

# Gateways for building automation and HVAC control

Connecting sustainable buildings



# Intesis connecting buildings

Intesis gateways for building automation cover all relevant standards and technologies, and includes the market's most comprehensive portfolio for HVAC integration with solutions for all major AC-brands.

Robust, reliable and easy to configure, the Intesis product family is widely used for system integration. Users benefit from efficient commissioning and uninterrupted operation.



#### Intesis by HMS Networks

Intesis is part of HMS Networks, market leader in solutions for industrial communication and the Industrial Internet of Things, IIoT. Intesis is the HMS' main brand for Building Automation products and solutions Other markets from HMS are Manufacturing, Power, Energy, Transportation, Infrastructure and Logistics.

### About HMS Networks

With millions of installed products worldwide, HMS Networks is the leading supplier of solutions for Industrial ICT (Information & Communication Technology).

We enable valuable data and insights from industrial equipment, allowing our customers to increase productivity and sustainability.

- Employees: > 800
  - Locations: in 18 countries
  - Distributors: > 50 countries
  - Brands: Anybus, Ewon, Intesis, Ixxat

- Customers: Device manufacturers, machine builders, system integrators, end users
- Year founded: 1988



# High quality standards

Intesis products are subject to extensive testing and certification processes to ensure the highest quality standards. Also, additional tests are implemented for specific markets.

#### 100% tested

Every product is tested on premises to ensure the highest quality standards.

#### **UL** listed

Intesis products contain UL marked components and the production line is subject to periodic UL audits. It is with pride that we put the UL mark on all main Intesis products.

#### **Global coverage**

In addition to rigorous internal quality tests, Intesis products are also certified by independant testing labs to fulfill national legal requirements on different markets.

#### **Protocol certifications**

All implementations of standard protocols in Intesis products are performed rigorously according to each protocol specification. Full interoperability is then ensured thanks to testing and certification by external accredited laboratories.







# No matter what building automation protocol or AC brand,

# Cloud solutions

Intesis long experience of Building Automation protocols and communication solutions for HVAC integration brought to the cloud for straight-forward remote device management.







# Intesis has the solutions for every project

# Intesis MAPS — the configuration tool for Intesis products

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		COM3 COM11	Gateway Name		
			Serial Number		00/000XXXXXXX000/00
			Application Name		
			License		
			License comment		
			Version	0.0.0.1	
			Last Configuration		XXX 00:00:00
			MAC Address		X:00:00:00

# Intesis MAPS

Is an intuitive configuration tool for all Intesis gateways that helps reducing commisioning time.

Intesis MAPS enables easy configuration offering a simple and consistent way to program all gateways. Upon launching Intesis MAPS, the user selects the right template for the application they need and the configuration procedure can start.

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		ECG 1	1	0: Fluorescent	Get	Set	Wnk			32	9A93A3	1: Emergency	Wink		
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		ECG 6	6	6: LED	Get	Set	Wnk			37	A88018	0: Fluorescent	Wek		
		ECG 7	7	6: LED	Get	Set	Wnk			38	AD5970	6: LED	Weik		
		ECG 8	8	1: Emergency	Get	Set	Wok	1		39	8A34C0	0: Fluorescent	Wek		
		ECG 9	9	0: Ruorescent	Get	Set	Wnk	1		40	824A24	0. Fluorescent	Wink		
		ECG 10	10	1: Emergency	Get	Set	Wnk			41	B3CA14	6: LED	Wink		
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# Multi Addressing Point Solution



### Project templates

For every gateway there is a template providing a step by step setup guide for both protocols in the gateway.



#### Device scan

By using the scanning functionality, users can find devices in the field and import all their data automatically.

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#### **Product templates**

Product templates are provided for automatic import of all device data, removing the need for manual work.

#### Data conversion

Data can be transformed into the desired format, e.g., adjusting offset, scaling or converting from degrees Celsius to Fahrenheit.



#### Diagnostics

Problems and errors can be detected and solved with Intesis MAPS diagnostics.



