

The GSMA Satellite Regulatory Playbook and Nigeria’s Emerging Commercial Satellite Communications Service Framework: Towards a Future-Ready Regulatory Approach

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Introduction

On 24 June 2026, in London, GSMA launched its ‘Satellite Regulatory Playbook’ (the Playbook), a policy guide developed to assist governments and National Regulatory Authorities (NRAs) in designing regulatory frameworks capable of addressing the rapidly evolving satellite connectivity landscape. The GSMA, a global organisation representing the mobile communications ecosystem, including nearly 800 mobile operators and more than 300 companies across the wider technology sector, developed the Playbook in collaboration with Access Partnership to provide practical guidance on regulating emerging satellite services in a manner that promotes innovation, consumer protection, investment and regulatory certainty.

The launch of the Playbook reflects a significant shift in the global communications environment. Satellite connectivity is no longer confined to traditional

wholesale connectivity models involving specialised operators and institutional users. The expansion of Low Earth Orbit (LEO) satellite constellations and direct-to-device (D2D) services has created a new category of connectivity services capable of reaching consumers directly, including in geographic areas where terrestrial networks remain unavailable or commercially challenging.

This technological evolution presents a regulatory question that extends beyond traditional satellite licensing: how should NRAs govern connectivity services that increasingly resemble conventional telecommunications offerings but are delivered through different infrastructure? The GSMA Playbook responds to this challenge by advocating for technology-neutral regulation focused on achieving consistent outcomes for consumers, businesses and governments regardless of the underlying network technology.

The Playbook is particularly relevant to Nigeria’s evolving satellite communications regulatory landscape. The Nigerian Communications Commission (NCC or the Commission), as the NRA, has established the regulatory foundation for commercial satellite services through the Commercial Satellite Communications Guidelines 2018 (the Guidelines) and the proposed Draft Commercial Satellite Communications Regulations 2020 (the Draft Regulations). These instruments reflect Nigeria’s recognition of the strategic role of satellite connectivity in expanding communications infrastructure and advancing digital inclusion. However, new satellite business models, particularly consumer-facing LEO services, create an opportunity to review and strengthen the existing regulatory frameworks so they better address emerging issues relating to consumer protection, competition, regulatory oversight and broader digital inclusion objectives.

A comparative review of the Playbook, the

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Commission’s Guidelines, the Draft Regulations and other relevant regulatory instruments demonstrate broad alignment in key areas, including licensing, infrastructure oversight and national security. However, the GSMA framework also provides a forward-looking perspective on the evolving nature of satellite connectivity and highlights areas where existing regulatory approaches may require refinement to address emerging service models, particularly those involving direct to user connectivity. At the same time, while the Playbook provides useful international guidance, Nigeria’s specific regulatory, market and connectivity circumstances may justify a tailored approach and, in certain areas, a departure from specific recommendations where such divergence better advances national policy objectives.

This article examines the areas of convergence between the Playbook and Nigeria’s regulatory framework for commercial satellite operations, while also considering areas where Nigeria’s unique circumstances may support a different regulatory approach. It recognises the importance of maintaining regulatory certainty, consumer protection and national policy objectives, while acknowledging the significant role satellite technologies can play in expanding connectivity, particularly in underserved and unserved communities where traditional terrestrial infrastructure may be limited or economically challenging to deploy.

An Overview of the GSMA Satellite Regulatory Playbook

The central premise of the Playbook is that satellite connectivity should not be regulated as a standalone

service but rather considered as an integral component of the broader communications ecosystem. Against the backdrop of the rapid evolution of LEO satellite technologies, the key regulatory question is whether existing frameworks are sufficiently adaptable to address emerging service models, including satellite broadband and D2D connectivity.¹ The Playbook is designed as a globally recognised reference framework to support NRAs and policymakers in modernising existing national regulatory regimes or, where necessary, developing new approaches that are responsive to the evolving satellite connectivity landscape.² It identifies key regulatory dimensions and policy considerations relevant to the deployment and governance of LEO satellite services, drawing from emerging international practices and regulatory approaches.

However, the Playbook is not intended to prescribe a uniform regulatory model or mandate identical implementation across jurisdictions.³ Instead, it adopts a flexible and adaptable approach, enabling NRAs to assess and apply relevant elements in a manner consistent with their domestic policy objectives, legal frameworks, market conditions, and connectivity priorities.⁴ In doing so, it seeks to promote regulatory coherence and alignment at a global level while preserving the ability of jurisdictions to achieve consistent high-level regulatory outcomes through approaches suited to their specific national circumstances.⁵

The Playbook is structured around key regulatory pillars relevant to emerging satellite services delivered through LEO constellations, including satellite broadband and D2D services, particularly in

¹ GSMA, ‘Satellite Regulatory Playbook Implications of LEO Constellations on Regulatory Frameworks’ (June 2026) <<https://www.gsma.com/solutions-and-impact/connectivity-for-good/public-policy/wp-content/uploads/2026/06/GSMA-SATELLITE-REGULATORY-PLAYBOOK.pdf>> accessed 25

June 2026, p. 3.

