



GUIDELINES ON CO-LOCATION AND INFRASTRUCTURE SHARING

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THE NIGERIAN COMMUNICATIONS COMMISSION

NIGERIAN COMMUNICATIONS ACT 2003

GUIDELINES ON CO-LOCATION AND INFRASTRUCTURE SHARING

Part I: Introduction

1. Background

- (1) The Commission has responsibility under the Act to:
 - (a) Promote fair competition in the communications industry, and encourage and promote infrastructure sharing among its licensees.
 - (b) Develop guidelines for Co-location and Infrastructure Sharing (“C/IS”).
- (2) These Guidelines proceed from a premise that all Access Providers and Access Seekers have the liberty to negotiate C/IS arrangements in accordance with mutually agreed terms.
- (3) These Guidelines are designed and developed to encourage C/IS between Access Providers and Access Seekers within a predetermined framework to remove uncertainty and create an environment for better co-operation.
- (4) These Guidelines explain the Commission’s role in achieving the most efficient use of facilities amenable to sharing.
- (5) Additionally, Part V of these Guidelines sets out the processes for implementing Active Infrastructure Sharing amongst Network Service Providers licensed by the Commission.

2. Status of the Guidelines

These Guidelines are to be read subject to the Act, the Telecommunications Networks Interconnection Regulations, Competition Practices Regulations, Quality of Service Regulations, other laws, rules and subsidiary legislations that may be developed by the Commission from time to time and relevant Licence Conditions.

3. Objectives of the Guidelines

- (1) The Primary object of these Guidelines is to establish a framework within which Access Providers and Access Seekers can negotiate C/IS arrangements, and for that purpose, specifically to –

- (a) Ensure that the incidence of unnecessary duplication of infrastructure is minimised or completely avoided;
- (b) Protect the environment by reducing the proliferation of infrastructure and facilities installations;
- (c) Promote fair competition through equal access being granted to the installations and facilities of operators on mutually agreed terms;
- (d) Ensure that the economic advantages derivable from the sharing of facilities are harnessed for the overall benefit of all telecommunications stakeholders;
- (e) Minimise capital expenditure on supporting infrastructures and to free more funds for investment in core network equipment.
- (f) Encourage Access Providers and Access Seekers to pursue a cost-oriented policy with the added effect of a reduction in the tariffs chargeable to consumers.

Part II: Infrastructure Sharing

4. Types of Infrastructure Amenable to Sharing

- (1) Infrastructure amenable to sharing are those that can be shared without an attendant risk of lessening of competition.
- (2) The Commission shall encourage and promote the sharing of the following infrastructures:

(A) Passive Infrastructure

- (i) Rights of Way,
- (ii) Masts,
- (iii) Poles,
- (iv) Antenna mast and tower structures,
- (v) Ducts,
- (vi) Trenches,
- (vii) Space in buildings,
- (viii) Electric power (public or private source), and

(B) Active Infrastructure

- (i) Complete network structures,
- (ii) Switching centers,
- (iii) Frequencies,

- (iv) Radio Network controllers,
 - (v) Base stations.
- (2) Where the sharing of an infrastructure such as Rights of Way and Electric power is precedent upon securing the necessary approval of a granting authority, such approval should be obtained before the sharing arrangement can be finalised.
- (3) Part V of these Guidelines shall apply in the implementation of sharing of the active infrastructure listed under Paragraph 4(2)(B) above.

5. Types of Infrastructure Not Amenable to Sharing

- (1) National Roaming considerations shall not form part of any infrastructure sharing arrangements made pursuant to these Guidelines, but shall be negotiated under the relevant regulatory framework specific to National Roaming.
- (2) In accordance with Paragraph 7(4) – (6) of these Guidelines, the Commission reserves the right to review all infrastructure sharing agreements and arrangements to ensure consistency with the relevant Licence(s), and reduce the risk of a lessening of competition.
- (3) Where the Commission;
- (a) Determines that an infrastructure sharing arrangement is inconsistent with the relevant Licence(s), and/or
 - (b) Identifies a risk of lessening of competition as a consequence of such infrastructure sharing,

It may require such an arrangement to be discontinued, or that the agreement should be revised.

6. Procedure for Negotiating C/IS

- (1) Any Access Provider who owns or has control of a facility amenable to sharing may enter into negotiations with an Access Seeker who submits a request to share the use of that facility.
- (2) All negotiations for infrastructure sharing must be done with the utmost good faith. The owner of a facility must not:
- (a) Obstruct or delay negotiations or resolution of disputes;
 - (b) Refuse to provide information relevant to an agreement including information necessary to identify the facility needed and cost data;

- (c) Refuse to designate a representative to make binding commitments.
- (3) A request for infrastructure sharing should be in writing. A party to whom such a request is made should within 15 days either accede to the request to grant access for sharing, or where access is denied, advance reasons in writing for the denial.
- (4) Except in emergency situations, the replacement of a shared facility, or its modification, may only be undertaken upon due service of a 60 days' notice on the other party.
- (5) A party on whom notice is served may file a petition against the removal or modification of a facility within 15 days of receiving such notice, and the notifying party may file a reply thereto within 7 days.