#### Secure and safe configuration

MAPS configuration projects are protected by passwords to prevent unauthorized manipulation of projects and installations.



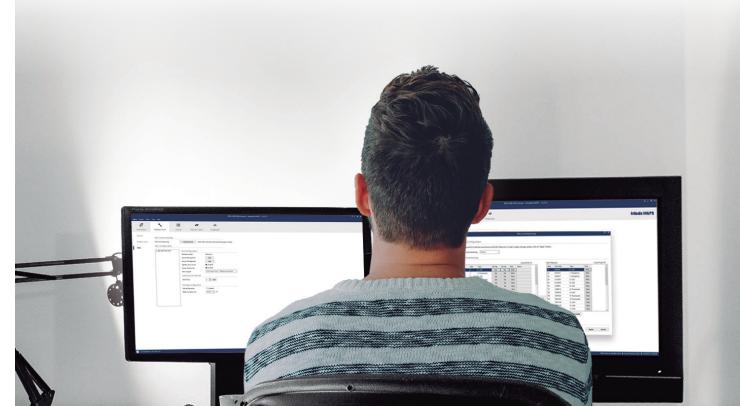
### Recovery

Users can save the gateway configuration project to file for e.g., recovery purposes or in case of gateway replacement.



### Update information

The tool informs whenever there is a new software version available for the gateway or Intesis MAPS itself.



# Be prepared for the integration process

### Get ready to start your project even if you are not off-site

Intesis MAPS offers you the possibility of starting your projects even without the Intesis device. Simply start creating your configuration file from the field devices' manual and/or the BMS or SCADA engineer information.

### Get everything ready before commissioning

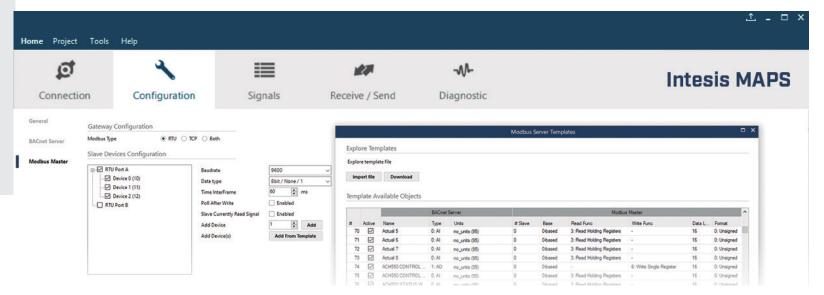
Check your configuration, simulate communications, use our templates, consult our manuals, attend our webinars and get the most of our team experience in a powerful tool. Everything in its right place for a smooth commissioning process.

#### Template functionality

Thanks to our template functionality you can import already existing templates from third party devices\* and include them in your project with a simple click of the mouse. Moreover, you can create your own templates and use them in any of your projects.

\* Requires Internet connection.





Fast, save and secure commissioning and troubleshooting

Even if you are not off-site, remote connections are available to the gateway through IP\*, which ensures the possibility of testing the project during the commissioning stage. You can also troubleshoot any possible issue you might face from your office.

Save money and time with less travelling

A remote connection drastically reduces the need for travelling since commissioning or troubleshooting can be done from anywhere.

With four simple steps you will be ready to go:



