Intesis® BY HMS NETWORKS

Case study:
HVAC integration in apartments

Solution:	Intesis WiFi (ASCII) gateway for Mitsubishi Electric AC
Country:	Thailand
Company:	ILEVIA S.R.L.
Summary:	ILEVIA uses INTESIS WiFi (ASCII) Gateways for integrating HVAC systems in their apartment projects

Benefits

- Real time status from the AC system enables alarm and signal monitoring.
- Balance between functionality and aesthetics.
- Enables comfort, enables energy savings and remote control of the entire building.

"In this case, we needed the quality and reliability of Intesis products, and also the speed of installation. gave us Intesis provided the best possible solution, a WiFi device directly connected to the AC. We added the protocol to our controller to obtain the best integrated solution at an affordable price for the customer."

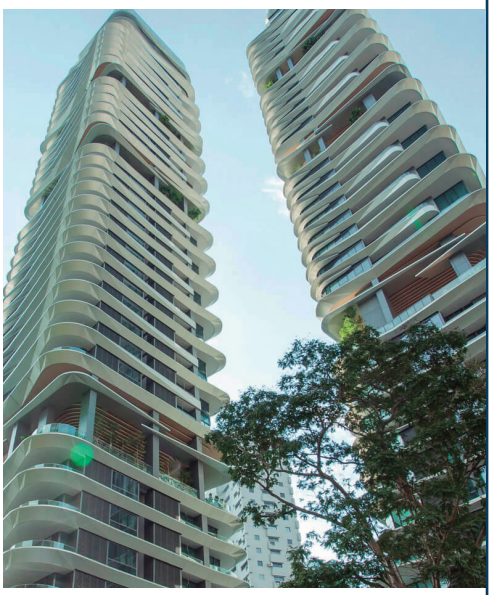
Dario Tolio, CTO and Managing Director at ILEVIA S.R.L.

A real feedback from the AC

ILEVIA, a Italian manufacturer of home and building automation products has chosen Intesis WiFi (ASCII) gateways for control and monitoring of HVAC systems.

In a project based on a complex of 194 apartments, the building owner decided to implement some advanced solutions for comfort, energy savings and automation. ILEVIA was selected and implements a solution that allows, lighting control, shading, HVAC and energy management among other things.

One of the main concerns was to be able to control the four Mitsubishi Electric Air Conditioner units included in each apartment and to get continuous status of each AC unit.



Intesis ability to connect to the Mitsubishi AC units, together with the need of not damaging the original design of the apartments, made Intesis WiFi (ASCII) interface the best solution.
In addition to the Mitsubishi Electric -specific used for this project-, Intesis offers a wide range of products for different Air Conditioning manufacturers as well as an Infrared solution compatible with thousands of AC models.

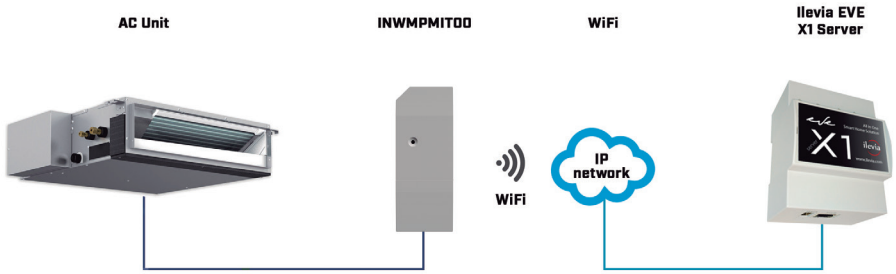
ILEVIA EVE X1 Server - All in One Smart Home Solution:

The end customer selected EVE Server from ILEVIA to control and supervise the entire building. EVE is an innovative product for home and building automation developed inhouse by ILEVIA. Thanks to the ability to interact with multiple protocols, standard as well as proprietary, the EVE Server has enabled all the installed technologies in each apartment to be easily interfaced. This also enables communication to be established with the Intesis WiFi (ASCII) gateways using a simple ASCII protocol via TCP/IP.

In addition to the lighting, shading and HVAC management, EVE Server includes numerous additional function such as scenarios, timers, calendar events, energy monitoring, statistics charts and notifications.
The tenants of the apartments are in full control using a remote Android or an iOS app.
One of the features that the installer appreciated the most was the short user interface set up time required. In a few minutes the interface was ready for 194 users (equalling 194 apartments). The possibility to apply a remote configuration, avoiding also unnecessary traveling to each apartment when some adjustment is required was also very appreciated.

How it works:

The Intesis WiFi (ASCII) gateways allows an easy air conditioner integration into any kind of control and monitoring system using a simple ASCII Protocol. This product family is specifically designed for home automation manufacturers, such as ILEVIA, who are interested in offering a control solution for the air conditioning system.
The brand specific WiFi interface is directly wired to the AC unit and connected to a local WiFi network. EVE Server is connected to the same IP network via an Ethernet cable, and by using a simple ASCII protocol communication between the two devices is established. EVE is able to send telegrams to the Intesis AC interface which will be transferred to the AC unit and vice versa.



Intesis WiFi (ASCII) gateways enables full control of air conditioners from IP systems:

One of the biggest challenges for ILEVIA in the project was to be able to control the Air Conditioner system from the EVE Server and to always get the real status of the AC units. Thanks to the bidirectional communication that is offered by Intesis gateways, this matter was solved. The air conditioner data provided by the WiFi gateway can be analyzed by the EVE Server and used by the users (the installer, the building owner or the final customer). Some benefits of having bidirectional communication are:

- Cost savings: The internal temperature sensor of the AC unit can be monitored and therefore used to launch some actions. This eliminates the need of expensive thermostats.
- Data processing: The data can be organized in real-time graphs for further analysis. Corrective actions can be implemented to obtain energy savings.
- Technical assistance: The AC unit reports errors allowing a fast reaction time.

Thanks to the possibility of creating local WiFi networks for each apartment, the risk of having to reprogram the Intesis after custom router installation is avoided. This saves valuable time.