



## PROPOSED ALLOCATION OF HIGH DEMAND SPECTRUM – A HELICOPTER VIEW

**In this paper we consider the prospects of entering the South African electronic communications market as a new licensee, and continuing to operate as a small licensee, given spectrum developments. We also look at the pro’s and con’s of operating in the ‘new normal’ and with 5G and a substantial market share. What should your business plan consider, what risks might investors need to know about, and how should you take on the challenges of the uncertain and sometimes random regulatory regime?**

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### **2 points to note please:**

Our articles are intended to be informative and interesting. If there are any errors, please do let us know by sending an email to [kerron.edmunson@kelegal.co.za](mailto:kerron.edmunson@kelegal.co.za). This is not legal advice and if you rely on it, you do so at your own risk.

This article would not have been possible without the support of Roy Blatch ([www.systemshouse.co.za](http://www.systemshouse.co.za)) and Bora Varliyagci ([www.digitalthings.co.za](http://www.digitalthings.co.za)).

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### **An overview**

We start with a brief look at the frequencies that are vital for high speed broadband and widely anticipated to form part of the foundation of the fourth industrial revolution, or ‘4IR’<sup>1</sup>.

To deliver Gbps wireless speeds for 5G<sup>2</sup> services an operator requires large amounts of bandwidth (anywhere between 50 and 200MHz of spectrum) which is only available in higher spectrum bands than most operators currently use, such as 3500MHz (or 3.5GHz) (the most widely used 5G band globally) and 26-28GHz bands (referred to as millimetre-wave or mmWave).

However, to achieve optimal coverage in more rural areas, operators also need lower band spectrum in the 700MHz and 800MHz bands as the radio characteristics of lower frequencies imply a larger cell size and better propagation through obstacles such as walls and vegetation. The limited amount of

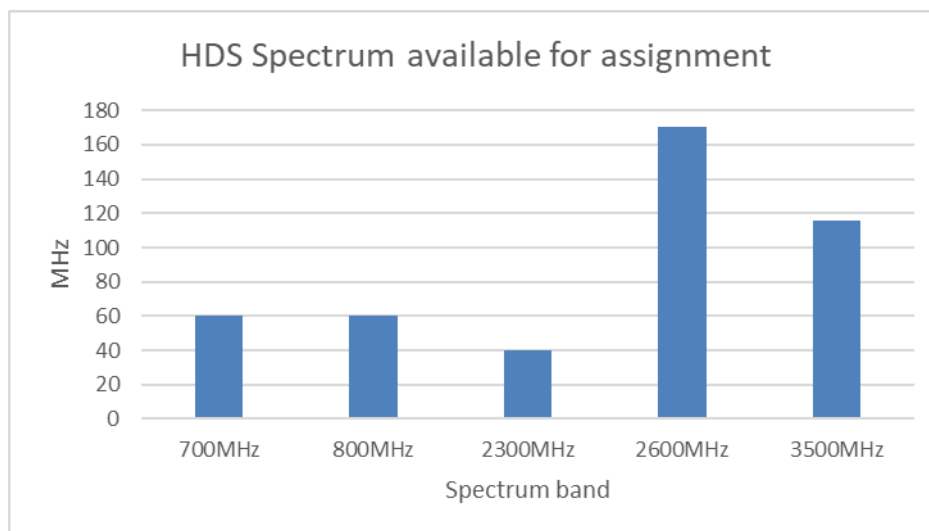
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<sup>1</sup> “South Africa must be a more technologically-driven country that finds solutions that move us forward, with 4IR as a pivot for economic recovery” said the President, Mr Cyril Ramaphosa, on receiving a report from the 4IR Commission. See <https://www.itweb.co.za/content/o1Jr5Mx92eAqKdWL>, accessed on 7 August 2020.

<sup>2</sup> 5G is the fifth-generation technology standard for mobile networks. 5G networks have greater [bandwidth](#), giving higher [download speeds](#).

spectrum available in the 700 and 800MHz and the type of user devices that might be available in rural areas means it is only really feasible to use these bands for 3G and 4G services in rural areas.

A total of 935MHz of spectrum has been identified by ICASA as being available for additional broadband services in the 700MHz, 800MHz, 2300MHz, 2600MHz and 3500MHz bands. Together these bands are referred to in South Africa as “high demand spectrum”. This total includes the ‘set-aside’ for the wholesale open access operator or “WOAN”, which we discuss later.<sup>3</sup>



Source: publicly available materials and the ICASA website

The licensing of these bands in South Africa lags the rest of the world. Despite initiating two previous award processes in 2011 and in 2016, ICASA has been waiting for a “policy direction” from the Minister of Communications and Information Technology (“the Minister”), as required by sector law. The Minister issued a direction of this sort in July 2019 and ICASA issued a notice setting out how it envisages the licensing process might work, in November 2019.

