



6 March 2023

Mr Manyapelo Richard Makgotho
Independent Communications Authority of South Africa
Block C
350 Witch-Hazel Avenue
Eco Park Estate
Centurion

By email: rmakgotho@icasa.org.za
CC: jdikgale@icasa.org.za

Dear Mr. Makgotho

Re: MTN Submission - Second Draft Radio Frequency Spectrum Assignment Plan for IMT450, IMT850 and IMT1500

Thank you for the opportunity to make written submissions on the proposed Radio Frequency Assignment Plans for IMT450, IMT850 and IMT1500 as published on 20 February 2023 in Government Gazette 48078.

Please find enclosed MTN's submission in this regard. MTN would like an opportunity to make oral representations should the Authority decides to hold public hearings.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Geoffrey Blake", written over a light grey rectangular background.

Geoffrey Blake
Senior Manager: Technical Regulation
Mobile Telephone Networks (Pty) Ltd

MOBILE TELEPHONE NETWORKS PROPRIETARY LIMITED (Registration number:1993/ 001436/07)

216 14th Avenue, Fairland, 2195
Private Bag 9955, Cresta, 2118, South Africa
Tel +2711 912 3000 Fax +2711 912 4670 Website www.mtn.com

Directors: MJ Harper (Chairman), CS Molapisi (Chief Executive Officer), D Molefe (Chief Financial Officer), MJ Bosman, SA Fakie, N Khan, T Leoka, TBL Molefe, FJ Moolman, RT Mupita, PD Norman, R Ramashia, J Schulte-Bockum, and SA Zinn
Company Secretary MMF Rantofi
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MTN Submission

**Draft Radio Frequency Assignment Plans for the following:
International Mobile Telecommunications (IMT) Spectrum band,
IMT450, IMT850, IMT1500, in Government Gazette No. 48078 (Notice
No. 3064 - 3066), in terms of regulation 3 of the Radio Frequency
Spectrum Regulations 2015, read with Regulation 5 of the Radio
Frequency Migration Regulations and the International Mobile
Telecommunications Roadmap 2019.**

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1. Introduction

On the 20th of February 2023 the Independent Communications Authority of South Africa (“Authority”) published a second round of Draft Radio Frequency Assignment Plans for the following International Mobile Telecommunications (IMT) Spectrum band: IMT450, IMT850, IMT1500, in Government Gazette No. 48078 (Notice No. 3064 - 3066), in terms of regulation 3 of the Radio Frequency Spectrum Regulations 2015, read with Regulation 5 of the Radio Frequency Migration Regulations and the International Mobile Telecommunications Roadmap 2019.

MTN welcomes the opportunity to provide comments to the Authority’s proposed Radio Frequency Assignment Plans for IMT450, IMT850 and IMT1500. Radio Frequency Assignment Plans provide a framework on how spectrum in specific bands is to be utilized in line with the allocation contained within the National Radio Frequency Plan (NRFP). These assignment plans must provide the technical characteristics of radio systems, the frequency channelling and coordination, thus it is an important instrument that provides clarity regarding the conditions that must be adhered to for those specific radio frequency spectrum bands.

MTN’s submission is structured as follows:

- Introduction
- General comments
- Specific Comments on the Draft Radio Frequency Assignment Plans for the individual spectrum bands
- Conclusion

2. General Comments

2.1. Assignment plans for other IMT bands

While MTN welcomes the finalization of these most recent Radio Frequency Assignment Plans, it is equally important that the Authority address Radio Frequency Assignment Plans that have never been developed. By way of example the RFSAP for

IMT2100 which comprises the FDD spectrum 1920 – 1980MHz paired with 2110 – 2170MHz, known as Band 1 and IMT1800 known as Band 3 (1710 – 1785MHz paired with 1805 – 1880MHz) have never been developed even though these two bands have been assigned to operators for a significant period. As a result, those licensees are constrained by the technical specifications contained within the relevant operator's licence.

Furthermore, it is recommended that the Authority develop other assignment plans for frequency bands of interest such as mmWave spectrum, specifically 24.25 - 27.5 GHz, as this radio frequency spectrum band was already earmarked for IMT use in Region 1 at WRC-19. This is a vital band for 5G where licensees including MTN already have assignments in the 26GHz which is currently used for backhaul purposes. The inclusion of an assignment plans for the 26GHz band would indicate the conditions of use in addition to providing any envisioned migration of existing users of the band and the expected method of future assignment. This would enable MTN to have clarity on future 5G deployments within this radio frequency spectrum band.

2.2. Power limits

In addition to the commentary regarding the development of RFSAP above, MTN has noted that the Authority has maintained the EIRP limit of 61 dBm / 5 MHz EIRP limit for base station transmissions across all IMT Radio Frequency Assignment Plans (RFSAPs) where passive antenna systems are utilized i.e. excluding IMT3500.

MTN notes that at this moment the IMT 800, IMT 900 and the IMT 2600 radio frequency spectrum bands have the base station power limit set at 61 dBm/ (5 MHz) EIRP per antenna. Moreover, ICASA is proposing to set that same limit for IMT 450 and IMT 1500. Accordingly, MTN requests the Authority to amend the base station power limit for both B1 (2100MHz) and B3 (1800MHz) to at least 61 dBm/ (5 MHz) EIRP per antenna as this resolves a discrepancy and aligns with base station power limits currently set for other IMT bands.

MTN highlights that within Region 1, the national regulator of the United Kingdom, OFCOM has applied a 65dBm/5MHz EIRP limit for non-AAS base stations.