² *ibid.*

³ *ibid.*

⁴ *ibid.*

⁵ *ibid.*

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scenarios where such services are provided independently without direct partnerships with mobile network operators.⁶ These pillars address the principal policy, regulatory, and operational considerations that NRAs may need to evaluate in adapting existing frameworks to accommodate evolving satellite connectivity models.⁷

These regulatory pillars are:⁸

- i. local establishment requirements;
- ii. national security;
- iii. consumer protection and operational measures;
- iv. infrastructure and facility requirements;
- v. end-user terminal deployment;
- vi. fiscal considerations;
- vii. emergency services and public safety; and
- viii. enforcement.

It is equally important to note that the Playbook is underpinned by five core regulatory principles articulated in the GSMA's global position paper, 'Regulatory Preparedness for Satellite Services - Direct-to-User LEO Connectivity Service'.⁹ These principles are transparency and predictability, regulatory parity, harmonisation, collaboration and consultation, and balanced innovation.¹⁰ Together,

these principles reflect a regulatory approach that seeks to strike an appropriate balance between enabling technological advancement and safeguarding legitimate public policy objectives. They recognise that under-regulation may give rise to consumer protection, security, and market integrity concerns, while excessive or disproportionate regulation may hinder investment, limit innovation, and slow the deployment of emerging connectivity solutions. Collectively, these principles provide a balanced policy foundation for the regulation of LEO satellite services by promoting regulatory certainty, facilitating market access, encouraging investment, and supporting innovation, while ensuring consistency, consumer confidence, and broader societal benefits.¹¹

Equally important, the Playbook does not specifically address spectrum policy and assignment frameworks.¹² This reflects the rapidly evolving nature of spectrum access and allocation approaches for LEO satellite services, where operators are adopting increasingly diverse spectrum strategies across licensed, shared, and unlicensed bands.¹³ Given the dynamic nature of these developments, incorporating specific spectrum rules or allocation approaches within the Playbook could limit its long-term relevance and risk making the guidance obsolete as regulatory and market practices continue to evolve.¹⁴ Instead, the Playbook adopts a technology-neutral and adaptable approach, allowing NRAs to apply its broader regulatory principles within the context of their existing spectrum management frameworks and evolving national policy priorities.

⁶ *ibid.*

⁷ *ibid.*

⁸ *ibid.*

⁹ GSMA, 'Regulatory Preparedness for Satellite Services Direct-to-Users LEO Connectivity Services' (March 2026) <[https://www.gsma.com/solutions-and-impact/connectivity-for-good/public-policy/wp-content/uploads/2026/02/Regulatory-](https://www.gsma.com/solutions-and-impact/connectivity-for-good/public-policy/wp-content/uploads/2026/02/Regulatory-Preparedness-for-Satellite.pdf)

[Preparedness-for-Satellite.pdf](#)> accessed 25 June 2026, pp. 3 – 5.

¹⁰ GSMA (n 1) 17

¹¹ *ibid.*

¹² *ibid.* 19

¹³ *ibid.*

¹⁴ *ibid.*

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The Key Regulatory Pillars

Local establishment requirements

Regarding the aforementioned regulatory pillars, the Playbook recommends that jurisdictions consider local establishment obligations for satellite operators providing consumer-facing services.¹⁵ Under this approach, operators would be expected to maintain an appropriate legal presence within the jurisdictions in which they operate, thereby strengthening regulatory accountability and providing a clear point of engagement for regulators, consumers and other stakeholders.¹⁶ Such requirements can support effective regulatory oversight, compliance monitoring and enforcement, while facilitating consumer protection through accessible mechanisms for complaints handling, dispute resolution and regulatory inquiries.¹⁷

In addition, local establishment frameworks may assist authorities in applying domestic fiscal obligations, including applicable taxation and sector-specific contributions, and support coordination on broader public interest considerations such as national security, lawful access and regulatory cooperation.¹⁸ Overall, local presence requirements provide a mechanism for integrating satellite connectivity services into existing national regulatory frameworks while promoting accountability, consumer confidence, regulatory certainty and a balanced environment for innovation and investment.¹⁹

National security

National security is another fundamental pillar of telecommunications regulation according to the Playbook. As commercial satellite services

increasingly expand to provide direct connectivity to retail end-users, they present regulatory considerations comparable to those associated with terrestrial telecommunications networks, particularly in relation to data governance, cybersecurity, lawful interception and access to information.²⁰ This reflects the strategic importance of communications infrastructure to public safety, national security and the broader digital economy.

