



DEPARTMENT OF LICENSING AND AUTHORIZATION

LICENSE FRAMEWORK FOR THE ESTABLISHMENT OF MOBILE VIRTUAL NETWORK OPERATORS IN NIGERIA

FIRST DRAFT DOCUMENT

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LICENSE FRAMEWORK FOR THE ESTABLISHMENT OF MOBILE VIRTUAL NETWORK OPERATORS IN
NIGERIA

Introduction

- a) In 2017, the Nigerian Communications Commission (NCC) published a Request for Proposal for the “Development of a Licensing Framework for Mobile Virtual Network Operators (MVNOs) in Nigeria”. This framework document has been developed in pursuant of the RFP and the Nigerian Communications Act, 2003.
- b) The conditions and recommendations put forward in this document are representative of careful analysis and reporting of findings obtained from desktop research into other jurisdictions and the regulatory approach utilized in licensing MVNOs within their respective regions. Literature reviews of past and present surveys of the Nigerian market, along with current regulatory documents were conducted to ascertain the readiness of the Nigerian telecommunications market for Mobile Virtual network Operators
- c) Conclusions from both global and local research, along with adapting International Best Practices have been used in formulating this framework
- d) An internal workshop as well as an Industry stakeholder focused group discussion was conducted, and all comments have been taken into consideration in the development of this draft framework document
- e) The Commission reserves the right to amend this framework as it deems fit
- f) The guidelines stipulated within this framework document will be enforced by the Commission as its usual due process

1. Objectives of the License Framework

The core objectives of licensing Virtual Network Operators have been summarized below

- a) To give the service providers of virtual mobile communications service an opportunity to participate in the telecommunications provisioning market of Nigeria, with an emphasis on improving the telecommunication output of the country.
- b) To ensure that all core stakeholders are adequately catered for and protected within a Virtual Network Operator enabled environment.
- c) To allow for the Virtual Network Service to contribute to the availability and expansion of quality mobile coverage through redundant capacity utilization, active infrastructure sharing and national roaming, and other telecommunication elements that enable it.
- d) To present guidelines to which MVNO operations can flourish within the Nigerian Telecommunications space.

2. Scope of the Framework

The scope of this framework detailed below serves the purpose of enumerating expected operations of Mobile Virtual Network service providers as observed in other markets.

- a) Sales and Distribution – Providing adequate SIM card sales and distribution channels, registration of subscribers, sales and distribution of devices, etc.
- b) Tariff and Billing – Development of an efficient tariff structure, ensuring adequate and accurate billing systems, etc.
- c) Customer Relationship Management – Provision of necessary Customer Relationship Management systems for catering to customers and their needs, resolving issues and disputes with customers, etc.

- d) Devices, Applications Services and SIM Management – Provisioning of Application and Value-Added Services, ensuring proper SIM management operations, meeting QoS KPIs with regards to VAS and related services, etc.
- e) Facility Management – Ensuring that devices and facilities meet the technical standards set by the Commission.
- f) Core Network functions and Spectrum Access – Provisioning of network access to ensure quality delivery of mobile telecommunications services to the end users, ensure adequate wholesale provision of spectrum resources, etc.

3. Regulatory Intervention

3.1. Negotiations:

- a) The Commission proposes no Mandatory regulation of MNO – MVNO negotiations and as such suggest a purely commercial agreement between the two parties. This proposal is put forward in good faith that negotiations and resolutions shall be fair and expeditious.
- b) In the likelihood that negotiations or resolutions appear unfair and in violation of the good faith by any of the parties involved, the Commission maintains the position of intervening as deemed fit, in pursuant of reports submitted by either party detailing reasons of suspected unfair negotiation or resolution practice.
- c) Unfair negotiation practices are outlined:
 - i. Obstructing or delaying negotiations or resolutions
 - ii. A party being coerced or misled to make an agreement against its intent
 - iii. Non-provision of information about service provider’s capacities that are necessary for wholesale agreements
 - iv. Attempting to preclude furnishing of information by a service provider to the Commission through Non-Disclosure Agreements
 - v. Offering discriminatory terms
 - vi. Negotiating terms that are static and prevent amendment in the likelihood of a change in the Commission’s statutes
 - vii. Any other negotiation or resolution practises that a party deems unfair and detrimental to the efficient and prompt conclusion of said agreements.

