Multi-channel retailers must look to the skies for solutions to downtime

For multi-channel retailers, a reliable network is fundamental to business continuity. Any disruption to normal operations due to network downtime can hammer sales and profitability.

Yet many retailers overlook how important connectivity is to one of their key channels—their bricks-and-mortar stores. Given the competitive pressures of today's business environment, no retailer can afford to have even a single branch going off-line. Much less can they have their entire network collapsing, so that a company's headquarters or data centre is unable to communicate with the rest of the business.

When a disaster of this kind strikes, the damage is done not only to the bottom line, but to an enterprise's reputation with consumers, who will go elsewhere, sign up for deals and possibly, never return. Suppliers, too, may be less than impressed when they cannot receive orders, get paid or make deliveries.

Although aware of such threats, many multi-channel operators have put their trust in weak IT infrastructure that may leave them high and dry in the event of a power or system failure, a weather calamity or even just a digger accidentally cutting a cable. Keen to ensure their entire enterprise remains "always-on", they may find they have invested in technology that collapses at the first real test, leaving them well-and-truly off-line.

However solutions that give rock-solid business continuity are readily at hand, as are the managed service providers who know how to scope, install and run them.

Fundamentally, this means making sure that true alternative path backup technology is in place that will automatically operate when the primary terrestrial facilities fail, no matter what the reason. In practice this means using a range of technologies to create a hybrid Wide Area Network (WAN) including wireless and satellite. The aim is always to achieve the highest levels of availability at lowest cost in order to guarantee that critical applications remain functioning.

This is ever more important as cloud-based applications, such as signature capture devices or project management platforms become embedded in everyday business practices for retail enterprises.

To ensure such continuity, the provision of dual independent broadband paths at each of a retailer's sites can boost network availability to near 100 per cent levels.

This is a solution that provides genuine backup as opposed to the more unreliable attempts to underwrite connectivity with duplicate DSL lines. The theory of duplication is that if the first of these broadband cables fails, a retailer's data traffic can immediately be routed through the second. It may sound simple enough, but such

lines will almost certainly be routed through the same exchange, making them equally vulnerable to the same calamity, such as a flood.

Using different landline carriers as backup is hardly any more dependable for the same reason. And unfortunately, at present, 3G and 4G mobile technology has still not achieved sufficient robustness for it to be deployed as a failsafe alternative connection for substantial retail enterprises.

The provision of truly independent backup that cuts out the risk of downtime from such events can be achieved through partnering low-cost broadband with wireless connectivity. Routers can now continually monitor the state of the network, detecting failures in real time, so that traffic can be automatically re-routed through the wireless connection in a matter of seconds.

Active monitoring of this type is crucial, as any enterprise's network is vulnerable, given that it comprises many different types of devices and potential weak-points, including switches, point-of-sale equipment, laptops, desktops and even personal devices.

It also is likely to cover a wide geographical spread, which is where satellite has a major role to play. Satellite can deliver high-speed broadband access that kicks in automatically if landline broadband goes down. It gives blanket coverage, and once the primary network fails, its working is triggered automatically, using a roof-top antenna to route all traffic according to the policies the client has previously laid down. The router will then return to the primary landline, once service is restored.

While solutions such as these are now readily available to protect against the threats of unforeseen events, component failures and natural disasters, one further area of vulnerability needs to be taken care of.

This is the potentially devastating effect of criminality. All retailers will be aware of the threat to data security from hackers searching for personal or business operations data. But hacking and denial of service attacks, in which a website is overwhelmed with useless requests or traffic, can also lead to serious downtime.

The answer to these threats for all multi-channel operators is to employ sophisticated reporting tools that will pick up active threats in real time and activate counter-measures. Firewalls too must incorporate next-generation intrusion detection and prevention software.

The range of threats to an enterprise-level retail network requires a range of responses. Truly reliable business continuity in the multi-channel era will only come from the expert deployment of this broad suite of technologies that is now available.

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About Hughes

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