Accordingly, the Playbook recommends that national security and telecommunications regulatory obligations applicable to satellite operators providing direct-to-user services should, where appropriate, be aligned with those applicable to terrestrial network operators.²¹ This includes compliance with applicable data protection requirements, lawful processing of personal data, data governance frameworks, and data retention obligations where satellite services are functionally equivalent to mobile or fixed connectivity services.²²

Satellite operators should also be expected to implement appropriate cybersecurity safeguards, including risk management frameworks, security assessments, incident reporting mechanisms and compliance with relevant national cybersecurity standards, to protect users, networks and critical digital infrastructure.²³ Furthermore, satellite providers should support lawful interception requirements by ensuring that their network architecture and operational arrangements are capable of enabling authorised access for law enforcement and national security purposes, consistent with applicable legal safeguards.²⁴ This may require appropriate technical and regulatory measures, including the

¹⁵ *ibid.* 22

¹⁶ *ibid.*

¹⁷ *ibid.*

¹⁸ *ibid.*

¹⁹ *ibid.* 23

²⁰ *ibid.* 24

²¹ *ibid.*

²² *ibid.*

²³ *ibid.*

²⁴ *ibid.*

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establishment of local gateways, compliant routing arrangements or other mechanisms that facilitate effective regulatory oversight while addressing potential jurisdictional gaps.²⁵ Through these measures, regulatory frameworks can promote the secure deployment of satellite connectivity services while balancing innovation, consumer access, legitimate public safety and national security objectives.

Consumer protection and operational measures

The Playbook also underscores the importance of applying robust consumer protection principles to satellite-based connectivity services. It recognises that consumers should benefit from comparable levels of protection regardless of whether connectivity is delivered through terrestrial or satellite networks.²⁶ This includes ensuring transparency in pricing and service terms, access to effective complaint-handling and redress mechanisms, clear disclosure obligations, and the establishment of appropriate expectations regarding service quality and performance.²⁷

In addition, the Playbook recommends that subscriber registration requirements should apply to satellite services in a manner consistent with broader telecommunications regulatory objectives, including supporting security measures, facilitating lawful access, and mitigating risks such as fraud and scam-related activities, while avoiding regulatory gaps or opportunities for regulatory arbitrage.²⁸ Quality of Service (QoS) obligations are similarly identified as an important component of consumer protection, as they enable users to make informed decisions based on clear, transparent and comparable information regarding service performance. Accordingly, QoS

monitoring, measurement and reporting requirements should apply to core connectivity services irrespective of the underlying technology, ensuring that performance information relating to LEO satellite services is sufficiently robust and comparable with equivalent terrestrial connectivity offerings.²⁹ This approach promotes transparency, consumer confidence and a level regulatory environment while supporting the continued development of innovative satellite connectivity solutions.

Infrastructure and facility requirements

Infrastructure and facility requirements are a critical component of the regulatory framework for LEO satellite communications, particularly as satellite services evolve into mainstream connectivity solutions. The Playbook highlights the need for regulatory approaches that apply proportionate and transparent requirements to satellite infrastructure, including user terminals, gateway earth stations and points of presence (PoPs), while ensuring consistency with existing telecommunications, planning and security frameworks.³⁰ Such requirements support effective spectrum and interference management, infrastructure safety, consumer protection and national security objectives. Regulatory processes should facilitate efficient deployment and innovation by providing clear approval pathways, including equipment certification, installation and planning permissions, licensing requirements and other relevant authorisations, while encouraging infrastructure efficiency through measures such as voluntary co-location and shared use of passive facilities where feasible.³¹

²⁵ *ibid.*

²⁶ *ibid.* 26

²⁷ *ibid.*

²⁸ *ibid.*

²⁹ *ibid.* 27

³⁰ *ibid.* 28

³¹ *ibid.*

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Given the inherently cross-border nature of satellite networks, regulatory frameworks must also balance legitimate national interests, including data sovereignty, lawful access, security and regulatory oversight, with the need to preserve the operational characteristics of satellite systems.³² While NRAs may impose requirements relating to routing, international connectivity and gateway arrangements, such measures should be carefully designed to avoid unnecessary barriers to deployment.³³ Where appropriate, regulators may require domestic or approved gateway arrangements, particularly for sensitive services, while recognising that shared regional infrastructure may provide practical and efficient solutions.³⁴ Overall, the regulatory approach should promote secure, resilient and efficient satellite connectivity while maintaining a balance between national policy objectives, technological realities and the benefits of increased digital access.