In brief, ICASA intends to auction the bands for the most part, while licensing some high demand spectrum to a new entrant to the market which will not have to take part in an auction. ICASA has stated that it intends to carry out this auction in March 2022 and issued an Invitation to Apply in December 2021 (“ITA”)<sup>4</sup>.

## The current market

All of the principal mobile network operators – Telkom, MTN, Vodacom and Cell C – have deployed 3G and 4G (LTE) services on existing spectrum (900, 1800, 2100 and 2300MHz), and there are other operators that have access to other medium bands, including Liquid Telecom and Rain that also offer high speed broadband services using 4G and 5G.

<sup>3</sup> The ICASA ITA, paragraph 7.3, *Gazette* 45628 of 10 December 2021.

<sup>4</sup> *Gazette* 45628 of 10 December 2021.

Several transactions involving each of MTN and Vodacom have taken place in the sector which effectively increase the spectrum available to them. This is achieved by affording these operators access to additional capacity from smaller operators including Rain, Cell C, and Liquid Telecom, all of which have (i) surplus capacity as a result of their smaller subscriber bases, and as it happens, (ii) access to highly sought-after spectrum<sup>5</sup>.

The first such transaction between Vodacom and Rain was characterized by ICASA as a 'MOCN' arrangement – a multi-operator core network arrangement. The true meaning of this arrangement from a technical perspective would be that the operators share the core network and carriers (spectrum)<sup>6</sup>; despite the fact that spectrum or active-sharing arrangements, more specifically spectrum-sharing, trading and leasing are prohibited under South African law without ICASA's approval. The sharing model used should more accurately be characterised as a MORAN or multi-operator radio access network arrangement –where no carriers or spectrum is shared<sup>7</sup>.

This result of the transactions is illustrated below. Essentially, the dominant operator (the Green Network) owns the complete RAN, activates the carriers on both portions of spectrum (with or without carrier aggregation) and utilizes the additional spectrum from Red Network to add to its overall network capacity. Green Network then provides connectivity to Red Network's EPC<sup>8</sup> to allow them to still have control of their products, subscriber management, mobility management etc. Bandwidth management on the RAN is fulfilled by Green Network who has to meet a set of KPIs (e.g. average downlink throughput, average uplink throughput, setup success, drop rates etc) that must be agreed with Red Network.

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<sup>5</sup> This 'highly sought-after spectrum' falls into the 900, 1800, 2100, 2500, 3500 and 3600MHz bands.

<sup>6</sup> [https://www.itu.int/en/ITU-D/Regulatory-Market/Documents/CostaRica/Presentations/Session8\\_Daniel%20Leza%20-%20Mobile%20Infrastructure%20Sharing%20-%2012%20March%202014.pdf](https://www.itu.int/en/ITU-D/Regulatory-Market/Documents/CostaRica/Presentations/Session8_Daniel%20Leza%20-%20Mobile%20Infrastructure%20Sharing%20-%2012%20March%202014.pdf)

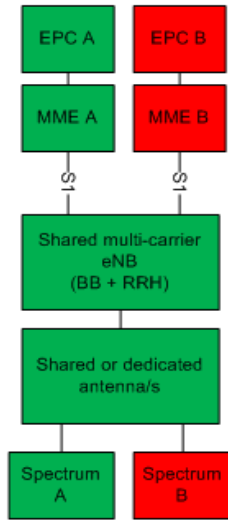
<sup>7</sup> We note that MTN refers to MORAN architecture on its tower and broadcast infrastructure-sharing products on their website at <https://www.mtn.co.za/Wholesale/Pages/Tower-broadcast-infrastructure.aspx>.

<sup>8</sup> An EPC is an 'evolved packet core'. The Evolved Packet Core unifies voice and data on an Internet Protocol (IP) service architecture and voice is treated as just another IP application. In simple terms, this is a framework for providing converged voice and data on a 4G or Long-Term Evolution (LTE) network.

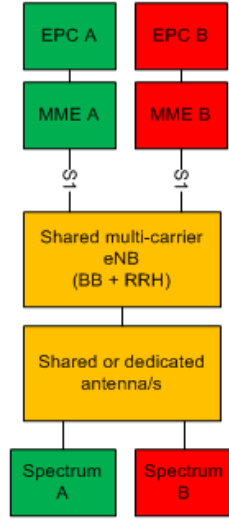
**OWNERSHIP SPLIT**

**FUNCTIONAL SPLIT**

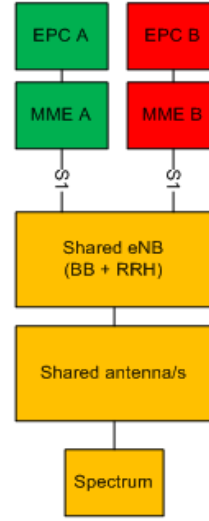
**MORAN**  
Multi Operator Radio Network



**MORAN**  
Multi Operator Radio Network



**MOCN**  
Multi Operator Carrier Network



Source: Systems House

The Competition Commission (“Commission”) has made no pronouncements on the nature of the transactions although it appears that the Commission has not rejected or referred any of the agreements to the Tribunal.

