Determination of Mobile (Voice) Termination Rate

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Nigerian Communications Commission

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MOBILE (VOICE) TERMINATION RATE DETERMINATION BY THE NIGERIAN COMMUNICATIONS COMMISSION

INTRODUCTION

1. The current regime of interconnection rates was determined by the Commission's Interconnection Rate Determination issued on 20th March 2013. Since then, the Nigerian Communications Market has seen tremendous growth in both subscriber numbers as well as traffic volumes and available technologies

2. As part of the Commission's commitment to regular reviews of the Interconnection Rates, and in the light of recent developments, including changes in technology as well as market evolution, the Commission decided to review the rates set in its 2013 Determination.

3. The Commission notes that since the last Determination, market dynamics have resulted in changes in the unit cost of providing services (including interconnection), and that these changes may give rise to differences between regulated interconnection rates and underlying costs which may result in rates that are not reflective of the cost of service provision.

4. In view of the foregoing and in fulfilment of its statutory mandate, the Commission retained PricewaterhouseCoopers (PwC) to assist it to undertake an in-depth cost study of Mobile (Voice) Termination Rates (MTR).

LEGAL BASIS FOR THIS DETERMINATION

5. The Commission's functions and duties are set out in the Nigerian Communications Act 2003 (the "Act"). Section 4 of the Act lists the Commission's functions, which include the facilitation of investments in (and entry into) the Nigerian market for the provision and supply of communications services, equipment and facilities (section 4(a)); the protection and promotion of the interests of consumers against unfair practices including but not limited to

matters relating to tariffs and charges and the availability and quality of communications services, equipment and facilities (section 4(b)); and the promotion of fair competition in the communications industry and protection of communications services and facilities providers from the misuse of market power or anticompetitive and unfair practices by other service or facilities providers (section 4(d)).

6. Network services providers and network facilities providers are required by section 96 of the Act to provide other licensed operators with interconnection to their communications systems on request at any technically feasible location. Agreements for interconnection must according to section 97(1) (a) comply with the Act, the Regulations and any Guidelines published intermittently. Although the terms and conditions of interconnection agreements are primarily to be those agreed on by the parties, section 97(2) of the Act empowers the Commission to intervene on its own initiative or at the request of one or both negotiating parties where the Commission considers that an agreement or individual provisions of the agreement are inconsistent with the provisions of the Act or subsidiary legislation, where agreement cannot be reached, where there is a delay in reaching agreement, or if the Commission considers that it is in the public interest to do so.

7. Further explanation on the Legal basis for making Interconnect Rates Determinations and for setting binding rules are as detailed in section 6 – 15 of the Determination of Voice Interconnect rate, 2013 published on the Commission's website: (https://www.ncc.gov.ng/docman-main/legal-regulatory/legal-determinations/355-determination-of-voice-interconnection-rates-2013/file).

PROCESS ADOPTED

8. In line with its commitment to a policy of openness, transparency, fairness and participatory regulation, the Commission convened a general stakeholder meeting, which took place on the 15th February 2017. At the meeting, which all

concerned operators attended, the Commission explained the rationale for the appointment of PwC, the work that would be undertaken, and the level of cooperation required from operators. Additional meetings were held with operators during the course of the week, where the Commission and its consultants provided further clarifications in relation to the work to be conducted, relevant issues pertaining to the determination of interconnection rates, and required information and documentation to be requested from operators.

9. Further to these meetings and following the careful application of international best practice, the following principles were adopted for the cost study:

Topic	**Recommendation**
Cost modelling approach	Hybrid costing model; Modelled network is based on a scorched node approach; Modelled network takes the actual and planned coverage of a typical operator and the specific factors of Nigeria into account; Calculation of cost of efficient service provision
Cost model concept	LRIC plus mark-up for joint and common costs; Allocation of common costs by using an equi-proportionate mark-up; Retail costs are excluded from interconnection rates
Cost basis	Forward-looking costs; The model reflects the years 2018, 2019 and 2020.
Depreciation	Tilted annuity is used as depreciation methodology
Cost of capital	Estimation of the current Cost of Capital based on CAPM (Capital Asset Pricing Model) model and current market information.
Quality of Service	Model reflects the targeted quality of service
Exchange rate	Exchange rates were based on forecasted inflation rates by the IMF.