End user terminal deployment

End-user terminal deployment is a key regulatory consideration for direct-to-user satellite services, as terminals represent the primary interface between satellite networks and consumers.³⁵ The Playbook recommends that regulators ensure satellite terminals comply with recognised technical standards through appropriate type approval, certification and equipment authorisation frameworks to protect users, prevent harmful interference and preserve the integrity of shared spectrum resources.³⁶ Such requirements should align with existing telecommunications equipment regulations, addressing safety, electromagnetic compatibility and interoperability considerations, while allowing

flexibility for emerging services such as D2D connectivity.³⁷ NRAs should also establish proportionate installation and deployment requirements for fixed or outdoor terminals, including antenna placement, planning and safety considerations, to support secure and efficient deployment.³⁸

Fiscal considerations

As satellite operators increasingly provide direct-to-user services, fiscal and financial obligations should be carefully reviewed to ensure they are appropriate, proportionate and aligned with broader telecommunications policy objectives.³⁹ The Playbook highlights that satellite operators offering retail connectivity services should, where applicable, be subject to comparable obligations as terrestrial telecommunications providers, including licensing fees, regulatory levies, universal service contributions, spectrum-related charges, equipment certification fees and applicable taxes.⁴⁰ Such obligations should be applied in a technology-neutral manner to promote competitive neutrality, prevent regulatory arbitrage and ensure that satellite services contribute fairly to public objectives, while avoiding excessive burdens that could undermine investment, affordability and digital inclusion.⁴¹ Given the impact of fiscal frameworks on service pricing and market development, policymakers should periodically assess the continued necessity and level of sector-specific charges, including opportunities to reduce burdens where this would enhance connectivity, consumer benefits and broader socio-economic development.⁴²

Emergency services and public safety

³² *ibid.* 29

³³ *ibid.*

³⁴ *ibid.*

³⁵ *ibid.* 30

³⁶ *ibid.*

³⁷ *ibid.*

³⁸ *ibid.* 31

³⁹ *ibid.* 32

⁴⁰ *ibid.*

⁴¹ *ibid.* 33

⁴² *ibid.*

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Emergency services and public safety obligations should be adapted to reflect the increasing role of satellite and D2D connectivity in delivering communications services, particularly in remote and underserved areas.⁴³ The Playbook emphasises that users should receive comparable access to emergency communications and public safety protections regardless of whether connectivity is provided through terrestrial or satellite networks.⁴⁴ This includes consideration of emergency calling capabilities, reliable location information, public warning systems and appropriate service continuity measures, where technically feasible.⁴⁵ As existing frameworks were largely designed for terrestrial networks, regulators should develop proportionate approaches that account for the unique characteristics of satellite architectures while ensuring that relevant satellite operators supporting critical connectivity can contribute to national emergency response, disaster resilience and public safety objectives.⁴⁶

Enforcement

Effective enforcement is essential to a credible telecommunications regulatory framework, ensuring that consumer protection, security and competition obligations produce practical outcomes. The Playbook emphasises that satellite operators offering services comparable to terrestrial networks should be subject to equivalent regulatory obligations, compliance requirements and enforcement measures, regardless of where they are headquartered or where their cross-border infrastructure is located.⁴⁷ Given the global nature of LEO satellite systems, regulators should require operators to maintain a meaningful legal presence in the jurisdictions where they provide services to support effective oversight, investigations,

remedial action and sanctions where necessary.⁴⁸ Where regulators have limited direct control over satellite infrastructure, enforcement may rely on market access tools, including controls over terminal distribution, activation and service authorisation.⁴⁹ Enhanced regulatory cooperation and information-sharing among jurisdictions will also be critical to addressing cross-border compliance challenges and promoting consistent enforcement outcomes.⁵⁰

Assessing the GSMA' Playbook Against Nigeria's Satellite Framework

In addition to the Nigerian Communications Act 2003 (the Act), Nigeria's principal instruments for regulating commercial satellite communications are the Guidelines and, once adopted, the proposed Draft Regulations, together with other regulatory frameworks addressing aspects of the pillars discussed above. The Playbook takes a broader regulatory view, treating satellite connectivity as part of the wider communications ecosystem rather than as a standalone service.

The analysis below examines the extent to which Nigeria's existing framework aligns with, or departs from, the regulatory pillars identified in the Playbook. It also considers instances where departure from the Playbook may be justified and provides the relevant legal or regulatory basis for such an approach.

The Playbook recommends that jurisdictions consider local establishment requirements for satellite operators offering consumer-facing services. This is intended to strengthen regulatory accountability, provide regulators and consumers with a clear point of engagement, facilitate consumer redress and support effective enforcement. Nigeria's regulatory

⁴³ *ibid.* 34

⁴⁴ *ibid.*

⁴⁵ *ibid.* 35

⁴⁶ *ibid.*

⁴⁷ *ibid.* 36

⁴⁸ *ibid.*

⁴⁹ *ibid.*

⁵⁰ *ibid.*

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framework demonstrates alignment with this principle through its authorisation requirements for communications services including satellite operations.

