

# Changing attitudes

Spending on networks and cabling has to date been positioned well down the agenda of most retailers as it has been seen as nothing more exciting than the plumbing of their business. But, as Glynn Davis finds, this is changing as retailers increasingly recognise that by investing in such infrastructures they can reap great rewards

Not only can such equipment ensure retailers avoid the serious issue of networking downtime, but it can also provide the platform to run an increasing number of complex multimedia applications such as CCTV, digital signage systems, VOIP and video conferencing.

Mike Bielinski, chief executive of Vodat International, says that "networks are bottom of the food chain" for retailers, although he also comments that broadband has significantly raised their profile in this sector as it has shown retailers that such an infrastructure can enable many more tasks to be performed – and in real-time – that can greatly benefit their organisations.

However, he observes that broadband has been a double-edged sword for some retailers as many smaller merchants still use nothing more than a "consumer" variant that fails to give them the bandwidth that they now undoubtedly require in order to add the necessary applications on top of their basic voice and data transmission needs. "If they go for all the goodies but have a flaky broadband then their problems are compounded", especially when such networks inevitably also fall down on the other key requirements of reliability, security and resilience, which should be the fundamental elements of any network.

## Risk taking

But even if retailers invest in their broadband connectivity through the likes of a virtual private network (VPN) they still have to ensure that there is sufficient back-up if a problem occurs. Failing to put



in place a support infrastructure is the downfall of many retailers as Bielinski says they find it difficult to justify the extra cost involved and instead simply "take the risk."

Paul Phillips, regional director for UK and Ireland at Extreme Networks, believes that taking such an approach is all the more critical when you consider that many forms of vital data will be carried over their network, which the retailer will be reliant on to perform even the most basic of functions. To overcome this, retailers should consider investing in the installation of dual paths, whereby two independent (fibre or copper cable) connections from separate telecoms providers are brought into the building to provide dual network capability. Even with such a robust system in place, Phillips recommends retailers implement sufficiently modular network architecture to enable an efficient "fail-over" from one to the other. "You've a 100 millisecond fail-over before you 'drop' a call so (at Extreme) we've a protocol for less than 50 milliseconds," he says.

Adding further complexity to today's network implementations is the growth in wireless connectivity that is providing retailers with ever-greater mobility around their businesses. In the warehouse environment, Phillips points out that the scale of the buildings can make wireless a better option than cabling although he adds that it typically has slower connection speeds.

Kenny Kamal, chief technology officer at MLL Telecom, stresses that the need for greater mobility is a driver of investment in networks, as the likes of merchandisers and sales people need increasingly to log-on to their company's systems whether they are on the road or in any of the stores. The need to accept payments wirelessly is also growing, according to Kamal, who says this is leading to the need for extra security over the networks. Although wireless is still regarded as less secure by some people he argues that this is a thing of the past: "Over the last two years this has been a major problem but now we can offer military-grade levels of encryption."

He suggests that even fibre is now no more secure than wireless. This is especially important as the exchange of live data between retailers and credit

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card companies has become a hot topic and becoming PCI-compliant is of major concern to everybody within the retail industry.

Lothar Renner, head of retail, transport and CPG for the enterprise and mid-market customer segment in European markets at Cisco, suggests that like Y2K, PCI is acting as a prompt to some retailers to build a state-of-art network that can then be used for many other applications – as well as obviously giving them compliancy. He cites IP-surveillance and digital signage as examples of applications that could utilise upgraded networks with their increased bandwidth and resilience. Advances made in cabling are also helping the development of such applications. Jason Cremins, founder of Remote Media, found that when installing small network-connected shelf-edge digital signage into retail stores, one of the big issues had been the availability of power, but with the advent of 'Power over Ethernet' it is possible to run a single cable to the screen that contains both the network connection and the power.

Networks are also enabling expert kiosks, some of which have integrated call centre functionality, to find their way onto the shop floor. Such kiosks can even be run over wireless networks as it is regarded as possible for wireless to now reach the equivalent of the CAT 6 cable standard, which provides greater bandwidth, thereby enabling even the likes of video conferencing to be run wirelessly. Renner says that for retailers to invest in upgrading their networks such additional capability has to ultimately either reduce operational costs or improve the experience for customers as these are the main drivers for retailers to make changes to their businesses and allocate money from their IT budgets.

The fact that applications are being brought onto a single infrastructure

(typically from a number of legacy systems) is certainly a cost reducer. But on top of this, networks can provide even greater cost savings by providing retailers with visibility across the whole of their businesses, enabling all parts of a company to communicate, both internally and externally, with the likes of suppliers. This can effectively revolutionise how a retailer operates and it is this "connectivity streamlining" which MLL Telecom's Kamal says is ensuring that networks and cabling gradually "creep up the agenda" of the retail industry.