7. Terms and Conditions for Infrastructure Sharing

- (1) An Access Provider shall provide capacity to other operators on a “first-come, first served” basis, determined in accordance with the order in which the operator owning or having control over a facility, receives requests for infrastructure sharing.
- (2) Every Access Provider shall reserve the right to refuse an application for infrastructure sharing on grounds of;
 - (a) Insufficient capacity,
 - (b) Safety, reliability, incompatibility of facilities,
 - (c) General engineering considerations, and
 - (d) Subsisting indebtedness of Access Seeker to Access Provider on similar infrastructure sharing arrangements, provided this ground for refusal shall not apply to Co-location in respect of interconnection.
- (3) The decision to refuse an application for infrastructure sharing shall be communicated in writing to the Access Seeker specifying the reasons for such refusal.
- (4) Every infrastructure sharing agreement, including any prior existing agreement, shall be in writing and shall specify the contractual terms and conditions agreed on by the parties. All such agreements shall be registered with the Commission.
- (5) As a precondition for registration, every infrastructure sharing agreement shall be submitted to the Commission for review and approval.
- (6) The Commission shall in reviewing infrastructure sharing agreements ensure that the terms on which infrastructure sharing is offered are in compliance with the principles of neutrality, transparency, non-discrimination and fair competition.
- (7) Every Infrastructure sharing agreement that has been duly negotiated and executed by parties shall be submitted to the Commission within seven (7) working days for review and approval. The Commission shall, within twenty-one (21) working days, review and

approve the agreement, provided that all information requested by the Commission are received.

- (8) Prices for infrastructure sharing should be non-discriminatory, reasonable, and based on the actual costs incurred by the owner of the facility.
- (9) Determination of the costs underlying prices should be transparent and neutral.

Part III: Co-location

8. Co-location as an Element of Interconnection

- (1) Co-location is an element of the interconnection of networks hence it is essential that operators agree on terms of its implementation towards ensuring seamless interconnectivity. Co-location shall constitute part of the negotiations for interconnection and be governed by provisions of the Telecommunications Network Interconnection Regulations.
- (2) Every incumbent operator, especially dominant operators as may be determined by the Commission should include in their Reference Interconnection Offer (RIO) an offer for the facilities available for co-location, including a price list for the different components of co-location.
- (3) An operator desirous of interconnecting with another operator is at liberty to choose the type of co-location suitable for its operation.
- (4) Where a request is made for physical co-location but such co-location is not deemed feasible, virtual co-location should be offered by the interconnection providing operator.
- (5) Where virtual co-location is not feasible, remote co-location should be offered in its stead.
- (6) A request for remote co-location shall not be rejected on any grounds.
- (7) Specifically, remote co-location shall not be refused on grounds of insufficient capacity, safety considerations, reliability or other general engineering considerations.
- (8) Save as may be specifically excluded, the terms and conditions of co-location are in general to be governed by the same rules as infrastructure sharing.

Part IV: General Rules for Co-location/Infrastructure Sharing (C/IS)

9. Reference Offer and Standard Practice List

- (1) The Commission recognises the right of Access Providers and Access Seekers to negotiate and agree on terms and conditions of Co-location and Infrastructure Sharing(C/IS). The Commission however requires that such negotiation must be within the limits of an existing reference offer developed by each potential Access Provider.
- (2) Every Access Provider shall ensure that its reference offer is readily available to other Access Seekers with a view to promoting fairness in the negotiation process.
- (3) Access Providers should in the process of developing the reference offer be responsive and work in close association with other operators, that is, prospective Access Seekers.
- (4) Notwithstanding the provisions of sub-paragraph (1) above, parties involved in any negotiation for C/IS arrangement are at liberty to negotiate outside the reference offer provided howsoever that such negotiations are voluntary and non-discriminatory.
- (5) The reference offer should contain sufficient information on issues relevant to the Access Seeker for negotiation purposes as itemised in Schedule 1 to these Guidelines.
- (6) Parties may request for other information which may be required in the process of negotiating for C/IS. Such information should be treated as confidential by the requesting party at all times.
- (7) The quality and nature of any information requested for will depend on what stage the negotiation process has reached. Response on any such request should be prompt to avoid delay.
- (8) A party may request for a site inspection if it is deemed necessary for the purpose of aiding that party to reach an informed decision.
- (9) Every Access Provider should develop a standard price list which shall provide guidance for determining the price for all C/IS arrangements with other Access Seekers.
- (10) Any standard price list developed should be reasonable, non-discriminatory and cost-oriented.

10. Allocation of Capacity

- (1) There shall be no obligation on Access Providers to develop new infrastructure whenever its capacity has reached saturation level. However, Access Providers are expected to reasonably take into consideration the demand for C/IS when expanding their facilities.

