

Sleigh Bells to Smartphones: Keeping Connected at Christmas



Mobile^{UK}

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About Mobile UK

Mobile UK is the trade association of the UK's mobile network operators (MNOs) - EE, Virgin Media O2 and VodafoneThree. Mobile UK's mission is to realise the power of mobile to improve the lives of our customers and the prosperity of the UK.

www.mobileuk.org



About Live Better Connected

The Live Better Connected awareness campaign by Mobile UK is designed to raise awareness and educate how we all, and wider society, rely on mobile connectivity for every aspect of life.

www.mobileuk.org/live-better-connected



About Building Mobile Britain

Mobile UK launched Building Mobile Britain in 2018 to support the mobile industry's collaboration with national and local government, regulators, industry, consumers and citizens to overcome the challenges to expanding mobile networks.

www.mobileuk.org/building-mobile-britain

#5GCHECK THEFACTS

About 5G Check The Facts

The #5GCheckTheFacts campaign provides factually accurate information about 5G and offers answers to common queries to help improve understanding.

www.mobileuk.org/5g-and-health

About this report

The report was produced by Mobile UK with assistance from Purplefish and Block B design. Purplefish is an award winning UK PR and communications agency: www.purplefish.agency



1. Introduction: The Spirit of a Connected Christmas

From Black Friday and Cyber Monday through to New Year's Day, mobile underpins the UK's festive experience. Mobile connectivity powers everything from online shopping and secure digital payments to high-definition video calls and augmented reality apps that bring distant relatives closer. Streaming festive content, sharing moments, and tracking deliveries all rely on the connectivity provided by mobile networks.

94% of UK adults consider staying connected to be the most important part of their Christmas experience.¹ This statistic reflects a societal shift: mobile connectivity is no longer a luxury, but a necessity especially during moments of heightened emotional, and social significance.

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Beyond personal use, mobile networks are increasingly critical to the wider seasonal infrastructure. Emergency services, transport systems, and charitable outreach programmes depend on reliable mobile coverage to operate effectively, during winter. Retailers and logistics providers also lean heavily on mobile connectivity to manage the huge surges in demand over the festive period. UK parcel deliveries are forecast to hit 1.29 billion between October and December, a 10.9% increase on 2023 making the UK the busiest parcel market in Europe.² From smart warehouses using 5G-enabled IoT sensors to real-time tracking for delivery fleets, mobile technology ensures gifts arrive on time, and production lines keep moving.

In short, mobile makes Santa's job easier, optimising routes, reducing delays, and keeping us informed every step of the way. This report outlines how mobile connectivity provides the invisible infrastructure that powers the UK's holiday season.



¹ Vodafone UK, Dialling home for Christmas (2024) <https://www.vodafone.co.uk/newscentre/press-release/research-reveals-connectivity-most-important-part-brits-xmas/>

² Effigy Consulting (2024) <https://warehousenews.co.uk/2024/11/uk-parcel-deliveries-to-hit-1-29-bn/>

2. Seasonal Challenges and 5G-Powered Innovations

Seasonal challenges



Retail Pressure and Digital Demand

The festive season places immense pressure on the UK's retail infrastructure, with Black Friday and Christmas driving a dramatic surge in mobile data usage. 2024 marked a 40% increase in mobile data traffic during the festive period compared to the monthly average.³ This spike is fuelled by consumers browsing deals, making mobile payments, tracking deliveries, and engaging with loyalty apps. Retailers, both online and on the high street, rely heavily on mobile networks enabling innovation and smart infrastructure to process transactions, manage inventory, and deliver seamless customer experiences. Without robust mobile infrastructure, these systems risk becoming overwhelmed, leading to delays, lost revenue, and customer dissatisfaction.



Festive Logistics and Deliveries

The festive season brings an unprecedented surge in deliveries, with over 1.29 billion parcels expected to move through complex logistics networks in the UK alone.⁴ This surge strains every link in the supply chain from production lines to last-mile delivery. Without reliable mobile connectivity to power real-time tracking, route optimisation, and warehouse automation, delays and miscommunication can result in missed deliveries and production.



Loneliness and Isolation

For many, Christmas is a time of joy and togetherness but for others, it can be a period of profound loneliness. Individuals living alone, in care homes, or separated from family often struggle with feelings of isolation during the holidays. Without access to digital tools, these individuals may miss out on the emotional connections that define the season. 48% of Brits experience loneliness during the festive period, with nearly one in five citing limited internet access or digital skills as a contributing factor.⁵

³ Vodafone UK, Dialling home for Christmas (2024) <https://www.vodafone.co.uk/newscentre/press-release/research-reveals-connectivity-most-important-part-brits-xmas/>

⁴ Effigy Consulting (2024) <https://warehousenews.co.uk/2024/11/uk-parcel-deliveries-to-hit-1-29-bn/>

⁵ Good Things Foundation (2025) <https://impact-investor.com/peoples-partnership-and-good-things-foundation-to-tackle-uk-digital-and-financial-exclusion/>



Scams and Fraud

More than 16,000 reports of online shopping fraud were made to Action Fraud between November 2023 and January 2024, with 43% of cases linked to social media platforms and 19% to online marketplaces.⁶ These figures highlight the sheer volume of fraud attempts during the festive season, even if not all resulted in financial loss.