10. Applying these principles, two models were built:

- a Generic 2G/3G/4G operators model and
- a New entrant (LTE) operators model

11. These models were purposely built considering the dimensioning of the network based on traffic demand and network design parameters relevant to the Nigerian operating environment. The underlying methodology of the model was based on international best practices and a good understanding of the local conditions.

12. After the stakeholder meeting of February 2017, the operators were briefed and a questionnaire to gather demand, financial and network data was sent to the operators. Responses where received from all operators. (The list of the operators is as shown on Appendix 1).

13. During the month of March 2017, individual meetings were held with operators in Lagos to clarify the data request and to obtain clearer understanding of relevant topics in the industry from the perspective of the operators. These meetings contributed to the development of a robust, fit for purpose cost model, relevant for the Nigerian telecommunications industry.

14. These individual meetings were followed up with telephone and email discussions to elaborate and explain further the nature of the data as required. In response to the Commission's request data was received from all the operators. In May 2017, the consultants reviewed and analysed the data received from the operators. These reviews revealed certain data gaps and other issues with some of the data that was submitted by the operators, giving rise to additional data requests and supplementary questions addressed to relevant operators.

15. Between May and July 2017, calls and emails were exchanged with the operators to clarify and to reconcile identified inconsistencies in the data provided. Additional information was also obtained to address gaps in data originally

provided. Based on this updated information as well as additional benchmark values for equipment prices and external analyst forecasts, the set of input variables for both models (Generic 2G/3G/4G and New LTE entrant) was defined and the costs models were populated.

16. On February 1st, 2018, the Commission held an industry workshop with operators and other stakeholders. The consultants' recommendations and the model results were discussed in detail and the Commission ran a Question & Answer session with the participants. The majority of the operators found both the recommendations and the results acceptable. In addition, operators were provided with the electronic version of the presentation with the model output results.

17. Operators were invited to study the information published by the Commission and the issues discussed during the workshop and to provide comments to the Commission by 15 April 2018.

18. The Commission subsequently took into consideration, the indicative results and recommendations of the consultancy, the aggregated operators' comments and its understanding of the market conditions in Nigeria to set the Interconnection rates in the best interests of the industry, consumers, businesses and Nigeria as a whole.

CONSIDERATION OF SUBMISSIONS MADE BY OPERATORS

19. The purpose of this section is to provide an overview of the comments received as well as the responses of the Commission to these comments. Comments not directly relevant to Voice Termination Rate have not been included.

20. The comments received have been summarised and grouped by subject area. The names of the operators making the individual comments have not been included.

COMMENTS ON THE REGULATION OF MOBILE (VOICE) TERMINATION RATES (MTR)

Comments on Asymmetry Rates

21. Asymmetry of Interconnection rates was a recurring theme in the comments from many operators who submitted responses during the consultation process. However, their views on asymmetry were different and diverse.

22. One operator stated that an asymmetric regime should be applied to dominant operators, as their size should translate into differences in interconnection costs compared to other operators due to economies of scale for equipment and a higher proportion of traffic terminated in their network.

23. This operator proposed to assess dominance considering Revenue Market Share (RMS) as opposed to subscribers' market share and proposed a 3-tier segmentation based on "above 40% RMS", "25%-40% RMS" and "below 25% RMS", each segment having a different termination rate.

24. Other operators were in favour of adopting a 3-tier asymmetry structure for MTRs based on a classification of operators based on size and market share (similar to the RMS criteria), to address what they considered as "competition issues" in the Nigeria telecommunications industry.

25. Some operators argued that smaller operators have a significantly different and higher unit cost structure as a result of their size when compared to larger established operators and that the asymmetric regime should therefore be re-established.

26. Another operator suggested that given the large disproportion of calls terminated in a large operators' network as opposed to the small operators' network, asymmetry should be introduced as a means to balance the payments between operators.

