

How 5G will revolutionise the retail industry



Mobile^{UK}

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Why should we care about 5G?



5G will benefit our economy and society.

It will be better at doing the things that 4G does already, but significantly it will offer faster and more reliable mobile internet.

It will also do things that 4G cannot. It has the potential to change the ways in which we learn, how we communicate and how we do our jobs through the simultaneous and seamless connection of our digital devices.

But because it is often described using technical jargon, many people are unaware of how 5G will enhance their life.

This pamphlet explains the benefits of 5G using examples and language that anyone can understand.

It is one of many pamphlets that look at the impact of 5G. The topics included in these pamphlets are:

- **How 5G will help healthcare**
- **How 5G will increase rural opportunities**
- **How 5G will support the emergency services**
- **How 5G will help councils**
- **How 5G will improve the home and the workplace**
- **How 5G will help the environment**
- **How 5G will advance the manufacturing industry**
- **How 5G will improve the creative industries**
- **How 5G can meet the climate change challenge**
- **How 5G will change sport**
- **How 5G will revolutionise the retail industry**



How 5G will revolutionise the retail industry

'Smart' retail is predicted to expand globally to over

\$58 billion

by 2025¹

63%

of retail IT and business managers worldwide expect their company to adopt 5G services in the future

4G plays a major role already in the retail industry; 5G will take the industry further. Here are two ways 5G digital connectivity will revolutionise the sector:

- **Providing an enhanced customer experience.**
5G-powered technology will enable new immersive experiences as bricks and mortar stores incorporate digital features. From no cashier shops, using mobile phones to navigate the aisles to specific products and being able to virtually try on clothes without removing them from the rail, every aspect of our shopping experience looks set to change..
- **We will experience better, more personalised service.** 5G will enable quicker returns, deliveries and better stock management. Retailers will also increasingly be able to use data to offer us products we are more likely to want to purchase. 'Smart' shelf displays will be adapted to our tastes, pricing can be updated in real time and can show instant product availability.

¹ Intel 5G Smart Retail | [Intel](#)

5G networks are being gradually rolled out across the UK. When you will have access to 5G connectivity will depend on where you live, your network provider and whether you have 5G-enabled devices.

If you have further questions about 5G, some of the most common questions have been answered on the final page

How 5G is revolutionising retail

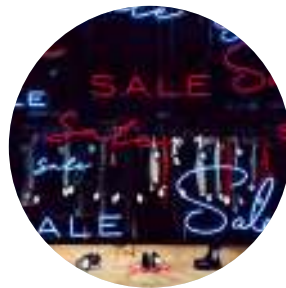
5G powered augmented reality will enable consumers to try before they buy.

5G enables you to try out and test items prior to buying them. This could apply to anything; clothing and cosmetics made possible through 'magic mirrors' and even holiday destinations, possible through augmented reality - which creates digital images in the physical world - and 5G. SOHO Flower and Garden offer shoppers the chance to view flowers in an augmented reality environment, to see them in their setting before purchasing them. The possibilities for this technology are wide and varied.²



5G delivers a highly personalised shopping experience.

Stores will be able to use 'smart' digital signage linked to browsing history to guide shoppers, show targeted offers and ensure personalised customer service. Nike's 2019 flagship LDN store features Internet of Things interactive digital touchpoint technology including LED screens, mood flooring and magic mirrors for a fully interactive shopping experience without the need to physically touch any product. A study by Grand View Research found that 5G powered Internet of Things hardware in retail environments is set to grow to more than \$94bn by 2025.



5G will create safer, more efficient shops and shopping centres.

The low latency of 5G technology, which means no buffering or waiting time, will enable widescale and efficient rollout of automatic scan and checkout and contactless payments. Amazon's contactless Amazon Fresh stores in London are already using this technology, allowing shoppers to use Just Walk Out Technology which automatically detects when products are taken from or returned to the shelves and keeps track of them in a virtual basket. When you have finished your shopping, you can just leave the store and later, Amazon will email you a receipt and charge your Amazon account.³ This means no queues and no checkout.



The rise of the 5G pop-up shop

The concept of the pop-up shop is already widely used. However, it will become even easier to set up a temporary store with 5G features which not only allow for easy payment technology but digital displays and interactive elements which are likely to appeal to customers. Singtel's award winning 'Unboxed' unmanned pop-up store offers 24/7 accessibility. A Robot connects customers to virtual staff support, personalises recommendations, and offers video assisted self-service kiosks. It even offers the option to collect online orders, pay bills, buy top ups and SIM replacements.⁴



² 27 innovative 5G use cases: we reveal what 5G is actually capable of | [5GGradar](#)

³ [Amazon.co.uk](#)

⁴ The 5G Unmanned Store That Won Outstanding Store Design For The Post-Pandemic World | [forbes.com](#)

The statistics



In 2020, 21% of retail IT and business managers worldwide said their organisation was currently using 5G services.



Internet of Things hardware applications in retail are expected to grow more than \$94 billion by 2025. That involves personalised solutions, smart shelves, and in-store product layouts.⁵



The market for AR and VR in retail is estimated to reach \$1.6 billion by 2025.⁶



More than 100 million customers had AR shopping experiences in-store or online in 2020.⁷

⁵ How 5G, IoT & AI will redefine the retail customer in-store experience | [Embedded](#)

⁶ Virtual & Augmented Reality: The Next Big Computing Platform? | [goldmansachs.com](#)

⁷ Gartner Says 100 Million Consumers Will Shop in Augmented Reality Online and In-Store by 2020 | [gartner.com](#)

Frequently Asked Questions

1. How do I get access to 5G?

Firstly, you need a 5G signal in your area (just as you need a 4G signal to get 4G now). Secondly, you need a device that can receive 5G signal - some 5G-enabled smartphones are available now, with more coming onto the market.

2. Does 5G pose a danger to your health?

5G uses radio waves - as does 4G, 3G etc. - which have been found safe in numerous studies when used within guidelines. Public health organisations around the world support this conclusion.

3. Does 5G mean more masts and antennae?

Some new infrastructure will be needed to connect more remote communities to the 5G network. But existing masts will be adapted for 5G wherever possible. If new sites are needed, relevant planning rules will apply to them being built.

4. Is 5G bad for wildlife?

No. Despite many false claims, wildlife has not been found to be negatively affected by 5G.

5. Will 5G offer an alternative to broadband?

4G and 5G can both provide mobile home broadband connections. However, while 5G will offer potentially near gigabit capable speeds in the future, currently UK 5G mobile networks don't provide the same capacity or offer speeds as fast as 'full fibre' for home broadband.

Source: Mobile UK - www.mobileuk.org

5G CHECK THE FACTS

diz.org.uk

mobileuk.org



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