



**WINNER 2008**

**Best Unified Communications Project of the Year**



### Best Unified Communications Project of the Year



#### Gruppo RETI

**Project Name: Cisco Unified Communications for Building Automation**

#### The project

Gruppo RETI implemented a Cisco Unified Communications based solution on a unique phone system that integrates building automation functions and optimises power management.

The IP-based framework is the platform for merging information and communications technologies and for building control systems into one infrastructure.

Gruppo RETI's LAN is based on high-performance Cisco Catalyst switches for voice, data and video communications.

A common set of user interfaces is used between the IP infrastructure and its building automation, access control, security alarm and video surveillance systems. Nokia dual-mode phones together with a Unified Wireless architecture completes the framework of technologies that have been implemented.

#### Innovative use of technology

The project is extremely innovative because it takes advantage of all advanced technologies over a solid converged IP infrastructure. Key features include the ability for users to interact easily and quickly with lighting systems, air-conditioning and heating, access control, video surveillance, security and alarm systems and power usage.

This allows users to control their workspace in a more efficient and environmentally friendly way.

## Functionality and features

Functions that can be controlled over the network include traditional buttons for basic functions such as switching lights on and off, opening and closing windows (Tip-Tronic electrical windows), opening and shutting window blinds, and controlling heating, ventilation and air conditioning (HVAC); for example, HVAC systems automatically switch off at the start of each weekend and switch on again early on Monday morning. Other functions include monitoring video surveillance cameras, interacting with alarm and access control systems and watering the gardens, using an automatic trigger linked to a weather station on the roof.

## Successful implementation – successful business

The framework enables interaction among devices that are usually unable to communicate or are not integrated.

The interoperability enabled by this project has had a very positive impact on the business, in fact a wide range of building functions, previously considered as stand-alone, can now be configured using a console and accessed – via the IP network – through devices such as Cisco Unified IP phones on each desk, PCs (Web interface), PDAs and touch screens situated in each office. For example, a button that opens and shuts the window blinds can be simply reconfigured, using the console, to control office lighting. No other actions are required.

## Operations excellence, scalability and replicability

The whole project has been internally deployed in Gruppo RETI with the final objective of external replication.

In order to achieve this result, Gruppo RETI followed various industry standards that can be grouped into four groups:

- Domotics EIB/KNX ©
- Access control (Kaba ©)
- Intrusion control (Tecnoalarm © )
- Videosurveillance (Milestone ©)

All of these systems are IP based and rely on Cisco Unified Communications as a platform. The only limit to the solution scalability is tied to the CUCM infrastructure. Every other component of the solution is closely tied to the scalability of the IP Internet Protocol. In conclusion, the solution is highly scalable.

## **Impressing the judges**

A unique phone system that integrates building automation functions and optimises power management which demonstrated; an innovative use of technology for building automation; extensive use of applications and their integration. Applications include automation of light, air conditioning, access control, video surveillance and power usage. Business processes are streamlined through the use of unified communications.