



Wireless Access Providers' Association of South Africa  
[www.wapa.org.za](http://www.wapa.org.za)

29 May 2025

**Independent Communications Authority of South Africa**

Attention: Ms. Pumla Ntshalintshali

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**WAPA SUBMISSION ON THE DRAFT REGULATIONS ON DYNAMIC SPECTRUM ACCESS AND OPPORTUNISTIC SPECTRUM MANAGEMENT IN THE INNOVATION SPECTRUM 3800 – 4200MHZ AND 5926 – 6425MHZ**

**Introduction**

1. The Wireless Access Providers' Association of South Africa ("**WAPA**") welcomes the opportunity to comment on the Authority's *Draft Regulations on the Dynamic Spectrum Access and Opportunistic Spectrum Management in the Innovation Spectrum Frequency Ranges 3800-4200MHz and 5925 – 6425MHz*<sup>1</sup> ("**the Draft DSA and OSM Regulations**").
2. WAPA supports the objectives outlined in regulation 2 of the Draft DSA and OSM Regulations, particularly those concerning efforts to bridge the digital divide through the use of spectrum sharing regimes by non-dominant players, and wishes to note its enthusiastic support and appreciation of the Authority's efforts to date.

**About WAPA**

3. WAPA was formed in 2006 as a non-profit organisation representing the interests of Wireless Internet Service Providers ("**WISPs**") in both urban and rural locations in South Africa.
4. WAPA promotes technical and business best practices for fixed wireless deployment and engages in policy work to promote efficient and equitable spectrum allocation and assignment, wholesale service provision and small, medium and micro enterprise ("**SMME**") enablement.
5. WAPA currently represents more than 280 organisations, encompassing both large and small operators, as well as supporting industries such as equipment vendors and software providers. The majority of

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<sup>1</sup> Notice 6066 published in Government Gazette 52415 on 28 March 2025.

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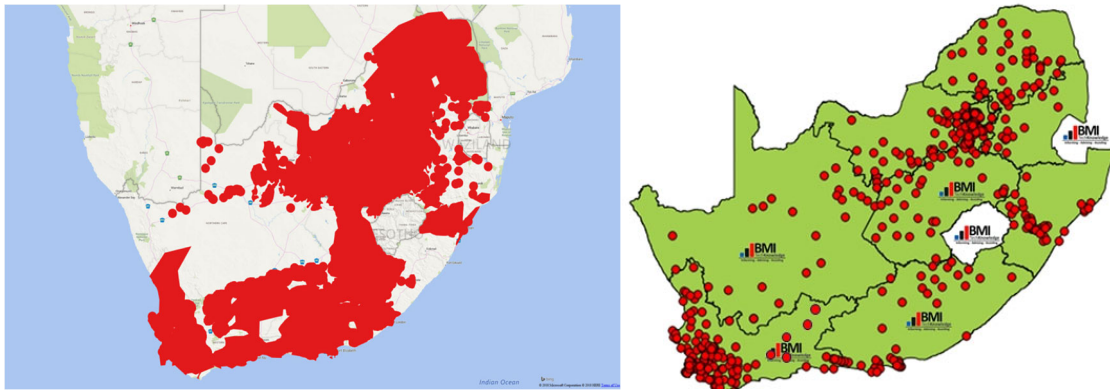
Management Committee:  
Johan Botha (Chairperson),  
Jens Langenhorst (Deputy Chairperson)  
Paul Colmer, Riyaz Kerbelker, Jackie Momberg  
Lesley Colmer (CEO), Tim Genders, Tauriq Brown

WAPA is an Association not for Gain currently registered under the Non-Profit Organisations Act.  
Registration No: 58-776-NPO VAT number: 445 027 1582

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WAPA's membership holds class electronic communications service and class electronic communications network service licences, with over 80% of its membership consisting of being SMMEs.

6. WAPA's members predominantly operate in peri-urban and rural areas which lack affordable and/or reliable access to broadband Internet. As a class WISPs serve to drive down the cost to communicate and increase broadband penetration.