Create your configuration project



Download the configuration



Enable communications



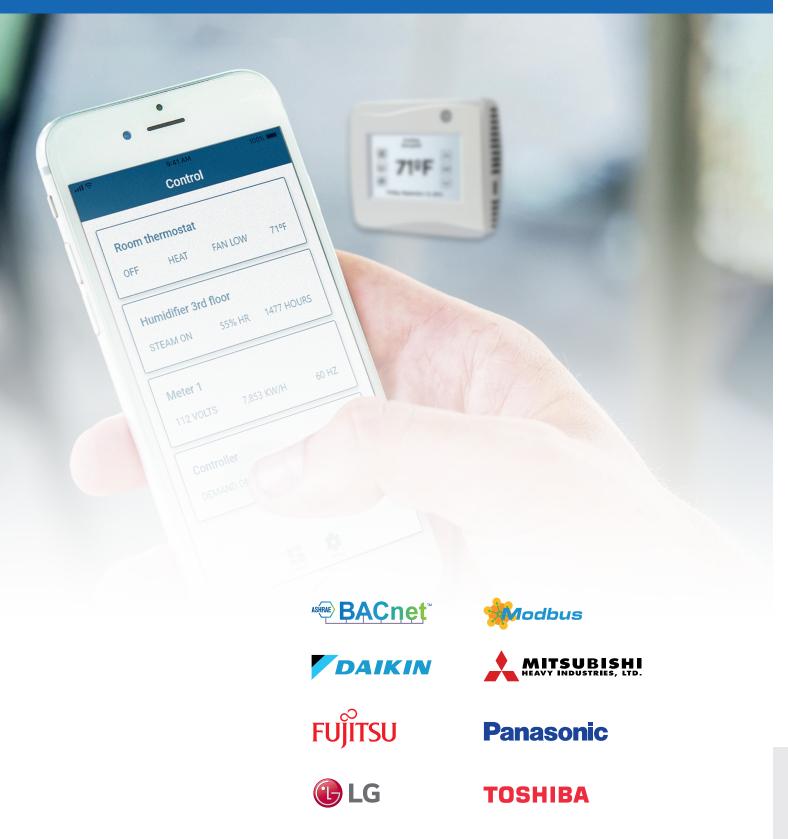
Test and/or troubleshoot

\*Check with your IT department for more information about external communication configurations.

# Perform the commissioning and troubleshooting anywhere

# Cloud Solutions

Intesis brings extensive experience in developing communication interfaces for HVAC integration, now available on the cloud for convenient remote management. With these platforms, you can easily control and monitor any building from anywhere and at any time.



# Empowering Smart Building Automation

The increasing global adoption of internet technologies has spurred demand in the building automation market for intelligent connectivity solutions.

Intesis meets this demand with their cloud solutions powered by HMS Hub<sup>™</sup>, enabling customers to securely monitor and control previously unconnected devices from a remote location. These end-to-end solutions are packaged for effortless deployment, encompassing all necessary elements to get started.



#### Native application

End-user-oriented Android and iOS App for mobile device management.



### Web dashboard

Professional web based device management tool developed for real-time control and monitoring of the installation.



# Flexible and adaptable

Adaptable cloud solutions for any project size, need and location, such as residential buildings, schools, bank offices, shops, public buildings and more.



# Multi-site projects

Ideal for projects with distributed installations. Allows multiple sites to be controlled from the same dashboard.



# User and permission management

Grant access for other users and set permissions based on individual needs.

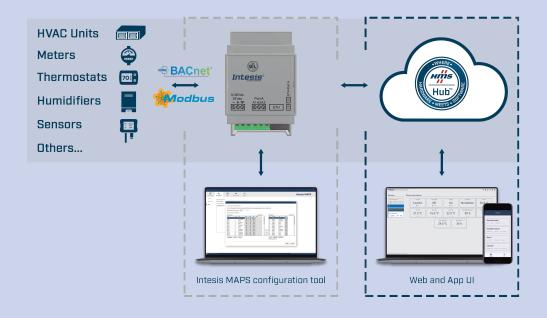


### **Quick installation**

Easy-to-install devices and intuitive configuration tools for fast project commissioning.

Cloud management leads to increased energy efficiency and cost savings

# Intesis ST Cloud Control



Intesis ST Cloud Control is an HMS cloud-based solution which enables easy monitoring and control of any BACnet or Modbus device by using our end user oriented App and web based dashboard.

Users simply need to install the ST Cloud Control gateway in the desired location and use Intesis MAPS for PC-based configuration. Here, the widgets can be created (e.g., Booleans, Operating Modes, Dimmers, Analog Values, Error Signals, etc.), mapping them with the BACnet objects or Modbus registers of choice.

