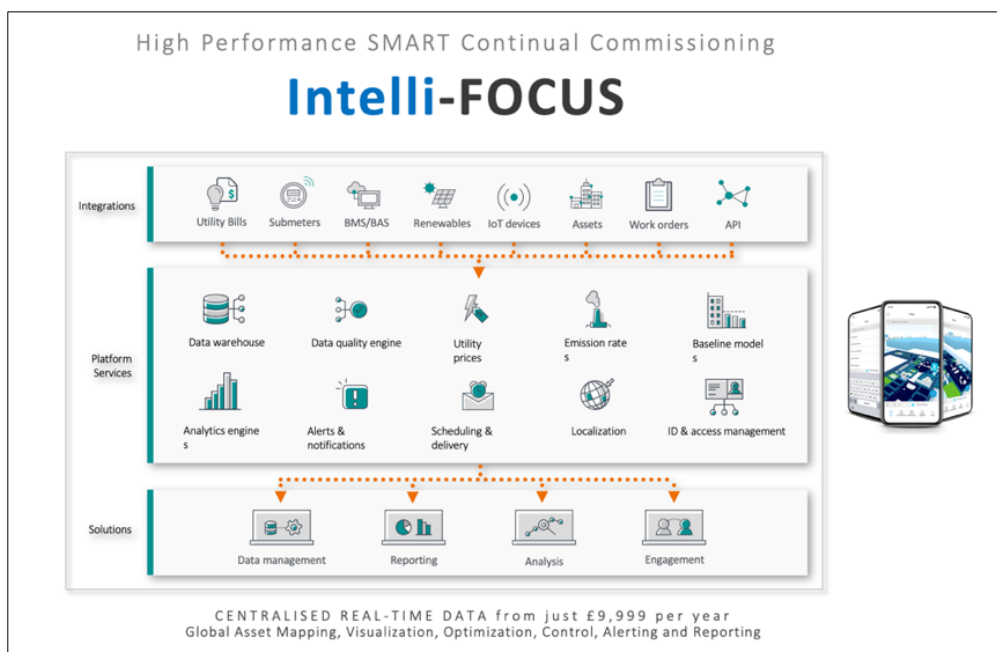
Intelli-Focus creates a single, unified source of truth for your buildings' performance, energy and sustainability.

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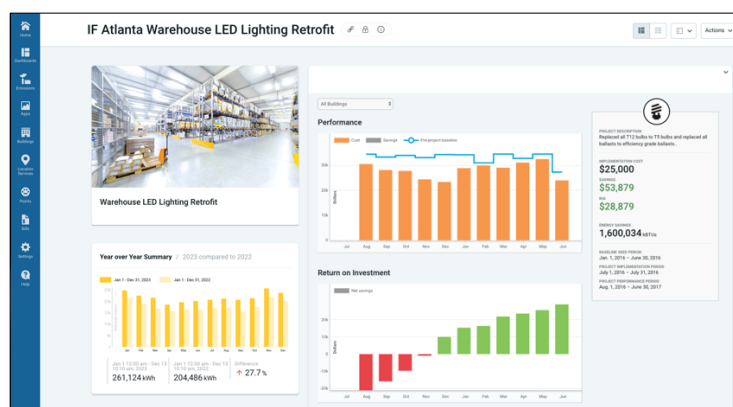
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High Performance Cognitive Building Solutions with Ai

The solution utilises the latest Apex controller with connected devices and open protocol data to establish connection to the buildings network of data devices. The data is then interrogated and streamed to our Intelli-Focus CLOUD using a TOSI box VPN, for military grade security, ensuring your data remains safe.



- On-board AI accelerator, designed to run artificial intelligence and machine learning applications at the edge, adding intelligence to any building.
- Wired, Wireless - Lora and WiFi devices for energy measurement, heat meters and remote sensing.
- Available Docker container and Azure IoT Edge technologies extend gateway features at the edge.
- Communication protocols include BACnet MS/TP, Modbus RTU, Modbus TCP, and M-Bus and MQTT are supported to ensure ease of communication, authentication, and error detection.
- Embedded RESTful API to exchange data from different applications, such as energy dashboards, analytics tools, and mobile applications, on premise or from the cloud with the IoT Hub connector.
- Retro-Fit project analysis, ROI



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Product Specifications

Power Supply Input (24VAC)

Input Voltage Range	24VAC; ±15%; Class 2
Power Consumption	75VA maximum; internal and external loads included
Recommended Transformer Size	100VA
Frequency Range	50 to 60Hz
Power factor	>90%

Power Supply Input (24VDC)

Input Voltage Range	24VDC; ±15%; Class 2
Power Consumption	75W maximum; internal and external loads included
Minimum Power Supply Size	60W
Startup Inrush Current	4A for 50ms

Current Limits

Power Supply Input	4A (internal fuse)
I/O Modules	1000mA (18.8W)
Subnet	450mA (8.5W)
USB 3.0	900mA per port
USB 2.0	500mA per port

