

Understanding SA's 5G reality

 By [Colin Thornton](#)

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Over the past year, it has become difficult to ignore the increasing hype and media noise around 5G. For both businesses and consumers, the shift to fibre connectivity has already brought immense benefits, and the prevalence of 4G countrywide has enabled people to enjoy relatively seamless and fast mobile connectivity.



Colin Thornton, MD of Turrilo Networks

Moreover, unlike other countries bedazzled by the promise of 5G, South Africa has wide-range and highly robust fibre networks in place which are growing quickly. This begs the question: what's the rush?

Admittedly, when delving into what 5G really means, it is a hugely exciting proposition. Put simply, it's the next, fifth-generation of mobile internet connectivity promising radically faster data download and upload speeds.

Initially 10 to 20 times faster than 4G but potentially up to thousands of times faster. For technology companies and connectivity providers, 5G is about making better use of the radio spectrum and ultimately enabling far more devices to access data at the same time. So, whatever you are able to do with your smartphone or tablet right now, you'll be able to do much faster over 5G.

As Tim Fisher of Lifewire explains,

“websites will load faster, videos that auto-started before will (unfortunately?) load even quicker, online multiplayer games will stop lagging, you'll see a smooth and realistic video when using Skype or FaceTime, etc...5G is so fast that everything you do on the internet now that seems relatively quick might even appear to be instant.”

For businesses, this type of connectivity will be nothing short of transformative – which is why many analysts are calling 5G the next major paradigm shift for technology.

The thinking is that because 5G is a platform that can enable a diverse set of sophisticated services at the same time, it will propel new business models and in time, entirely new business ecosystems.

From a technology perspective, 5G opens up a new world of leading edge applications: it will allow for more hybrid and cloud use cases that range from machine learning/artificial intelligence to cloud-driven graphics rendering augmented reality (AR) and virtual reality (VR).

As one *Forbes* writer put it, “5G is one of those core enabling technologies that we will look back on 10 years from now and say ‘5G was a significant step in the history of technology innovation.’”

Barriers to local adoption

With the above in mind, it becomes easier to understand why local telecoms and connectivity providers have been scrambling to attach their names to some kind of 5G initiative or rollout. Moreover, the global 5G ecosystem is quickly taking shape – with major brands such as Samsung, Huawei, and LG having already released smartphones that support the technology. At MWC in Barcelona earlier this year, many providers trumpeted the launch of pioneering 5G services in their respective markets.

So where do we stand?

Based on reports thus far, it appears that SA's major networks are ready to go – but are being badly hobbled by the lack of allocated spectrum. As *mybroadband* has noted, the allocation of spectrum in South Africa ‘has been a sore point for years, with South African networks repurposing their 3G spectrum to provide users with 4G connectivity.’

However, with a 5G spectrum auction scheduled for 2020, local networks and providers are beginning to make the right noises and to showcase their planned 5G capabilities. Rain Mobile, for one, is promising to offer “ultra-broadband” services for home and small business users. Last year, the company showcased 5G New Radio network technology from Nokia and Huawei, which it says it will be deploying on top of its existing 4G network.

A complex (and costly) task

Rolling out 5G coverage countrywide is not a cheap exercise – and will require major resources and infrastructure. Indeed, as Lifewire's Fisher notes, “we can expect lots of strategically placed antennas to support 5G, either really small ones in every room or building that needs it or large ones positioned throughout a city; maybe even both. There will also probably be many repeating stations to push the radio waves as far as possible to provide long range 5G support.”

Given the above cost implications, is it really worth it for local providers in the short term while the technology is in its nascent form? Today, when urban South Africans are not mobile (so they are either at home or in the office) they probably use Wi-Fi that is connected to ultra fast fibre internet. In theory, local providers could speed up costly 5G installations

because they foresee consumers and businesses using more data, but this might not be the case. People might use data more quickly on 5G, but will they use more data on it? Arguably not!

People aren't suddenly going to send/receive more emails, or watch more Netflix, right? With this in mind, network players and providers will probably be asking themselves whether it's worth the expense in the short term...

ABOUT COLIN THORNTON

Colin founded Dial a Nerd in 1998 as a consumer IT support company and in 2002 the business- focused division was founded. Supporting SMEs is now its primary focus. In 2015 his company, merged with Turrto Networks who provided niche internet services outside of the local network. These two companies have created an end-to-end IT and Communication solution for SMEs. Colin has subsequently become the managing director of Turrto. Contact him at info@dialanerd.co.za

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