

**COMPILED COMMENTS RECEIVED FROM STAKEHOLDERS AND THE COMMISSION'S RESPONSE ON THE DRAFT INFORMATION MEMORANDUM (IM) FOR THE AUCTION OF TWO (2) ADDITIONAL LOTS OF 3.5 GHz SPECTRUM – NOVEMBER 2022**

**HUAWEI**

S/N	Huawei's Observations	Huawei's Recommendations	Commission's Response
1.	<p><b><u>4.5 - Pre-Qualification Process</u></b></p> <p>Applicants (Domestic and Foreign) are not required to be Licensed Network Operators but must be incorporated in Nigeria before the Licence is issued. Applicants will be subject to a set of pre-qualification criteria and only those that meet these criteria will be allowed to take part in the Auction.</p>	<p>In order to protect living and domestic operator's investment benefits, regulator should restrict more third party of foreign applicants which do not have GSM license, as now there are only 2*100MHz C Band spectrum and regulators should consider the possibility of existing operators acquiring 5G spectrum in the future.</p>	<p>The Commission is mandated by Section 4 (1) (a) of the Nigerian Communications Act 2003 to facilitate investments in the communications sector. Hence, it will continue to set rules that will guide market entrance and sustainable competition management practices in the sector.</p>
2.	<p><b><u>5.1.2 - Reserve Price, Licence Fees, and Payment Arrangement</u></b></p> <p>The Reserve Price (RP) is the minimum price for one Lot of 100MHz TDD for a ten (10) year licence tenure fixed at Two Hundred and Seventy-Three Million and Six Hundred Thousand United States Dollars only</p>	<p>High reserve price may result in the risk of spectrum being unsold.</p>	<p>The market price for the lot on offer has been determined by the last auction.</p>

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	(US\$273,600,000.00) or its equivalent in Naira at the prevailing Central Bank of Nigeria (CBN) rates at the time of the auction.		
3.	<p><b><u>Section - 5.1.6 Commercial Launch Date</u></b> Service in each state would mean a minimum of 5 sites in a state. Minimum speed of 100 Mbps Down Link (DL) using applicable test measurement tools.</p>	In addition to the definition of the number of sites and download rate, it is recommended to encourage priority deployment of 5G in some industrial regions, such as education, medical, financial institutions and other regions.	Comments will be considered.
4.	<p><b><u>Section - 5.38.2 Information Security</u></b> Operators are required to consider and implement measures towards securing the 5G ecosystem, addressing 5G Cybersecurity Risks and taking cognizance of Third Generation Project Partnership (3GPP) Security Provisions.</p>	Since 3GPP&NESAS Standard has been mentioned in National 5G policy, NESAS standard can also be added here.	Recommendation accepted.
5.	<p><b><u>Section - 5.38.3 Securing the 5G Ecosystem</u></b> The reliance of 5G on software makes the mitigation of risks of software vulnerabilities exceedingly critical.</p>	Open RAN is not a mature technology and has not been verified in the global market. It is not recommended to put it here.	Comment noted.

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	Network Virtualization, Virtualized Radio Access Network (vRAN), Open RAN technologies, Software Defined Networking (SDN), Network Slicing, Cybersecurity are some of the reasons why security is paramount in 5G		

### **GLOBAL SATELLITE OPERATORS ASSOCIATION (GSOA)**

S/N	GSOA's Observation	GSOA's Recommendation	Commission's Response
1.	<b><u>General Comments</u></b> 3800-3900 MHz has been identified as a guard band that is not available to IMT 5G.	Guarantee that the 3800-3900 MHz guard band remains clear for the filters to be effective plus it can be used as extra capacity to migrate existing, and deploy new, Fixed Satellite Services.  GSOA members need to use that spectrum, not only as a guard band, but also to reallocate their existing and future customers.	The Commission is empowered by Section 121 of the Nigerian Communications Act 2003 to administer and manage frequency spectrum and in that stead it has identified the 3800-3900 MHz band as a guard band. Therefore, the Lot is not available for auction.

