Wireless Local Area Networks

There is an ongoing debate regarding the advantages and disadvantages of implementing wireless Local Area Networks (LANs) and most of the debate revolves around the following aspects of wireless technology:

- Transfer rates.
- Coverage
- Cost
- Security

The two main standards setting the technical specifications for wireless LANs are the 802.11a using the 5GHz band and the 802.11b using the 2.4GHz band. Current LAN transfer rates of 11 Mbps and 22 Mbps are now easily attainable and the hardware is readily available on the market. Some manufacturers even produce dual band cards designed for users who need to access different networks with different standards (e.g. different bands at home and at the office). The technology is quite promising and in a short we will see transfer rates of 100 Mbps and higher.

The coverage area of a typical wireless LAN is between 50-100m. In practical terms, this is more than enough for the majority of workplaces and offices. Extended cover areas can be achieved by adding new access points.

Given its flexibility and ease of installation, the costs of implementing a wireless LAN in a new building are not really higher than a wired LAN when all factors such as sockets, cables, trunks and labour charges are considered. In existing or older buildings, the costs favour wireless even more.

Wireless networks are not inherently less secure than their wired counterparts. It all comes down to a question of having an adequate information security policy, its implementation and strict enforcement. MAC address filtering and WEP encryption provide more than acceptable security for most types of business applications.

In conclusion, wireless LANs are practical, flexible, cost effective and secure. There is no such thing as absolute information security. Insisting on the protection of our back doors from network intruders when our front doors, windows and even our roofs are wide open and unprotected can only be described as technical naivety at best.