The foundation of this approach is Section 31(1) of the Act, which provides that: ‘No person shall operate a communications system or facility nor provide a communications service in Nigeria unless authorised to do so under a communications licence or exempted under regulations made by the Commission under this Act’. The scope of “communications service” under this provision is sufficiently broad to encompass emerging satellite-enabled connectivity models, including circumstances contemplated by the Playbook where satellite operators headquartered outside Nigeria operate global or regional constellations and provide satellite broadband or D2D services to end users within Nigeria.

Section 31(1) of the Act operates alongside Regulation 10 (1) of the Nigerian Communications (Licensing) Regulations 2019, which requires an applicant for a satellite operating license to be a body corporate registered under Nigerian law. This requirement is further reflected in Paragraph 5(3) of the Guidelines, which provides that an applicant seeking authorisation to establish an Earth Station must be a body corporate registered in Nigeria. The same requirement is maintained in the Draft Regulations. The Guidelines define an Earth Station as the ground component of a satellite system responsible for transmitting information signals and receiving and processing information signals.

These provisions establish a regulatory framework designed to ensure that commercial satellite activities operate within a defined legal and institutional structure. By requiring entities providing satellite services or establishing satellite facilities in Nigeria to

maintain a recognised legal connection with the jurisdiction, the framework supports regulatory accountability, facilitates effective oversight and provides a clear mechanism for engagement between operators and regulatory authorities. This approach is broadly consistent with the Playbook’s recommendation that satellite operators providing consumer-facing services should operate within regulatory frameworks that enable national supervision through an appropriate local legal presence, while ensuring that satellite connectivity services are integrated into existing telecommunications regulatory structures.

The Playbook identifies national security as a core pillar of telecommunications regulation and recognises that consumer-facing satellite services raise issues similar to terrestrial networks, particularly in relation to cybersecurity, data governance, lawful interception and access to information. Nigeria’s framework incorporates several elements consistent with these principles. This principle is broadly consistent with Nigeria’s existing telecommunications regulatory framework, which places obligations on communications licensees to support lawful access, regulatory oversight and national security objectives. Section 146 (2) of the Act requires holders of communications licenses to assist the Commission and other competent authorities, where reasonably necessary, in preventing offences or enforcing applicable laws in Nigeria. In addition, Section 147 of the Act authorises the Commission to require licensees to implement technical capabilities for authorised interception of communications and to prescribe the relevant technical requirements. These provisions are given further effect through the Lawful Interception of Communications Regulations 2018, which establish the legal and regulatory framework for lawful interception of communications services in Nigeria.

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The regulatory approach reflects the broader principle that communications providers, including satellite operators offering functionally equivalent connectivity services, should maintain appropriate capabilities to support legitimate law enforcement and national security requirements, subject to applicable legal safeguards. As satellite services increasingly provide direct connectivity to end users, these obligations become increasingly relevant to ensuring that satellite operators are integrated into existing communications security and regulatory frameworks.

The protection and governance of data processed in connection with communications services is similarly addressed under the Nigerian Data Protection Act 2023 (NDPA). The NDPA regulates cross border transfers of personal data by requiring such transfers to satisfy the conditions prescribed under Section 41(1), while Section 39(1) imposes obligations on data controllers and processors to implement appropriate security measures for the protection of personal data. Complementing this framework, the Commission’s Cyber Resilience Framework for the Nigerian Communications Sector issued in 2026 provides additional regulatory guidance aimed at strengthening cybersecurity resilience across the communications ecosystem.

However, the application of these principles to communications providers, including satellite operators, raises important considerations regarding data governance, including data localisation, cross border data transfers and regulatory access, particularly where data processing activities, network infrastructure and service delivery arrangements extend beyond national borders. While cross border transfers may be permitted under the NDPA where the applicable legal conditions are satisfied, questions may arise regarding regulatory access, lawful enforcement and data security where information is

processed or stored outside Nigeria. Accordingly, as satellite connectivity models continue to evolve, regulatory approaches should seek to maintain an appropriate balance between facilitating cross border digital services, protecting personal data, strengthening cybersecurity resilience and ensuring that legitimate national security and public interest objectives remain effectively addressed.

The Playbook emphasises that consumers should receive comparable protections regardless of whether connectivity is delivered through terrestrial or satellite networks. It highlights obligations relating to pricing transparency, service disclosures, complaint mechanisms, quality of service and effective redress. Nigeria’s satellite-specific framework establishes licensing, technical and operational obligations for satellite service providers, while the Guidelines seek to ensure reliable and efficient service provision and regulatory oversight. Consumer protection obligations are also addressed through Nigeria’s broader telecommunications consumer protection framework, particularly the Nigerian Communications (Consumer Code of Practice) Regulations 2024, which cover consumer rights, transparency, information disclosure, QoS, complaints handling and regulatory oversight across communications services.