A brief look at the market power of all of the licensees holding spectrum in highly sought-after or high demand spectrum bands is helpful when a new entrant assesses the investment environment before deciding whether or not to bid in a future auction for additional 5G spectrum or apply for and succeed in acquiring a licence proposed for a new network operator – the WOAN. This is not a difficult picture to paint since by subscriber numbers, Vodacom holds approximately 45% of the total mobile broadband market, MTN somewhere between 35% and 38%, Telkom and Cell C appear to be equally small, with Rain and Liquid Telecom below 1%.

Cell C’s financial position is sketchy but proposed retrenchments, downsizing and asset sales (including the sale of subscribers and transfer of remaining subscribers onto the MTN network probably following the MORAN model described above) suggests that it is not a sustainable competitor.

Despite the Commission’s inquiry into data prices noting the skewed nature of the market in South Africa and the absence of regulation to curb the abuse of dominance or activities of dominant licensees, and despite the ongoing investigation by ICASA into the broadband market which has come to similar conclusions on dominance, there are currently no remedies (other than asymmetrical call termination rates for voice services) that give small operators some regulatory support.

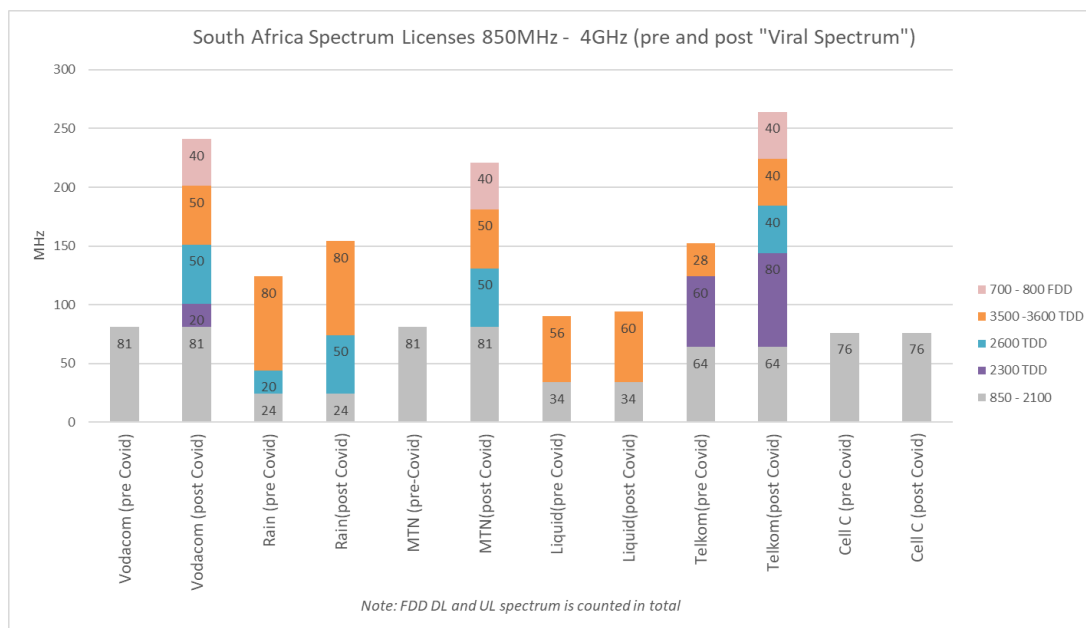
## **Recent events**

And now the Coronavirus has to answer for additional anomalies in the South African market. The confluence of the virus with the outcome of the Commission inquiry (over several years) into the high prices of data in South Africa, has meant that licensees and particularly mobile operators, have had to commit to price reductions for data packages, particularly for bundles below 1GB. One of the key reasons for high prices for data that was put forward by MTN and Vodacom was their lack of spectrum. Re-farming 2G and 3G spectrum, they said, is costly, as is building new sites. If they could only get access to high demand spectrum, data prices would drop like a stone (or words to that effect).

Shortly after the declaration of a State of Disaster in South Africa, the Minister, along with several other Ministers, issued a document in which she directed ICASA to make high demand spectrum available on a temporary term to existing and qualifying licensees to enable them to provide additional services to support entities fighting the spread of the virus, and educate the nation about the virus. It is obvious that a drop in the price of data was also expected to follow the licensing of this spectrum.