- (2) Where there is no available capacity at the existing facilities to meet the needs of additional Access seekers, the Access Provider should consider re-development as a means of increasing capacity at existing facilities.
- (3) The Commission will consider that capacity is available where the specific resource is not occupied nor reserved by the Access Provider.
- (4) In every situation where access is granted, the Access Provider should have the reserved right in the event of scarcity to demand that any allocated capacity be relinquished if such capacity has not been utilised within three (3) months of delivery of access. This right should be reserved with the intent to avoid the pre-emption of future capacity needs on the part of Access Seekers which would stifle the present needs of other Access Seekers.
- (5) At the expiration of the period for which access was granted to a party, an application for a further extension of the period will be in accordance with the procedure used for the initial application. The application will be considered on the merit by the Access Provider.
- (6) In every case, applications for access should be considered and granted by an Access Provider on a “first come – first served” basis.

11. Refusal of Access

- (1) An Access Provider reserves the right to refuse an application for access in any of the following circumstance:
 - (a) Where the Access Provider does not have available capacity (i.e. either that all capacity is occupied or reserved);
 - (b) Where the grant of access is technically unfeasible;
 - (c) Where the request, if granted, will breach safety and reliability standards.
 - (d) Where the Access Seeker has a subsisting indebtedness to the Access Provider on similar infrastructure sharing arrangements, provided this ground for refusal shall not apply to Co-location as it relates to interconnection.

In all cases, the Access Provider should provide the Access Seeker with reason for refusal in writing.

- (2) An Access Seeker who is refused access may refer such refusal to the Commission and the Commission shall be at liberty to inquire into the decision refusing access.
- (3) The Commission may upon due consideration;
 - (a) Uphold a decision refusing access,
 - (b) Request that a decision refusing access should be reconsidered,
 - (c) Impose an infrastructure sharing arrangement on the parties.

- (4) Infrastructure sharing arrangements imposed by the Commission may include rules for apportioning the costs of facility sharing.

12. Reservation of Capacity

- (1) The right of an Access Provider to reserve capacity for which it has made long term investments will at all times be recognised, but balanced against the need not to hamper the network roll-out or expansion plans of new market entrants or other Access Seekers.
- (2) Where available capacity is limited, the right to reserve capacity should not be exercised by the Access Provider in order to avoid discrimination and pre-emption.
- (3) Where however an Access Provider with significant investments exercises the option to reserve some rights in circumstances of limited capacity;
 - (a) The reserve period shall not exceed two (2) years after which the right will cease from being operational,
 - (b) Not more than 50% of capacity shall be reserved.
- (5) Information and documentary evidence of the reservation and extent thereof should be held by the Access Provider and made available to Access Seekers on reasonable demand.

13. Re-Development/Re-Location

- (1) To ensure that capacity is increased and made available to Access Seekers, Access Providers are encouraged to constantly pursue a policy of re-development and re-location of facilities.
- (2) Where for optimal utilisation of facilities, an Access Provider undertakes re-development or re-location (i.e. reconfiguration of network as a result of technological or business reasons), the cost of the re-development or re-location may be jointly assessed by the parties and shared with Access Seekers at a percentage mutually agreed by parties.
- (3) The re-development or re-location cost borne by an Access Seeker would form part of the price paid for the C/IS arrangement.
- (4) Parties to a C/IS arrangement should not undertake modifications with the sole aim of demanding the cost of such modification from Access Seekers.
- (5) As a condition precedent for an Access Provider to commence any re-development or re-location at any facility, notice thereof should first be given to all operators sharing the facility with the Access Provider. The notice period should be;

- (a) 6 months in the case of re-development,
- (b) 12 months in the case of re-location.

14. Separation

- (1) The Commission expects that parties involved in all C/IS arrangements, will make efficient use of scarce space.
- (2) Parties negotiating for co-location will be at liberty to request for separation of equipment to increase internal and external security, reduce interference problems and limit damage to each other's equipment.
- (3) The degree to which separation of equipment will be granted to an Access Seeker will be determined, among other things, by;
 - (a) Prevailing local circumstance,
 - (b) Available space,
 - (c) Special requirements of Access Seekers,
 - (d) Level of standardisation,
 - (e) Risk of damage.

15. Standardisation

- (1) To facilitate improved co-ordination and compatibility of equipment, parties to a C/IS arrangement should endeavor to develop and employ standard procedures for provision and operations under the arrangement.
- (2) The standard procedures to be developed by parties under the arrangement will be in the areas of;
 - (a) Maintenance,
 - (b) Fault clearance,
 - (c) Access at the facility,
 - (d) Emergency,
 - (e) Cleaning,
 - (f) Safety,
 - (g) Security.
- (3) Parties are also to ensure that standardised equipment and unified techniques/technical interfaces are used for the C/IS.
- (4) The liberty to use assigned space for its own purpose notwithstanding, parties should not install incompatible equipment which may cause interference to other parties' equipment or impede usage of space allocated to them.