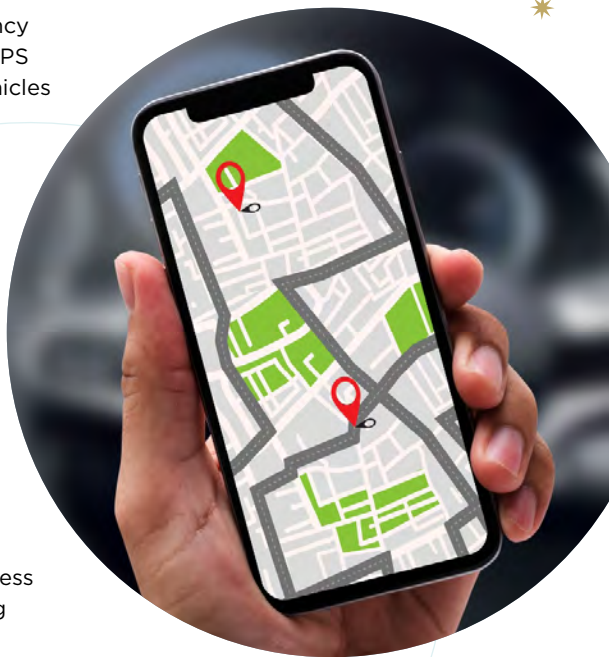
5G Solutions

Smart Retail Infrastructure

To meet seasonal demand, 5G offers a transformative solution. With its ultra-fast speeds and low latency, 5G enables real-time data analytics and ultra-reliable mobile payments. It also supports network slicing, dividing the network into virtual segments which allows operators to allocate dedicated bandwidth to high-footfall areas such as shopping centres and Christmas markets. By supporting faster transactions and more responsive interactive and intelligent digital services, 5G helps retailers deliver a smoother, more efficient shopping experience, ultimately boosting consumer confidence and seasonal sales.

Real-time Tracking for Peak Season Deliveries

5G enables ultra-reliable, low-latency connectivity for IoT sensors and GPS trackers embedded in delivery vehicles and parcels. This allows logistics providers to monitor location, temperature, and status in real time, even in high-traffic urban areas. Trials in UK warehouses have shown 20% faster automated vehicle operations thanks to near-zero latency connectivity.⁷ Network slicing ensures dedicated bandwidth for critical logistics applications, preventing congestion during peak periods. By powering smart routing and predictive analytics, 5G helps streamline operations, reduce delays, and deliver a seamless experience for consumers awaiting festive purchases.



⁶ National Cyber Security Centre (2024), <https://www.techrepublic.com/article/black-friday-uk-scam/>

⁷ DHL Supply Chain trial (2025), <https://www.industryjournal24.com/the-impact-of-5g-rollout-on-uk-logistics-networks/>



Connecting Communities Across the Globe

5G enhances immersive and real-time digital experiences by enabling high-quality high-definition voice and video calls. These technologies allow people to connect with each other regardless of distance. Whether it's a grandparent watching their grandchild open presents via video link or a child using an AR app to track Santa's journey. With 5G, these experiences are smoother, more vivid, and more accessible. The low latency and high bandwidth of 5G networks make it possible to deliver real-time digital interactions that help bridge the gap between physical separation and emotional closeness.

Scams and Digital Safety

Mobile networks play a critical role in protecting users through advanced security protocols and AI-driven fraud detection systems. 5G enhances these capabilities by enabling real-time threat monitoring and faster authentication processes. Features like encrypted mobile payments and biometric verification, supported by ultra-low latency, help safeguard consumers against scams. The UK operators already block millions of scam texts daily and have launched initiatives like Scam Signal, which improved scam detection by 30% in pilot tests.⁸



8 Mobile UK (2024), <https://www.mobileuk.org/news/uk-mobile-industry-blocks-one-billion-scam-messages>

3. Connectivity in Action: Real-World Impact of Mobile Innovation During the Christmas Season

The following case studies illustrate how mobile powered technology and innovations are enhancing Christmas for everyone.

1. Transforming Belfast's Christmas Market with 5G

BT Group brought cutting-edge connectivity to one of Northern Ireland's most iconic festive destinations: the Belfast Christmas Market.⁹ As part of a pioneering trial, BT deployed a standalone 5G network with network slicing capabilities to support the market's traders and visitors.

The trial enabled ultra-fast mobile payments, allowing stallholders to process transactions quickly and securely, even during peak footfall. This was particularly valuable for small businesses and independent traders who rely on mobile point-of-sale systems to operate efficiently. The enhanced connectivity also supported real-time visitor analytics and digital signage, helping organisers manage crowds and improve the overall visitor experience.