27. Another operator argued that, given the small customer base for fixed networks compared to mobile networks, and the higher volume of calls terminated on the mobile network coming from the fixed network, asymmetry should be re-introduced as a measure to allow growth of the fixed wired operators in the industry

28. An operator urged caution when implementing an asymmetric regime to avoid rewarding inefficiency and penalising efficient operators. If termination costs are set to reflect actual costs of industry participants, as is the case with asymmetry, then this may reduce incentives for the firm to become more efficient – to the detriment of customers in the long term. The operator also argued that the new entrant operators currently operating came into the market under the current interconnection regime and their business plans reflect this regime. Therefore, these operators should not require the Commission to establish a different asymmetric regime.

Responses:

29. There are significant differences in scale and managed traffic volumes between different operators in Nigeria. The principal driver of the unit cost of traffic services is traffic density rather than total traffic. For example, other things being equal, an operator with a smaller coverage area, which carries more traffic per square km than a larger operator, will enjoy lower unit costs. In Nigeria, however we observe the larger coverage operators also benefit from higher traffic density.

30. Some operators categorised in this study as Generic 2G/3G/4G operators have similar amounts of spectrum allocated in the same bands and use the same technologies. Therefore, even though they might not all have achieved similar scale there are few differences in their conditions which would translate into structurally higher [reasonably efficient] cost of interconnection. However, the Commission notes that there are also some operators (also utilising 4G/3G/2G) with more spectrum holdings than their peers.

31. When interconnection rate is set, the information from a class of operators is taken in order to derive the interconnection cost of the representative operator. By definition, the resulting network does not perfectly mirror any of the existing operators in the country but represents an efficient operator operating in the country.

32. Mobile (Voice) Termination has generally been determined to be a relevant market in telecommunications and one in which each operator has a monopoly over calls delivered to customers connected to its network. Therefore, other things being equal, all operators have an incentive to set termination rates at monopoly levels regardless of their size. The way in which this issue has been traditionally addressed has been through Determination of interconnection charges having regard to the efficient costs of providing termination services.

33. Regarding the request for three-tiered MTR asymmetry to address concerns over revenue market share, the Commission reiterates the points made in paragraphs 30 and 31 above. The Commission further notes that since MTR is set at the cost of an efficient operator within the two classes earlier determined, using subjective measures such as the size or cost profile of individual operators will undermine the objectivity of the Determination. Issues pertaining to market behaviour of operators can be more appropriately dealt with in a separate study.

34. The estimated unit cost of terminating traffic on the networks of new LTE entrants is significantly higher than the equivalent costs of Generic 2G/3G/4G operators and the current Mobile (Voice) Termination Rate. The Commission finds sufficient justification for the retention of a two-tier asymmetry based on the principles and categorisation stated in paragraphs 8, 9 and 10 above.

35. In setting Mobile (Voice) Termination rates for both tiers of operators, the Commission has had regard to the calculated unit costs, the trend of unit costs over time, as well as market conditions and consumer interests. Based on these considerations the Commission has set the MTR for Generic operators at current

levels (on balance, this is preferable to an increase of MTRs at this time given the adverse impact an increase would have on market growth, the demand for telecom services and therefore, the evolution of unit costs over time). For the new (LTE) entrants, the Commission has taken account of the fact that volumes are still relatively small, and that significant volume growth is projected. On this basis, the Commission, in setting of the MTR for this tier of Operators, took into account the cost premium arising from the difference in the weighted average of unit costs of the Generic Operators and the new (LTE) entrants.

Comments on the impact on the price floor from a review of the MTR

36. On the 1st of April 2013, the Commission introduced a price floor for voice calls, which was tied to the MTR. Based on this fact, an operator argued that in order to continue to prevent margin and value erosion in the voice market, the Commission should maintain the regulatory instrument of price floor but review the amount following this MTR review.

37. Another operator asked the Commission to review the price floor, given the compression of margins imposed by the proposed MTR review. Failing to do so, in the view of this operator, will negatively affect the continued growth and development of the telecommunications industry.

Response:

38. The price floor is a regulatory tool used worldwide where necessary. The Commission proactively introduced the floor in order to the aggressive price war between operators at that time, which threatened overall market stability. However, given the current state of the market, the Commission does not see the need for an upward review of the Price floor at this time.

