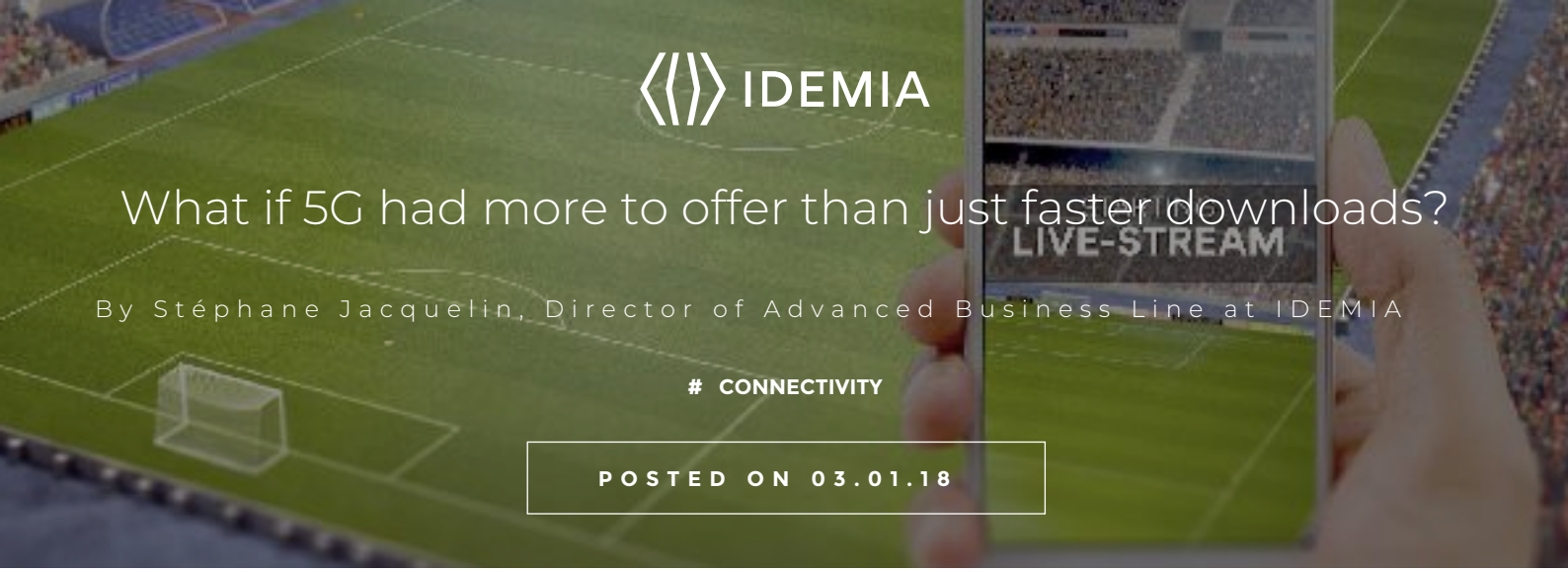


What if 5G had more to offer than just faster downloads?

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 # CONNECTIVITY

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- Connect smartphones and wearables around the world for next generation services
- Address a proliferation of connected objects demanding massive connectivity
- Shape a safer world with better usage of network resources and higher user privacy

Although we have already come a long way since 1G connectivity, we're about to take another step forward: 5G, the connectivity of tomorrow.

Remember when making a call from a mobile phone was mind blowing? Today, smartphones are integrated into nearly every aspect of our lives. On top of that, countless other objects we use on a daily basis are connected – our cars, our homes, our cities and even animals. So we need a network that keeps up with these growing needs. 5G New Radio provides higher throughput (more data delivered successfully) and lower latency (successfully delivering data faster than before) to ensure we can communicate especially in life's most critical moments.

Our growing appetite for connectivity

5G will drastically improve the user experience by providing a higher data rate. Today, an average smartphone generates 1.6GB of traffic per month, a number expected to soar to nearly 7GB by 2021 (1). Why the jump in consumption? We use our smartphones increasingly as media and entertainment hubs – communicating online, downloading content, streaming videos and even full-length films, all the while remaining connected to the cloud. In addition to the doors that mobile connectivity currently open, industry experts believe that 5G will blow access wide open for new virtual reality and augmented reality technology as well. Being plunged into an augmented or virtual world requires bandwidth, data processing, consistency, mobility and speed that the existing 4G is just not able to handle. With these developments, end-users are expecting a high level network availability and quality from their mobile network operators, connecting them wherever they are in the world. Along with the introduction of 5G, mobile operators have the opportunity to reinvent the connectivity experience by delivering instant access to their network.

Connecting any object, anywhere

As technology evolves, connected objects will play an increasingly important role in our everyday lives – from connected traffic lights, cars, factories, gas and water meters, remote patient monitoring, houses, cities, the list goes on and on. The proliferation of these objects boosts our collective need for connectivity that is better and faster. What is unique in these cases however is that these objects are often controlled remotely and as a result, have been designed to rely exclusively on batteries. Because these batteries need to last for years, or even decades, they require low-power connectivity to remain cost effective. On top of that, as wide area connectivity now extends to underground water meters, street lamps in small towns and cows (yes, cows (2)!) roaming the fields in the far off countryside, connectivity needs to be guaranteed regardless of the location of these objects.

The safety aspect

We rely on connectivity for entertainment, communication, simplifying our lives, but one very important checkbox is security. Connectivity keeps us safe as well. If you've ever been to a big music festival, an industry trade show or any event that gathers a massive amount of people, you've likely experienced the downside of the current connectivity situation. You're unable to place or receive a phone call, text messages get blocked in your outbox – all caused by oversaturation of the network.

If we add a major public safety incident into the equation – a natural disaster, an accident – public security becomes a major concern. Thankfully, with the arrival of 5G also comes the slice concept. In this future scenario, several networks can run in parallel – critical communication for police and firemen, massive IoT, and mobile broadband networks – and resources can be reallocated on the fly to ensure that certain networks have optimal connectivity, regardless of the circumstances.

Physical SIM cards are also evolving in order to enhance our security in the new 5G world. For example, the International Mobile Subscriber Identity number – a number that is unique to every mobile user – will be encrypted to ensure subscriber privacy. At IDEMIA, identity verification and protection is at the heart of everything we do. We've been preparing for the arrival of 5G, ensuring that our services secure your identity, so only you can be you.

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[1] www.fiercewireless.com/sponsored/from-hype-to-reality-accelerating-5g-nr-for-enhanced-mobile-broadband-and-beyond-1

[2] www.ft.com/content/2db7e742-7204-11e7-93ff-99f383b09ff9