ICASA made the spectrum available under its own regulation on 6 April 2020<sup>9</sup>, which stated, “*The following International Mobile Telecommunications (IMT) spectrum bands shall be made available for temporary assignment: 700MHz, 800MHz, 2300MHz, 2600MHz, and 3500MHz...*” In an exciting departure from legislated process, ICASA also allowed spectrum-sharing, stating in its regulation that “*Two or more licensees may share radio frequency spectrum assigned to alleviate the challenges of network capacity.*” This is of course, not a guideline for sharing at all, but merely a notice.

The graphics below indicate the additional spectrum received by the operators before and during the Covid-19 pandemic.



Source: Systems House

For ease of reference we call the additional spectrum provided by ICASA the “COVID spectrum”.

MTN made much of the cost of importing special equipment for 5G, rolling out sites and connecting new subscribers, which investment it claims to be making in the public interest – purely so that subscribers can access high speed data during lockdown and the State of Disaster. Vodacom had claimed to be ready to ‘flick the switch’ in late 2018 if it could access 5G spectrum, so Vodacom has not had much to say about readiness. Telkom already had access to 2300MHz, so presumably it has just increased its existing 4G capacity, and recently gained more spectrum in this band by application to ICASA. Rain claims to have received spectrum that is not adjacent to its own, so it may consider itself to have been hamstrung by the allocation.

As for the permission to share that ICASA has granted in the COVID Regulations (and the November 2021 regulations – see later), we wonder whether or not anyone has taken advantage of this and concluded agreements. All agreements must be filed with and presumably, approved, by ICASA –

<sup>9</sup> <https://www.icasa.org.za/legislation-and-regulations/final-regulations/ict-covid-19-national-disaster-regulations>

none have been published to our knowledge. Does anyone actually need to share under the COVID Regulations and the later revised version of these same regulations? It would appear not.

However, in an article published by MyBroadband on 2 February 2022, the author states that “*The solution to all this central-planning madness is simple: make all spectrum in the IMT bands tradeable...Market forces will in due course produce the most efficient allocation*”. That does sound like a very simple solution, but it isn’t. The complexity involved in treating spectrum as a tradeable commodity – like cars – is that spectrum is a finite resource, owned by the State, which has to be co-ordinated according to strict international rules which South Africa subscribes to. From an economic point of view, allowing trading could result in outcomes which have a disastrous effect on competition. The “market” in South Africa has never self-regulated and indeed, there are few countries in the world that come to mind, where this is a free for all – or even where telecommunications as a sector is a free for all. Certainly, no country still in the development stage in so many areas, would permit this and they should not.

This is a topic for another article which we will be happy to produce, but suggesting that permission to trade spectrum without any rules at all would “*invalidate most of the challenges against [ICASA’s] auction process and turn its ‘invitation to apply’ from a lengthy book of lawyer-bait into a simple notice it could publish as a small newspaper advert*” is overly simplistic.

### **“COVID spectrum” licence conditions**

In return for the grant of this extremely valuable resource, the fortunate licensees became obliged (under this patchwork of regulation) to zero-rate “COVID-19 sites”, and if identified by ICASA, to connect “virtual classrooms” to networks that can access IMT spectrum. This free spectrum was to be returned to ICASA at the end of November 2020 but the ongoing State of Disaster resulted in extensions to the term of the allocations.

It is interesting to note that the COVID spectrum total means that the spectrum notionally set aside for the WOAN (discussed later) was fully allocated to existing licensees. Other points to note are that not all licensees were or are ready to switch on 5G. However, gaining access to these bands would certainly have assisted all of them to test kit in these new bands and verify the suitability of propagation, integration onto tower, device-compatibility, multi-band antennae and other factors.

It is unclear how the government thought the spectrum could be usefully deployed (other than the previous examples) during the pandemic given the absence of equipment, impact of the virus on global supply chains, and the likely difficulty licensees would have faced in mobilizing the large, trained workforce that would be needed over this time. Strictly speaking, licensees interested in HDS would have been gearing up for an auction during 2020, not immediate deployment.

In an article dated 25 August 2020 (almost 5 months after the grant of this spectrum), Vodacom noted that it had launched 5G services at 20 sites by the end of May, and MTN, during late July, launched 5G services at “base stations in Gauteng, the Western Cape and the Free State” – no numbers were

given.<sup>10</sup> The article claims to have conducted speed tests at Menlyn, Eco Park, Midstream Estate, Epsom Downs Shopping Centre, Design Quarter, and the Palazzo Hotel at Montecasino. Not one of these locations can be said to be serving the needs of subscribers in the lower LSM levels, and it is questionable to what extent this spectrum would have enable the MNOs *“to provide additional services to support entities fighting the spread of the virus, and educate the nation about the virus”* which was the reason given by the Minister for directing ICASA to hand out HDS spectrum.