Part V: General Rules for Active Infrastructure Sharing

16. Introduction

- (1) This Part sets out the rules to manage the processes for Active Infrastructure Sharing amongst Network Service Providers licensed by the Commission.
- (2) These rules are to be read in conjunction with the Act, Guidelines on Co-location and Infrastructure Sharing, Competition Practices Regulations, Quality of Service Regulations, other laws, rules and subsidiary legislations that may be developed by the Commission from time to time and relevant Licence Conditions.
- (3) Specifically, the following shall form part of the objectives of this Part:
 - (a) To provide seamless services to subscribers.
 - (b) To maximize the use of network facilities including but not limited to network capacity and capabilities, base station sites, backbone, etc.
 - (c) To enhance sharing and reduce duplication of investment for network facilities where adequate provision has been made.
 - (d) Increase revenue to incumbent operators with excess capacity.
 - (e) To promote the availability of wide range of high quality, efficient, cost effective and competitive telecommunication services throughout Nigeria.
 - (f) To optimize operator's capital expenditure on supporting infrastructure.
 - (g) Allow expansion of coverage to previously underserved and un-served areas.
 - (h) Give opportunity for product and technology innovation.
 - (i) Create efficient, competitive and environment business condition.

17. General Terms and Conditions for Active Infrastructure Sharing

- (1) These rules are applicable for sharing of active infrastructure such as Multi Operator Core Network (MOCN), Multi Operator Radio Access Network (MORAN) and / or Gateway Core Network Operator (GCN) with applicable performance management system.
- (2) NSPs shall provide capacity on their infrastructure to other operators on a bilateral, non-discriminatory basis. The right of first refusal would apply where the Infrastructure Provider has overcome the reason for the initial denial of the Infrastructure Seeker.
- (3) Where NSPs enter into agreements for Active Infrastructure Sharing, tariff and charges for such Infrastructure Sharing shall be mutually agreed. However, where there is an existing price determination by the Commission, such will be applicable.
- (4) Only licensed Network Service Providers are allowed to enter into an active infrastructure sharing agreement under these rules.

- (5) All technologies including 2G, 3G, 4G, CDMA, HSPA and services such as Voice, Data shall be offered under these rules. Any application for technological exclusivity must be subject to approval by the Commission.
- (6) The Infrastructure Seeker under these rules must be licensed to provide the service for which the active sharing element is required.
- (7) Each NSP shall be responsible for its own compliance with regulatory provisions under the Quality of Service Regulations, including but not limited to quality of service and network availability.
- (8) The ground for refusal of sharing under these rules will be insufficient capacity, compatibility and prior indebtedness under other services such as Interconnection. The Infrastructure Provider shall inform the Infrastructure Seeker and the Commission of the grounds for refusal with adequate data within 5 (five) working days.
- (9) Any disagreement on commercial terms during negotiation for active infrastructure sharing, which parties are unable to agree on, shall be referred to the Commission for resolution, and the decision of the Commission shall be binding on parties.
- (10) Meeting the roll-out obligation as spelt out in an NSP's Licence Condition is a pre-condition for entering into an Active Infrastructure Sharing agreement. However, where it is established by the Commission that Active Infrastructure Sharing will expedite such roll-out, the Infrastructure Provider may grant such request.
- (11) Any dispute regarding tariffs and charges between parties to an Active Infrastructure Sharing agreement shall be referred to the Commission for resolution, and the decision of the Commission shall be binding on parties.
- (12) The Infrastructure Seeker is expected to continuously build on its infrastructure such as Transmission Core Network and Operating Support System (OSS), in order to be less dependent on the Provider (except network elements where there may be resource constraints such as Radio Access Network). In this regard, the Infrastructure Seeker must ensure that it continues to build its infrastructure in accordance with the roll-out obligation spelt out in its Licence.
- (13) The Infrastructure Provider is expected to continuously meet the specified key performance indicator targets stipulated under the Quality of Service Regulations and take measures to augment the capacity of its network elements for sharing in order to meet the Infrastructure Seeker's demand and not compromise on service delivery.
- (14) All NSPs may publish detailed information of infrastructure available for sharing on their websites. The NSPs must ensure that this information is provided to the Commission on a monthly basis.

- (15) Prior written approval of the Commission must be obtained when an Infrastructure Provider intends to terminate its agreement with an Infrastructure Seeker where:
 - (a) the Infrastructure Seeker has consistently breached its commercial obligations with the Infrastructure Provider; or
 - (b) the Infrastructure Seeker has failed to renew its expired Licence.
- (16) Where the Infrastructure Provider intends to terminate the agreement due to revocation of the Infrastructure Seeker's Licence, the Infrastructure Provider must ensure that the Commission is notified in writing within five (5) days of such termination.
- (17) The Commission may direct the Infrastructure Provider to suspend its service to the Infrastructure Seeker within fifteen (15) working days of receipt of the notice of termination. Where the Infrastructure Seeker does not resolve the reason for termination within three (3) months from the date of suspension, the Infrastructure Provider may terminate the agreement.
- (18) Breach of any provision of these rules shall attract the relevant penalties as prescribed under the Enforcement Processes Regulations.