**(WAPA latest census – coverage map and member location)**

7. WAPA members have developed extensive experience in rolling out low-cost connectivity fixed wireless broadband access (typically under R500 per month uncapped Internet access at 5 Mbps line speed) to over half a million subscribers across South Africa.
8. WAPA members provide both:
  - 8.1. Access services: WISPs build and operate fixed wireless – and sometimes wired – connections directly to homes and businesses throughout South Africa; and,
  - 8.2. Backhaul services: WISPs build and operate the long-distance networks which link remote areas to the communications infrastructure of larger operators.
9. WAPA members have a proven track record of price reduction and service innovation in the provision of broadband services to areas which, as a consequence of perceived commercial non-viability, have been neglected by larger operators.
10. In light of continued growth within the industry WAPA has found itself in the position to provide support in the form of training and mentorship for youths, subsidies for black-owned WISPs looking to become WAPA members.

11. WAPA has had the opportunity to review the written submission of the Dynamic Spectrum Alliance and, to the extent that any shared points are not addressed in greater detail within WAPA's own submission, notes its support of the DSA's position.
12. The following submissions are made in response to consultation by WAPA with its membership and represents the shared sentiments, comments and feedback of its membership.

**Appointment of the USSP and determination of USS access fees**

13. In their current form both the definition of Unified Spectrum Switch ("USS") Provider ("USSP") that appears in regulation 1 and the responsibilities of USSPs outlined in regulation 13 of the Draft DSA and OSM Regulations are framed in a manner which suggest that it is the Authority's intention to only appoint a single USSP.
14. Given the critical role envisaged for the USSP in both the administration of the proposed DSA and OSM regime and the positive impact which the regime is expected to have on both network operators (as contemplated by the Draft DSA and OSM Regulations) and their subscribers alike, WAPA strongly favours a dispensation that would allow for the appointment of multiple, redundant and inter-operable USSPs to be operated on shared principles to be specified by the Authority.
15. WAPA requests clarification as to the number of USSPs which the Authority considers necessary for the administration of the proposed DSA and OSM regime together with its reasoning for this determination.
16. Where no decision has been taken in this respect WAPA asks that the Authority expressly provide for the appointment of multiple USSPs in future revisions of the Draft DSA and OSM Regulations.
17. The absence of legal, administrative and operational criteria to be considered in the appointment of candidate USSPs and more generally the process to be followed by the Authority in its appointment (or replacement) of a USSP risks legal and market uncertainty.
18. The success of the proposed DSA and OSM regime hinges on both the real and perceived stability and longevity of the USSPs appointed by the Authority, with network operators and hardware vendors being unlikely to risk capital expenditure where the long-term stability of the DSA and OSM regime is uncertain.
19. WAPA notes that the Authority has previously developed a comparable framework<sup>2</sup> for the operation of secondary geo-location spectrum databases in accordance with the Regulations on the use of Television

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<sup>2</sup> *Framework to Qualify to Operate a Secondary Geo-Location Spectrum Database*, Notice 311 published in Government Gazette 43398 on 5 June 2020.

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of White Spaces, 2018<sup>3</sup> and encourages the Authority to adapt this existing resource for use in its appointment and administration of USSPs.

20. It is WAPA's belief that a profit-driven USSP would be antithetical to the objectives of the Draft DSA and OSM Regulations and would risk a conflict between the financial incentives of a commercially operated USSP and the broader policy goals which the Draft DSA and OSM Regulations seek to achieve.
21. WAPA encourages the Authority to limit USSP eligibility to non-profit companies, non-profit organisations or comparable juristic entities that have been registered in accordance with applicable South African law.
22. WAPA furthermore encourages the Authority to expand regulation 21 of the Draft DSA and OSM Regulations to expressly provide for:
  - 22.1. a methodology for the determination of reasonable and non-discriminatory USS access fees, which methodology should consider the future operational and administrative needs of USSPs whilst remaining mindful of the impact that inflated input costs (in the form of USS access fees) are likely to have on the cost to communicate and the adoption by non-dominant network operators of the proposed DSA and OSM regime;
  - 22.2. the periodic determination of USS access fees by the Authority in accordance with the aforementioned methodology rather than by the USSP itself; and,
  - 22.3. any other provisions which the Authority may consider necessary to give effect to these principles.

**Radio frequency spectrum license fees and pricing principles**

23. Regulation 6(5) read with regulation 20 of the Draft DSA and OSM Regulations draws a distinction between the use by network operators of:
  - 23.1. Innovation Spectrum Range 1 ("ISFR 1"), which requires both a radio frequency spectrum licence and the payment of radio frequency spectrum licence fees; and,
  - 23.2. Innovation Spectrum Range 2 ("ISFR 2") which may be utilised on a license-exempt basis.

