Public Consultation on Satellite Direct to Device Connectivity in Nigeria

January 2026

Consultation Guidance

This Consultation Paper is a preliminary engagement of key stakeholders prior to the activation of the rule-making process of the Commission under Section 71 of the Nigerian Communications Act 2003.

The outcome of this Consultation Process will provide the clarity and evidence base to inform the Commission's consideration of a regulatory framework for Satellite Direct-to-Device (D2D) connectivity in Nigeria, including matters relating to spectrum use, coexistence, authorisation, competition, consumer protection, security, and long-term investment incentives.

The Commission will take into account all comments and recommendations received as part of its participatory and transparent regulatory approach, in furtherance of the objectives of the Nigerian Communications Act 2003.

For the avoidance of doubt, this Consultation:

- Does not constitute a regulatory decision, licensing process, or spectrum allocation;

- Does not prejudge any future policy outcome; and

- Is intended to ensure that any subsequent framework is informed, proportionate, transparent, and responsive to Nigeria's market realities.

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1. Introduction

The Nigerian Communications Commission (the Commission), in furtherance of its statutory mandate under Section 71 of the Nigerian Communications Act 2003, invites stakeholders to provide input on the potential introduction of Satellite Direct-to-Device (D2D) connectivity in Nigeria.

Recent advances in satellite and non-terrestrial network technologies are enabling mobile devices to connect directly to satellites and, in some cases, airborne platforms. These developments may complement Nigeria's terrestrial networks by:

- Extending coverage to underserved and unserved areas.
- Providing backup connectivity during outages or disruptions.
- Strengthening emergency communications and resilience; and
- Supporting national objectives on digital inclusion, security, innovation and economic development.

These D2D services are being developed in primarily two main categories:

- Connecting bespoke/tailored devices directly to satellites using spectrum allocated for traditional Mobile-satellite services (MSS).
- Connecting unmodified cell phones directly to satellites using spectrum allocated for mobile terrestrial networks (IMT).

The Commission recognizes that any future D2D framework must:

- Support universal access goals.
- Preserve incentives for continued terrestrial network investment; and
- Ensure efficient spectrum management, fair competition, consumer protection, and national interest outcomes.

2. Key Definitions

For this Consultation, the Commission uses the following working definitions:

- **Direct-to-Device (D2D) services**: Voice, messaging, and/or data services delivered directly from satellites (and potentially airborne platforms) to user devices.
- **Non-Terrestrial Networks (NTN)**: Satellite or airborne platforms and associated network elements used to deliver D2D-type services.
- **Mobile-Satellite Service (MSS) Spectrum:** Spectrum internationally allocated by the ITU for Mobile-Satellite Services.
- **MSS services**: Services delivered in MSS spectrum, including satellite

voice/narrowband data, safety-of-life services, and other operational uses.

3. Background and Regulatory Context

The Commission's inclination towards the consideration of Satellite D2D connectivity is guided by its statutory responsibility to ensure accessible, reliable, and efficient communications services across Nigeria, while promoting competition, innovation, and the optimal use of spectrum in a technology-neutral manner. In engaging this issue, the Commission is mindful of the following factors:

- **Universal access and service continuity:**

  Supporting universal access for people, businesses, and public institutions across different geographies and circumstances, including situations where resilience, redundancy, or continuity of service is critical.

- **Complementarity of solutions:**

  Recognizing that achieving national connectivity objectives may require a combination of approaches, deployed in ways that are appropriate to specific use cases, locations, and operational conditions.

- **Evidence from national assessments:**

  Findings from the Commission's 2024 cluster gap study conducted by the Universal Service Provision Fund (USPF), which identified 87 clusters affecting approximately 23.37 million people, highlight areas where connectivity challenges persist and where multiple solutions may be relevant.

- **Evolving technology and market developments:**

  Ongoing advances in communications technologies, including non-terrestrial network capabilities, are expanding the range of potential service delivery models and raising important considerations for spectrum management, coexistence, competition, consumer protection, and security.

