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Sector in focus:
connecting retail

Introduction

Retail businesses play a key economic role in the UK. The **452,060 firms** in the sector employ **3.6 million people**, generating £517 billion in sales. In total, they account for an estimated 4.7% of the UK's total economic output.

However, the sector is facing challenges which are constricting its growth. Most notably, the increased National Insurance contributions (announced in last year's Autumn Budget) have forced a number of large retailers to pre-emptively cut costs to handle their significantly higher wage bill before it comes into effect in April; by reducing **in-store conveniences** like cafes and hot food stalls. Meanwhile, reduced consumer spending has led to lower footfall in stores across the country; notably in high street destinations, which saw a decrease of **6.2% year-on-year, and shopping centres with a drop of 4.2%**. The combination of rising cost pressures and reduced consumer spending has begun to squeeze retailers, with the number of shops on the brink of collapse rising by a quarter in the final three months of 2024.

Against this backdrop, Ericsson has conducted industry research among technology decision-makers in retail businesses to better understand their challenges. Our research explored the biggest blockers to retailers' digital strategies in the current economic climate and where modern connectivity solutions can help to overcome these barriers.

Our findings tell us that while many retailers would like to adopt emerging technologies, their efforts are often being hampered by poor connectivity solutions outside of their flagship stores. This is resulting in differing standards of service across their branches, leading to a loss of sales and poor customer service.

We've seen the effect of poor connectivity over the last year, with IT outages at **Sainsbury's affecting £9m worth of orders**. These examples highlight the fact that operational resilience has never been more important. As retailers increasingly look to technology to help expand their physical footprint, provide more personalised services to customers and gain deeper insights into how their organisation operates; it has become clear that fixed-line fibre and Wi-Fi can no longer meet their needs.

In this report, we explore some of the leading areas where cellular connectivity can help take retailers' services and operations to the next level and what they should be looking for in a provider.

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The limitations of fixed fibre

Throughout 2024, leading retailers introduced plans to increase their adoption of technology. For example, John Lewis revealed a host of changes to its in-store operations aimed at putting customer service at the top of its agenda. A critical part of this is introducing new technology to ensure every store can offer the same level and quality of service as its flagship Oxford Street store. While it's encouraging to see John Lewis paving the way for digitally-led CX, many retailers are struggling to do the same due to connectivity issues they have in-store. Networking and IT (48%) and downtime (37%) were cited as the biggest frustrations when launching new technology-based services in stores by our respondents.

Many stores continue to rely on fibre cables to provide connectivity even though 70% believe fixed broadband can be a blocker to creating a standardised in-store service. Much of this frustration comes from technology issues, with 52% believing it is the biggest hurdle to their retail branch networks, ahead of budget (40%) and staffing issues (32%). The physical fragility of fibre cables can quickly lead to network outages, as seen in Nottinghamshire in 2024, when damaged cables led to outages across the county and prevented retailers without failover solutions from using point-of-sale systems and other online services. The need for specialist equipment to install cables means it can be hard for firms to upgrade wired connectivity as requirements evolve.

As a result of these issues, over a third (37%) of large retailers are forced to offer scaled-down services at more remote branch locations, and nearly two-fifths (39%) notice varying levels of customer experience, leading to 38% experiencing loss of revenue. Unfortunately, despite store owners' awareness of the need for business continuity (75% back up data and 56% have a power backup), just 28% of retailers have a failover network.

By continuing to rely solely on fibre cables and infrastructure that is ill-suited to their needs, many firms are limiting their ability to innovate and provide a better service. For example, emerging technologies such as generative AI and Internet of Things (IoT) can greatly enhance retailers' operations by supporting applications like dynamic pricing, click and collect, trend analysis and personalised offers. However, they also require large amounts of data to be shared in real-time to be effective. For retailers in shopping centres or remote locations, upgrading fibre cables to meet this need can be difficult.