The HDS or COVID spectrum was made available with effect from 17 April 2020. However, the ICASA website does not contain a public list of virtual classrooms or COVID-19 sites that have been connected or are to be connected using this valuable resource, during the period of the national disaster, and even if it could be argued that the award of this spectrum has “freed up” other bands to provide these services, the article suggests that by the end of August, very few areas would have been “freed up”.

Perhaps the licensees and ICASA have agreed the obligations between themselves but it would obviously be interesting for other licensees and investors or simply those interested in the sector, to know what the obligations actually consist of and whether or not they have been met, and this would afford the process additional transparency.

Following a number of extensions to the period for which licensees could hold the COVID spectrum as a result of the ongoing State of Disaster, ICASA decided August 2021 to terminate the allocations with effect from 30 November 2021<sup>11</sup>. The outcry was both loud and long. The largest licensees launched applications in the High Court to prevent ICASA from withdrawing the spectrum which were eventually settled, *“The decision by South Africa’s three largest mobile operators follows Icasa’s decision to license what it calls “provisional” spectrum from 1 December until a long-delayed spectrum auction – now expected in 2022 – can take place”*<sup>12</sup>.

The same article continued, *“Icasa believes that providing access to provisional spectrum — instead of temporary spectrum — in terms of which operators must again apply for access, will create a fairer competitive environment. This is because some operators didn’t apply for spectrum – or applied for only a minimal amount – when it was made available at the height of the Covid-19 lockdown in 2020. The temporary spectrum was meant to alleviate the pressures placed on the mobile networks due to work-from-home requirements and the increased demand on their infrastructure. Icasa is now expected to complete the licensing of the provisional spectrum by the end of November, in time to allocate it before the temporary spectrum assignments expire.”*

ICASA then issued revised regulations<sup>13</sup> (“the November 2021 regulations”). The November 2021 regulations actually say in clause 6(5), however, that *“Any IECNS and IECS licensee, including the*

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<sup>10</sup> [https://mybroadband.co.za/news/5g/363862-vodacom-vs-mtn-the-fastest-5g-network-in-south-africa.html?utm\\_source=newsletter](https://mybroadband.co.za/news/5g/363862-vodacom-vs-mtn-the-fastest-5g-network-in-south-africa.html?utm_source=newsletter)

<sup>11</sup> Gazette 45069 of 31 August 2021

<sup>12</sup> [Mobile operators withdraw spectrum lawsuits against Icasa - TechCentral](#)

<sup>13</sup> Gazette 45458 of 11 November 2021



*holders of the temporary radio frequency spectrum issued in April 2020, may apply to the Authority by no later than 16h00 on 17 November 2021 for assignment of provisional radio frequency spectrum licence that will be valid from 1 December 2021 until 30 June 2022 or until three months after the termination of the National State of Disaster, whichever comes first.”* The exact difference between the temporary and the provisional spectrum is not clear, but again, licensees are permitted to share the provisional spectrum: *“Two or more licensees may share radio frequency spectrum assigned to alleviate the challenges of network capacity”* subject to ICASA’s approval of the agreements, none of which have been made public, if there are any.<sup>14</sup>

There are obligations on those successful applicants for provisional spectrum (the same ones as previously), including the obligation to send *“20(a) at least two public announcements per day regarding the prevention and management of COVID-19...”*. Having done a quick round-up of people on different networks, none have received one SMS of this kind. Connectivity to virtual classrooms as agreed with DBE and zero-rating of COVID-19 sites and all “educational sites” must be maintained.

Virus or not, it must be an enormously useful exercise to have the spectrum in hand so much earlier than expected and without any of the conditions that we discuss below, that would apply to successful bidders.

## **The new entrant**

Following various different and still incomplete processes consequent on a new policy for the ICT sector in 2016, government wishes to offer a valuable individual network services licence (with high demand spectrum) to a new entrant which will have its own category – that of Wholesale Open Access Network – the WOAN. The WOAN is proposed to facilitate more effective use of scarce spectrum resources and reduce infrastructure duplication, hence facilitating service-based competition.

This “WOAN” licence is anticipated to be granted after the award of high demand spectrum by auction, although initially the processes were to run in tandem, which made good sense because of the licence obligations that should be imposed on successful bidders in favour of the WOAN, which we discuss shortly. A WOAN will need its own spectrum bands to offer wide coverage, high speed, open access, wholesale, broadband capacity – which is what government wants it to do.

The WOAN will be chosen on a beauty contest basis. It is or was supposed to be awarded the lion’s share of high demand spectrum in terms of the previous policy statements, but it is now unclear which bands and what amount of spectrum will be available for this new licensee.