In addition, the Nigeria Communications (Quality of Service) Regulations 2024 (QoS Regulations) establish a framework aimed at protecting and promoting consumer interests, including safeguarding consumers against unfair practices, as set out in Regulation 1(1). Regulation 21(1) defines QoS standards as the prescribed parameters, performance benchmarks and measurement methodologies used to assess the quality and reliability of telecommunications services against established requirements. These standards provide an objective basis for evaluating service performance, enabling

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regulators to monitor compliance while allowing consumers to assess the quality of services delivered. Accordingly, QoS benchmarks serve as key indicators of the service experience of subscribers and provide a framework for measuring performance, service quality and overall customer satisfaction.

Infrastructure and facility requirements represent a significant area of convergence between the Playbook and Nigeria’s satellite regulatory framework. The Playbook recommends clear and proportionate processes for satellite infrastructure, including user terminals, gateway earth stations and points of presence, while ensuring consistency with telecommunications planning, security and interference management requirements. In addition, to the Guidelines, which establish licensing requirements for earth stations, satellite facilities and related infrastructure. The Guidelines also address frequency coordination, interference management and compliance with applicable international standards. The Playbook further considers emerging LEO satellite infrastructure issues, including international connectivity, traffic routing, cross-border gateways and infrastructure sharing, which are increasingly relevant as operators rely on globally distributed network architectures.

In this regard, the Playbook recognises that cross-border gateway restrictions are often informed by legitimate public policy considerations, including national security, data governance, data protection, lawful interception requirements and the need to maintain appropriate regulatory oversight over communications infrastructure. Within this context, some jurisdictions may require satellite operators providing direct-to-user services to implement specific routing arrangements, gateway

configurations or domestic interconnection frameworks that enhance regulatory visibility, provide appropriate assurance mechanisms and support compliance with applicable legal obligations. These measures reflect the need to balance the transformative potential of satellite connectivity with legitimate national interests, ensuring that emerging communication technologies operate within established regulatory and governance frameworks.

In Nigeria, these policy objectives are increasingly supported through the development of domestic internet interconnection infrastructure, including Internet Exchange Points (IXPs), which are currently deployed across seven states and provide neutral platforms for the efficient exchange of internet traffic within the country. While an IXP does not operate as a satellite gateway in the conventional technical sense, both the Federal Ministry of Communications, Innovation and Digital Economy and the Commission have consistently recognised the importance of domestic interconnection infrastructure, including IXPs, in promoting efficient, resilient and sustainable connectivity ecosystems.⁵¹ By facilitating local traffic exchange among network operators, internet service providers, content providers, government networks and other authorised entities, IXPs contribute to strengthening Nigeria’s digital infrastructure and reducing reliance on external routing pathways.

For satellite operators, IXPs can serve as strategic domestic interconnection points by enabling locally generated traffic from satellite networks to exchange directly with Nigerian networks through local peering arrangements. Where satellite operators establish appropriate local network presence, including points of presence or connectivity arrangements integrated with domestic IXPs, locally originated traffic can be routed through more efficient domestic pathways

⁵¹ NCC, ‘Internet Governance’ (n.d) <<https://ncc.gov.ng/internet-governance>> accessed 26 June

2026.

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rather than relying exclusively on expensive international transit links. This approach can support reduced latency, lower transmission costs,⁵² improved network resilience, enhanced cybersecurity coordination and greater operational efficiency across the national digital ecosystem, while advancing broader policy objectives relating to connectivity expansion, data governance, regulatory oversight and the sustainable development of Nigeria’s digital infrastructure.

On co-location and infrastructure sharing, the Commission’s Guidelines on Co-Location and Infrastructure Sharing 2021 are broadly aligned with the Playbook’s policy recommendation on co-location by recognising infrastructure sharing as a regulatory tool for improving efficiency, reducing unnecessary duplication and promoting sustainable connectivity development. The Guidelines provide a framework for negotiated infrastructure sharing arrangements that encourage the efficient use of existing telecommunications facilities, reduce capital expenditure and support wider infrastructure deployment. This approach is consistent with satellite gateway infrastructure models, where operators may share passive infrastructure such as sites, buildings, power, security and supporting connectivity facilities while retaining independent control over operator-specific active network components.

The Guidelines also provide a proportionate regulatory framework that balances infrastructure efficiency with the technical, operational and security requirements of satellite networks. By promoting sharing where technically and commercially feasible, while avoiding a mandatory approach to the sharing

of active RF systems and network controls, the framework supports sustainable investment, competitive market development and effective infrastructure utilisation. In this respect, the Commission’s infrastructure sharing policy complements the Playbook’s recommendation by enabling collaborative infrastructure models that enhance connectivity expansion while preserving the operational integrity and autonomy of individual satellite operators.