Instead, retailers should consider cellular connectivity. These networks can work as an effective failover to primary networks or support pop-up locations that require secure and reliable connectivity to function. By working

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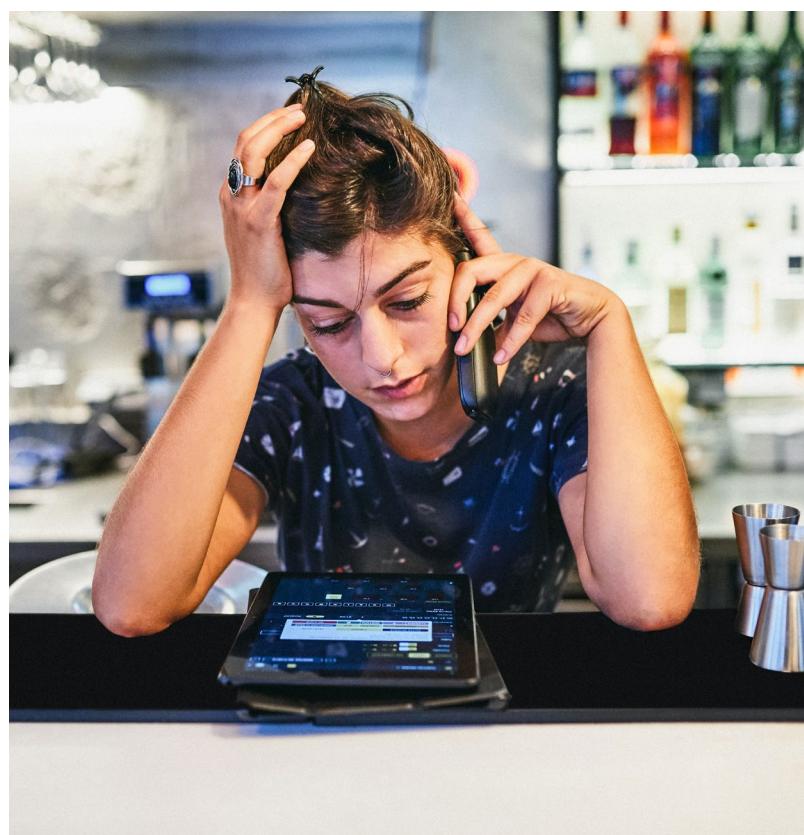
with the right provider, these networks can also be easier to manage centrally. Engineers can control networks and troubleshoot problems without travelling to individual stores. Plus, they are quick to install and scale up and down as needed.

Preventing downtime:
T-Mobile stores prevent downtime with automatic cellular failover

Challenge

Network downtime is bad for any business, but especially for a retailer like T-Mobile. With 5,000+ retail stores that depend on connected devices and business-critical applications — including Point -of-Sale (POS) systems and digital signs — 100% uptime is essential for daily operations. The need for WAN link diversity was apparent, but running additional wires to thousands of stores wouldn't be cost-effective or logistically prudent. The IT team needed a failover solution that would be easy to stand up and manage from anywhere.

Solution

To enable reliable, centrally managed connectivity and seamless failover for in-store technologies, T-Mobile tapped into their own highly available cellular broadband network and deployed Ericsson Cradlepoint cellular adapters that easily integrate into existing network architecture Ericsson Cradlepoint cellular adapters by backing up wired connections and primary routers.

Benefits

Network disruptions no longer derail operations at T-Mobile's flagship stores. When a wired primary link goes down, the network now automatically switches to a cellular link — keeping important applications and IoT devices online. While the IT team receives instant notification of the loss and begins to investigate, business continues without interruption.

Through Ericsson NetCloud Manager's network management dashboards and features, the IT team can easily configure failover adapters at all locations from anywhere. They also troubleshoot network failures and hardware issues without stepping on-site.