3.2. Relationship:

- a) The Commission also proposes no mandated regulation of the Host Operator-MVNO relationship, to foster an “organically” competitive market. The terms within the negotiation agreement will serve as the core benchmark for which the Commission shall hold both parties responsible and accountable
- b) Anti-Competitive behaviours include but not limited to:
 - i. Deviating from the set terms and conditions of the agreement
 - ii. Misrepresenting information of any kind or making unilateral decisions with intent to tilt the scales of balance
 - iii. Collusion attempts of any kind with other networks
 - iv. Any other behaviours unfavourable to a prosperous partnership

4. MVNO Concept

4.1. Definition

(A Mobile Virtual Network Operator (MVNO) is a telecommunications product and service operator that rides on top of the capacity of a fully Licenced Mobile Telecommunications Service provider or Mobile Network Operator (MNO). The MVNO reaches a “Wholesale Agreement” or “Revenue Sharing Agreement” with the Telecommunications Company (Telco) through negotiations, and delivers its services after bulk purchasing resources from the Telco. The defining difference between an MVNO and an MNO is the simple fact that an MVNO has no ownership whatsoever of spectrum elements, irrespective of its operational model.

4.2. MVNO Categorization by Operational Models to operate in Nigeria

The categories mentioned in this section are representative of the modes of operations in which an MVNO may choose to provide its services with respect to its strategic position in the generic mobile service value chain as depicted in Annexure A.

The Service Based MVNO leverages purely on the services it is offering to customers. This sort of MVNO has no real control of facilities and as such relies on its customer base or a niche market to make a solid case for its agreement with the Host operator to provide capacity for its operations. The MVNO must be lean, mean and highly adaptive to an ever-changing market demand for telecommunications services to stay ahead of the game and not be bullied by Incumbents and more robust MVNOs.

The Basic Facilities MVNO leverages on its technical abilities and desire to own the customer segment to a higher degree. Operators have the capacity and the resources to operate their own network elements that allows them to provide their unique offerings to their customers. These kind of MVNOs can also own an internet gateway which may allow themselves to differentiate specifically, their offerings with respect to the Host operator. An MVNO looking to take this route should endeavour to focus on highly differentiated products and services to avoid any sort of cannibalization of Host Operators’ products and services.

The Full Facilities based MVNO is capable of launching a full-scale Core Network to offer its services to customers. This MVNO is analogous to a Host Operator except for the lack of control of Radio Access Network elements. This is the key factor that differentiates an MVNO from an MNO as stated in the definition above. The full facilities based MVNO will flourish within the regions of Underserved and Unserved areas. These MVNOs are perceived as the biggest competitors by the MNOs and other licensed service providers. to avoid general anti-competitive behaviours, entities looking to pursue this MVNO model are advised to focus on the underserved and unserved regions of the market.

The MVNE/MVNA Model helps to properly structure the market as the MVNO space grows. This allows a single entity to negotiate directly with Host Operators, subsequently aggregates potential MVNOs under a single platform and provide a quasi “Plug and Play” functionality to the MVNOs in a seamless manner.

Serviced based MVNO	
Category A	<p>a) Sales, Distribution and Branding MVNO fully responsible</p>
	<p>b) Device and Sim management The MVNO can provide device offerings to customers. The MVNO does not own the sim card and only rebrands the sim cards of the host MNO.</p>
	<p>c) Customer care and Billing The MVNO may choose to engage in customer care and customer relationship processes. Tariffs may also be structured according to the agreement with the <u>Host Operator</u>. These are dependent on the decision to be a simple reseller or a more extensive service provider.</p>
	<p>d) Facilities and Infrastructure Sharing The idea behind this category is to be as lean as possible, allowing it to be as agile as possible, therefore an MVNO within this category has no permit to control any network facility. Although it may control its own business operations facilities.</p>
	<p>e) Revenue Share Model Agrees with host MNO on Gross margin on retail offerings as well as negotiating potential commission on acquired customers (Re-branders and Resellers only) Meanwhile, higher service providers can offer different tariffs to that of their Host Operators, therefore choosing to provide their own unique retail offerings</p>
	<p>f) Potential differentiated Market Segments</p> <ul style="list-style-type: none"> i. IoT/M2M/OTT ii. Smart Housing, Cities iii. Retail and Financial iv. Expat and Tourist networks
Basic Facilities based MVNO	
Category B	<p>a) Sales, Distribution and Branding MVNO fully responsible</p>
	<p>b) Device and Sim management The MVNO can provide device offerings to customers. The MVNO may control MSISDN elements allowing them to purchase their own numbering resources from the Commission. In some cases, MVNOs in this category may decide to own their sim cards and issue their own IMSI.</p>