18. Procedure for Active Infrastructure Sharing

- (1) Prior to the commencement of any negotiation for Active Infrastructure Sharing, all NSPs must ensure that they are in good regulatory standing with the Commission.
- (2) An Infrastructure Seeker shall submit a request to an Infrastructure Provider, expressing its interest in entering into an Active Infrastructure Sharing arrangement.
- (3) The request for Infrastructure Sharing by the Infrastructure Seeker to the Infrastructure Provider as well as the approval / rejection of the request by the Infrastructure Provider shall be in accordance with the Form A and Form B contained in Schedule 2 to these Guidelines.
- (4) All negotiations for Active Infrastructure Sharing must be done in utmost good faith. The Infrastructure Provider shall not:
 - (a) Obstruct or delay negotiations.
 - (b) Refuse to provide information relevant to an agreement including information necessary to identify the facility needed.
 - (c) Refuse to designate proper representative to expedite negotiation.
- (5) An Infrastructure Provider shall reserve the right to refuse an application for Active Infrastructure Sharing on grounds of insufficient capacity, network incompatibility or indebtedness of the Infrastructure Seeker to the Infrastructure Provider on other telecommunications services.

- (6) An Infrastructure Provider shall reserve not less than 25% (twenty five percent) of spare capacity for its short term or emergency need.
- (7) The period to respond (either acceptance or rejection) by the Infrastructure Provider to any request for Infrastructure Sharing shall be 15 (fifteen) days.
- (8) The timeframe for negotiation and conclusion of the technical, legal and commercial aspects of the agreement shall not exceed 2 (two) months from the date of receiving the request.
- (9) Where the Infrastructure Seeker does not receive any response from the Infrastructure Provider within 15 (fifteen) working days of request, the Infrastructure Seeker shall refer the matter to the Commission.
- (10) Parties are expected to notify the Commission upon finalization of negotiations, and submit the agreement to the Commission within fifteen (15) days for review and approval, prior to registration. The Commission shall within twenty-one (21) working days review and approve the agreement, provided that all information requested by the Commission are received.
- (11) The Infrastructure Seeker cannot sub-lease/rent out the shared infrastructure to a third party.
- (12) In the event of any dispute between the Infrastructure Provider and Infrastructure Seeker which cannot be resolved amicably, the aggrieved party shall refer the matter to the Commission for resolution, in line with the provisions of Sections 75 and 76 of the Act and the Dispute Resolution Guidelines. The decision of the Commission in this regard shall be final and binding on parties until set aside by a court of competent jurisdiction.

19. Technical Considerations

- (1) Subject to the provisions of this Part, all NSPs shall make available the network elements for active sharing to all licensed telecommunications operators using any of the following mechanisms:
 - (a) Multi Operator Core Network (MOCN)
 - (b) Multi Operator Radio Access Network (MORAN)
 - (c) Gateway Core Network (GCN)
 - (d) Transmission Network Sharing (TNS)
- (2) The sharing technology shall be 2G, 3G, 4G, HSPA+ and any other available technology.
- (3) Technology exclusivity is subject to approval by the Commission.

- (4) The technical considerations for sharing shall be bilateral, non-discriminatory, and may be either reciprocal or non-reciprocal.
- (5) Based on an agreed sharing scheme and technical complexity/outlay, the Infrastructure Provider and the Infrastructure Seeker shall determine a reasonable timeframe to demonstrate capacity/readiness.
- (6) The following documents and regulatory frameworks shall be taken into consideration during the negotiation of the technical aspects of the Active Infrastructure Sharing:
 - (a) Spectrum Trading Guidelines,
 - (b) Guidelines on National Roaming,
 - (c) Mobile Number Portability Business Rules and Port Processes,
 - (d) Interconnection Regulations,
 - (e) Interconnection Rate determination,
 - (f) Transmission lease, swap and pricing requirements,
 - (g) Any other Regulations, Guidelines or determination that may be published by the Commission from time to time.
- (7) The number of Active Infrastructure Sharing partners that can be accommodated per active sharing options shall be based on existing capacity and technological capability.
- (8) Every NSP interested in sharing its active infrastructure shall have in place a Reference Offer which shall be subject to approval and publication by the Commission.

20. Process Considerations

- (1) In requesting for Active Infrastructure Sharing, the Infrastructure Seeker shall attach details of its technical requirements to the prescribed Form A contained in Schedule 2 of these Guidelines and forward same to the Infrastructure Provider.
- (2) The Infrastructure Provider shall upon receipt of the Form A respond in the prescribed Form B contained in Schedule 2 of these Guidelines without including any technical information.
- (3) Where the Infrastructure Provider accepts the Infrastructure Seeker's request, both parties shall execute a non-disclosure agreement after which the Infrastructure Provider shall furnish the Infrastructure Seeker with detailed information of its network elements relevant to the Infrastructure Seeker's request.
- (4) Both parties shall exchange detailed network parameters so as to provide necessary interfaces for seamless connections.
- (5) The Sharing partners shall agree on the mode of sharing, which may be nationwide, regional, urban/rural or pre-defined cluster(s).