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<sup>3</sup> Notice 147 published in Government Gazette 41512 on 23 March 2018.

24. This distinction is consistent with the framework for the control, use and/or possession of radio frequency spectrum and radio apparatus by network operators that is established in Chapter 5 of the ECA and which is enabled by the *Radio Frequency Spectrum Regulations, 2015* (as amended)<sup>4</sup>.
25. It can be inferred that the radio frequency spectrum licence fees referenced in regulations 6(5)(a) and 20(1) would be calculated in accordance with the point-to-area formula and factors appearing in the *Radio Frequency Spectrum Licence Fee Regulations, 2010* (as amended)<sup>5</sup> although WAPA considers the phrasing of these provisions to be needlessly ambiguous.
26. Whilst the payment of radio frequency spectrum licence fees by a network operator to the Authority is consistent with the enabling framework of Chapter 5 of the ECA, there is uncertainty within regulation 6(5) as to whether the Authority, the USSP or the network operator itself would be responsible for the calculation of any radio frequency spectrum licence fee that may be owed following issuance of a “preliminary spectrum availability digital certificate” by the USSP.
27. WAPA recommends that:
- 27.1. Regulation 6(4) be expanded, through the inclusion of a new regulation 6(4)(d), to provide for the automated calculation by the USSP of the radio frequency spectrum licence fee payable in respect of the proposed assignment forming the subject of the preliminary spectrum availability digital certificate;
  - 27.2. Regulation 20(1) of the Draft DSA and OSM Regulations be revised to include express reference to the *Radio Frequency Spectrum Licence Fee Regulations, 2010*; and,
  - 27.3. publication of the final DSA and OSM Regulations be accompanied by the substitution or amendment of Annexure B to the Radio Frequency Spectrum Regulations, in a manner that provides for an ISFR 2 and Innovation Spectrum Device (“ISD”) allocation.
28. WAPA’s recommendation in paragraph 27.1 is predicated on the understanding that the USSP’s consideration and processing of a network operator’s request in accordance with regulation 6 of the Draft DSA and OSM Regulations would be automated.
29. Given the brief periods for which preliminary spectrum availability digital certificates remain valid (7 working days) and within which a network operator is expected to make payment of the applicable radio

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<sup>4</sup> Notice 279 published in Government Gazette 38641 on 30 March 2015.

<sup>5</sup> Notice 754 published in Government Gazette 33495 on 27 August 2010.

frequency spectrum licence fee (2 working days), every effort should be made to reduce administrative overhead and the friction associated with the regulation 6 application process.

30. WAPA is concerned that a radio frequency spectrum licence fee calculation, payment and reconciliation process that is split between the Authority and the USSP and which may require intervention by human functionaries within either organisation would render the timeframes contemplated by regulation 6(4) and 6(5) impractical if not unworkable.
31. To the extent that the Authority may not wish to delegate the calculation of radio frequency spectrum licence fees to the USSP it is recommended that regulation 6 be expanded to include integration of the USSP's systems with the Authority's own Automated Spectrum Management<sup>6</sup> platform.

#### General remarks, clarifications and errata

32. The definitions of "Innovation Spectrum Customer's Premises Equipment Category 1 (IS-CPE Cat 1)" and "Innovation Spectrum Customer's Premises Equipment Category 2 (IS-CPE Cat 2)" provided for in regulation 1 refer to devices being "permanently affixed to **a structure certified by the Authority**" [emphasis added].
33. These provisions can reasonably be interpreted as imposing an obligation on network operators seeking to deploy IS-CPE Cat 1 or IS-CPE Cat 2 devices to first seek the Authority's certification of the underlying structure to which those devices are affixed.
34. Despite the aforementioned structure being considered an "electronic communication facility" by the *Electronic Communications Act, No. 36 of 2005* (as amended) ("**ECA**") in respect of which the Authority is empowered by section 36(1) of the ECA to "*prescribe standards for the performance and operation of any equipment or electronic communication facility...*" the imposition of a fixed structure certification requirement would be operationally and economically unfeasible and would pose a fatal barrier to the adoption of the proposed DSA and OSM regime.
35. Noting that the Draft DSA and OSM Regulations already provides that all ISDs must be type approved in accordance with section 35 of the ECA the imposition of a further fixed structure certification requirement would yield no clear benefit.
36. The Draft DSA and OSM Regulations provide at various points for the authentication of ISD type approval details with reference to the Authority's equipment authorisation register ("**EAR**"). WAPA notes that the

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<sup>6</sup> <https://online.icasa.org.za/>

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Authority's EAR, which currently takes the form of a PDF published on the Authority's website, is updated infrequently and is often incomplete.