	<p>c) Customer care and Billing The MVNO should engage in customer care and customer relationship processes or may choose to outsource. Tariff structure within this category are highly dependent on the business operations proposed by the MVNO.</p> <p>d) Facilities and Infrastructure Sharing Dependent on the depth of services, this sort of MVNO is allowed to control specific elements of the network facilities while depending on the Host Operator for the remaining. Infrastructure sharing is possible with applicants in this Category</p> <p>e) Revenue Model and Interconnection MVNOs within this category have a very larger room to play with regards to their tariff and pricing structures. Cannot negotiate interconnection agreements</p> <p>f) Potential Market Segments</p> <ul style="list-style-type: none"> i. Industrial IoT ii. B2B / Enterprise networks iii. Innovative data Networks iv. Triple and Quad Play Services
<p>Category C</p>	<p style="text-align: center;">Full Facilities based MVNO</p> <p>a) Sales, Distribution and Branding MVNO fully responsible</p> <p>b) Device and Sim management The MVNO can provide device offerings to customers. MSISDN and IMSI are fully controlled by operators of this category and have permission to both numbering resources purchase as well as issuing own sim.</p> <p>c) Customer care and Tariffs The MVNO may choose to engage in customer care and customer relationship processes. Tariffs may also be structured according to the agreement with the <u>Host Operator</u></p> <p>d) Facilities and Infrastructure sharing This MVNO owns and maintains its own Core Network elements, only relying on RAN access provided by the Host Network Operator. This means that this MVNO can engage in Infrastructure sharing partnerships with other Network operators as required.</p> <p>e) Revenue Model and Interconnection Full control of its revenue generation model as all elements except RAN are controlled by the MVNO. Can have interconnection agreements with other Licensed operators</p>

- f) Potential Differentiated Market Segments
 - i. Community networks in Underserved Areas
 - ii. International voice and data networks
 - iii. Optimized private network solutions
 - iv. Smart Government networks
 - v. Smart Villages and Townships

Virtual Network Enabler - MVNE

A virtual Network Enabler serves as an intermediary between Host Operators and potential MVNOs. MVNEs purchase large chunk of network capacity at a competitive price, develop and implement a robust program which exposes features that allow entities within Categories A to plug into and deliver their services in a seamless manner.

The MVNE is relatively flexible in ownership of Infrastructure and facilities. An MVNE can strategically position itself to purchase some bulk network capacity from the Host Operators Core while having control of the rest. This also allows the MVNE operate in a lean way and be innovative in the development of their enabling platforms for Cat. A entities.

Multiple MVNOs can plug into the Virtual Network Enabler's platform through intuitive plug and play interfaces

VNEs are not permitted to serve customers directly unless within the unserved regions of the market

Host Network Operators can apply for a VNO Licence only through the MVNE category, and under a sub-brand which is substantially independent to its parent brand.

The Sub-brand must be distinguishable in its dealings from its parent brand especially from a business stand point including:

- Financial Structure
- Operational Strategies
- Value Propositions
- Target market
- Etc

Category
D

5. The Market Players

5.1. Host Network Operator

<p>Depending on the operational model, an MVNO can choose to have all its dealing with any of the licensees within this section of the market players dependent on available capacity and negotiation terms.</p> <ul style="list-style-type: none"> - Spectrum license - Universal Access Services license - Digital Mobile License - Internet Services License - Fixed Wireless Access 	<p>The Host Network Operator is responsible for the following:</p> <ul style="list-style-type: none"> - Negotiating suitable terms with MVNOs - Providing Network capacity as negotiated - Ensuring SLAs between both parties and how it determines responsibilities such as QoS, maintenance, control, and so on - Any other necessary function which allow MVNO products and services in the market
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5.2. National Carrier and International Gateway Providers

<p>Could provide MVNOs the opportunity to deliver services beyond what the typical Host Network Operator might be able to offer. MVNOs that enter into agreements with a Licensee from this section must be looking to deliver a focused service that involves Nationwide provisioning and/or international telecoms products & services.</p> <ul style="list-style-type: none"> - National Carrier Licence - National Long Distance - International Gateway Licence - International Data Access Gateway Licence - GMPCS and VSAT licences 	<p>National Carriers and International Gateway Providers can perform the following functions:</p> <ul style="list-style-type: none"> - Negotiating suitable terms with potential MVNOs looking to provide wider scale services than offered by HNOs - Provide Nationwide, long distance and International network capacity as required by MVNO. - Any other necessary functions catered to MVNOs with International and National carrier products and services.
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5.3. Infrastructure Companies

<p>Full Facilities based MVNOs require backhaul connectivity to and from its MSC and the Host Network Operators' Radio Access Sites. This can be actualised through the contractual deployment and maintenance of infrastructure with Infracos that are licensed for that purpose.</p> <ul style="list-style-type: none"> - Sales and Installation of T.E licence - Infrastructure Sharing and Collocation services licence. 	<p>Infracos have simple function with respect to MVNOs which centres around the establishment of necessary infrastructural elements needed for its operations.</p>
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5.4. VAS Aggregator

<p>The VAS aggregator framework published in 2018 stipulates that VAS provisioning by an operator must be deployed through a VAS aggregator.</p>	<p>VAS aggregators can play a major role in aggregating several MVNO VAS applications and content.</p>
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6. General Licensing Conditions

6.1. Compliance with the Act and Regulatory Statutes

- a) The Applicant shall endeavour to comply with the provisions of the National Communications Act, 2003
- b) The Applicant shall comply with the provisions of the Licensing Regulation, 2019

6.2. Licencing Obligations

6.2.1. General Obligations

These general eligibility criteria serve as general guidelines for potential licensees to facilitate a smooth licensing application process. It is simply an echo of the regulations stipulate in the Licensing Regulation document, 2019.