Once the gateway is configured and assigned to a user, all devices and widgets will appear automatically in the App and web interfaces, presented in a dashboard. Each user is allowed to create their own customized dashboards, in which devices and widgets can be renamed and reorganized according to personal preferences.

Devices	Blue screen device				
Green screen device Heat 19.5 °C 21.0 °C	LocOcc •••	System Mode Off ••••	Fan Mode On •••	Local Metion No Motion	Coc Heat
Blue screen device LocOcc Off Off	21.5 °C	Unco: Heat 16.0 °C - +	Unoce Coost 22.5 °C - +	Detrumidification Setpoint 50 % - +	Fan S < Devices
				humidiy 4 %	Room thermostat
			[		Humidifier 3rd floor STEAM ON 65% HR 1477 HOURS
					Netor 1 112 VOLTS 7.853 KWH 60 HZ
					Controller DEMAND ON 116 PA 20°C OUT1-ON

# Manage and control any BACnet or Modbus device from an App or web interface

With ST Cloud Control you are able to connect all types of BACnet or Modbus devices to the cloud, for an intuitive and centralized remote device management through an App or a web interface using a common dashboard.



#### **Gateway features**

- BACnet/IP or MS/TP or Modbus TCP/RTU connectivity.
- Up to 32 devices can be connected to each gateway.
- Up to 12 widgets per device.
- Easy device configuration using Intesis MAPS.



#### Next level service

- Industrial grade connectivity now for Building Automation.
- Fast and scalable real time edge connectivity over HMS Hub<sup>™</sup>.
- Full data control and protection.
- Secure and remote updates during the application lifetime.







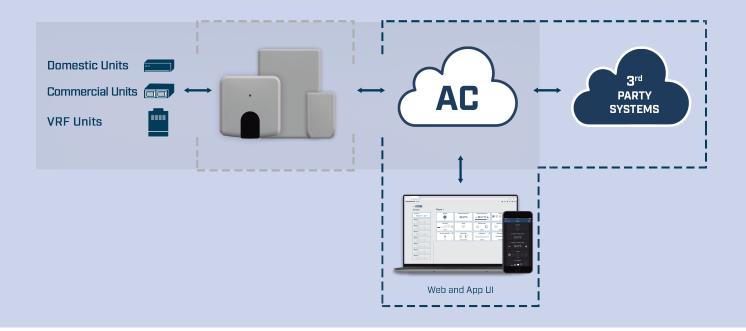
### System Features

- Monitor and control all devices in an intuitive way.
- Comes with a native iOS and Android App and a web interface.
- Create scenes and interact with multiple concurrent devices.
- Weekly calendar that shows the daily planned installation commands.
- Notifications keep you updated about system status.
- Device sharing and user permissions management.
- Multiple site management from a common dashboard.



Make conventional BACnet or Modbus devices smart with Intesis ST Cloud Control

# Intesis AC Cloud Control



AC Cloud Control is an HVAC IoT solution that allows comfortable and intuitive control of air conditioners and heat pumps from a smartphone, tablet, smart watch or from a simple internet browser.

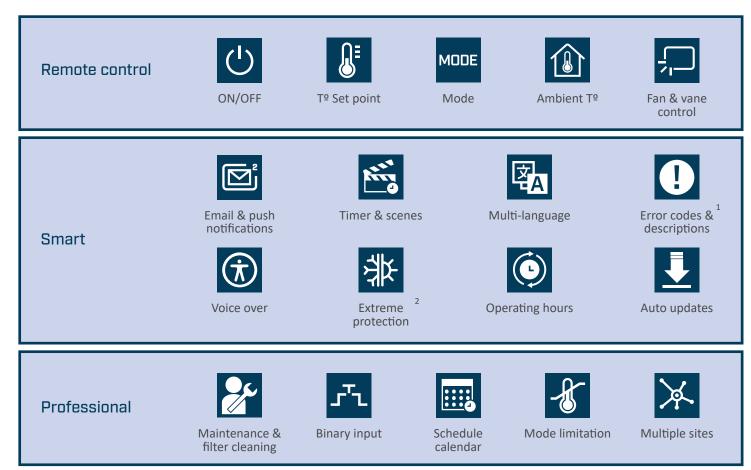
The AC Cloud Control gateways, developed together with the major AC manufacturers, offer cloud connectivity to a wide range of compatible AC units. No cables are needed for cloud connectivity, as the devices use Wi-Fi technology to bring all the data to the cloud.

