

# Case study: HVAC energy savings in retail



### **Benefits**

- Global reduction of energy consumption by 20%.
- All stores controlled from a remote central point.
- Real time alarm monitoring for effective preventive maintenance.
- Interaction with other systems for e.g. the fire control, lighting, access control, and UPS.



"The wide range of Intesis gateways, as well as the company's extensive experience with the Air Conditioning manufacturers has provided to us a path to handle this project efficiently and quickly"

José J.Blanco García, Retail Business Development Manager at ECOMT.

## Saving energy!

ECOMT has chosen Intesis to build the control solution of one of the most well-known textile companies in the world. Intesis gateways have been installed in more than 3400 retail facilities, making the HVAC system more effective and easy to monitor and control.

As a leader in the worldwide textile sector, ECOMT is pioneer in launching an ecoefficient store model that meets very demanding energy efficiency standards, with a goal to reduce the energy consumption of its stores. To do so, ECOMT chose to implement a building management system, with energy saving as the main objective.

#### The barriers and the solution:

One of the most significant challenges in the project was to find a product able to handle large number of communication protocols efficiently.

On one hand, the Air Conditioning sector is full of different manufacturers, each one using its own internal communication language. On the other hand, the Building Management Systems can be based on different standard protocols. Therefore, to be able to control the Air Conditioning units from the BMS, it is required to install gateways capable of interpreting the protocols on both sides.

# "Intesis is the solution"

The ideal solution was to find a single gateway manufacturer able to offer a wide range of products approved by the AC manufacturers, and compatible with the most common building standard protocols.

Moreover, having a single gateway manufacturer helps reducing the price of the project too.

### Benefits of HVAC systems control:

The HVAC integration into a BMS or SCADA provides great benefits.

- ENERGY SAVINGS: HVAC systems are one of the main cost drivers in buildings, so actions such as limiting the setpoint, generating calendars or schedules and setpoint adjustment based on occupancy, bring great energy savings and consequently a reduction of the expenses for electricity.
- PREVENTIVE MAINTENANCE: Monitoring the alarms and errors reported by the AC system allows for detection of malfunctions in advance. This extends the AC unit life time, improves the satisfaction of the user and reduces the maintenance expenses.
- INTERACTION WITH OTHER SYSTEMS: Integrating the Air Conditioning system into the BMS offers the possibility of generating automatic actions as soon as an event happens. For example, the AC will be instantly switched off when a fire alarm occurs.
- CENTRALIZED CONTROL: Possibility to establish global control of AC systems in all the stores AC systems from a single central point. This allows creating scenes or personalized actions and launching them to all the stores.
- COMFORT: A complete comfort of the stores has been achieved, which makes people stay longer in the stores, at the end resulting in more sales.



### HVAC control enables energy savings:

Thanks to this project, the consumption per unit sold dropped by 30% from 2014 to 2017, and the eco-efficient stores which are connected to the platform consume 20% less electricity and 40% less water.

The return on investment, ROI per store would be 3.5 years (for a study of 2981 stores).

\*The data has been obtained from public annual reports of the textile company.



### Intesis Air Conditioning Interfaces

Intesis offers high quality Air Conditioner interfaces for the integration of climate systems into BACnet, KNX, Modbus and 2.4 GHz wireless installations.

Enjoy the benefit of working with the market leader in the field of Air Conditioning integration that offers highly reliable solutions developed in collaboration with all major AC manufacturers.

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