



D-Link takes part in the Edison Project and in increasing energy efficiency in public buildings



DHP-311AV
PowerLine AV 500 Wireless
N Mini Starter Kit



Comprised of two adapters which combine both PowerLine and wireless technology. This means you can extend and create a wireless network using your existing electrical wiring. Experience a high-speed and reliable connection throughout - no additional wires are needed making this an ideal product to use in a public space.

As part of the European "Energy Efficiency Building" initiative to reduce the energy impact, the EU has launched a series of initiatives to fund new projects, one of which is the EDISON project (Energy Distribution Infrastructure for SSL Operative Network), designed to put forward a smart lighting system for public buildings that can improve energy efficiency, reduce CO2 emissions and, at the same time, encourage the use of renewable energy sources.

This is a radical change to the current situation, designed to help public bodies reduce energy costs without the need for major rebuilding work or investment in new infrastructures in order to satisfy the limited budgets of local authorities. And, at the same time, raising the profile of the energy savings achieved in real time, thanks to specially designed measuring tools.

In this context, by using the electricity supply as the transmission medium the D-Link PowerLines, integrated in the semi-peripheral switchboards (CPC Master), allow administrators to assess the actual energy saved in each building, even remotely.



The Edison Project

EDISON – Energy Distribution Infrastructure for SSL Operative Network – is a project funded by the European Community involving 14 partners in 5 different European countries, the goal of which is to demonstrate that a smart lighting system based on a Smart Energy Platform (SEP) significantly increases the energy efficiency of buildings.

The Smart Energy Platform, which produces the same amount of light, using existing infrastructures where possible and relying on components that are readily available on the market, such as wireless energy counters, sensors, powerlines, microcomputers, AC/DC convertors, centralisation software for remote management and solid state lighting (SSLs), is designed to reduce energy loss and demonstrate significant energy savings of more than 15 per cent per year.

The Client

EDISON's project leader is the Ugo Bordoni Foundation, an Italian Cultural and Research institution supervised by the Ministry for Economic Development, whose aim is to identify innovative solutions for broadband communication and next generation networks in light of the new challenges laid down by technological convergence.

In Italy, the project has involved Pilot Sites agreed upon by the European Community, and the system was installed at the offices of a number of municipal offices in Abruzzo, namely Manoppello, Lettomanoppello and Roccamontepiano, at a number of nursery, primary and middle schools in these municipalities.

There were plans to implement this system at the City of Science museum in Naples, but a fire destroyed a large part of the structure before installation, and backup solutions are currently being defined by the European Community.



Many other public bodies are embracing the project and applying to take part in the initiative, offering their own buildings because of the success that the project has enjoyed and the results in terms of savings, less pollution, and greater involvement of citizens, employees and students.

The Partner

O.Zone srl designs, installs and maintains complete video surveillance systems, biometric solutions for video analysis, physical and virtual intrusion detection systems, wireless and wired networks to manage voice, video and data traffic, industrial and private automation, and solutions for mobility and energy optimisation.

Founded in 2007 by a group of professionals with different backgrounds in IT, communications and security, with experience in national and international projects, O.Zone srl is committed to R&D and technological innovation in the six areas of business in which it is involved, working closely with the market leaders in each sector with a view to converging technological systems towards full IP.



The Solution

The goal was to incorporate several semi-smart nodes within the network architecture capable of transferring (both ways, using the pre-existing electricity network), the data coming from sensors to the management and control platform that would come from remote management software to illuminated units, conveniently modified to respond to the inputs.

To support the data exchange, the solution chosen included the insertion of a number of D-Link DHP-311AV PowerLine kits in the CPC Masters capable of working symmetrically between the microcomputers and the direct network to the centre and vice versa; energy optimisation could therefore be managed remotely, using management and centralisation software that monitors and records, in real time, the consumption of the switchboards (Master and Slaves), or onsite through the sensors on the ground.

The solution chosen has created a robust, resilient infrastructure node within a semi-industrial environment, and will lead to a significant reduction in the buildings' annual energy consumption, of over 60% of the cost for current electric lighting and a drastic reduction in annual CO2 emissions.

Products

Thirty PowerLine AV 500 Wireless N Mini Starter Kit's were connected within the Master control units to allow the transmission of data via electricity networks.



"We chose D-Link because they offer robust support pre- and post-sales to installers and systems integrators and for the performance and stability of D-Link PowerLine equipment"

Silvio Leoni, Director O.ZONE SRL



For more information: www.dlink.com

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