			The Commission is committed to its mandate under Section 121 and strive to ensure optimal utilisation of spectrum that is free of harmful interference in the band under reference.
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### AIRTEL

S/N	Airtel's Observations	Airtel's Recommendations	Commission's response
1.	<p><b><u>4.5 – Prequalification Process (Eligibility Criteria)</u></b></p> <p>An applicant does not need to be a licensee to be eligible to participate in the auction. This opens the auction to every incorporated entity irrespective of whether such entity has the technical expertise and wherewithal to deploy.</p>	<p>Obtaining a UASL should be made a precondition for participation in the 5G Spectrum Auction.</p> <p>To ensure the attainment of the vision of the National Digital Economy Policy and Strategy (2020 – 2030), and the targets of the National Broadband Plan (2020 – 2025), it is strongly recommended that the Commission should introduce as part of the pre-qualification criteria, evidence of</p>	<p>The pre-qualification criteria for the UASL in the Draft IM has taken care of the technical and financial capacity of the applicant. Furthermore, the Draft IM has also laid out detailed roll-out obligations that will be enforced.</p>

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		the management of an operational telecommunications network or evidence of technical and managerial partnership by the applicant with any operator in Nigeria or other jurisdictions, as a proof of operational capability to carry on the enterprise.	
2.	<p><b><u>5.11.1 – General Auction Rules</u></b></p> <ul style="list-style-type: none"> <li>▪ The IM indicates that bidding will commence at 10.00 hours on the Auction Day but there is no mention of when the exercise would end.</li> <li>▪ There is no mention of an independent observer or applicant's nominee who would observe the auction process in the same room with the Auction Observer and Manager.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The NCC is requested to indicate whether the auction exercise would run until winners emerge irrespective of whether there is spillover to the next day.</li> <li>▪ The IM should be modified by allowing representatives of the applicant(s) to observe the auction process in the same room with the Auction Observer and Manager.</li> </ul>	<p>The Draft IM has made adequate provisions for processes and procedures and the auction will continue until successful winners emerge.</p> <p>The IM has made provisions for independent observers which is defined. Representatives of Applicants are not allowed to be in the same room with the Auction Observer and Manager.</p>
3.	<p><b><u>5.26 – Intention to Bid Deposit.</u></b></p> <p>IM requires an applicant to transfer 10% of the Reserve Price of the Lot into the designated account in cleared funds. The IM further states that the Naira</p>	It is recommended that the Naira equivalent be fixed based on the prevailing CBN's Exchange Rate as of 30th November 2022. This is to ensure certainty	It should be noted that the prevailing rate is at the date a prospective bidder pays the Initial Bid Deposit (IBD) and the Naira

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	equivalent of the designated amounts at the prevailing Central Bank of Nigeria (CBN) official Exchange Rate at the date of payment should be adopted.	of the amount to be paid by the relevant stakeholders involved in the process.	equivalent at the official CBN exchange rate on the date of the stated payment subsists.
4.	<p><b><u>5.32 – Interference</u></b></p> <p>It is noted that the Commission will define spectral masks for the spectrum band. It is also noted that the Commission shall define a “default” mask that shall be used for technologies not covered by the technology specific masks.</p>	<p>The Commission is requested to assign timelines to communicate the spectral masks for the spectrum band and the “default” mask for technologies not covered by the technology-specific masks. This would guide stakeholders appropriately.</p>	<p>Comment will be considered.</p>
5.	<p><b><u>5.38.3 - Securing the 5G Ecosystem</u></b></p> <p>The IM states that the Commission is developing a 5G Risk Management Framework (RMF) that all Licensees will be “expected” to comply with.</p>	<p>Airtel requests the Commission to confirm whether compliance with the 5G Risk Management Framework is optional or otherwise. If compliance with the 5G Risk Management Framework is mandatory, it is recommended that the sentence should be modified thus <b>“the Commission is developing a 5G Risk Management Framework (RMF) which all Licensees shall be required to comply with.”</b></p>	<p>Compliance with the 5G Risk Management Framework is mandatory. Recommendation accepted.</p>