- (6) In case of MORAN and MOCN, details of services such as Voice, Data, SMS, VAS, balance enquires and support to be provided under the sharing arrangement shall be mutually agreed, activated and tested before the commencement of commercial services.
- (7) Both parties are expected to have obtained confirmation from their vendors to regarding equipment compatibility with all OEM vendors existing in Nigeria. Where there are interface issues during implementation, parties shall ensure that such is resolved with the OEM vendor.
- (8) All required test scenarios for equipment and services in line with international standards must be carried out before cut over to service. In addition, the threshold for various network elements as prescribed by the Commission in the Quality of Service Regulations shall be taken into consideration, as this may form the basis for dispute resolution.

21. Operational and Maintenance Considerations

(1) *Fault Management*

- (a) The Infrastructure Seeker and Infrastructure Provider shall agree on a fault escalation procedure.
- (b) The Infrastructure Provider shall be responsible for clearing all faults associated with the network element(s) it is sharing, except where such fault is traced to the Infrastructure Seeker's interface, in which case the Infrastructure Seeker shall be responsible for clearing such faults.
- (c) However, where the fault is traceable to the interface between parties, they shall use their best efforts to resolve the fault, taking into consideration network availability as contained under the Quality of Service Regulations developed by the Commission.
- (d) In case of dispute after third level escalation, both vendors of the equipment should be called in for resolution.

(2) *Network Availability*

- (a) The Infrastructure Provider shall make every effort to ensure the Infrastructure Seeker enjoys the same level of availability as its own customers and maintain such level as contained in the Quality of Service Regulations, or such directions and other regulatory instruments as may be developed by the Commission.
- (b) The Infrastructure Provider shall be responsible for any infraction due to non-compliance with the availability requirements on the network element(s) being shared.

(3) *Quality of Service and Experience*

- (a) The Infrastructure Provider shall offer the same quality of service to the Infrastructure Seeker on the network element(s) being shared.
- (b) The Infrastructure Provider shall ensure it meets all quality of service requirements under the Quality of Service Regulations and other relevant regulations, Directions and guidelines developed by the Commission.
- (c) The Infrastructure Provider shall be responsible for any infraction due to non-compliance with quality of service requirements in line with sub-paragraph (b) above on the network element(s) being shared.

(4) *Billing*

- (a) The technicalities for billing shall be based on the type of active sharing service being offered.
- (b) For transmission capacity sharing, billing shall be based on kilometres, capacity and availability as agreed by parties.
- (c) For traffic-based services in MORAN, MOCN and GCN, billing shall be based on parameters agreed by parties.
- (d) For services such as SMS, VAS etc, billing shall be based on parameters agreed by parties.

22. Engineering Considerations

- (1) The Infrastructure Provider shall take into consideration the Infrastructure Seeker's technical requirements contained in its Form A, in order to accommodate same in its engineering planning and network design.
- (2) Sharing partners shall meet on a quarterly basis for the purpose of reviewing the agreement and also exchange data on the Infrastructure Seeker's short-term and long-term requirements as well as the Infrastructure Provider's planned roll-out and upgrades.
- (3) Parties shall mutually agree on deployment and roll-out sharing. However, where the Commission has developed a regulatory framework in that regard, the parties shall comply with such regulatory provision.
- (4) Unless otherwise agreed under roll-out sharing, the Infrastructure Provider shall be responsible for network administration such as capacity management, network optimisation, re-engineering and adhering to QoS requirements.

- (5) The Infrastructure Provider shall promptly inform the Infrastructure Seeker of all changes to its network due to new network design. Furthermore, the Infrastructure Provider shall be responsible for spectrum administration, taking into consideration relevant regulatory framework developed by the Commission that may impact administration of spectrum.

23. Commercial Considerations

- (1) The Infrastructure Provider shall take into consideration the Infrastructure Seeker's technical requirements contained in its Form A, in order to accommodate same in its engineering planning and network design.
- (2) Subject to any regulatory framework developed by the Commission, an Active Infrastructure Sharing agreement may be one-way or bilateral.
- (3) The charge determination shall be bilateral and the cost made available to the Infrastructure Seeker shall take into consideration both capital expenditure and recurrent expenditure. However, where the Commission has made a cost determination, same shall take precedence over any bilateral agreement by parties.
- (4) Each party shall bear its set -up cost such as last mile connections, interfaces, software upgrades except as may be otherwise mutually agreed.
- (5) Frequency of billing may be monthly, quarterly, bi-annually or annually, as may be agreed by both parties.
- (6) However, billing for traffic-based sharing, such as Voice, Data and VAS shall be monthly and the invoice shall be within 14 (fourteen) days of the end of the transaction. Where there is a delay in invoicing for a particular period, the reason for such delay shall be communicated and agreed by both parties.
- (7) Payment for all services shall be in advance, except traffic-based invoices which shall be settled within 30 (thirty) days of receipt of invoice.
- (8) Every Inter Operator Tariff (IOT) shall be bilateral and non-discriminatory. As such, Infrastructure Providers shall offer the same tariff to all Infrastructure Seekers of its service on a national basis, not geographical basis, unless otherwise approved by the Commission.
- (9) The Commission may, from time to time, effect a price cap, pending the cost study for determination of tariffs.