The bidirectional communication between Intesis devices and the AC unit, ensures the end user can keep using the manufacturers remote controller if desired, while keeping the cloud system updated with the real status of the HVAC units.

The gateways can be managed using a web-based dashboard, so no additional management tool needs to be be installed. User friendly Android and iOS Apps are available.

# Control the HVAC system remotely and reduce up to 30% of energy

# AC Cloud Control Functionalities



1: not available for the Universal IR gateway

2: only available for the Universal IR gateway

# AC Cloud Control main strengths



#### Multiple brands and multiple sites Organize any brand and model in three different levels.



Secondary users Manage who can monitor and control each unit.



**Email and push notifications** Be aware of everything that happens in your climate system.



# Energy saving and maintenance functionalities

Special functionalities to help our customers increase energy efficiency.



# Professional API for 3rd party integration

Connect your system to Intesis Cloud Solutions and offer bidirectional HVAC control to your customers.

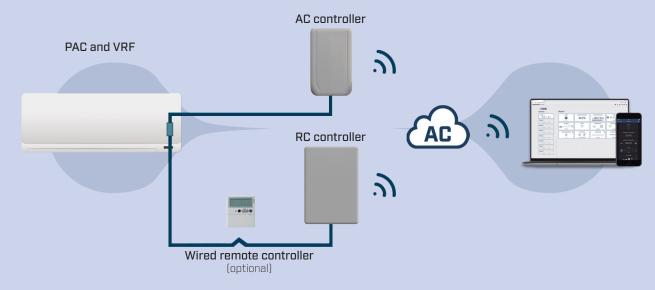


# **OEM** projects

Reduce the time to market and maintenance costs, our R&D resources are at your disposal.

# Effortless and Secure Remote AC Management

AC Cloud Control devices are designed to enable remote control of air conditioning units through cloud connectivity. These devices use the local Wi-Fi network to establish a reliable data connection, operating at a frequency of 2.4GHz and compatible with b/g/n. The communication between devices is optimized for IoT, ensuring minimal communication issues.



# Specific features for brand specific devices

- Devices designed and developed along with the major AC manufacturers, using the proprietary communication protocol of each manufacturer.
- Offers advanced parameters like error signals, error codes, power consumption\*.
- Domestic controllers are directly connected to the internal electronic card, and specifically designed for RAC and domestic lines.
- The VRF and commercial interfaces are connected to the HVAC remote control bus, and specifically designed for PAC and VRF.

# Specific features for universal controller

- Offers compatibility for thousands of AC models.
- Only requires an indoor unit that has an IR receiver working with a standard wireless infrared remote controller.
- The AC feedback is enabled through the embedded IR receiver.
- Allows using the universal and the manufacturer's controller at the same time.
- The Universal controller is specifically designed for PAC, RAC and VRF.



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PAC. RAC and VRF

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FUjitsu		AC Cloud Control			
RAC and VRF syste	ems to W	/i-Fi (ASCII)	INWFIFGL0011100 INWFIFGL001R100	1 I.U. 1 I.U.	NEW
🕒 LG		AC Cloud Control			
VRF systems to Wi	i-Fi (ASC	11)	INWFILGE001R100	1 I.U.	
		AC Cloud Control			
FD and VRF systems to Wi-Fi (ASCII) Domestic units to Wi-Fi (ASCII)			INWFIMHI001I100 INWFIMHI001R100	1 I.U. 1 I.U.	NEW
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UNIVERSAL		AC Cloud Control			
Universal IR air co	nditione	r to Wi-Fi (ASCII)	INWFIUNI0011000	1 I.U. with Binary Input	



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