37. Given the automated nature of the USSP registration process proposed by the Draft DSA and OSM Regulations, WAPA recommends that the Authority automate its EAR management processes and grant real-time access to the EAR via its Automated Spectrum Management platform.
38. The automation of a readily available and transparent EAR would result in greater efficiencies for both network operators and hardware vendors whilst providing for the more effective administration of the proposed DSA and OSM regime.
39. WAPA is broadly in support of both the:
  - 39.1. "maximum contiguous license area (MaxConLA)" limitation contemplated in regulations 1 and 9(5) of the Draft DSA and OSM Regulations; and,
  - 39.2. limitations, applied varyingly in rural and urban areas, on the contiguous channels assigned to master ISDs operating in ISFR 1;for the protection they would afford non-dominant network operators against the ISFR 1 "land grab" that would otherwise follow publication of the final DSA and OSM Regulations.
40. That being said the Authority should be conscious of the operational realities faced by WISPs operating in rural and peri-urban areas, who typically have significantly lower subscriber densities than their urban counterparts.
41. WAPA proposes that a more nuanced methodology for the determination of both the maximum contiguous license area and ISFR 1 contiguous channel limitations should be adopted in future revisions to the Draft DSA and OSM Regulations.
42. WAPA favours a tiered approach in which non-dominant network operators, determined either by the size of their subscriber base, number and type of service licences held, operating revenue or other relevant criteria would be afforded a greater contiguous license area and ISFR 1 bandwidth in rural and peri-urban areas.
43. WAPA's notes the maximum permitted antenna heights proposed by regulation 10(2) in respect of both ISFR 1 and ISFR 2. Given that many of the masts, towers and other electronic communication facilities already in use by WISPs throughout South Africa are likely to exceed these limits.

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44. WAPA favours unrestricted antenna heights within the proposed DSA and OSM regime and would encourage the Authority to instead rely (whether in its current form or with further modification) on the USS for the coordination of output powers and the avoidance of harmful interference.
45. WAPA similarly favours higher dynamic power limits, comparable to those in territories such as the United States which permit devices operating in the U-NII-5 (5.925–6.425 GHz) and U-NII-7 (6.525–6.875 GHz) sub-bands to utilise dynamic power allocations of up to 36dBm, provided that such use is governed by an automated frequency coordination system comparable to the proposed USS to prevent harmful interference with incumbent network operators and radio frequency spectrum assignments<sup>7</sup>.
46. WAPA is gravely concerned by the broad scope and disproportionate nature of the penalties outlined by regulation 23, which would extend in the case of:
- 46.1. Regulations 4(2) and 4(3) to activities already governed by and subject to separate sanction in the event of their infringement by *inter alia* the ECA and the Type Approval Regulations, 2013<sup>8</sup>, or upon their commencement by the Equipment Authorisation Regulations, 2021<sup>9</sup>; and,
- 46.2. Regulation 4(4) to physical processes, hardware and software faults or third-part intervention that may be entirely outside of a network operator's reasonable control.
47. WAPA requests that the application of regulation 23 be limited to the intentional rather than inadvertent contravention of Regulation 4(4) of the DSA and OSM Regulations.
48. The abbreviation "IS-BTS" appearing in the definition of "Minimum License Area (MinLA)" and in regulation 6(3)(j) has not been defined elsewhere in the Draft DSA and OSM Regulations.

**Conclusion**

49. WAPA thanks the Authority for its consideration of these submissions on the Draft DSA and OSM Regulations and wishes to note its interest in participating in any public hearings or further process which the Authority may elect to hold in the future.

Yours sincerely,



**WAPA EXECUTIVE COMMITTEE**

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<sup>7</sup> See FCC 20-51, available at <https://docs.fcc.gov/public/attachments/fcc-20-51a1.pdf>

<sup>8</sup> Notice 871 published in Government Gazette 36785 on 26 August 2013.

<sup>9</sup> Notice 1949 published in Government Gazette 46146 on 31 March 2025.