Part VI: The Role of the Commission

24. Dispute Resolution

- (1) The Commission has the power to intervene to resolve dispute at the request of either party and to impose facility sharing or co-location arrangements between operators after consultation with the parties.
- (2) The power of the Commission to intervene in disputes shall include the right to request for and receive all such necessary information as may be required to reach a decision.
- (3) The decision of the Commission which shall be final, save for the right to judicial review by a court of competent jurisdiction, will be notified to the parties.
- (4) In resolving disputes, the Commission shall rely on the provisions of Sections 75 and 76 of the Act and the Dispute Resolution Guidelines.

25. Supportive Action

- (1) The Commission will from time to time arrange for the dissemination of pertinent information on the subject of infrastructure sharing and co-location.
- (2) The Commission will use its mandate under Section 4 (1) of the Act to further the opportunities for co-location and infrastructure sharing, provided there is no risk of the lessening of competition. In particular, the Commission will take action to:
 - (a) Encourage redevelopment of existing facilities amenable to infrastructure sharing to increase their capacity;
 - (b) Advise local and regional authorities on the adoption of schemes which would encourage the sharing of infrastructure;
 - (c) Support the development of the capability among operators to deal with the issues of infrastructure sharing in a competent way.

26. Review/Modification

The Commission reserves the right to review/vary and modify these Guidelines from time to time, in accordance with the provisions of the Act.

27. Definitions

Unless the context otherwise requires, the different terms and expressions used in these Guidelines shall have the following meaning assigned to them. The headings are given for the sake of convenience only and do not carry any special meaning. Definitions and interpretations not listed here shall bear the same meaning as contained in the Act.

- ***Access Provider*** – means any information/communications licensee or telecommunications operator who owns or is in control of a facility or infrastructure, access to which another information/communications licensee or telecommunications operator desires for purposes of co-location or infrastructure sharing;
- ***Access Seeker*** – means any information/communications licensee or telecommunications operator desirous of co-locating or sharing a facility or infrastructure owned or in the control of another information/communications licensee or telecommunications operator;
- ***Act*** – means the Nigerian Communications Act, 2003, or as may be amended from time to time;
- ***Active Infrastructure Sharing*** – means the sharing of RAN, Core and Gateway Network elements as required to deliver MOCN, MORAN, TNS and/or GCN solutions;
- ***Co-location*** – 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*** – means the Nigerian Communications Commission;
- ***Emergency need*** – means capacity required to support the highest network traffic on a day-to-day basis;
- ***Enforcement Processes Regulations*** – means the Nigerian Communications (Enforcement Process, etc) Regulations 2019, or as may be amended from time to time;
- ***Facility, Facilities*** – means the same thing as, and are interchangeably used with the term “infrastructure”;
- ***Gateway Core Network (GCN)*** – means the sharing of the Mobility Management Entity (MME) element of the core network by different Mobile Network service providers;
- ***Infrastructure Provider*** – means any licensed telecommunications operator who owns or is in control of facility or infrastructure to which another operator desires to enter into an agreement for the purposes of active infrastructure sharing;
- ***Infrastructure Seeker*** – means any licensed telecommunications operator desirous of entering into an agreement with other telecommunications operator(s) who own or is in control of telecommunication’s infrastructure and facility for the purposes of active infrastructure sharing;

- ***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 “co-location” and unless explicitly stated otherwise, infrastructure sharing refers for the purposes of these Guidelines to the sharing of facilities that are not feasible for co-location;
- ***Lessening of Competition*** – means the same thing as may be assigned by the Commission pursuant to its powers under Section 91 of the Act and in line with relevant provisions of the Competition Practices Regulations 2007, as may be amended from time to time;
- ***Multi Operator Core Network (MOCN)*** – means the sharing of the Core network between radio networks of multiple network service providers. MOCN enables the connection of radio access networks to multiple core networks;
- ***Multi Operator Radio Access Network (MORAN)*** – means the sharing of the Radio Access Network between multiple mobile network service providers. MORAN enables multiple mobile network operators to share the same Radio access network;
- ***Network Service Provider (NSP)*** – means Network Service Provider as defined under Section 157 of the Nigerian Communications Act 2003, or as may be amended from time to time;
- ***Operator*** - means an undertaking holding a licence granted under the Act to operate a communications system or facility and to provide communications services;
- ***Physical Co-location*** – means co-location where equipment is placed in a separate room within the premises of the interconnection providing operator and remains under the control of the interconnecting demanding operator;
- ***Quality of Service Regulations*** – means the Quality of Service Regulations 2013, or as may be amended from time to time;
- ***Remote Co-location*** – means co-location where the equipment of the interconnection demanding operator is installed in a location near the premises of the interconnection providing operator and a transmission medium is used to realise the physical interconnection;
- ***Short term*** – means the network capacity required to support not more than 6 months of projected traffic;

