

Friday 19th July, 2024

Mr. Kila Gulo-Vui
Chief Executive Officer
National Information and Communication Technology Authority
P.O. Box 8444 BOROKO
National Capital District
Papua New Guinea

Dear Mr. Gulo-Vui,

Subject: Public Inquiry into Service-Specific Pricing Principles on Domestic Mobile Termination Access Service and Domestic Fixed Termination Access Service – Methodology and Principles.

We wish to thank NICTA for the invitation and opportunity to participate in the public inquiry into Service-Specific Pricing Principles on Domestic Mobile Termination Access Service and Domestic Fixed Termination Access Service; and in particular for granting us extension of time to make our submission.

Telikom Limited is aware of the Declaration by the Minister of Communication on Domestic Mobile Termination Access and Domestic Fixed Termination Access services as publicized via government on 7 December 2023. We also appreciate that the requirements under Section 135 (3) of the Act is for NICTA to establish service-specific pricing principles for the declared services.

We understand this phase of the inquiry is aimed at getting our views on the methodology of principles of pricing proposed by NICTA of the said declared services.

We have responded to most of the questions in the DP, which are preliminary although not exhaustively but indicating our most possible preferences where required. Where we left some questions unanswered, this doesn't mean we would not have a view on the question at all so we seek NICTA's understanding to allow us to add to our views in the cross-submission stage of the inquiry.

We hope to continue to share our views in the course of the inquiry; and in so doing help reach an outcome that is best for the market and industry including our customers and communities that depend on our services.

We wish to take this opportunity to request NICTA to take into consideration in this inquiry the following aspects of the domestic termination access for fixed and mobile voice and short messaging services:

- NICTA takes/adopts an approach that is equitable and mindful of market share, particularly of the dominance of one operator, in the calculation of termination rates. This would ensure smaller market players are not unfairly burdened by the massive market power and costs associated with interconnection.

- The unsymmetrical difference in revenues and margins gained from the termination access services between Digicel and Telikom considering Digicel with its larger customer base benefits from economies of scale; and the additional overhead costs that come with being effectively forced to use DataCo services by Telikom as against Digicel using their own. Lower interconnection rates would allow smaller player like Telikom to compete more effectively and sustain its operations.
- Lower interconnection rates would not only benefit Telikom but also the broader economy and consumers. Reduced costs for Telikom could translate into more competitive pricing for consumers, increased service innovation, and enhanced network investment. This, in turn, could stimulate market growth and improve overall service quality in the telecommunications sector.
- While Telikom may be an only player in the fixed line market, its fixed line network is a legacy copper network with significant maintenance costs that very many market players in the world would duplicate.
- The decision of the methodology of cost-modelling and principles of pricing should consider the actual ICT market situation in PNG hence ensure how they will be applied to improve competition, in particular for smaller players to sustain and grow their operations.

Telikom will continue to cooperate as much as it possibly can with NICTA in its efforts to foster fair and equitable regulation of the ICT industry and market in PNG.

Yours sincerely,
TELIKOM LIMITED



Amos Tepi
Chief Executive Officer





Telikom Limited

**Response to NICTA's Public Inquiry into the "SERVICE-SPECIFIC
PRICING PRINCIPLES FOR DOMESTIC MOBILE TERMINATION ACCESS SERVICE
AND DOMESTIC FIXED TERMINATION ACCESS SERVICE – METHODOLOGY AND
PRINCIPLES"**

Friday 19 July 2023

Telikom Limited

Response to NICTA's Public Inquiry into the Service-specific Pricing Principles for Domestic Mobile Termination Access Service and Domestic Fixed Termination Access Service – Methodology and Principles.

Introduction

Telikom Limited (Telikom) is pleased to participate in this public inquiry on the Service-Specific Pricing Principles for Domestic Mobile Termination Access Services and Domestic Fixed Termination Access Services. Telikom is thankful to NICTA and appreciates the opportunity given to Telikom to provide its views.

Telikom notes in full the contents of the Discussion Paper for this Public Inquiry which was published on the internet at www.nicta.gov.pg on 5 June 2024. Telikom's position or lack thereof on any matter in this submission does not mean the waiver or concession of Telikom's rights.

Responses to matters in the Discussion Paper (DP):

General comments:

Telikom recognizes the importance and relevance of helping establish suitable and robust pricing principles and cost modelling methodologies for the pricing of declared services under Part VI of the NICT Act 2009 (the Act). The following are our preliminary views:

Response to questions in the DP:

Question 1: Do you think an international benchmark approach to determine the price of the declared services would be consistent with the general pricing principles in Section 134 of the Act? If you do, please explain your rationale.