- a) Applicant must be a corporate body registered under the laws in force in Nigeria with proof of same submitted to the Commission during application
- b) Applicants are to file with the Commission, the full contract agreement with at least a Host Network Operator or a National Carrier.
- c) Applicant is obliged to show proof of financial capabilities to cover its CAPEX and OPEX for the implementation of its strategic operations
- d) Applicants should submit a Business Continuity Plan to the Commission in a case of unforeseen business failure, to ensure customer is protected
- e) Applicants must meet the technical requirements of the Commission for operating a Licence such as this.
- f) Where applicable, Applicants should have secured reservation or assignment of resources required to operate specifically Numbering resources
- g) Applicants should be aware of the necessity to obtain other licences in provisioning its full services and outline them when submitting application
- h) Applicants shall provide necessary information to the Commission as specified under Schedule 1 of the Licensing Regulation document, 2019

6.2.2. Categorical Obligations

Service Based MVNO	
Category A	<ul style="list-style-type: none"> - An applicant within this category has no control of facilities and therefore is focussed on its differentiated services to the customers. The applicant should be able to ensure proper interfacing with its Host Network Operator. - Meticulous research needs to be done to operate its virtual network which will mostly involve software or cloud-based services like Billing systems, Customer care platforms, Content Management Systems, etc. - It is essential that the Applicant has the technical capacity to ensure high grade of service by keeping a solid relationship with its Host Operator as well as providing a robust customer care platform which should be differentiated from that of the Host
Basic Facilities Based MVNO	
Category B	<ul style="list-style-type: none"> - Control of basic Network facilities which obliges an Applicant to possess technical competency in operating and maintaining one or a combination of several network elements including:

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	<ul style="list-style-type: none">i. Intelligent Networkii. VAS application platformsiii. HLR/HSSiv. IP gateway (GGSN) ...
	Full Facilities Based MVNO
Category C	<ul style="list-style-type: none">- Full Core Network deployment, operation and maintenance including:<ul style="list-style-type: none">i. IP Multimedia Subsystemii. MSC, GMSC, PGW,iii. SGSN, VLR ...- Relies solely on the Host Network Operators spectrum to provide its services- In pursuant of the Commissions attempt to improve National coverage, Applicants of this category are urged to design their business case with Underserved and Unserved areas in focus. This will also prevent the possibility of cannibalization of HNO's products and services especially in congested regions- Interconnection Agreements should be according to the Interconnection Regulation set forward by the Commission.
	Virtual Network Enabler - MVNE
Category D	<ul style="list-style-type: none">- The MVNE is obliged to ensure a robust system to allow multiple MVNOs plug in and begin their service offerings intuitively- The processes of negotiation should be streamlined to ensure that potential MVNOs time to market is as minimal as possible compared to negotiating with a Licensed HNO- All Facilities based MVNOs are precluded from engaging with an MVNE- The choice of facilities controlled and maintained by an MVNE should be determined by the capacities of both HNO and itself.

6.3. Licensing Process

6.3.1. General

- a) The Licensing process of Virtual Network Operators will conform with the established licensing processes and requirements set by the Nigerian Communications Commission for obtaining an Individual Licenses
- b) Administrative award will be used for all categories

6.3.2. Changing Operating Categories within the Framework

- a) An applicant that has obtained its Licence, may decide to change its Operating Category within this framework during a valid tenure. This Licensee is permitted to reapply for a fresh Licence, showcasing the new Agreements with Host Network Operator along with all other documents to proof its capacity to deliver its new business operations
- b) The previous Licence remains valid for the tenure stated within this framework

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6.4. License Fee

The table below summarises the potential license fee ranges for potential categories.