The WOAN is regarded as “an important policy instrument” to lower barriers to entry for smaller players, improve ownership of the ICT sector by historically disadvantaged individuals, and promote service-based competition. There is no bar to applying for the WOAN licence if you are an existing licensee, other than you must be part of a consortium and may not be the sole participant. In fact, an

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<sup>14</sup> Clause 6(16) of the November 2021 regulations.

existing licensee would doubtless have several advantages over an entirely new entrant. For example, many existing licensees are already HDI-compliant, or on their way to compliance. WOAN applicants must already be owned by people who are 'historically disadvantaged' with a minimum of 30%. HDI includes black people, Coloured people and Indian people, women, the disabled, and the youth.

Unless they have already done so, existing licensees would need to split their business into wholesale and retail, as the WOAN must obviously be a wholesale-only entity.

Existing licensees that have been operating for years are more likely to be able to present a viable business, technical and financial plan, and are more likely to attract funding with their experience in the market. Another advantage for an existing licensee is that the fee for high demand spectrum that must be paid by a WOAN will be lower than that bid by competing applicants for other spectrum licences, and may be paid off over time. Existing licensees can in this way, avoid the so-called 'winner's curse' – bidding high to win and likely struggling to pay the price later. A WOAN can access a revenue stream from capacity take-off obligations on other licensees which will benefit an existing licensee.

An entirely new applicant will not have any of these advantages save perhaps the right ownership profile.

## **Risks for a WOAN**

The downside for existing licensees who might want to apply to be a WOAN, and for small licensees is that the market is skewed at the wholesale and retail level by strong market players like MTN and Vodacom, so there will be continuing regulatory challenges here.

In addition, the amount of the application fee and the final conditions to apply to any licences granted to either a WOAN or existing or successful bidder licensees are not yet known, although the ITA does hint at the types of conditions. It is a very different thing to explain the sort of condition that may apply and to actually draft it so that it is implementable. One wonders why ICASA is leaving this important (critical) aspect for later when successful bidders may wish to bargain down or even away in return for payment of their bid prices.

The obligation regarding offtake in the ITA only begins when the WOAN is "operational" – which has any number of possible meanings<sup>15</sup>. The type of commercial terms that should be included in a capacity offtake agreement should also be specified by ICASA, otherwise it is likely that the WOAN will be unable to negotiate effectively given its limited bargaining power, as against the dominant operators. Ideally any such agreement should be proposed by bidders for HDS so that it can be evaluated as part of the bidder's qualifications to participate in the auction.

Applicants for a WOAN licence must be a consortium of persons:

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<sup>15</sup> Clause 12.4.1 of the ITA.

- 70% of whom must be SA citizens with at least 30% HDI ownership;
- that include SMMEs;
- that ensures diverse participation ‘in a meaningful way’ including by youth, women and persons with disabilities; and may include public entities as shareholders.

With all of these conditions, the WOAN is ‘expected’ to achieve a 20% share of market. These are all oddities in the way that only this sector can create oddities. The process proposed so far has no relationship that we can see with any other international process for the award of high demand spectrum, or the licensing of a new entrant.

Furthermore, and unless ICASA proposes to change the invitation to apply for a WOAN licence in the future, capacity produced by the WOAN must be provided on terms that are effective, transparent and non-discriminatory – which are unusual requirements for a ‘new’ entity. Even if an existing licensee applies for this licence, and that entity did not have market power or within the WOAN does not have market power when the licence is awarded, it will be subjected to the same sort of conditions that a dominant operator would be in other markets (although currently these types of conditions are not enforced against dominant operators in South Africa).

The proposed 5-year commitment to be imposed on other HDS licensees for the 30% capacity offtake from WOAN may not be sufficient for the WOAN to establish itself so that it can be sustainable; which means if large MNOs drop their offtake after those initial 5 years, the WOAN may end up as an under-utilised venture. How and when this 30% offtake will be measured remains a big, open yet very important question.

## **Risk mitigation for the WOAN**

Before applying, a prospective WOAN should consider whether it is likely to receive adequate and appropriate regulatory support that ameliorates the risks discussed below. It should also consider the terms on which it might want to apply, which could include requesting a guaranteed aggregated demand from government (as set out in SA Connect).

The proposed MVNO obligations for HDS licensees create what is likely to be unintended competition but competition nonetheless for the WOAN, it would be preferable to require the WOAN to be the preferred wholesaler for MVNOs.

We know what we would want as a potential WOAN, and that is (at least) that ICASA define “essential facilities” as soon as possible as required under section 43 of the ECA; and mandate all owners or users of these facilities to provide access to them without reference to whether or not the access requested is “reasonable”, and on cost-based terms. Any licensee that controls access to essential facilities should be required to provide cost information to ICASA to support its proposed price to requesting licensees and the WOAN.

In addition, it would make sense that ICASA allow spectrum-leasing and sharing to the WOAN only. The WOAN could produce income from spectrum it does not immediately need.

Regulated terms including prices for national roaming and facilities-leasing would also be on our agenda for discussion with ICASA, as would spectrum caps, which we discuss further below.