Telikom agrees that some international benchmark prices are from countries or jurisdictions that used cost-models and that those models may be based on the principles of cost-based pricing. Where such principles are consistent with the general pricing principles in Section 134 of the NICTA Act 2009 (the Act) the benchmarked prices may be considered appropriate in determining termination rates.

Question 2: In case you think that both approaches (the cost modelling and an international benchmark) are consistent with Section 134 of the Act, which approach do you think would be preferable for NICTA to implement and why?

Telikom prefers that both (cost-modelling and international benchmark) approaches should be implemented by NICTA if both approaches are consistent with the General Pricing Principles in section 134 of the Act; on the basis that cost-based pricing is a significant principle under section 134 of the Act, selected benchmark rates must be ones derived from the use of acceptable cost-based methods. However, the use of international benchmarks would be not preferred where, as according to GSMA, there are 'cost differences between countries as result of a number of factors such as geography, disposable income, access to power, ... etc.'¹.

¹ <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2014/10/settingofmobileterminationrates.pdf> paragraph 3.4.2, para 3.2 page 6

Question 3: Do you agree that NICTA should use a top down (if data is available) or a bottomup approach to cost modelling to calculate cost-based prices for the Declared Services in accordance with Section 134 of the Act? Please explain your reasons for why one approach would be preferable over the other.

Telikom notes the weaknesses of both top down and bottom up approach to cost modelling as clearly outlined by the GSMA². The availability of past operational data has been an issue particularly where networks have evolved in terms of the actual elements of the network, technology, organizational structure, etc. Considering the dependency by NRA's on relevant operator data in both approaches however relatively less in the bottom-up approach, the bottom-up approach may be preferred. It is understood that if a bottom-up approach is preferred an efficient hypothetical network model to be created by NICTA would be used to do the cost-modelling that will uphold the principles in Sections 134 and 135 of the Act. Furthermore, Telikom agrees with para 43 of the DP that how any of the three approach is considered consistent with the General Pricing Principles would depend on how it is used.

Question 4: Do you agree that NICTA could also use a hybrid approach should enough data becomes available from the operators? Explain your reasons for agreeing or disagreeing.

Telikom recognizes that the bottom-up approach alone may not be enough to achieve the 'best-fit' cost model for reasons such as unavailability of information or data to create the efficient network model to base the cost-model on. In such situation, it could be appropriate to make use of the top-down approach or results thereof to achieve the desired model. Hence it could be generally agreed that if sufficient data is available a hybrid approach could be used. Telikom notes the GSMA study draws the conclusion that the hybrid approach to be "an area of best practice".³

Question 5: With respect to the inclusion or exclusion of common costs; do you agree that Section 134 (2) of the Act rules out the use of a pure LRIC cost allocation approach because the Act requires the inclusion of "fair and reasonable common costs" in the calculation of the costs of the Declared Services? If you disagree, please explain why.

Telikom could agree in principle that pure LRIC cost allocation approach could be ruled out on the basis that its definition of the types of costs does not include common costs hence inconsistent with the General Principles of Pricing in Section 34 of the Act.

Question 6: Do you agree that NICTA should use a LRIC+ approach for allocating cost in the cost model? Please explain why you agree or disagree.

Telikom recognizes that it could be preferable to include all relevant costs that contribute to the provision of the termination access service. LRIC+ has been identified as a method that addresses all such costs and being a forward-looking model however this does not set aside the need for historical cost data; an area of best practice noted in the GSMA study conclusions.⁴ Telikom could therefore prefer that NICTA use LRIC+.

Question 7: Are you in agreement with NICTA's view that the use of current cost accounting (CCA) to value the capital assets used for the supply of the Declared Services would reflect the efficient costs of those assets, and that historical accounting costs wouldn't?

²Ibid, page 10

³ Ibid page 44

⁴ Ibid page 44.

Telikom could agree in principle with NICTA's view for the reasons expressed.

Question 8: Do you agree with the approach of valuing assets using the cost of a modern equivalent asset (MEA)?

Telikom agrees in principle; noting the need for accurate assessments as some assets may be unique and specialized hence require experts and practical issues associated with availability of specialized data.

Question 9: Do you agree that NICTA should implement a modified scorched node approach, but if not enough information is available from the reference operators, NICTA may use a scorched earth approach? Please explain why or why not.