- **International regulatory engagement:**

  Aligning with international developments, the Commission is mindful of ongoing studies within the International Telecommunication Union (ITU) in preparation for the World Radiocommunication Conference 2027 (WRC-27), particularly Agenda Item 1.13 which is examining possible new allocations to the Mobile-Satellite Service (MSS) in the frequency range 694/698 MHz to 2.7 GHz to enable direct connectivity between space stations and International Mobile Telecommunications (IMT) user equipment, in order to complement terrestrial mobile network coverage, in accordance with Resolution 253 (WRC-23).

In parallel, regulators in several jurisdictions are engaging stakeholders to better understand emerging D2D models and their national implications. In this context, the Commission considers it timely to consult stakeholders, gather evidence, and assess the potential benefits, opportunities, and risks of D2D connectivity in Nigeria.

As this process unfolds, the Commission will continue to actively participate in relevant ITU studies and international discussions. Any future policy decisions, spectrum authorisations or regulatory frameworks for D2D services in Nigeria will be evidence-based and aligned with national communications objectives.

4. Purpose of Consultation

The objectives of this Consultation are to:

- Seek evidence-based input on potential use cases, benefits, risks, and public-interest considerations associated with D2D services in the Nigerian context;
- Gather stakeholder views on suitable technologies and network architectures, including expected performance characteristics and deployment considerations; and
- Inform the Commission's assessment of potential spectrum demand, coexistence, and authorization considerations, ahead of any regulatory framework for Satellite D2D connectivity.

5. Consultation Process

This Consultation process is for **six weeks** from the date of its publication on the website of the Commission. The expected responses to the consultation questions will guide the Commission when it commences its rule making process as outlined by Section 71 of the Nigerian Communications Act 2003. The Process is open to licensees in the Nigerian Communications Sector, consumers, agencies of government, international agencies and Civil Society Organizations (CSOs).

6. Submission and Feedback Process

Stakeholders are invited to submit their responses via the official online form:

https://forms.cloud.microsoft/r/Mv0YehK2b1

Questions marked with an asterisk (*) are mandatory and must be completed for successful submission. Other questions should be answered where relevant to the respondent's role, operations, or experience, or may be left blank if not applicable. All submissions should be completed **on or before Monday, 23rd February 2026**.

The online form is the primary channel for feedback. The email address

stakeholders@ncc.gov.ng may be used strictly for clarification, additional enquiries, or to submit supporting documentation. The subject line should clearly state the title of the Consultation Paper.

7. Conclusion

The Commission has created a consultation layer in its rule making process to open it up for more participation and engagement. This is also intended to help the Commission feel the pulse of the Nigerian Communications Sector. Clearly, this approach will enhance the rule making process, build cross-sectoral consensus and ease the bottlenecks in the legislative process. The Commission looks forward to robust responses/feedback from all stakeholders, within and outside Nigeria.

Dated 12th January 2026

Dr. Aminu Maida
EVC/CEO
Nigerian Communications Commission

Feedback & Comments Response Template

Please submit your responses to the consultation questions via the official online form at: https://forms.cloud.microsoft/r/Mv0YehK2b1.

A copy of the questions is provided here for reference.

Consultation Paper *	
Name *	
Mobile Number/Contact Number *	
Representation * (If on behalf of any Organization or entity)	
Name of Organization/Company/Licensee *	
Respondent Category *	☐ Satellite Operator ☐ Mobile Network Operator (MNO) ☐ MVNO ☐ Device Manufacturer / OEM ☐ Infrastructure Provider/TowerCo ☐ Internet Service Provider (ISP) ☐ Public Safety / Emergency Services ☐ Enterprise / Industry User ☐ Government ☐ Industry Association /Standards Body ☐ Other (please specify)