The Playbook treats the regulation of end-user terminal deployment as a critical component of satellite connectivity governance, given that terminals serve as the interface between satellite networks and end users. It recommends that such equipment be subject to appropriate technical standards, including type approval, certification and authorisation processes, to ensure safety, electromagnetic compatibility, interoperability and protection against harmful interference. Nigeria’s regulatory framework is broadly consistent with this approach. Section 132 (2) of the Act requires licensed service or facilities providers, equipment manufacturers and suppliers to obtain type approval certificates from the Commission for communications equipment and facilities prior to installation or sale in Nigeria. Consistent with this mandate, the Commission has historically applied type approval requirements to end-user terminal equipment, including satellite-related equipment. Further, Paragraph 17(1) of the Guidelines subjects satellite terminal equipment and related facilities to approval and technical compliance requirements to ensure conformity with applicable standards before importation or market deployment. This framework is reinforced by the Nigerian

⁵² IXP Nigeria, ‘The Cost of Not Peering’ (May 2026) < https://www.linkedin.com/posts/ixp-nigeria-598367274_ixpn-costofnotpeering-nigeriainternet-activity-7463192622883336192-

[ZDgo?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAC4JbEBRhm0KmHXqIMyN2ebRRKCIj2YzK4](https://www.linkedin.com/posts/ixp-nigeria-598367274_ixpn-costofnotpeering-nigeriainternet-activity-7463192622883336192-) > accessed 27 June 2026.

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Communications (Type Approval) Regulations 2024, which provide a structured process for the evaluation, approval and authorisation of Commission - regulated communications equipment, thereby supporting the safe, reliable and interference-free deployment of satellite connectivity solutions in Nigeria.

The Playbook recommends that fiscal obligations applicable to satellite operators should be proportionate, transparent and technology-neutral, encompassing relevant licensing fees, regulatory charges, spectrum-related fees, universal service contributions and applicable taxation requirements. Nigeria's satellite regulatory framework reflects this approach by providing for various fees, charges and financial obligations associated with satellite authorisations and regulatory oversight. In addition, satellite service providers, where applicable, may be subject to broader NCC or other relevant financial obligations, including the requirements established under the Annual Operating Levy Regulations 2022 (AOL Regulations).

Under Regulation 3(1) of the AOL Regulations, a network operator licensee is required to pay an annual operating levy assessed at 2.5% of its net revenue for the relevant period, calculated as gross revenue less permitted deductions, including roaming costs, interconnection costs and value-added service provider costs. For internet service provider licensees, the allowable deduction is limited to bandwidth costs in determining net revenue. This framework provides a general regulatory contribution mechanism applicable to relevant licensed operators within Nigeria's communications sector.

Consistent with the Playbook's policy perspective, fiscal measures applicable to satellite operators should continue to be assessed against broader objectives of competitive neutrality, investment facilitation,

affordability and digital inclusion. As satellite services increasingly complement and compete with terrestrial connectivity solutions, a proportionate and predictable fiscal framework will be important to ensuring that regulatory charges do not create unnecessary barriers to deployment while supporting sustainable connectivity expansion and the development of Nigeria's digital infrastructure ecosystem.

The Playbook highlights the need for emergency communications frameworks to evolve alongside satellite and D2D connectivity. It recognises that satellite services can support emergency communications, public warning systems, disaster response and resilience where terrestrial networks are unavailable or disrupted.

Section 107(3) of the Act establishes the Commission's responsibility to promote public safety through the provision of a universal emergency assistance number and to facilitate the deployment of seamless, reliable and nationwide emergency communications infrastructure. In furtherance of this mandate, the Commission established the Emergency Communications Centres (ECC) Project to strengthen coordination between persons in distress and relevant emergency response agencies. Under the framework, telecommunications operators are required to route emergency calls made through the dedicated toll-free emergency number 112 to the appropriate ECC, where such calls are processed and referred to the relevant response agencies, including the Police, Fire Service, Federal Road Safety Corps and ambulance services.

The ECC Project represents Nigeria's broader policy objective of improving access to emergency assistance through reliable communications infrastructure and has resulted in the establishment

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and equipping of emergency centres across the country’s six geopolitical zones, including the Federal Capital Territory. This framework demonstrates the importance placed on ensuring that communications networks support public safety objectives and emergency response coordination.

The Draft Regulations further contemplate compliance with Nigeria’s emergency communications framework and cooperation with relevant authorities. Consistent with the Playbook, the increasing deployment of satellite connectivity presents an opportunity to enhance emergency communications, particularly in remote and hard-to-reach areas where terrestrial network services may be limited or unavailable. Satellite services, including emerging D2D models, could therefore complement existing emergency communications frameworks by extending coverage, improving resilience and supporting national disaster response and public safety objectives.

