

# SA taking steps towards a 4IR economy

Ahead of the technology conference AfricaCom in Cape Town this week, Janet MacKenzie, partner and head of the Technology, Media and Telecommunications (TMT) Practice at Baker McKenzie in Johannesburg has lauded the recent positive steps taken by the South African Government to resolve the challenges that affect the country's ability to implement high-end, fourth industrial revolution (4IR) technology and infrastructure. Most pressing of the challenges has been the need to provide access to affordable broadband for all South Africans, especially those living in rural areas.



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MacKenzie says that according to the *Digital in 2018 Report*, South Africa has just 54% internet penetration and is lacking in significant broadband services in general, and in rural areas in particular. Improving Internet access and TMT infrastructure has thus been very much a focus in South Africa.

“Mobile operators must have access to the high demand frequency spectrum so that they are able to rollout affordable broadband services, including in rural areas. Broadband connectivity is integral to participation in the digital economy and has numerous benefits, including increasing employment, encouraging competition and boosting economic growth,” she explains.

On 1 November, the Independent Communications Authority of South Africa (Icasa) published its memorandum on the licensing of radio frequency high demand spectrum. The memorandum serves as a guide to prospective applicants on the process of licencing the spectrum in terms of the Radio Frequency Spectrum Regulations (2015) and the Electronic Communications Act (2005). Public comments on the memorandum are now open.

MacKenzie explains that the memorandum details the high demand spectrum which will be made available on a national

basis to the wireless open access network (Woan), as well as the high demand spectrum which will be awarded to three other operators by means of an auction process. The high demand spectrum has been divided into lots and five options have been proposed by Icasas in respect of the award of the high demand radio frequency spectrum. Applicants are eligible to bid on any of the lots.



## Woan is me - overview of high demand spectrum policy

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“In progressing government's objectives in licensing the Woan, Icasas will impose wholesale open access conditions on the Woan and physical infrastructure sharing objectives on the licensees awarded high demand spectrum. Of importance is that Icasas will impose conditions on the Woan to facilitate wholesale access to national roaming, mobile virtual network operators (MVNOs) and data services. This is an important step in opening up competition in the mobile sector as to-date, only Cell C has allowed MVNOs to provide services over its network. The Woan will be further obliged to provide wholesale access services at affordable prices and on a transparent and non-discriminatory basis.

“Licensees who wish to bid for high demand radio frequency spectrum will be required to provide wholesale open access to at least three MVNOs as a further mechanism to opening up competition in the mobile sector. In addition, licensees wishing to bid for high demand radio frequency spectrum will be required to have a minimum ownership of 51% by persons from Historically Disadvantaged Groups and will be required to collectively acquire a minimum of 30% of their national capacity from the Woan for a period of five years. These licensees will also be required to allow the Woan to roam on their networks on a cost-orientated and non-discriminatory basis, and will be subject to open access obligations in respect of their existing infrastructure and/or network facilities. Service quality requirements as well as universal service and access obligations will also be determined and imposed by Icasas,” MacKenzie says.

She notes that the delay in the release of high demand spectrum in recent years has negatively impacted on the ability of the mobile operators to roll out data rich services and 5G, in particular. 5G is necessary for the implementation of 4IR technology such as blockchain, artificial intelligence, augmented reality and the Internet of Things. The big mobile operators have blamed insufficient spectrum and a lack of access to the lower band frequencies for high data costs. These high costs were noted in a report by the South African Competition Commission this year as being some of the highest in the world.

“Although there is still significant policy and regulatory work to be done before South Africa is on par with other countries who are further down the road, the steps taken by the government in the last few months will provide the necessary building blocks for a 4IR economy,” MacKenzie says.

Darryl Bernstein, partner and Head of the Dispute Resolution Practice at Baker McKenzie in Johannesburg says that access to affordable broadband is essential not just in South Africa, but across Africa, especially now that the African Continental Free Trade Area has highlighted the exciting opportunities for streamlined, digital trade across the continent.

“African ICT, in general, remains under-developed due to poor access to electricity, infrastructure and low broadband penetration, all of which is crucial to technology investment. Efficient ICT infrastructure is the backbone of the digital economy, and that it must be supported by the development of regulatory and institutional frameworks that enable full participation in global digital trade.

“So far, only a few African countries have implemented the legislation necessary to enable countries to move forward into the digital economy. This includes laws that oversee the efficient deployment of technology infrastructure and access to broadband, and legislation to regulate data and consumer protection, cybersecurity, cross-border data transfers and electronic transactions, for example. All African countries should prioritising the development of legislation and infrastructure needed to equip themselves to engage with other digital economies,” he adds.

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