<i>Categories</i>	<i>Lower</i>	<i>Upper</i>
<i>Category A</i>	₦ 500 000	₦ 1 000 000
<i>Category B</i>	₦ 1 500 000	₦ 2 000 000
<i>Category C</i>	₦ 2 500 000	₦ 5 000 000
<i>Category D</i>	₦ 3 000 000	₦ 8 000 000

6.5. License Tenure

The License will be valid for a period of Ten (10) years with an option to renew the license for the same term

6.6. Renewal of License

- a) Renewal of License shall be on request by the Licensee not later than 12 months before the current license tenure ends
- b) The Licensee should ensure that License renewal obligations are met no later than six (6) months before the expiration of current License tenure, including but not limited to;
 - i. License renewal fees and other financial obligations
 - ii. Valid HNO – MVNO agreement filed
 - iii. Other criteria to enable renewal of License
- c) The Commission reserves the right to review the performance of the Licensee during the current license tenure to ascertain worthiness of Licensee to continue delivering its services

6.7. Suspension or Revocation of License

- a) The License is subject to revocation or suspension under the same conditions set within Condition 21 of the Unified Access Service framework.
- b) The License can also be revoked or suspended if the Licensee violates the MVNO agreement between itself and the MNO, or violates any of the conditions stated within this framework

6.8. Roll-Out Obligations

- a) The Applicant should ensure that its services are rolled out within twelve (12) months of obtaining its license.
- b) The Applicant must ensure that it sticks to the terms of agreement as stated in its business proposal and service delivery within the MVNO agreement with MNO.

7. Other Licensing Obligations

This Section is concerned with other licensing conditions. It caters to specifics not covered in chapter 4 above.

7.1. Commercial Agreement with Host MNO

- a) An Applicant must have a completed Commercial Wholesale Agreement with a Host Network Operator. This agreement must be filed with the Commission prior to application for an MVNO license
- b) An Applicant should ensure service operations continuity when entering into an agreement with a Host Network Operator, in the event that the HNO's Licence to operate expires during the Applicants MVNO Licence tenure, and said HNO may not be willing to renew its licence at the end
- c) An applicant should therefore pay attention to HNO's licence tenure and align accordingly its business proposal with that of the HNO
- d) The commercial agreement should detail Technical parameters, Operations, Financial obligations, Legal understandings, and SLAs.
- e) Annexure B details a proposed MVNO agreement outline.

7.2. Anti – Competitive Behaviour

- a) An Applicant should comply with the Competitive Practices regulation issued by the Commission in delivering its services.
- b) An Applicant should ensure that it reports all suspected anti-competitive behaviours from Network Operators (Host or Visitor) and other MVNOs as soon as observed.

7.3. Numbering Plan

- a) An Applicant must adhere to the Numbering Plan regulations effected by the Nigerian Communications Commission at all times. There are two (2) potential pathways an Applicant may follow.
 - i. An Applicant may choose to rely on the numbering plan of its host MNO. This choice will most likely be that of Categories A and B. This will mean that all Numbering obligations will fall on the host MNO.
 - ii. An Applicant operating with a Full MVNO Model will require their unique Mobile Network Code and as such must comply to all Numbering regulations issued by the Commission

7.4. Infrastructure Sharing and Collocation Services

- a) The Applicant is mandated to comply with all infrastructure sharing and collocation guidelines and regulations set forth by the Nigerian Communications Commission.
- b) Where applicable, the Applicant is permitted to engage in negotiations for active Infrastructure sharing partnership with an operator, in conformity with the forthcoming active infrastructure sharing regulation.

7.5. Interconnection and National Roaming Agreements

- a) An Applicant with access to Interconnect capacities have the right to interconnect its network with the carrier of any other Telecommunications Licensee with Interconnect capabilities also.

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- b) An Applicant capable of Negotiating Interconnection arrangement shall comply with those stated in Condition 16 within the Unified Access Service, as well as the Interconnection regulation issued by the Commission
- c) The Applicant is subject to conforming to National Roaming agreements as stated in Condition 35 of the Unified Access Service framework.
- d) The applicant should endeavour to adhere to the new National Roaming Regulations being drafted by the Commission.

7.6. Billing Systems and Metering Equipment

- a) There must be utmost caution taken by the Applicant to ensure that all billing systems and metering equipment used in connection with the service being delivered must be accurate and reliable.
- b) The Applicant must ensure that all billing systems and Metering Equipment conform to the technical standards through periodic tests. Test results must be submitted to the Commission within a time window of completing said tests as the Commission may determine.

7.7. Network Quality of Service Delivery

Category A	Service Based MVNO Dependent on the degree of ownership of customer, the HNO and the applicant may share responsibility of QoS within the contract agreement
Category B	Basic Facilities Based MVNO a) The MVNO owns the customer and relies only on network switching elements of the HNO and as such most responsibility goes to the MVNO. This should also be clearly stipulated in the contract agreement
Category C	Full Facilities Based MVNO a) Fully responsible for QoS obligations that pertain to Core Network provisioning but not Radio Access, in pursuant of the QoS guidelines set by the Commission
Category D	Virtual Network Enabler - MVNE a) Being a more layered model, the MVNE shall agree with its Host Network Operator and all MVNOs plugged into its system, who takes the QoS responsibility

7.8. Service Level Agreement

- a) All services to be provided by MVNO and MNO should be clearly defined in the MVNO wholesale agreement
- b) Quality of Service parameters should be detailed and commitments to meeting these targets must be guaranteed as contained in the QoS regulations and guidelines.
- c) The Service Level Agreement must include a definition of response times with regards to faults and failures. Concerned parties must be informed about said faults and failures, and related obligations pertaining to it should be specified.
- d) Annexure B outlines contents in a proposed SLA within an MVNO agreement.