Finally, it is unfortunate that the WOAN will no longer receive high demand spectrum ahead of incumbent operators nor, on the basis of what we see in the ITA, be permitted to commence operations prior to the other licensees. This would have allowed the WOAN to seek customers, begin rollout, and secure funding in good time. It could also have used the window period to finalise its arrangements with incumbents for leasing sites and network facilities, and national roaming, ensuring that potential bidders in the auction came before ICASA with these in place.

It is interesting that recent articles describe the WOAN as having been put “*on the back-burner for now, where all useless government projects go to moulder [sic] for five or ten years, but this has raised valid concerns among existing operators that they cannot predict the WOAN’s future impact on the market and therefore cannot properly value the spectrum bands that are being auctioned.*”<sup>16</sup> We don’t agree with this view (other than the moldering of some government projects), as you can see from what we say above.

## **Bidding and winning in an auction**

Access to reasonably priced spectrum is key to ensure low cost of production. The government has said that it expects to achieve R8bn from the reserve prices in the auction.<sup>17</sup>

If onerous obligations are imposed on the HDS licensees and the WOAN, and the prices are regulated, then some of the smaller players may not be able to sustain commercial competition and exit the market entirely. Therefore, the market and end users may end up with a further concentration of the players, resulting in reduced competition and lack of investment and innovation.

Leaving aside the completely unknown structure of a potential auction, there are a host of potential problems for aspiring bidders, not least of which could be the price that an auction demands, for the right amount of spectrum in the right Lot. ICASA has not proposed any payment holiday for winning bidders. The price of a Lot on auction starts with a reserve for each Lot as shown below<sup>18</sup>:

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<sup>16</sup> [Spectrum trading will make all Icasas problems disappear \(mybroadband.co.za\)](https://mybroadband.co.za/news/industry/10111/spectrum-trading-will-make-all-icasa-s-problems-disappear)

<sup>17</sup> [Icasa reissues spectrum ITA ahead of R8-billion auction - TechCentral](https://techcentral.co.za/news/10111/icasa-reissues-spectrum-ita-ahead-of-r8-billion-auction)

<sup>18</sup> Clause 5.4 of the ITA.

Lot number(s)	Lot category	Lot size	Number of lots available	Reserve price per Lot
1-4	700 MHz	2 x 5 MHz	4	R526 615 392,49
5-8	800 MHz	2 x 5 MHz	4	R752 307 703,55
9	800 MHz	2 x 10 MHz	1	R1 155 174 976,66
10-23	2600 MHz	1 x 10 MHz	14	R97 843 320,52
24	3500 MHz	1 x 2 MHz	1	R9 818 987,30
25 - 32	3500 MHz	1 x 10 MHz	8	R75 606 202,22
33	3500 MHz	1 x 4 MHz	1	R19 637 974,60

Source: ICASA ITA

ICASA has proposed spectrum caps of a total of 187MHz. A spectrum cap is ordinarily a cap on the total amount of spectrum that an applicant may hold when compared against the total amount of spectrum becoming available, and what proportion of that spectrum the application may accordingly apply for to ensure only a reasonable level of asymmetry among prospective licensees as to the total amount they may each hold following an award process. There are caps on the total amount of spectrum that may be acquired sub-1GHz in addition to the total cap, which is said to ensure that no licensee can acquire more than 20% of the total spectrum available (935MHz).

There is another interesting issue to consider prior to bidding and that is that a successful bidder might have to host several mobile virtual network operators (“MVNOs”) on its network. MVNOs are not regulated entities, they are resellers, and they are commercial entities. ICASA has no jurisdiction over MVNOs. Furthermore, ICASA cannot mandate the creation of MVNOs by any person, and obviously cannot require an MVNO to become 51% HDI-owned, which is the current thinking.

As we indicate earlier, the WOAN is intended to be a wholesale capacity provider, so it makes more sense to allow MVNOs to approach the WOAN on commercial terms, and become an additional source of revenue for that licensee, whilst also contributing to service competition.

Some of the proposed obligations will also have great impact on the production cost of the mobile network operators, for example, if they are forced to first deploy costly networks to rural or sub-economic areas, the networks are likely to remain idle for a long time, and may never reach reasonable utilisation levels to ensure commercial sustainability. This situation is worse for small or new entrants since they would lack infrastructure (towers or sites) in rural areas where the obligation is rollout proposed to apply first.

Building or acquiring sites and tower infrastructure is unlikely to be commercially viable for them and they will have to negotiate facilities-leasing agreements with either MTN or Vodacom who do have national footprints. If a small licensee is lucky enough to acquire HDS, the price of the HDS and rollout will mean the licensee cannot use the HDS at all. While the IM does propose to rework the Facilities Leasing Regulations of 2010, this has yet to happen (and for potential bidders it should happen prior to the auction for their peace of mind), and the same is true of introducing regulation of national roaming. While ICASA’s broadband service inquiry discussion document included site access as one of the upstream markets where it may consider intervention to enable effective

competition, the HDS auction, WOAN licence and this inquiry are proceeding apparently along separate lines.