- ***TowerCo*** – means holder of a subsisting Co-location and Infrastructure Sharing Licence issued by the Commission;
- ***Transmission Network Sharing (TNS)*** – means the sharing of different components or segments of the transmission network between different Network Service Providers;
- ***Virtual Co-location*** – means co-location where equipment is placed in the equipment line-up of the interconnection providing operator and is maintained by that operator.

Made at Abuja this.....day of June 2021

Professor Umar Garba Danbatta, FNSE, FRAES, FAEng, FNIEEE

**Executive Vice Chairman / CEO
Nigerian Communications Commission**

SCHEDULE 1

CONTENTS OF REFERENCE OFFER - ISSUES RELEVANT TO THE ACCESS SEEKER FOR NEGOTIATION PURPOSES

(a) General Sharing Issues

- (i) Access and refusal
- (ii) Separation
- (iii) Standardisation
- (iv) Re-development/Re-location
- (v) Study and preparatory work
- (vi) Requirements of Access Seeker
- (vii) Commencement/duration/renewal
- (viii) Liability
- (ix) Insurance
- (x) Confidentiality
- (xi) Security
- (xii) Arbitration
- (xiii) Modification/Termination

(b) Provisioning

- (i) Time schedules
- (ii) Information requirements
- (iii) Constructional specifications
- (iv) Technical Specifications
- (v) Delivery of Access
- (vi) Testing

(c) Operation

- (i) Requirements on equipment
- (ii) Installation of equipment
- (iii) Maintenance
- (iv) Fault clearance
- (v) Access conditions of persons

(d) Pricing

- (i) Standard prices
- (ii) Price components
- (iii) Pricing of special requirements

(iv) Sharing of common facilities

(v) Penalties

(e) Technical

(i) Spurious emissions

(ii) Harmonics

(iii) Electromagnetic compatibility

(iv) Interference

(v) Heat Dissipation and thermal considerations

(vi) Wind loading

SCHEDULE 2

ACTIVE INFRASTRUCTURE SHARING FORM A

Request for Active Infrastructure Sharing (to be filled by the Infrastructure Seeker)

1. **Details of Infrastructure Seeker:**
 - a. Name of the Licensee/Company:
 - b. Licence Number and Date of Issue/Renewal:
 - c. Type(s) of Telecommunication Services Provided by the Infrastructure Seeker:

2. **Details of Infrastructure Provider:**
 - a. Name of the Licensee/Company:
 - b. License Number and Date of Issue/Renewal:
 - c. Type(s) of Telecommunication Services Provided by the Infrastructure Provider:

3. **Details of Active Infrastructure requested to be shared:**

Sl. No.	Items	Description
1.	Reference Number of the Request	
2.	Type of the Infrastructure (s)	
3.	Location/Address of the Infrastructure	
4.	Purpose of Sharing the Infrastructure	
5.	Duration of Sharing	
6.	Date of Request by the Infrastructure Seeker	
7.	Last date of Approval/Rejection by the Infrastructure Provider	
8.	Last date of Negotiation	
9.	Inspection or Survey to the Infrastructure is Required by the Infrastructure Seeker	Yes / No
10.	Any Other Information	

Authorized Signatory of the Infrastructure Seeker

ACTIVE INFRASTRUCTURE SHARING FORM B

Approval / Rejection of Active Infrastructure Sharing (to be filled by the Infrastructure Provider)

1. Details of Infrastructure Provider:

- a. Name of the Licensee/Company:
- b. License Number and Date of Issue/Renewal:
- c. Type (s) of Telecommunication Services Provided by the Infrastructure Seeker:

2. Details of Infrastructure Seeker:

- a. Name of the Licensee/Company:
- b. License Number and Date of Issue/Renewal:
- c. Type (s) of Telecommunication Services Provided by the Infrastructure Provider:

3. Details of Approval by the Infrastructure Provider:

Sl. No.	Items	Description
1.	Reference Number of the Infrastructure Seeker' Request	
2.	Reference Number of Approval	
3.	Type of the Infrastructure (s)	
4.	Location/Address of the Infrastructure	
5.	Duration of Sharing	
6.	Date of Agreement / Negotiation	
7.	Any Other Information	

4. Details of Rejection by the Infrastructure Provider

Sl. No.	Items	Description
1.	Reference Number of the Infrastructure Seeker' Request	
2.	Reference Number of Rejection	
3.	Type of the Infrastructure (s)	
4.	Location/Address of the Infrastructure	
5.	Reasons of Rejection	
6.	Any Other Information	

Authorized Signature of the Infrastructure Provider

SCHEDULE 3