Comments on the impact on an increase in the MTR

39. One operator voiced its concern that an increase of the MTR, irrespective of a change in the price floor, would lead to an increase in the retail tariffs in the short to medium term and negatively impact on the growth of the industry. This could risk a consumer backlash as it has happened in other sectors such as Oil & Gas and Electricity. Therefore, the Commission should consider other market initiatives (such as spectrum trading, national roaming and active network sharing) that reduce operators' costs, enhance efficiencies for operators, and therefore translate into lower tariffs for consumers.

40. Another operator argued that MTRs should either be kept at current levels or decreased so as to avoid exacerbating the cost differential already in place between large and small operators i.e. with further increases in the MTRs the small operator will pay more than they currently do to other large operators, irrespective of a small benefit of asymmetry.

41. An operator urged that any MTR determined by the Commission must be considered against other factors to determine if it will provide a better deal for consumers (considering the current state of the Nigerian economy) and ensure stimulation of investment appetites. Based on the operator's market assessment, an increase in MTR will not benefit the industry.

42. Another operator recommended that the Commission reconsider implementation of the findings on the MTR regime until an assessment is conducted on the impact of Over-The-Top (OTT) services in the Nigerian Telecoms Industry.

Response:

43. The Commission has always proactively taken steps to promote initiatives that lead to lower costs of service delivery. Initiatives such as Spectrum Trading,

National Roaming and Active Infrastructure Sharing as well as the Commission's efforts to address issues relating to multiple taxation and regulation are examples. The Commission also continues to encourage investments in the sector.

44. The Commission notes the concerns on the impact that an increase in MTR may have on retail tariffs, especially in consideration of the current economic situation in the country (having just come out of a recession and the need to minimize disruption or shocks to the economy), and the pivotal role that access to telecommunications services plays in overall national socio-economic development. The Commission also notes the Impact of OTT services on regulated telecommunications services.

45. These concerns as well as the steps being taken by the Commission to reduce operating costs in the industry (see section 43 above) have been factored into the Determination. Other factors pertaining to the possible impact of an increase in MTR are addressed in paragraph 38 above. Nonetheless, the Commission will continue to review the situation and will implement the necessary regulatory safeguards from time to time.

Comments on the Effective Date of the Determination

46. An operator drew the Commission's attention to the heavy investments that small operators made in deploying their network when they entered the market, notwithstanding the debilitating effects of Naira instability and the effect of inflation in Nigeria.

47. The operator added that given that the consultants determined the cost of new entrant (LTE) operators as being above the costs of Generic 2G/3G/4G operators, it is necessary to incentivise the new entrants to further expand their network to other cities in Nigeria. The operator noted that given the factors listed above it

still has not recovered the initial investment costs preventing it to make further investments.

48. Therefore, the operator requested the Commission to consider backdating the effective date of this Determination to 1st April 2016 in order for the new entrant (LTE) operators to recover the costs of setting up their networks given the extremely difficult conditions in Nigeria.

Response:

49. This request is inconsistent with the statutory mandate of the Commission to ensure predictability and regulatory certainty. Interconnection Rates, just like other Regulations, cannot be set retroactively.

Comments on International Termination Rate (ITR)

50. The need to denominate /Index the International Termination Rate in Dollars was a recurring theme in all the submissions received.

51. The Commission was urged by some of the operators to take into consideration the International Data Access Licence (IDAs) in any decisions it takes with regards the ITR.

Response:

52. The Commission plans to conduct a further study on International Termination rates and may issue a separate Determination in due course.

Comments on the Clearing Houses.

53. Some operators contested the costs determined for the Clearinghouses stating that they were too low. They also requested that the Clearinghouses be made a "least cost route" for the termination of calls.

54. On the other hand, some of the operators questioned the relevance of the Clearinghouses on the grounds that the Clearinghouses have contributed to the problems of high level of interconnect indebtedness, as well as masking and refilling of traffic.

Response:

55. The Commission appreciates the vital role the Clearinghouses are required to play in offering cost-efficient interconnection solutions to other licensees, particularly new entrants and small operators. Based on this, the Commission will continue to review the issues with the aim of finding a solution that will be beneficial to the industry as a whole.