7.9. Compliance

- a) The Applicant shall ensure that it complies with Consumer Code of practice issued by the Commission
- b) The Applicant shall endeavour to comply with all regulatory requirements issued by the Commission with respect to operating telecommunications services within the Nigerian market
- c) The Applicant shall be bound by all information provided, and its commitments made when acquiring its licence, agreeing with a Host NO and other agreements required to obtain legibility to deliver telecommunications services within this regulatory regime
- d) The Applicant must comply to Nation Security Protocols and Consumer information protection as required by the statutes of the Commission, where applicable.
- e) The Applicant shall ensure that it meets the KPIs that pertain to its operating model as detailed within the QoS regulations and guidelines
- f) The Applicant shall make sure it complies with other regulatory authorities within the country such as the CBN, CAC, etc.
- g) Applicants are subject to Laws of the Federal Republic of Nigeria

7.10. Unserved and Underserved Areas

“Unserved” and “Underserved” areas refer to the regions in the country in which network does not exist or has very low coverage respectively. In line with the Commission’s objectives to provide universal access to these areas according to the Nigerian Communications Act, 2003:

- a) Priority will be given to Applicants that target markets that fall within the unserved and underserved regions
- b) MVNEs are restricted to provide services to customers only within the unserved areas
- c) Underserved regions are target markets for Full MVNOs to offer the full range of their services

7.11. Customer Obligations

- a) The Customer should have easy access to all necessary information that allow them to connect to the services being offered by an Applicant. This include but not limited to:
 - I. Customer Service Information
 - II. Access Code(s) or Number (s) used for obtaining specific services
 - III. Instructions on accessing these services
 - IV. Tariff information
 - V. Condition of services
 - VI. Any other information that the Applicants deems fit to supply the customer
- b) The Applicant is obligated to ensure that it meets the necessary Customer Service KPIs as required by the Commissions QoS guidelines and regulations, where applicable
- c) The Applicant is responsible for customer data and information. It is imperative that the applicant must adhere to all data protection and security practices and cannot rely on the MNO to provide such unless this is outrightly stated within the Contract agreement.

7.12. Number Portability

- a) The Applicant for an MVNO license where applicable, falls under the obligations of mobile number portability regulations and guidelines set by the Commission.
- b) It must be explicitly stated in the agreement, the process in which number portability regulation is enforced between the two Parties for ease of transition of customers

7.13. Other Financial Obligations

- a) The Applicant must ensure that all other financial obligations bar the License fee, must be paid including Annual Operating Levy (AOL) in compliance to the Commissions AOL regulation

7.14. Reporting, Record Keeping and Information Furnishing

- a) Applicants are mandated to submit reports to the Commission regularly. These reports include but are not limited to:
 - i. Financial Reports submitted Quarterly and Annually
 - ii. Subscriber based reports to be submitted Monthly. This includes subscriber numbers and Customer Charter reports.
 - iii. Core Network QoS reports as requested by the Commission's guidelines, where applicable
- b) Applicants are also mandated to keep records of any compliance test or standards check for the purpose of furnishing it to the Commission when requested.

7.15. Type Approval and Technical Standards

- a) An Applicant may require owning and operate certain infrastructural elements which must adhere to the Type Approval regulations and guidelines set by the Nigerian Communications Commission.
- b) A License holder is obliged to adhere to all technical standards and compliance when operating any technical equipment (Core Network, Radio Access Network, Billing and Metering, Customer Relationship)

7.16. Contracts and Dispute Resolution

- a) Contracts must adhere to the laws of the Federal Republic of Nigeria
- b) Where there is a dispute, the necessary windows of Mediation and Arbitration, created by the Nigerian Communications Commission should first be explored before using other avenues.
- c) Parties to contract will determine the place and timeframe for dispute resolution in an expedited manner. The Commission reserves the right to step in if delay in this determination is observed and reported

8. Limitations of the License

This section determines the limits to which the Licensee is limited to the provisioning of its services

- 8.1. Applicants will be limited to only the services proposed within the scope of the Licence document
- 8.2. Applicants operating under this licence is unequivocally inhibited from controlling and operating Radio Access Network elements

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- 8.3. Applicants are not exempt from applying for any other licence required for providing services beyond the scope of this Licence.