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6.	<p><b><u>6.10.3 - Indicative Auction Timetable.</u></b></p> <p>The successful bidders in the 5G Spectrum Auction conducted in 2021 had forty-four (44) days from the date of the auction to effect the final payment but this Indicative Auction Timetable gives thirty (30) days from the date of the Auction for prospective successful bidders to effect the final payment.</p>	<p>The indicative timetable should be modified by extending the final payment deadline to 3rd February 2023. This is to ensure uniformity in the payment timeline for the two auction exercises. This request is necessary for effective cashflow management due to 2100MHz spectrum renewal expected to take place before year end.</p>	<p>The timeline for the 2022 Auction is different. However, concerns on the 2100MHz spectrum renewal is noted.</p>
7.	<p><b><u>General Comments - Administrative Assignment</u></b></p> <p>The Reserve Price of the 5G Spectrum Auction held in 2021 rose from USD197.4 Million to USD273.6 Million due to Airtel's participation. Otherwise, the NCC would have assigned the two Lots to the other two applicants at the Reserve Price.</p>	<p>Airtel requests an administrative assignment of one of the available Lot to it at the Reserve Price of USD273.6 Million, whilst other applicants which did not participate in the 5G Spectrum Auction held in 2021 can proceed with the 5G Spectrum Auction scheduled to hold on 19th December 2022.</p>	<p>The Commission is mandated by Section 124 of the Nigerian Communications Act 2003 to set out the process for assignment of spectrum. It is in that regard that the Commission has set out that the two Lots are to be made available through an auction process and therefore will not be assigned administratively.</p>



Eutelsat/Intelsat/SES

S/N	The Respondent's Observations	The Respondent's Recommendations	Commission's response
1.	<p><b><u>Sections 2 and 3 - Importance Notice and Executive Summary</u></b></p> <p>The Respondents note that in Sections 2 and 3 of the Draft IM, reference is made to auctioning “two Lots of 100 MHz TDD in the 3.5 GHz band” without specifying the parts of the band to be auctioned.</p>	<p>While this information is found in Table 4.2, where it is mentioned that the Lots 3.4-3.5 GHz and 3.6-3.7 GHz are currently auctioned, the Respondents suggest, for clarity, adding a clarification on the auctioned Lots early in Section 2, to avoid any confusion. The Draft Memorandum also refers in various parts to the frequency Lots that were previously auctioned without mentioning their applicable ranges. We suggest to clearly mention the frequency ranges where a Lot is discussed in the Draft Memorandum.</p>	<p>Recommendation will be considered.</p>
2.	<p><b><u>Section 2 – Important Notice</u></b></p> <p>The Respondents note the liability clause in Section 2, which states that “<i>The Commission does not accept any liability whatsoever based on the issuance of this IM and shall not be liable to any Bidder, Applicant, or any person whomsoever for any pecuniary loss, consequential or contingent damages; including</i></p>	<p>The Respondents highlight that this clause may unduly restrict the rights of any Bidder, Applicant or any person affected by Draft Memorandum. The respondents recommend excluding this clause in the Memorandum.</p>	<p>Recommendation not accepted.</p>