56. While the Commission has not been provided with satisfactory justification for the "least cost route" proposal made by the Clearinghouses, the Commission is nonetheless satisfied that there is a need to prevent anti-competitive practices, which render the Clearinghouses incapable of effectively competing and/or fulfilling their license obligations. In the interim, to ensure a level playing field for all operators, the Commission will ensure that no licensee shall charge and/or receive an effective rate per minute below the rates determined

CONCLUSIONS

57. The Commission has carefully considered the information provided by stakeholders and has taken a view on parameters and regulatory measures in the light of this and other information – such as international experience, cost model results, the state of competition in the sector and the Nigeria macroeconomic environment. The process of arriving at a new MTR has been conducted in a climate of openness and with a view to providing maximum transparency to all parties without compromising the confidentiality of commercially sensitive information.

58. The Commission is confident that the results will make a significant contribution to the development of a thriving telecoms sector in Nigeria and hence benefit both consumers and the industry.

59. The Commission would like to thank all operators who submitted information relating to the regulation of interconnection rates and the costing models and who actively participated in the processes leading to this Determination.

60. Finally, the Commission wants to thank all industry stakeholders and the consultant for their participation in this study and for working together making it a success.

DETERMINATION

1. The Commission hereby determines that:

   a. The Termination Rates for voice services provided by one operator in Nigeria to another operator in Nigeria for terminating a call in their network are as follows:

      i. Generic 2G/3G/4G operators - N3.90 (Three Naira, Ninety Kobo) per minute.

      ii. New entrant (LTE) operators – N4.70 (Four Naira, Seventy Kobo) per minute

      iii. Clearing Houses - Payment/Volume discounts as negotiated.

   b. The International Termination Rate of N24.40 determined in 2016 will continue to apply until a new Determination is made.

2. This Determination shall take effect from the **1st Day of July, 2018** and remains valid and binding on Licensees until further reviewed by the Commission.

3. For the avoidance of doubt, the Commission reserves the right to amend and review this Determination at any time, and announce new rates. Such review may be necessitated by major change in the market conditions and/or the underlining principles of this Determination.

4. The interconnection rates determined in paragraph 1 above shall be applied by and payable (including by way of internal transfer pricing) to all licensees who have been allocated numbers by the Commission.

5. No licensee shall charge and/or receive an effective rate per minute below the rates determined in paragraph 1 above. For the avoidance of doubt, payment discounts, volume discounts and any other concession that has the effect of bringing the effective interconnect rate per minute to a sum lower than the rates determined above shall be deemed a contravention of this Determination. Provided however, that such discounts and concessions may be offered by/to Clearinghouses on terms agreed by the parties, without discrimination between clearinghouses.

6. In this Determination, unless the context requires otherwise, the following expressions shall have the meanings set out below.

"Mobile voice termination"	Termination by the receiving operator of a voice call intended for a number within a range ascribed to mobile services in the national numbering plan and allocated to the receiving operator which call has been delivered to that operator by an interconnected operator (which may be the originating operator or another operator, including an operator providing transit of the call through its telecommunications network) at a point of interconnection and routed by the terminating operator through its telecommunications network.
"Fixed voice termination"	Termination by the receiving operator of a call intended for a number within a range ascribed to fixed services in the national numbering plan and allocated to the receiving operator which call has been delivered to that operator by an interconnected operator (which operator may be the originating operator or another operator, including an operator providing transit of the call through its telecommunications network) at a point of interconnection and routed by the terminating operator through its telecommunications network.
Generic 2G/3G/4G operators	Refers to any Operator with market share greater than 7.5% of the total number of subscribers in the voice market.
New entrant (LTE) operators)	Refers to: 1. A newly licensed Operator entering an existing or new market within 0 to 3 years before this Determination comes into effect, and/or 2. An existing Operator (Mobile/ Fixed) with market share of less than 7.5% of the total number of subscribers in the voice market.

Dated this 1st Day of June, 2018.

M. G Danbatta

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APPENDIX 1

For this study data was collected from the following Operators:

1. Airtel Networks Limited
2. MTN Nigeria Communications Limited
3. Emerging Markets Telecommunications Services Limited
4. Globacom limited
5. NATCOM Development Investment Limited
6. Medallion Communication Limited
7. Interconnect Clearinghouse Nigeria Limited
8. Smile Communications Nigeria Limited
9. Intercellular Nigeria Plc.
10. Exchange Telecommunications Limited
11. Solid Connectivity