2.3. ICNIRP Guidelines

MTN notes that previous IMT band RFSAPs indicated that *“ICNIRP compliance is encouraged, where applicable”* and that this has been updated to *“ICNIRP Guideline compliance is required, where applicable”* in the draft RFSAPs. MTN supports this requirement which will help to create consistency across operator deployments whereas before ICNIRP compliance has been optional.

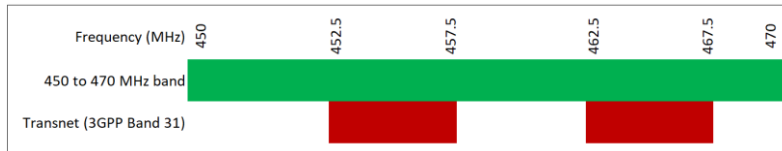
3. Specific Comments

3.1. IMT 450

MTN fully supports the use of the 450 MHz band for IMT, furthermore MTN agrees with the Authority’s recommendation of D14 band plan (3GPP Band 31). B31 has the advantage of a more developed ecosystem that is currently readily available and deployable.

This is in line with countries adopting ITU harmonized Frequency Ranges for Public Protection and Disaster Relief (PPDR) which requires having access to defined spectrum in harmonized bands suitable for broadband applications as laid out in Resolution 646 (WRC15) and expanded upon in ITU-R M.2015.

MTN notes a misalignment regarding the radio frequency spectrum assigned to Transnet within this band. The 2015 RFSAP IMT-450 consultation document (Government Gazette No. 38640) identified that Transnet has been assigned 2 x 3MHz spectrum bandwidth in the IMT-450 whereas the 2023 Draft RFSAP IMT-450 (Government Gazette No. 48078) indicate that Transnet has an assignment of Band 31 which has a defined frequency range of 452.5 – 457.5MHz paired with 462.5 – 467.5MHz as per the figure 2 of the draft regulations provided below.



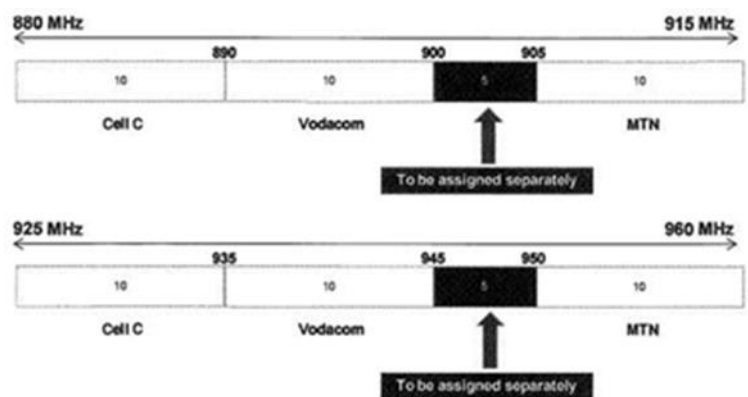
This consequently administers an additional 2 MHz of spectrum bandwidth in the IMT-450 to Transnet.

MTN recommends that the Authority clearly stipulate the existing assignment of the incumbent licensee (Transnet) and if an additional assignment to the entity is to be made then that it should be done in accordance with regulation 7 of the Radio Frequency Spectrum Regulations of 2015 (Government Gazette No. 38641) which were developed in line with Section 31(3) of the Act.

3.2. IMT 850

MTN notes the proposal by the Authority to migrate the sole incumbent out of the IMT850 band, in order to ensure the protection of the assignments operating within the 791 to 821 MHz and 832 to 862 MHz (IMT800) radio frequency spectrum bands.

It is further noted that the Authority proposes that the sole incumbent is to be relocated to 900-905 MHz paired with 945-950MHz that is expected to be available by 31st March 2024 which is created through the in-band migration by existing licensees within the IMT900 of 2 x 5 MHz spectrum destination band. ICASA intends to clear the sole incumbent from IMT850 band by 1st of April 2024.



While MTN has no objection to the proposal made by the Authority, it should be noted that the proposal creates a conflict within the recently published RFSAP of IMT900 (20 December 2022 in Government Gazette 47788, specifically Section 8 in reference to the assignment of the frequency block 900 - 905 / 945 - 950 MHz which stipulates that the assignment must be through an Invitation to Apply. For ease of reference MTN inserts the clause below

8.1 This spectrum band will be assigned through an Invitation to Apply that will be published for a new assignment in the frequency block 900 - 905 / 945 - 950 MHz in line with regulations developed in line with Section 31(3) of the Act.

Consequently, it is necessary for the Authority to amend this radio frequency spectrum regulation in order not to be in breach of its own regulations.

3.3. IMT 1500

MTN thanks the Authority for taking into consideration stakeholders views that indicated the low level of interest in the 1452-1492 MHz band. The draft amended regulations have aligned with global developments taken in relation to this band and have proposed to render the entire spectrum band of 1427-1518 MHz in a G3 channel arrangement for future assignment in the medium term. This position is welcomed by MTN.

4. Conclusion

MTN have assessed the proposed RFSAP and have provided constructive feedback which if incorporated in the final RFSAP will enhance the assignment plans.

MTN recommends that the Authority re-evaluate the power limits on several key IMT bands to resolve discrepancies between the various IMT bands as alluded to above where RFSAP have not been developed.

Finally, to ensure regulatory certainty within the sector it is of critical importance that the Authority is consistent in the approach taken when amending incumbents assignments. Ad hoc decisions and variations from prescribed regulations creates uncertainty in application and can develop into unnecessary and problematic precedent.