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Enhancing safety with cellular connectivity

Securing both online and physical stores is of the utmost importance for many retailers. But, despite retailers in the UK investing **£1.8 billion** in security measures such as CCTV, security personnel, and anti-theft devices in 2024, customer theft still resulted in a record **£2.2 billion in losses**, and incidents reached nearly three times the level of 2020. Not only does this affect retailers' bottom line, but it can also have a negative impact on staff members' mental wellbeing, putting people off from joining the sector. This all adds unnecessary pressure on retailers when they are already being squeezed.

At the same time, as the UK approaches the **Public Switched Telephone Network (PSTN) switch-off**, devices which rely on telephone lines to function, like door entry systems and alarms need to be upgraded to other digital solutions.

To address this impending crisis, organisations must look at alternative solutions that can help reduce theft while not compromising staff safety. For example, only 50% of retailers have invested in enhanced asset management or inventory control tools, and just 54% have adopted IoT tools to support asset tagging and tracking. Both of these can help restrict criminals' ability to steal goods and support police in apprehending those who are successful.

To ensure these devices operate effectively, firms need to have the right connectivity infrastructure in place to allow real-time data sharing. In these cases, scaling up wired infrastructure to support this increased data flow can be difficult and expensive. However, cellular 5G connectivity can provide the necessary bandwidth and speed to share this information, which can then be used to protect workers and goods.

Alongside securing their physical presence, retailers must also protect their online environments. For instance, last year, a ransomware attack on **Blue Yonder**, which provides supply chain tools to some of the world's largest companies, resulted in severe disruptions to UK grocery chains, with Morrisons particularly affected. While many retailers have realised the importance of improving their cybersecurity measures, with 62% conducting regular training, they mustn't overlook the role of the network in protecting themselves. By using cellular, WWAN organisations can make use of Secure Access Service Edge (SASE) services to reduce the risk of falling victim to an attack. As retailers increase the deployment

of IoT technology, each device will expand the attack surface for criminals. However, IT teams can deploy the devices with zero trust principles, this will minimise attacks from outside the network. Likewise, network slicing which can be delivered through a carrier or hosted private cellular network, creates different virtual networks on the same physical infrastructure, can help separate critical operations from other networks. Therefore, even if a hacker gains access to a network, it is harder for them to affect the most crucial areas.

As retailers continue to face both physical and online threats, it is quickly becoming imperative that they bolster their defences to protect both their workers and their goods in an affordable way. In these cases, cellular connectivity provides a more cost-effective means of achieving this goal.

Connecting customers to a better experience

Good customer experience can build loyalty, boost referrals, improve brand perception and enhance employee morale and engagement. At a time when consumers are also watching how much they spend, being able to offer a more tailored experience can be the difference between staying afloat and closing stores.

Many retailers understand technology can be a game changer in this area, with 72% offering in-store Wi-Fi to provide better customer experience and 57% using it for personalised customer target marketing. Similarly, 60% have adopted IoT to support digital signage where they can display on-the-day offers and 55% to provide dynamic digital pricing.

While these are good steps, there is more retailers can do to take their experiences to the next level. Augmented and virtual reality can help shoppers see how goods might look in their homes or virtually try on clothes without needing to physically go into changing rooms. Likewise, traditional retail has often revolved around enabling transactions, but now, as physical stores compete with online retailers, there is a greater focus on creating experiences. These often rely on interactive ways for customers to engage and connect with a brand. For example, **Starbucks allowed** visitors to see the process behind coffee making.

Stores often face connectivity challenges when supporting these experiences, especially within locations like shopping centres. This is because creating a new network within a location can

be logistically challenging with wired fibre. However, Wireless WAN can provide a quick and easy solution. Simply by plugging in a router, retailers can create a secure network within hours compared to weeks of waiting for a new fibre cable to be installed.

In these situations, Wireless WAN is a better solution for helping retailers embrace the evolution of shopping and make their stores a place that people want to visit.

Improving customer experience in action:

GAIL's Bakery uses 5G connectivity to elevate the customer experience

Challenge

GAIL's Bakery, a renowned neighbourhood bakery in the UK, has more than 120 locations, each relying on various technologies to improve the customer experience and operational efficiency. To support continued growth and ensure bakeries can keep up with the ongoing digital transformation, GAIL's sought a high-performance router to provide flexible primary and failover connectivity.