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	<i>but not limited to loss of goodwill, downtime and revenue, consequent upon the publication of and/or reliance of such person on this IM or participation in the Auction”.</i>		
3.	<p><b><u>5.34 - Band Clearance</u></b></p> <p>The NCC reaffirms in Section 5.34. of the Draft Memorandum its intention to systematically migrate incumbent users of the remaining portion of the C-band in the future to free up spectrum and make it available for the deployment of new services. In such instances, the NCC will issue information and carry out appropriate consultations with the industry.</p> <p>However, based on the Indicative Auction Timetable (Section 6.10.3 of the Draft Memorandum), the NCC does not appear to have taken into consideration such consultations in the auction timeline.</p>	<p>We request the NCC to include consultations on the band clearance in the auction timeline before proceeding to the submission of bids and the auction stage. Otherwise, at the very least, the NCC should organize a dedicated workshop with the industry to give an overview of its experience to ensure 5G deployment is realized without impacting incumbent services and technology.</p> <p>During the spectrum clearance procedure, NCC actions will require three components in order to protect current customer operations, all of which must be carefully coordinated. First, additional satellite capacity may be required in the reduced FSS frequency range to absorb incumbent services that must be moved whilst meeting contractual obligations for</p>	<p>The Commission has carried out a standard band clearing process in line with its powers under Section 121 of the Nigerian Communications Act, 2003.</p>

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		<p>contingency capacity in the event a transponder or a satellite suffers failure. Satellite operators will have to determine whether the additional capacity is sufficient to serve their Nigerian customers.</p> <p>Second, a highly detailed frequency migration plan must be laid out and clearly communicated to all customers and their end users. This plan will result in migration, not only for services currently operating in the frequencies to be cleared for terrestrial 5G operations, but also services in the remaining FSS spectrum that may need to be consolidated to find sufficient bandwidth for larger content customers.</p> <p>Third, there must be a plan to define and implement the necessary technical mitigation methods that will protect all incumbent services from adjacent band-interference once terrestrial 5G services are implemented. Also, frequency licenses issued to operators of earth stations may need to be amended, requiring payment of associated regulatory fees. This will not only affect the Respondents, regarding</p>	

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		<p>authorized space stations, but also their customers who rely on the lower part of the C band for their own connectivity in Nigeria and may also be required to amend their earth station authorizations. We request the NCC to establish a migration plan that has been discussed and approved by the interested stakeholders before proceeding to the Applications and Auction Stages.</p>	
4.	<p><b>4.6 - Broadband Access Market gap</b> In this section multiple technologies are mentioned for providing broadband access and addressing connectivity gaps. However, satellite technology is not referenced.</p>	<p>Because satellite operators are uniquely able to provide connectivity to rural populations and other hard-to-reach communities we believe they should be identified in the section on "Broadband Access Market Gap". We believe that any regulator should seek a balanced and technology neutral approach as no one technology can solve all connectivity issues.</p>	Comments noted.
5.	<p><b>5.28 and 5.29 - Spectrum Packaging</b> The Respondents welcome the NCC decision to limit the deployment of IMT/5G to 3400-3800MHz in Nigeria.</p>	<p>This proposal is not in line with the discussions between the NCC and SES/Eutelsat/Intelsat in which it was</p>	<p>The Commission in exercise of its mandate under Section 121 of the Nigerian Communications Act</p>

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	<p>In these sections, 3.8-3.9 GHz is defined as a guardband. This is not aligned with some previous exchanges with the NCC. After long discussions, the NCC had agreed that FSS operations were able to continue above 3820 MHz, considering a minimum 20 MHz guard band in the range 3800-3820 MHz.</p>	<p>made clear that the band 3820-4200 MHz would continue to be available for FSS in the long term. The 100 MHz guard band in this document not only contradicts this understanding but also further reduces the available satellite capacity in C-band. The Respondents propose to replace the 100 MHz guard band with a 20 MHz in the range 3800 - 3820 MHz as well as indicate that FSS operations will continue in 3820-4200 MHz.</p> <p>Landing Permits delivered to satellites operating over Nigeria should also be updated accordingly.</p>	<p>2003 has set out that the frequency band of 3800-3900 MHz will not be available for auction.</p> <p>More so, it has outlined a frequency management plan in line with Section 124 that provisioned 100MHz as a guard band to ensure seamless coexistence between terrestrial and adjacent services in the 3.5GHz band.</p> <p>The Commission never had an agreement with respect to the use of 3800-3900MHz.</p>
6.	<p><b><u>5.32 - Interference</u></b></p> <p>The Commission highlights that it will “<i>define spectral masks for the Spectral band</i>”. In respect of which, we have highlighted in multiple instances that before any auction or rollout of 5G, there is a clear need to define the spectral masks</p>	<p>We would urge the NCC to replace highlighted text in italics with the following statement :</p> <p>“Before any auction takes place, the technical conditions (i.e. in-band and adjacent band spectral emission masks) for</p>	<p>Recommendation not accepted.</p>

