5G rollout in South Africa under threat by ongoing energy crisis

By Paul Colmer

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South Africa's telecommunications industry at the moment is in a condition of change. On the one hand, 5G network rollouts are gathering pace, with the latest news that Nokia has won a major deal to expand MTN's 5G network to more than 2,800 additional sites around the country. On the other hand, there seems to be no end in sight to the country's power crisis, with storm clouds gathering around the key stakeholders following the explosive allegations levelled at Eskom and the governing ANC by ousted CEO Andre De Ruyter.

Source: Unsplash

While 5G promises to bring many benefits to consumers, including faster download speeds, lower latency, and better network capacity, it also comes with some challenges, one of the most significant being increased power consumption.

One of the selling points of 5G is that it's more 'eco-friendly' than LTE, but even though 5G consumes less power per bit of data, because it transmits significantly more data than LTE, the net result is also significantly higher power consumption.

While 5G in South Africa won't be using mmBand ranges because the spectrum has not been made available to local operators, it will still be using more power to transmit signals in the available sub 6GHz spectrum.

This is why power – or rather the lack of it – can ultimately be a 5G killer.

As with fibre and LTE, the 5G rollout started in the wealthier areas, because it entails a big upfront investment and needs measurable ROI to make it viable. So, the first stage of the 5G rollout will naturally take place in high-LSM-income, high-density urban areas. Out in rural areas, where communities are poorer and less densely populated, not too many customers even have the phones to use them, and the investment required will be exponentially more because of the power issues I mentioned above.

So not only is the power crisis causing service disruptions across the board, it's changing the dynamics and threatening the future plans for the vendors currently committing to the 5G rollout in the first place. After all, there are many smart people that for years have been working on the strategy of rolling out national 5G networks, and almost overnight all those calculations are invalidated because they never took into account that we'd have power issues like this.

The bottom line, this affects the cost of deployment, which affects ROI, and if ROI isn't right, deployment can't happen from a business perspective.

I believe that the longer the power crisis continues, the more it will change the way we thought things would happen, development-wise, on expanding and improving 5G network coverage, and getting people connected. Everyone is talking about bridging the digital divide. The problem has never been the lack of internet access, but rather the lack of affordable internet access.

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The perfect storm of a power-crippled 5G rollout will only make things worse and widen rather than narrow that divide.

The silver lining, if there is one, is the strong Wireless Internet Service Provider (Wisp) community that has already accounted for and mitigated many of the power issues we're experiencing today, and as such has a head-start on any 5G deployment in South Africa's rural and remote areas.

Wisps have several advantages over 5G mobile networks when it comes to coverage, speed, cost, reliability, and flexibility of internet access delivery. Ultimately, the choice between WISPs and 5G mobile networks will depend on the specific needs and requirements of the customer or organisation. But with the power crisis potentially putting a spoke in the 5G wheel, the obvious choice for many South Africans may ultimately be made for them.

ABOUT THE AUTHOR

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