Website & Email Address *	

Confidentiality & Restrictions	
Do you want all your comments/responses published? *	**Yes**/No
Do you want all your comments/responses kept confidential? *	Yes/**No**
Do you want some of your comments/responses kept confidential? * Please specify below	Yes/**No**
Please specify Questions to be kept Confidential*	

1. Consultation Questions

Question	Response/Comment
Overall Position and Key Considerations 1. What is your organization's overall position on the introduction of Satellite Direct-to-Device (D2D) services in Nigeria?* 2. What key risks, concerns, or unintended consequences should the Commission be aware of in considering a D2D framework?*	
Market Opportunity and Benefits 3. What is the market opportunity for D2D services in Nigeria? * 4. Can you describe the nature of the benefits that could be delivered to people and business in Nigeria and what do you estimate the magnitude of the benefits to be? *	

5. Are there any wider citizen or societal benefits that D2D services could deliver that the market is not currently able to deliver? ∗ 6. Why might the market fail to deliver these benefits? ∗	
Interest, Customer Segments and Use Cases 7. Do you have an interest in offering D2D services or expanding an existing service? ∗ 8. Which customer segments, devices and use cases would be served? ∗ 9. What are the use cases and the benefits these services would deliver? ∗ 10. Indicate whether your D2D services are: ☐ MSS based ☐ IMT based ☐ Other	
Relationship with Existing Mobile Networks 11. Would your D2D service complement or compete with services delivered over existing mobile networks? Please explain. 12. Are you in talks with any Satellite operator to potentially provide D2D in Nigeria? If YES, kindly provide the Commission with details of your engagements?	
Technology, Architecture and Service Performance 13. What capacity and quality of service could be delivered with the D2D service you are proposing?	

14. What percentage of the Nigerian landmass could be covered, and would coverage be provided indoors?	
15. Should D2D services be limited to particular geographic areas, to specific use cases or should it be generally available without any limitations?	
16. If your response is for limitation, what measurable indicators or thresholds should the Commission consider in deciding where and how D2D services should be deployed?	
17. If your response is for general availability with no limitation, what are your reasons?	
Spectrum, Bandwidth and Infrastructure Requirements	
18. Which spectrum band do you consider would be best to deploy the D2D service in (i.e. either MSS spectrum and/or mobile terrestrial bands), and why?	
19. Are there any mobile bands that should be prioritised for satellite-based D2D?	
20. How much bandwidth do you think would be required to provide the service at launch?	
21. What additional infrastructure and/or spectrum would be required?	
Coexistence and Interference Risk	
22. Are there existing systems that you consider could be subject to an increased risk of harmful interference from the introduction of satellite-based D2D using mobile bands? If yes, are there specific mobile bands that should	

be avoided to reduce this risk?	
Authorization and Spectrum Sharing Approach 23. Do you have any opinions on how the spectrum for D2D services should be authorized? Does this vary by band, or type of Non-terrestrial network (NTN)? Please explain the reasoning behind your preference. 24. What options should the Commission consider for D2D services that use mobile terrestrial spectrum in Nigeria? a) amend the conditions of the existing Unified Access Service Licence (UASL) and/or the Global Mobile Personal communications System Licence (GMPCS) to specifically cover D2D services or (b) create a new license, specifically for D2D services? Please explain your preferred option.	
Additional Questions 25. What measures or safeguards would you recommend to ensure D2D services support public interest objectives (e.g., emergency access, resilience, rural inclusion) while preserving incentives for terrestrial investment? 26. Are there other factors or determinants that the Commission should consider as it relates to D2D services? Please provide details and recommendations.	

2. General Comments/Additional Responses

General Comments/Additional Responses

Please submit your responses to the consultation questions via the official online form at: https://forms.cloud.microsoft/r/Mv0YehK2b1.

Write to stakeholders@ncc.gov.ng strictly for requests for clarification,

additional enquiries, or to submit any supporting documentation relevant to

their responses. The subject line of such emails should clearly state the **title of**

the Consultation Paper.