Solution

In collaboration with IT solution provider KFP, GAIL's successfully deployed Ericsson Cradlepoint 5G hybrid WAN routers in 40 sites and plans to install them at all bakeries from now on. In most locations, the IT team is setting up wired broadband as the primary WAN link, with 5G connectivity providing always-on failover. GAIL's can manage all its routers through a single pane of glass using Ericsson NetCloud Manager.

Benefits

With Ericsson's enterprise wireless solutions in place, GAIL's can ensure seamless connectivity in its bakeries. NetCloud Manager gives the IT team clear visibility into the network from anywhere, allowing them to monitor data usage and quickly address issues remotely. This reduces the need for on-site troubleshooting and minimises downtime, which is especially useful in remote locations.

Deploying new 5G routers is quick and relatively hassle-free. GAIL's can roll out services and create a secure, robust 5G network from day one without relying on wired services from local providers.

Looking to the future

Retailers also have an eye on the future, with 91% either having or currently planning to extend their corporate network beyond stores into fleets, warehouses, and distribution centres. All of these will help increase insights into how their operations are functioning and provide better customer service through actions like real-time tracking of orders.

At the same time, retailers are looking to use next-generation technology to improve how they interact with customers and manage their internal logistics. For instance, almost half (49%) report already using AI chatbots, which can help reduce workload on human workers and allow them to focus on higher value tasks. Likewise, 39% deploy AI to inform dynamic pricing, which can help boost revenues, and 29% are currently testing additional use cases for it across the business. These can all help to reduce costs and keep goods moving where they are most needed through predictive analytics.

While these initiatives should be encouraged, retailers must also remember they need the right foundation on which to build these advances. For instance, expanding the corporate network beyond stores and offices needs to be done in a way which maintains the same level of security standards, regardless of whether someone is logging in from the road or a warehouse. These networks need to be set up in a way that does not add pressure to existing IT teams. In these cases, retailers should look for solutions that can take advantage of cloud-based tools to manage these expanded networks.

Reducing costs with WWAN:

DiPasqua Enterprises takes bite out of costs, labour, and downtime with hybrid WAN routers

Challenge

DiPasqua Enterprises, one of Subway's original and largest franchisees, has grown to over 100 locations, with plans to continue diversifying its franchise portfolio. This rapid expansion required a network refresh to accommodate widespread locations without overextending the company's lean IT team or increasing total operational costs.

Solution

DiPasqua implemented Ericsson Cradlepoint cellular-enabled hybrid WAN routers in each of its restaurants. For locations implementing cellular as their only WAN link, dual modems ensure cellular connectivity based on the best available network connection. Other locations are supported by a multiWAN mix of 5G, LTE, and wired links.

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Benefits

This Subway franchisee saved 20% in operational expenses by consolidating devices and subscriptions and future-proofing their network solutions. The two-person IT team can now troubleshoot proactively and remotely, saving time and money that can then be allocated to other resources and innovations to help DiPasqua's continued growth.

Conclusion

Retailers in the UK are operating in an increasingly complex environment. With financial pressures incoming from government legislation, reduced customer spending and rising safety issues, it is easy to see why many UK retailers report they are not feeling confident for the year ahead. However, there are solutions out there that can help these organisations navigate the current challenges and create a more positive outlook. Technological advances are unlocking new revenue streams and opportunities for retailers to take advantage of.

As retail businesses continue to push ahead with the adoption of AI and IoT, they need to embrace cellular connectivity and solutions that can provide secure, reliable, and easy-to-manage connectivity from day one. Otherwise, they risk placing themselves at a disadvantage against their competitors.

Methodology

Ericsson commissioned Censuswide to survey 500 technology decision-makers at medium and large retail businesses (250+ employees) in the UK. The research was conducted in January 2025.