



## CASE STUDY

### At a glance

- An “intelligent” room management system that fine-tunes hotels’ energy use
- A “real-time” interface between the PMS and BMS software programs
- Can be remotely controlled by an iPod - or iPad - from anywhere in the world
- Features an elegantly sculpted touch-control screen similar to an iPhone
- Easy-to-use interface gives guests margin of choice
- Facilitates reduced power consumption for hotels’ compliance with the CRC Energy Efficiency Scheme



“VDA’s efficiency-based control system allows us to manage energy consumption in individual rooms and is an easy-to-use, one-point solution for monitoring occupancy.”

Iqbal Latif  
Owner, Rafayel on the Left Bank

## RAFAYEL ON THE LEFT BANK

VDA ENABLES NEW HOTEL TO BECOME A LEADER IN ECO-LUXURY OPERATIONS

### A Commitment to Sustainable Luxury

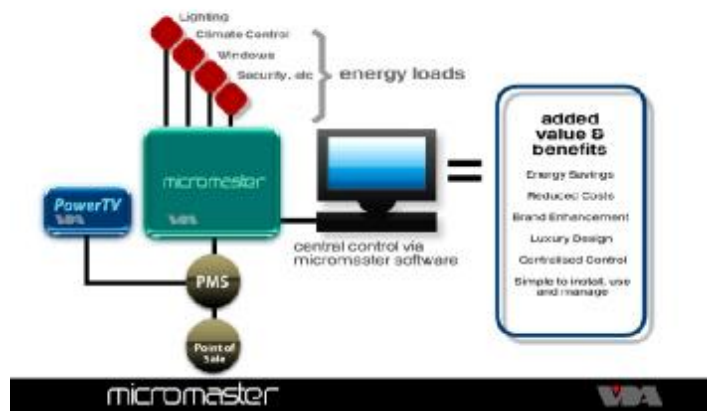
The Rafayel on the Left Bank, one of London’s newest premium boutique hotels, was constructed within an architectural envelope originally designed for offices and residential apartments - which necessitated the conversion of its infrastructure to support hotel operations. The owner’s passionate commitment to creating a sustainable, eco-luxury property provided an ideal opportunity for VDA to install its “intelligent” room management systems, Micromaster and Power TV, and create a coordinated energy management approach for the hotel.

### Precise Energy Controls

Micromaster is an interface between the Property Management System (PMS) and Building Management Services (BMS) software programs that uses Radio Frequency Identification (RFID) technology - the same as the Oyster card system - and can even be remotely controlled by an iPod - or iPad - from anywhere in the world.

A hotel’s BMS has traditionally relied upon “rough” occupancy data received from the PMS, meaning that a property’s energy use is based on the number of guestrooms rooms sold – rather than whether or not guests are actually in their rooms. This inefficient system results in unnecessary power consumption since, for example, too many water boilers can be fired-up, corridor lights remain on, and in-room HVAC controls run at excessive levels.

integrates with almost any energy load and control system



Micromaster relays “real time” updates based upon actual occupancy levels to the BMS system, which allows a hotel to fine-tune its energy usage from a centrally controlled system. Similar to



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an i-Pod, its Vitrum Smart Switch "Glass Collection" designed by Marco Piva features an elegantly sculpted touch-control screen that allows guests to personally adapt lighting and temperature levels within limits defined by the hotel.

PowerTV is an interactive television system that offers entertainment, city guides and internet access as well as messaging, teleordering and check-out services. Since Rafayel on the Left Bank implemented PowerTV along with Micromaster, guests can also easily adjust the room's temperature and lighting levels through the television's remote control.

### Increased Energy Efficiency

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The ability to precisely manage energy usage is resulting in the significant reduction of Rafayel on the Left Bank's carbon footprint. For example, rather than firing-up its boiler systems based on the PMS' reservation report, Micromaster provides the BMS system with an exact count of which rooms are occupied at a given time. When only half of the reserved rooms are in use, less hot water is required and a lower number of boilers are powered. This same concept is applied for management of lighting, air conditioning and heating. Another application of Micromaster enables guestroom lights to turn off three to four minutes after a guest leaves the room; the same lamps turn back on when the guest re-enters, giving the impression the lights have been on the entire time. One further example is the capacity to automatically lower room temperatures during the night by just one degree, which will cut 8% from a hotel's annual heating bill according to The Carbon Trust (an NGO with the mission to accelerate the move to a low-carbon economy).

### Planning the Future

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According to Rafayel on the Left Bank, VDA's energy management measures, when combined with other cutting-edge technologies such as LED lighting and rainwater harvesting plus the hotel's "no plastic" policy, will enable the property to reduce its CO<sub>2</sub> emissions by 500,000 kg per year and the 70 kg carbon footprint of the average London hotel guest by 20%. Additionally, the Environment Agency's CRC Energy Efficiency Scheme - a new mandatory trading programme for the UK that aims to reduce carbon dioxide (CO<sub>2</sub>) emissions through energy efficiency - requires hotels to purchase carbon allowances based upon their pattern of energy usage. High-level users will pay more for their energy and low-level users will receive a refund. In light of the growing regulations, costs and environmental impacts linked with energy consumption, the use of VDA's green technology has enabled Rafayel on the Left Bank to position itself as a model for eco-efficient hotel operations.

