

Corporate Blog Post

5G and you: How the future of wireless data will transform your outlook

5G will transform the way consumers interact with businesses. You need to be aware of the likely use cases of faster wireless mobile data to form strategies early

Executive summary

Device and network provider Nokia estimates that mobile networks will carry 10,000 times more data traffic in the next decade than they do today (https://www.ramonmillan.com/documentos/bibliografia/5GUseCases_Nokia.pdf). 5G is going to have an impact on you one way or another, but there's a lot of hot air – what are the most compelling uses to watch out for?

Client:

Optus/Ogilvy.

Content type:

Post for the Optus consumer blog.

Brief:

To educate and market the potential for 5G to the SME market by outlining the ways customers will interact with businesses using the technology.

Deliverable:

500 word blog post with strict parameters around sections, section lengths, SEO and keywords, social, key takeaways, related content, CTA, etc.

The need for speed

Most obviously, we'll all have faster internet. With 5G speeds topping out at 10Gbps, it'll leave the typical 50-100Mbps consumer fibre plans of today in the dust, letting you deliver more data-intensive services to customers and prospects online.

Instead of downloading the instructions to 3D print an elaborate tool or build, provide the 3D design file lightning fast right to their metal-extrusion 3D printer. Instead of small, grainy videos on your site, stream full colour holographic HD scenes in 3D (<https://www.youtube.com/watch?v=9BgZ9TaaKFU>).

While not very thrilling visually, the resulting download speed in this video can barely be overstated. Think of the amount of data in an average big-ticket videogame (often up to 1GB) and consider how much customer experience you could pack into it to be delivered at this speed.

More devices, more data

As well as increased bandwidth to deliver services faster, you'll be able to deliver simply better services. Device makers will build 5G capabilities into our computers and handsets, some of which are still waiting to be invented.

4K is becoming popular in screen technology (with 8K coming up fast), and the average mobile phone will have it built in because the networks will be able to handle it. Device cameras will take and share better photos, and the way we share and consume media will become more interactive and visual.

Sensors everywhere

Machines will connect with each other far more than we will as they report on performance, energy usage, location and more in the Internet of Things.

Two killer apps will be smart cities and smart homes, where every aspect of the built world is connected to ensure it runs smoothly and efficiently – some reported to us through dedicated hubs, some completely self-maintaining.

Connecting a house, city, farm or entire global industrial sector will rely on completely wireless communications that allow for huge amounts of data – for which 5G is tailor made.

In one example, smart grids can better stockpile and deliver energy. When every user/distribution point is fitted with a sensor that reports back on the local load and capacity, energy can be shunted around the network in a decentralised manner to where it's needed. It might mean the end of blackouts (<https://www.youtube.com/watch?v=wj5Yqza178>).

When it comes to smart cities, plenty of hardware makers (like Samsung, in the above example) are conceptualising the infrastructure that will underpin it all. When 5G goes mainstream, many of those who build the tools will be ready.

Driven

Besides the means to deploy self-driving public transport in connected cities (as above), autonomous cars need to be responsive – nobody wants to be careening towards a cliff while a slow signal downloads the GPS data to determine how to avoid it.

Sensors embedded in streetlights or road surfaces will form the backbone of vehicle to infrastructure (V2I) communication, and both it and cars using it will facilitate communication between vehicles (V2V). It needs an ultra-fast, low latency, always-on network to deliver it when split second action is everything, and it's already one of the most talked-about aspects of 5G (<https://www.sparklab.co.nz/tools/5G-inspiration.html#video>).

Markets around the world (including our neighbour to the east) are building the technologies today for which 5G networks will be the data backbone.

Downtime

Wired internet technologies and 4G are just enough for the HD streaming age, but those serious about enjoying themselves are already looking further.

As we demand 4K, 8K and room-shaking sound for a cinema-quality experience not just at home but on phones and tablets, streaming data will grow exponentially, and the last thing we want is a return to the 'buffering, please wait...' era.

5G will enable 'live' entertainment experiences and make entertainment more immersive for users – they'll be even more responsive to the fun or information they get from your apps and services.

So far, gaming is leading the charge – fast networks mean low latency from game servers, giving every online multiplayer user an identical picture of the playing field free of lag. What's more, the increased bandwidth of 5G can deliver higher quality graphics and sound, giving game designers all the room they need for a realistic HD experience.

All of which will open the door to more data-heavy applications like live sports broadcasts, augmented reality and virtual reality, all of it in crystal clear, more realistic high definition (<https://www.youtube.com/watch?v=YZR2FrY6knc>).

They've always been ahead of the curve in Scandinavia, and this Finnish telco set up a 5G gaming expo in a Helsinki shopping centre to put the network through its paces.

Conclusion

5G will transform so many areas of business mobile connectivity will be barely recognisable in a couple of years compared to what we have now. The above is only a random sample of use cases in the works so far – device makers and new services will both follow and drive 5G even further into brand new areas.

Don't get left behind. Brainstorm the services and applications that will affect your business, start formulating a 5G strategy now, and the sky will truly be the limit. ■