The Playbook emphasises that effective enforcement mechanisms are essential to ensure that obligations imposed on satellite operators produce meaningful outcomes. It recommends that satellite operators providing services comparable to terrestrial networks be subject to equivalent compliance requirements and enforcement measures. Nigeria’s framework provides enforcement mechanisms primarily through the Act and the Nigerian Communications (Enforcement Process, etc.) Regulations 2019 and NCC license conditions. Operators must comply with authorisation conditions, technical requirements and applicable regulatory obligations, with non-compliance subject to regulatory action. The Playbook further addresses enforcement challenges arising from the cross-border nature of LEO satellite systems. It identifies local accountability requirements, market access controls, terminal activation restrictions and inter-jurisdictional

regulatory cooperation as potential tools for managing compliance issues involving operators located outside national territory.

In summary, the comparison shows that Nigeria’s legal and regulatory framework provides a structured basis for commercial satellite operations through licensing, technical oversight, infrastructure regulation and regulatory supervision. The Playbook adds policy guidance by addressing the evolution of satellite services into integrated connectivity platforms and emphasising regulatory parity, technology neutrality, consumer protection, cross-border accountability and balanced innovation. These principles may guide the continued refinement of Nigeria’s regulatory approach as satellite-enabled connectivity services develop.

Conclusion

The continued evolution of satellite connectivity, particularly LEO satellite broadband and direct to device D2D services, presents significant opportunities for expanding digital access, improving network resilience and addressing connectivity gaps in Nigeria. For satellite operators and potential entrants, Nigeria’s existing regulatory framework provides a structured foundation for market participation through licensing, authorisation, infrastructure oversight, equipment regulation and compliance obligations. The Act, the Commercial Satellite Communications Guidelines, the proposed Draft Commercial Satellite Communications Regulations and related regulatory instruments demonstrate a regulatory approach that recognises satellite services as part of the broader communications ecosystem rather than as an isolated technology.

From an operator perspective, the requirement for regulatory authorisation and local legal presence

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provides both compliance obligations and regulatory certainty. The requirement under the Act and applicable licensing frameworks for entities providing communications services or establishing satellite facilities to obtain approval from the Commission creates a clear pathway for market entry. While these obligations require operators to establish appropriate regulatory relationships within Nigeria, they also provide a framework for accountability, consumer engagement, enforcement and participation in Nigeria's growing digital economy. For foreign satellite operators, understanding and planning for local regulatory engagement will be critical to sustainable operations in the Nigerian market.

Satellite operators should also anticipate increasing alignment between satellite and terrestrial regulatory obligations, particularly in areas such as consumer protection, cybersecurity, data governance, lawful interception, quality of service and emergency communications. As satellite services increasingly provide direct connectivity to consumers, regulators are likely to focus not only on infrastructure deployment but also on ensuring comparable consumer outcomes across connectivity platforms. Operators should therefore develop compliance models that address transparency of service terms, complaint handling, data protection obligations, cybersecurity resilience and cooperation with relevant authorities.

Infrastructure deployment represents both an opportunity and a regulatory consideration for satellite operators. Nigeria's framework provides mechanisms for the establishment of earth stations, satellite facilities and related infrastructure, while broader policies supporting infrastructure sharing and domestic interconnection provide opportunities to improve efficiency. Operators may benefit from establishing appropriate local points of presence and

connectivity arrangements that enable efficient exchange of traffic within Nigeria. Engagement with domestic internet exchange infrastructure and local network ecosystems may support reduced latency, improved resilience, lower transmission costs and stronger integration into Nigeria's digital infrastructure environment.

The fiscal and regulatory environment will remain an important factor influencing investment decisions and service affordability. Satellite operators should assess applicable licensing fees, regulatory charges, taxation obligations, spectrum related requirements and other sector contributions or levies as part of their market entry planning. A predictable and proportionate fiscal framework will be important to ensuring that regulatory obligations support fair competition while preserving incentives for investment, innovation and expansion of connectivity services, particularly in underserved and hard-to-reach areas.

To further create a conducive environment, the Commission may consider continued refinement of the satellite regulatory framework through a technology neutral and innovation focused approach. This may include providing clearer regulatory pathways for emerging satellite models such as D2D services, developing proportionate authorisation processes, ensuring consistency between satellite and terrestrial regulatory obligations, and promoting regulatory certainty for investors. The Commission may also consider enhanced coordination with other relevant government institutions on issues such as data governance, cybersecurity, national security and emergency communications to provide a coherent regulatory environment for satellite operations.

Ultimately, Nigeria's opportunity is to leverage satellite connectivity as a complement to terrestrial networks and as a strategic tool for achieving broader

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digital inclusion objectives. A regulatory approach that combines effective oversight with flexibility, transparency and collaboration will enable satellite operators to invest confidently while ensuring that consumers, businesses and public institutions derive maximum benefit from emerging satellite technologies. The continued application of the principles reflected in the GSMA Satellite Regulatory Playbook, adapted to Nigeria’s unique market and policy circumstances, can support the development of a sustainable, competitive and resilient satellite communications ecosystem.

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