The initiative demonstrated how 5G can transform traditional retail environments into smart, responsive spaces. By combining festive charm with digital innovation, BT's trial at Belfast's Christmas Market offered a glimpse into the future of seasonal commerce one where mobile networks underpin both economic activity and community celebration.



⁹ Belfast Christmas Market - <https://newsroom.bt.com/bt-group-brings-superfast-payments-to-belfast-christmas-market-with-5g-standalone-network-slicing-trial/>

2. Protecting Shoppers from Scams During The Festive Rush

As online shopping surges during Black Friday and the Christmas period, so too do the risk of digital scams. In response, the industry has launched comprehensive scam protection initiatives to safeguard its customers during the festive season.

Using advanced SMS filtering and real-time threat monitoring, the UK mobile industry successfully blocked over 1 billion scam messages.¹⁰ These included phishing attempts, fake delivery notifications, and fraudulent discount offers common tactics used by cybercriminals during high-traffic retail periods.

These campaigns have not only protected users from financial harm but also reinforced trust in mobile platforms as safe spaces for digital commerce. By proactively addressing the growing threat of mobile scams, the industry has helped ensure that billions of customers could shop, browse, and connect with confidence throughout the holidays.

These initiatives highlights the critical role mobile operators play in digital safety, particularly during periods of heightened online activity. It also underscores the importance of network-level protections in building a secure and resilient mobile ecosystem.



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¹⁰ Mobile UK, <https://www.mobileuk.org/news/uk-mobile-industry-blocks-one-billion-scam-messages>

Play Elf & Seek



3. Spreading Cheer with “Elf & Seek” and SIM donations

Vodafone launched a festive campaign that blended augmented reality with social impact. The “Elf & Seek” AR game invited users to explore their surroundings in search of virtual elves, unlocking the opportunity to donate one of 50,000 free SIM cards to someone in need.¹¹

The campaign was part of Vodafone’s wider everyone connected programme, which aims to tackle digital exclusion across the UK. Each donated SIM included free data, calls, and texts—providing vital connectivity to individuals and families who might otherwise be cut off during the holidays.

Beyond its charitable impact, “Elf & Seek” was a celebration of mobile technology’s potential to bring people together. The game encouraged users to engage with their communities, share festive moments, and participate in a collective act of giving. It also highlighted how children and families use mobile devices to track Santa, stream seasonal content, and stay digitally engaged throughout the holidays.

By combining playfulness with purpose, Vodafone’s campaign demonstrated how mobile connectivity can be a force for good spreading joy, fostering inclusion, and making the season brighter for everyone.

¹¹ Vodafone, <https://www.vodafone.co.uk/newscentre/press-release/elf-and-seek-ar-game-returns-bigger-prizes-for-christmas-2023/>

4. Connecting Communities through the National Databank

Virgin Media O2 (VMO2) took a bold step to address data poverty by transforming all O2 stores into National Databank hubs. This nationwide initiative offered free SIM cards with 25GB of monthly data for 12 months to individuals experiencing digital exclusion.

The programme, delivered in partnership with the Good Things Foundation, aimed to ensure that no one was left disconnected during the festive season. For many recipients, the free data meant being able to video call family, access essential services, or simply enjoy the digital experiences that define a modern Christmas.

By embedding the National Databank into its retail footprint, VMO2 made support accessible and visible in communities across the UK. The initiative also empowered store staff to play a direct role in tackling digital inequality turning high street shops into hubs of inclusion and support.

This case study exemplifies how mobile operators can use their infrastructure, reach, and resources to deliver meaningful social impact. At a time of year when connection matters most, VMO2 helped thousands of people feel seen, supported, and included.¹²



¹² Virgin Media O2, <https://news.virginmediao2.co.uk/virgin-media-o2-to-connect-even-more-people-this-christmas-as-all-o2-stores-become-national-databank-hubs/>

4. A Connected Christmas For All: Recommendations for the Future

As this report has shown, mobile connectivity and its possibilities are the invisible infrastructure that power the UK's festive season. It enables commerce, fosters connection, and supports community resilience. But to fully realise its potential, continued investment and collaboration are essential.

Mobile infrastructure must be recognised as a strategic national priority. With targeted government support, mobile connectivity and its dynamic possibilities can become a powerful engine for innovation, inclusion to not only ensure a connected Christmas season but a connected Britain all year round.

Mobile UK has laid out its key recommendations to Government to support national coverage:



- 1** Repurpose the £320m annual license tax from the industry via spectrum licence fees
- 2** Reform planning to enable more rapid deployment
- 3** Prioritise full implementation of the PSTI Act
- 4** Introduce a temporary business rates holiday on new mobile infrastructure deployments
- 5** Evolve the UK's net neutrality regime towards a more flexible, principles-based approach
- 6** Support industry's plans to retire legacy 2G networks
- 7** Enhance the rollout of 5G at regional and local levels by appointing skilled and experienced digital champions
- 8** Ensure public funding already committed through the Shared Rural Network is retained and invested into mobile infrastructure deployment

By working together with Government, we can ensure that everyone regardless of age, income, or location can enjoy the magic of a connected Christmas.

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