Communications

Ethernet Connection Speed	10/100/1000 Mbps
Addressing	IPv4 or Hostname
BACnet Profile	BACnet Building Controller (B-BC), AMEV AS-A and AS-B
BACnet Listing	BTL, WSP B-BC (pending)
BACnet Interconnectivity	BBMD forwarding capabilities BACnet MS/TP to BACnet/IP BACnet/SC routing (pending)
BACnet Transport Layer	IP, SC (Node) (pending), and MS/TP (optional)
BACnet MS/TP or Modbus RTU	1x RS-485 serial communications port
Web Server Protocol	HTML5

Hardware

Microprocessor	Quad core 1.6 GHz ARM Cortex A53 64 bit
Memory	2GB RAM 32GB Flash (20GB usable)
Real Time Clock (RTC)	Real Time Clock with rechargeable battery Supports SNTP network time synchronization
RTC Battery	20 hours charge time, 20 days discharge time Up to 500 charge / discharge cycles
Ethernet	2x RJ-45 Ethernet ports (10/100/1000 Mbps)
USB Connections	2x USB 3.0 Type-A Ports; 900mA per port 1x USB 2.0 Type-C; Dual role data, 500mA per port
Intrusion Input	Digital (dry contact) – for future use only
AI Coprocessor	Hailo-8 Accelerator Module 6.5 TOPS (tera-operations per second) Available only for the ECLYPSE APEX with ECLYPSE Building Intelligence software
Subnet	1x RJ-45 connector for subnet bus
Green LED	Power status, Subnet TX, RS-485 TX, and Ethernet Traffic/Speed
Orange LED	Controller status, Alarm, Subnet RX, RS-485 RX, and Ethernet Speed

Environmental

Operating Temperature	32 to 122°F (0 to 50°C)
Storage Temperature	-22 to 158°F (-30 to 70°C)
Relative Humidity	0 to 90% non-condensing
Ingress Protection Rating	IP20
Nema Rating	1

Web Server Application Interface REST API

RS-485 Wiring	1 pair + common/shield
RS-485 EOL and Bias Resistor	Slide switch selectable
RS-485 Baud Rates	9600, 19 200, 38 400, or 76 800 bps
Modbus TCP	Devices must be on the same subnet
Wireless Adapter	Optional, USB Port Connection
Wi-Fi Communication Protocol	IEEE 802.11b/g/n
Wi-Fi Network Types	Client, Access Point, Hotspot
Ethernet Port Configuration	Switch

Subnetwork

Maximum number of standard room devices supported per controller combined ¹	12
Allure EC-Smart-Vue Series ²	12
Allure EC-Smart-Comfort Series	6
Allure EC-Smart-Air Series ²	6
EC-Multi Sensor	4
ECx-Light-4 / ECx-Light-4D / ECx-Light-4DALI	2
ECx-Blind-4 / ECx-Blind-4LV / ECx-Blind-4SMI / ECx-Blind-4SMI-LoVo	2
Maximum number of Bluetooth low energy room devices per controller combined ³	6
Allure UNITOUCH™	2
EC-Multi-Sensor-BLE	4

- For more details about supported quantities, see the Product Selection Tool available in Builder: <https://builder.distech-controls.com>.
- A controller can support a maximum of 2 Allure sensor models equipped with a CO₂ sensor. Any remaining connected sensors must be without a CO₂ sensor.
- A mixed architecture with standard room devices and Bluetooth low energy enabled devices is not recommended.



Open-to-Wireless Adapter

Communication Protocol	EnOcean wireless standard ¹
Connector Type	USB
Number of Wireless Inputs	Unlimited ²



- Available when an optional external ECLYPSE Open-to-Wireless Adapter is connected to the controller. Refer to the Open-to-Wireless Application Guide for a list of supported EnOcean wireless modules.
- Wireless inputs will only be limited by physical distance between the EnOcean devices and the ECLYPSE Open-to-Wireless Adapter.

Mechanical

Dimensions (H x W x D)	5.54 x 8.52 x 2.30" (216.42 x 140.29 x 58.54mm)
Shipping Weight	1.8lbs (0.82kg)
Mounting	DIN rail or screw mounting
Enclosure Material	Flame retardant/Poly-carbonate (FR/PC)
Enclosure Rating ¹	Plastic housing, UL94-5VB flammability rating

- All materials and manufacturing processes comply with the RoHS directive and are marked according to the Waste Electrical and Electronic Equipment (WEEE) directive

Standards and Regulations

CE Emission	EN61000-6-3: 2007+A1:2011
CE Immunity	EN61000-6-1: 2007
IEC	IEC 63044-5-1 (2017) IEC 63044-5-2 (2017)
FCC	Compliance with FCC rules part 15, subpart B, class B
ICES Compliance	ICES-003
UL Listed (CDN & US)	UL916 Energy management equipment



Note. Each unit is bespoke to the project and the complete specifications will be published prior to assembly.