

# Connected Retail Stores Are **Putting Pressure** On Network Resilience



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In our role as an IT equipment reseller and supplier, we're charged with providing network connectivity solutions for many retailers with brick and mortar stores across the country. One of the more interesting trends we've been witnessing has been the unyielding expansion in the scope of what those retailers rely upon connectivity to achieve.

The modern systems at work in today's storefronts enable more robust POS terminals for better tracking and management of inventory and the supply chain, more optimized use of employees, and CRM/loyalty programs informed and enhanced by customer data. When used to their potential, these connected systems deliver a customer experience and in-store service more refined and capable than was ever possible before this technology.

The only downside to improving the quality of retail operations via a deep reliance on highly connected technology is those retail operations grind to a halt whenever network connections fail. And they do, for myriad (and often unpredictable) reasons.

In the good old days, a retailer might have been able to continue making sales with just a cash register and a piece of paper to keep track of inventory. Today, though, that just isn't possible. Internet outages will occur at retail locations, and almost always for causes outside of the retailer's control. Bad weather, accidents, damaged lines, system crashes at the ISP level, and many other unavoidable occurrences can instantly take a retail store offline.

Such issues are so common a Globalscape study found **nearly 90 percent** of organizations reported unexpected downtime that affected their critical systems, with a full third of businesses seeing such downtime monthly. And these outages can be ruinous for a retailer's bottom line; industry analysts have put the estimated cost of network downtime as **averaging around \$6,000 each minute**.

The long-term effects of outages on a retailer's reputation with their customers is an even more important concern than the immediate losses, with customer behavior research determining that **a third of customers** will bail out of a checkout line if made to wait **more than five minutes** (even though they've already invested the time to fill their carts with merchandise). And, as outages produce these wait times and long lines, there is the cascading effect as passersby seeing the line choose not to enter the store, and shoppers who had the poor experience of waiting spread negative word of mouth about the store. Anyone doubting the importance of a retailer's reputation should know that half of customers surveyed say they choose to avoid certain stores because of **bad experiences other people told them about**.

In our work with retailers seeking to maximize their network uptime, we make it clear that while lost network connections are unavoidable, there are a growing number of strategies to pursue for protecting a retail business with redundant connectivity. For example, we've heard many anecdotes from retailers where their primary landline-based connection will go down due to a line outage or similar issue, but their cellular-enabled network hardware (available from providers like **Opengear**) will failover to that backup wireless cellular connection for the duration of the outage.

This means the store keeps conducting business without a hiccup. Such systems will then failback to the primary connection when all issues are resolved. Investing in these systems with capable redundant landline and cellular connections offer a great deal of network resilience, as most issues that would cause an outage is one of these connectivity methods is unlikely to affect the other.

It's also important to note that cellular data plans represent a savings for retailers when compared to POTS lines. Many retailers do have a backup modem in place that relies on traditional telephone service, but these lines are both slow and expensive. Replacing that \$50 to \$60/month phone line with a \$5 to \$10 data plan not only delivers **greater speed and reliability**, but will also provide ongoing savings to operational expenses such that the transition should quickly pay for itself and then some. For retailers with thousands of locations, this can add up to a **significant reduction in annual costs**.

Advantages such as greater control and further cost reductions are also causing retailers to gravitate toward networking technology featuring out-of-band management, which allows network technicians to monitor critical network assets and make changes or repairs remotely, vastly reducing repair times, network downtime, and costs, especially in those cases where a technician would otherwise need to travel and be present on-site to complete a repair. Out-of-band management can allow technicians to repair primary connection outages by accessing systems via secondary connections, cellular or otherwise. It also lets technicians actively monitor the system health, environmental conditions of hardware, and other factors to anticipate issues and address small failures or risk areas before they can develop into lost connectivity.

With constant, resilient connectivity so vital to retail store operations, it's no surprise that we're seeing retailers become much more proactive and aggressive in investing in more robust networking technologies. Backup cellular failover/failback connectivity and out-of-band management are popular features in the solutions retailers now rely upon to maintain business continuity, keeping the cash registers ringing and their customer's content.