## **Licence conditions for winning bidders**

ICASA published the ITA in December 2021 and has received and approved 6 pre-qualification applications.<sup>19</sup>

Coverage and uplink and throughput obligations are anticipated in the ITA, as well as zero-rated public benefit organisation connectivity – connectivity must be established for government hospitals, police stations, tribal offices and government schools – this is great except for the caveat at the end of clause 12.5 which says, *“The connectivity obligation should be implemented within 36-months from the date of the issuance of the radio frequency spectrum licences and the connectivity targets will be shared amongst successful bidders. The Authority will coordinate with the relevant stakeholders to finalise the implementation with successful applicants operators [sic] and the Authority will oversee compliance on annual basis.”* A delayed and vague obligation such as this will be appreciated by all successful bidders.

However, “open access” obligations are to be imposed in the form of a reference access offer, limited to *“site access to be offered to any licensee requesting site access and guidelines, including pricing, timeframes and policies for reserving space on masts”*. What exactly does this mean? What is site access? The ECA already obliges all ECNS licensees (those with electronic communications facilities) to share those facilities and grant access subject to certain limitations.

There are of course empowerment obligations, but these should in any event be aligned to the regulations passed by ICASA in 2021.

Economic growth is difficult in times of financial pressure. This can only be exacerbated by a high cost of entry into this complex and expensive industry. The cost of rolling out a national network is, as ICASA can appreciate, substantial. The cost of repaying debt to fund that rollout is likely to also be high. These financial burdens at the very start of a new business, may well scupper its chances of success.

Imposing excessive annual fees for mobile spectrum use will be counter-productive to the government objectives to bring broadband services to the South African population. We therefore recommend that ICASA should demonstrate its willingness to ensure a fair and predictable spectrum licensing process by publishing the recurring spectrum fees if these fees are to be changed from the current fees so that potential bidders have all the necessary information in front of them before deciding to bid.

## **The elephant in the room**

While the licensing of a WOAN and allocation of HDS aim to address supply-side competition and production costs respectively, the demand-side challenges do not seem to be an integral part of the

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<sup>19</sup> As at 22 February 2022.

considerations in making the proposed award. South Africa has already over 90% 4G coverage of the population, achieved largely by the dominant mobile network operators, however the total current 4G subscribers are barely above the quarter mark of all mobile subscriptions.

The cost of smart devices also remains a major barrier to achieving higher broadband adoption by end users. This must be obvious given both the much higher percentage of prepaid users, and the average household income in South Africa.

Considering 4G technology has (in effect) been around for over 12 years with a wide range and number of devices available in many spectrum bands, and has yet to achieve significant penetration, it is not unreasonable to think that it will take a similarly long time for 5G devices to become available at affordable prices. It also begs the question whether 5G will really be addressing the 'needs' of the majority of our citizens.

With above said, the proposed HDS licensee coverage and performance obligations, as well as the WOAN structure should probably consider demand-side dynamics and realities to achieve a healthy and sustainable sector that systematically addresses market challenges with an integrated supply and demand-side strategy. How will it help to have a 5G service that is able to deliver Gbps line speeds in an area where no one can make use of the service because the 5G devices are unaffordable, or electricity is unstable or non-existent? It seems that a more sensible approach would be to ensure that the technology choices are made based on targeted use-cases to ensure they are fit for purpose in a meaningful and commercially sustainable manner.

In addition, all of the major South African operators COVID or "provisional" spectrum. If we were holding the golden goose (that is provisional spectrum), having paid administrative fees of less than R100,000 with no particularly onerous undertakings, but having invested substantial sums (we assume) on equipment and site acquisition – albeit mostly in urban areas – would we (as the MNOs) be happy to hand it back? And then be subjected to the obligation to move our current network into rural areas before we can return to urban areas? Telkom has already attempted to raise various issues in Court but was persuaded to abandon its urgent interdict application apparently "in the national interest" but its Part B application is to be heard at the beginning of April, which will follow the auction scheduled for March. It remains to be seen whether the auction does actually proceed and if it does, what amount the bidders are prepared to pay for spectrum that they may not need, given all of the roaming arrangements and the sustained use of temporary or provisional spectrum.

We would say, if it were us, we can discuss paying for the golden goose if you let us continue to hold the goose. It will be interesting to see exactly who bids for which Lot when they have already been using and planning for continued use of the bands made available to them from April 2020.

We will watch with you as the spectrum spectacle unfolds in the next month or so.

**22 February 2022**