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	applicable to these 5G deployments for in-band and adjacent band.	the use of 5G in the auctioned lots shall be defined and implemented.”	
7.	<p><b><u>5.33 - Cross Border Coordination</u></b> The Commission proposes to deal with cross border interference through the establishment of MoUs which would list the applicable conditions (e.g. limit signal strength, pfd...) to be respected. It is however our understanding that Nigeria has begun rolling out 5G without defining such MoUs with neighbouring administrations.</p>	<p>We seek clarification on whether any MoU is in place for the lots already auctioned. We would also enquire what technical conditions the NCC would enforce to mitigate any cross-border issues. Finally, we would welcome an explanation concerning the implementation of such MoUs.</p>	<p>The Commission is working to ensure that cross-border coordination requirements are met as 5G services are rolled-out.</p>
8.	<p><b><u>General Comment</u></b> Satellite-enabled services enrich the daily lives of millions of people across Nigeria: by broadcasting news and events worldwide, cost-effectively extending the reach of terrestrial networks, and connecting remote places. Satellite communications provide both an invisible and resilient overlay for terrestrial networks, helping to achieve an unprecedented level of</p>	<p>We recommend that the Commission include satellite connectivity solutions as a technology to be considered in reducing the connectivity gap. Mobile services which have achieved 99.8% penetration have not been able to increase broadband access beyond 45%. Satellite technologies must also be promoted to reach the broadband goals. This comment is especially valid for the</p>	<p>Comment noted.</p>

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	interconnectivity and stability that terrestrial networks alone cannot deliver.	different sectors mentioned in 4.7.4 - 4.7.12.	

### Association of Progressive Communications

S/N	Association of Progressive Communications' Observation	Association of Progressive Communications' Recommendation	Commission's Response
1.	<p><b><u>General Comments</u></b></p> <p>We note with concern that the Draft Information Memorandum does not appear to include any mention of coverage obligations. This makes the introduction of use-it-or-share-it provisions in awarded spectrum licenses all the more urgent.</p>	<p>We strongly encourage NCC to develop "use-it-or-share-it" provisions for spectrum licenses issued in this 3.5GHz auction. We believe that license provisions that guarantee the license holder the right to protection from interference as opposed to absolute exclusivity are better suited to achieving the efficient use of spectrum as well as more affordable access to communications in underserved regions. These provisions can be a precursor to an enabling environment for greater digital inclusion in the country. We encourage NCC to follow-up on these provisions with a national consultation on shared access to spectrum in underserved regions.</p>	<p>The IM in Section 5.1.6 has adequate provisions for roll-out obligations for any successful Licensee.</p> <p>The Stakeholder is also invited to note that the Commission also has issued Spectrum Trading Guidelines that allows qualified holders of Spectrum Licenses to trade with other Licensees. This Guidelines covers use/share/lease and Trade.</p>

