RIBA Information Services

Background

RIBA Information Services is a division of RIBA Companies Limited, the wholly owned commercial arm of The Royal Institute of British Architects. It provides RIBA members and other suppliers with a range of inter-related products and services to use in the sourcing and selection of product and supplier information. Through these services it provides manufacturers with a range of advertising options to enable the selection and specification of their products.

To deliver this range of services to suppliers and manufacturers it uses the following methods:

- Printed Directory (Product Selector)
- CD-ROM (Product Selector - *plus*)
- Internet (Product Selector – *online* : www.productselector.co.uk)
- Intranet
- Library
- Database

The Challenge

In August 1999, Peter Wright joined RIBA Information Services as Systems Support Manager with a remit to find a better way to run the hybrid LAN network with 45 users that comprised many different brands of products.

"As no records had been kept as to what products had been installed previously, the first job I had to do before I could even think about upgrading the network was to clearly document what products were being used where," explains Wright. "Products had been added as and when needed, with little thought being given to the future requirements of the network. As a result there were some products doing jobs that they really weren't suitable for.

A prime example of this is a PC that was only used for inputting data had 100Mbps to the desktop, whilst the graphics department were struggling to do huge file transfers with only 10Mbps capacity. There were two 10/100Mbps switches in the network that should have offered 100Mbps capacity to connected users, but the only thing they were connected to was each other. It was clear from the outset that this upgrade was not going to be an easy task."

Once a year a massive file transfer of all the information, including graphics, that is to be included in the Product Selector takes place. Twice a year, the Product Selector - *plus* CD-ROM is updated, which again involves the transfer of huge amounts of information.

The most frequent problem that occurred was bottlenecks during the file transfer process, especially when transferring graphics files. This had to be addressed as an immediate priority.

The Solution

"I decided to standardise the network using one brand so that there would not be any interoperability issues," said Wright. "D-Link was recommended to me by my PC reseller as the preferred network supplier. I had also used D-Link products in network upgrades at previous companies and had found them to be very reliable and realistically priced. They were also very low maintenance and could provide me with useful statistics and indicators to monitor network performance. I wanted to move towards a network that was more robust and would be scalable enough to cope with the growth in usage and users that is predicted over the next few years."

The first problem to be addressed was the lack of available bandwidth. By replacing existing 10Mbps cards with D-Link (DFE-538TX) 10/100Mbps Network Interface Cards with Wake-On-LAN capability, everyone now has access to between 10 and 100Mbps as and when they need it.

"The network cards were a very small expense in the scheme of things and some users may not notice an immediate difference," said Wright. "However, the graphics department and other heavy LAN users have seen a change by experiencing fewer bottlenecks now that more bandwidth is available."

Two DE-824TP Ethernet hubs installed in the network offer 48 10BASE-T to each port and runs all the workgroup traffic. They are ideally suited to the growing needs of this network with an up-link port that allows for several of them to be cascaded together to expand the port density. A DFE-916DX 10/100Mbps switch was acquired to assist the existing DES-1008 unmanaged 10/100Mbps switch and some cabling altered to allow the system to be flexible enough to cope with the heavy load demands placed on the network at peak times.

"The thing that I really liked about the D-Link products was their flexibility and the way that I could configure them to meet the changing needs of the network," said Wright. "One feature that I was particularly keen on was the 'Wake-On-LAN' option on the NIC's which allows me to manage the desktops on the network remotely and saves a great deal of time."

Wake-On-LAN

Wake-On-LAN (WOL) provides great utility for power management of a PC. WOL is an Advanced Configuration Power Interface (ACPI) function allowing a computer that has been powered 'OFF' to be powered back 'ON' from a remote station. ACPI is a new technology and an open industry specification to provide power management support systems through hardware and operating system co-operation.

The Future

RIBA Information Services also has another office based in Newark Nottinghamshire, where the programming for all the divisions applications is done. At the moment the two offices are linked by a dial-up ISDN line. When the network upgrade is complete this will be replaced with a VPN with a dial-up backup.

The divisions web sites are currently hosted and maintained externally. They are to be relocated and the Newark Office will then do maintenance via the VPN.

Up to now the network upgrade has only focused on LAN services, with the one external link to Newark. As the network evolves and more products are added making it more robust and scalable, WAN services will be introduced.

"It is a natural progression of the network to include WAN access," said Wright. "Managing this will be a whole different ball game and with WAN applications being so bandwidth intensive, outsourcing of the WAN services looks to be the way forward for the divisions network."

RIBA Information Services also has a very mobile sales force covering the entire country. They come into the office on a regular basis and update and synchronise their databases and other files using their DFE-660 PCMCIA 10/100 NIC's. At the moment this is a simple 'Plug-and-Play' operation but remote access to the LAN via VPN is being considered for the future.

With the initial phase of the network upgrade now complete, there are already plans to include more D-Link products.

"The total cost of the D-Link products so far is less than half of some of the other brands I looked at," said Wright. "I have not had to compromise on anything and now have in place an infrastructure that from a network management point of view is very easy to monitor and update. As RIBA Information Services grows, so we are able to grow the network with it."

"This network is a great example of what D-Link does best – offering reliable, scalable solutions at cost effective prices," said Jamie Kelley, Marketing Manager for UK and Eire, D-Link (Europe) Ltd. "Building products that make life easier for the network manager and better for the network users is a key objective for D-Link and one that we will continually strive to achieve."

About D-Link

Since its inception in 1986 D-Link has forged the way in the manufacture of highly engineered quality networking solutions that it brings to the market at a cost effective price. D-Link's understanding of and commitment to the needs of the "network customer" have enabled D-Link to become a market leader of products that are acclaimed around the world. D-Link (Europe) Ltd operates in 17 European countries.

D-Link's commitment to "Building Networks for People" is the driving force behind its success, enabling it to provide flexible cost effective highly engineered products from LAN and WAN to mobile solutions.

D-Link's new family of modular routers, switches and innovative USB products provide customers with the assurance that buying D-Link is synonymous with quality, high performance and prudent investment.