9. Definitions

Administrative Award	"This is a process in which a license can be awarded to an applicant at the disposition of the Commission."
Annual Operating Levy	"The levy that is payable by eligible Licensees pursuant to these Regulations and the Licences"
Applicant	"This is an entity applying for the license to provide MVNO services in the country"
Application Services	"These are services provided to customers access to a particular software application over a network."
Auction Process	"This is the process in which the Commission will use auction method to license MVNOs"
Backbone Infrastructure	"The larger transmission line that carries data gathered from smaller lines that interconnect with it."
Beauty Contest	"This involves selection of the recipient of an MVNO License from a list of contestants based on the best criteria set by the Commission"
Branded Reseller MVNO	"This MVNO model is only concerned with sales and distribution of branded SIM and relies heavily on the host MNO for all other network service operations."
Capacity Resale	"The act of selling telecommunications capacity as wholesale to another service provider"
Collocation	"Means the placement of transmission equipment owned by the interconnection demanding operator in the premises of the interconnection providing operator for interconnection to that operator's network"
Commission	"The Nigerian Communications Commission"
Core Network	"The physical elements and operations that have the function of interconnecting primary nodes that access the radio network."
Enhanced Service Provider MVNO	"Performs the same functions as the simple service provider MVNO but utilize intelligent network elements for VAS provisioning and may also own its own Home Location Register for MSISDN control"
Fixed Telecommunication Services	"In telecommunications, a fixed service (or fixed radiocommunication service) is a radiocommunication service between specified fixed points"
Full MVNO	"This is the MVNO that has control of all network elements except the radio access network"
Host Network Operator / Host MNO / Host NO / HNO	"From the point of view of an MVNO, this is a network operator that agrees and provides telecommunications capacities at wholesale to it."
Infrastructure Sharing	"Means the joint use of network facilities by two or more operators subject to agreement specifying relevant technical and commercial conditions. The term "infrastructure sharing" is more general than the term "collocation" and unless explicitly stated otherwise, infrastructure sharing refers for the purposes of these Guidelines to the sharing of facilities that are not feasible for collocation"
Intelligent Network	"A standard network architecture that allows operators to provide VAS in addition to other standard telecommunications services."
Interconnect	"This is the physical linking of a carrier's network with equipment or facilities not belonging to that network"
MNO	"See Network Operator"
Mobile Virtual Network Operator	"See Virtual Network Operator"

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Mobile Network Code	“A sequence of Numbers used to identify a given network. In this case it is the 4-digit numbers as described in the numbering plan of the Nigerian Communications Commission.”
Mobile Network Operator	“See Network Operator”
Mobile Number Portability	“Mobile number portability (MNP) is a service that allows a mobile phone customer to change telecom carrier and keep the same phone number”
Mobile Virtual Network Enabler / MVNE / VNE	“This entity has the ability to negotiate better wholesale agreements with their host MNOs and provide a platform in which it can resell its capacities to other MVNOs thus streamlining the virtual network provisioning activities. The MVNE can also engage in spectrum leasing agreements if required.”
MVNO	“See Virtual Network Operator”
Numbering Resource	“See Numbering Plan”
Numbering Plan	“A numbering plan is a type of numbering scheme used in telecommunications to allocate telephone/cellular numbers to subscribers and to route telephone/cellular calls in a network”
Radio Access Network	“This involves all elements used to access the wireless spectrum to deliver mobile network service”
Service Level Agreement	“A commitment between a service provider and a client which in this case, the potential virtual network service provider.”
Basic Facilities Based MVNO	“An MVNO capable ”
Spectrum Access	“See Radio Access Networks”
Spectrum Elements	“This includes the infrastructure and services that are involved in access spectrum”
Spectrum Lease Agreement	“An agreement in which a licensed spectrum owner can lease its redundant spectrum resources to another service provider”
Spectrum Trading	“An action where license operators are allowed to trade their exclusively assigned spectrum usage rights to unlicensed parties, with the objective of enhancing the efficient use of spectrum”
Network Operator	“This is a licensed spectrum holder that is permitted to provide mobile telecommunications services in Nigeria.”
Virtual Network Operator	“This is a licensed entity permitted to provide virtual network services which include all network provisioning except owning spectrum direct from the commission.”
Visitor	“From the point of view of an MVNO, this is a network operator that is not hosting it. “
Wholesale Agreement	“This is the contract between an MVNO and an MNO that confirms the agreement of the latter to sell its unused or redundant capacity to the former at wholesale rate, for which the former may offer telecommunications services to end users.”
Value Added Services	“These are services beyond the standard voice calls, fax and text services”