## MTN

S/N	MTN's Observations	MTN's Recommendations	Commission's response
1.	<p><b>5.30 - Spectrum Cap</b></p> <p>We note, with concern, the provision of the draft IM which provides that: <b>“the Commission places a cap of 100MHz as the maximum amount of Spectrum a Licensee can acquire in the 3.5GHz band”</b> and respectfully invite the Commission to note the following:</p> <ul style="list-style-type: none"> <li>▪ It had provided the assurance that an operator's emergence as a winning bidder in the 2021 auction of spectrum in the 3.5GHz spectrum band will not operate as a restriction on the said operator's ability to participate in future licensing processes. Our understanding of this</li> </ul>	<p>MTN respectfully reiterates its prior recommendation that, to ensure that all the spectrum can be assigned and used efficiently, it will be appropriate to allow successful bidders in the prior auctions of spectrum in the 3.5GHz (or indeed any other spectrum band) to participate in future awards. It is in MTN's considered view that a cumulative cap of 200 MHz in the 3.5 GHz band would be appropriate across all awards in the band.</p>	<p>Comment noted. Other stakeholders' view are also invited on this.</p>



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	<p>position is that such winning bidder can also participate in the spectrum licensing processes (including the proposed auction of additional spectrum in the 3.5GHz spectrum band) without let or hindrance;</p> <ul style="list-style-type: none"> <li>▪ On the strength of the Commission's assurances, MTN further participated in the Assignment Stage of the 2021 auction and, as the Commission will recall, paid an additional sum of N6,546,348,000 (Six Billion, Five Hundred and Forty-Six Million, Three Hundred and Forty-Eight Naira), being a premium for its preference of the 3500 - 3600MHz spectrum lot (Lot B). The appeal of Lot B was its cost efficient deployment/roll-out properties as well as its positioning in the band which came with the potential for MTN to be able to subsequently bid for/possibly acquire a contiguous Lot A or Lot C and ultimately provide</li> </ul>		

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	<p>mutually beneficial efficiencies such as maximized network performances;</p> <ul style="list-style-type: none"> <li>▪ Every generation of mobile technology improves network performance (e.g., increased bandwidth, spectral efficiency, lower latency), which also leads to new uses and in turn increased demand for spectrum; and</li> <li>▪ Unfettered ability of previous winners from the December 2021 auction to participate in this instant spectrum auction will further engender a more robust and highly competitive spectrum auction process.</li> </ul>		
2.	<p><b>5.1.5 - National Roaming</b></p> <p>There is a significant disparity between the rules for National Roaming as determined by the Commission in the 2021 Final Information Memorandum and the proposed rules defined in the draft IM.</p>	<p>MTN request the Commission to, for the sake of regulatory certainty, standardize the national roaming requirement by:</p> <ul style="list-style-type: none"> <li>• instituting a 10-year time frame within which successful bidders across the 2021 and 2022 auctions will not be obliged to allow national roaming on their 5G networks; or</li> </ul>	<p>The 2021 IM and the 2022 Draft IM are consistent as it affects National Roaming.</p> <p>The request for ten (10) years exclusivity is not accepted. Successful Bidders across the 2021 and 2022 auction are not obligated to allow national roaming on 5G</p>

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		<ul style="list-style-type: none"> <li>expunge the condition in its 2021 Final Information Memorandum which makes it a possibility that winners of the 2021 spectrum auction may be obligated to allow national roaming as soon as all the Lots in the 3.5 GHz band are auctioned.</li> </ul>	until all the Lots in the band are sold.
3.	<p><b>5.1.9 - Licence Renewal Fee</b></p> <p>The current provisions of the draft IM on Spectrum License Renewal do not provide sufficient clarity to potential bidders.</p>	<p>MTN recommends that the Commission confirms that, notwithstanding the award of the spectrum through an auction, the computation of the renewal fees for the spectrum will be set out in the Frequency Spectrum (Fees and Pricing) Regulations in force at the time of renewal in line with the formula contained therein and not on the basis of a pro-rated auction sum or vague criteria. The Commission will recall that it noted and accepted this recommendation raised by MTN in the Final IM that governed the 2021 auction.</p>	<p>The computation of the renewal fees for the spectrum will be set out in the Frequency Spectrum (Fees and Pricing) Regulations in force at the time of renewal.</p>