Annexure

A. Mobile Service Value Chain and MVNO Models

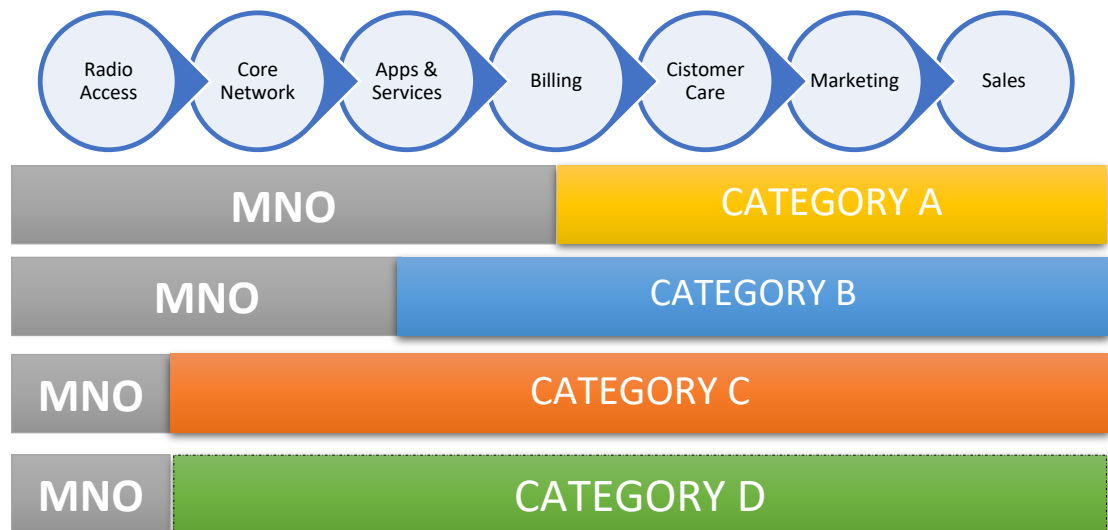


Figure 1: MVNO Operational Models depicting level of Facilities & Service control

Note that this does not depict the range of services offered by an MVNO but clearly attempts to show the level of control an Applicant may have in delivering its full range of services. A Category A MVNO for example has no control of the Apps and Services platform within the value chain but can still deliver Value Added applications to its customer through its own products and service offering definition and implementation.

B. Suggested Outline of MVNO Agreement

This outline serves only as a guideline to the contents of an MVNO agreement. Although not presented as a standard for MVNO agreement, the Commission expects elements from this outline to be present in an actual MVNO agreement.

General Legal Framework

- a) Usually begin with an introduction, definitions and interpretations
- b) Confidentialities and Non-Disclosures agreements
- c) Date of Commencement and duration should be clearly stated
- d) Legal Rights, Protection, Intellectual Property, liabilities, suspension or termination terms, Dispute and Arbitrations, Governing Law and jurisdiction, etc, should be defined and agreed on
- e) Provision for Renewal of terms if desired
- f) Safety agreements for staff and systems

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<p>Technical Parameters</p>	<ul style="list-style-type: none"> a) Provision for User equipment and terminal equipment where applicable, with plans for compliance and type approval testing. b) Numbering arrangements between host and MVNO if applicable. If not, numbering resources should be requested from Commission along with License application c) Interface standards according to international best practices should be detailed d) Number portability business rules developed for MVNO e) Network QoS parameters should be defined extensively
<p>eOperational Processes</p>	<ul style="list-style-type: none"> a) Infrastructure Planning and traffic forecasting should be outlined for both parties b) Collocation and Infrastructure sharing arrangements should be outlined c) Description of ordering and implementation processes with sufficient time for parties to make necessary adjustments for continuity of service to subscribers d) Billing processes like CDR generation, payment processes and reconciliation must be developed and outlined e) Maintenance processes involving Network operation, Traffic management, Routing management, SIM Management, Operational testing, safety standards, etc, should be outlined
<p>Financial Structure</p>	<ul style="list-style-type: none"> a) Detail of billing and payment times should be indicated b) Detail the margins between wholesale and retail price of services being offered. c) Effective price structure should be developed to account for services not offered by host MNO All rates should be agreed upon and justifications provided with the aim of fostering competition in the market
<p>Service Level Agreements</p>	<ul style="list-style-type: none"> a) All proposed services by both parties must be defined and described b) Scope of services and configuration processes must be clearly stated c) Mode of Service provisioning, technical properties of services and operational conditions must be outlined. d) Quality and Grades of services targets must be enumerated with penalties for failure to meet these targets clearly stated. e) Management of Host-MNO – MVNO relationship must be defined through provision of Joint Committees, Network information availability, prior agreements on network changes, upgrades, repairs and maintenance, database management, and a first level dispute resolution process between the parties.

Disclaimer: This is a draft document and will be updated after the consultative forum, in which all received comments shall be collated and analysed