Telikom could agree in principle noting from para 98 of the DP the implication that the cost models would be different for DMTAS and DFTAS. Telikom understand the ultimate goal of the said approaches is to arrive at the optimum or best fit network model (hypothetical or hybrid) to base the cost modelling on hence if insufficient information and data is available to achieve this, the next best approach which is understood to be scorched earth approach could be considered.

Question 10: Do you agree that NICTA should use one single model for the determination of the price of DMTAS and a separate model for the DFTAS? Please explain your reasons for why or why not.

Telikom could agree on a single model for determination of price for DMTAS and a separate model for DFTAS as the services and some elements of networks and some operation costs differ. Telikom notes the GSMA 'cost structures are different; for example with notable differences such as ; an increase in traffic in the fixed network will only result in an increase in core-switching and transmission costs, not in the access network, while an increase in traffic in mobile networks will result in an increase in all network elements including the radio access network.'⁵ Telikom considers that consideration must be given to the costs incurred regularly such as on the fixed line copper infrastructure through vandalism.

Question 11: For the DMTAS model; do you agree that the reference operator should be modelled based on a market share and network coverage equivalent to that of Digicel's mobile network, or should NICTA use a market share of 1/N and the average network coverage of the operators? Please explain your reasons for preferring one over the other.

Telikom would support the modelling of the reference operator on the basis that would give rise to improving competition taking into account economies of scale, lower revenue generation levels of smaller operators, and not prevent small operators from growth. At this stage Telikom would not support basing the modelling on market share and network coverage

Question 12: For the DFTAS model; do you agree that the reference operator should be modelled based on a market share and network coverage equivalent to that of Telikom's fixed network? Please explain your reasons for why or why not.

Telikom considers that its market share and network coverage be used as the DMTAS model since it's the only fixed operator that runs a copper network with some costs that are different from DMTAS.

⁵ <https://www.gsma.com/solutions-and-impact/connectivity-for-good/public-policy/wp-content/uploads/2012/09/Tax-Comparison-of-fixed-and-mobile-cost-structures.pdf> page 5

Question 13: In the context of the cost model to set the price for DMTAS, do you agree that NICTA should define the relevant incremental service as the DMTAS provided to third parties? Please explain your reasons for why or why not.

Telikom could support the proposal.

Question 14: In the context of the cost model to set the price for DFTAS, do you agree that NICTA should define the relevant incremental service as the DFTAS provided to third parties? Please explain your reasons for why or why not.

Telikom could support the proposal.

Question 15: In reference to the DMTAS cost model; do you agree with the proposed technologies and services to model? Explain why or why not.

i. Technologies:

- a. GSM (2G): voice, data, SMS**
- b. UMTS/HSPA (3G): voice, data, SMS**
- c. LTE (4G): voice (VoLTE), data**

ii. Modelled Services:

- a. Voice: On-Net, Incoming, Outgoing, International calls**
- b. Data**

Modelled service increment: Wholesale domestic mobile voice call termination provided to third parties.

Telikom could support the proposal.

Question 16. In reference to the DFTAS cost model; do you agree with the proposed technologies and services to model? Explain why or why not.

i. Technology: Next Generation Network (NGN)

- a. Copper Access Network (ADSL)**
- b. Fibre Access Network (PON)**

ii. Modelled Services:

- a. Voice: On-Net, Incoming, Outgoing, International calls**
- b. Data: Fixed internet service**
- c. Video: Cable TV**

Modelled service increment: Wholesale domestic fixed voice call termination provided to third parties.

Regulatory recommends agreement with NICTA view.

Question 17: Do you agree that for the allocation of network related joint and common costs, NICTA should use the capacity-based allocation and the Shapley-Shubik approaches depending on the network element analyzed? Please explain your reasons for why or why not.

Telikom could support NICTA's view in principle and in theory noting the complexity as the number of elements being costed increases.

Question 18: Do you agree that for the allocation of overhead common costs, NICTA should use the equal proportionate mark-up (EPMU) approach? Please explain your reasons for why or why not.

Telikom could support NICTA's view in principle.

Question 19: Do you agree that NICTA should use the tilted annuity approach to calculate the depreciation of assets? Please explain your reasons for why or why not.

Telikom could support NICTA's view in principle.

Question 20: Do you agree that NICTA should use the after-tax and pre-tax WACC formulas presented earlier to calculate two separate costs of capital; one for the DMTAS modelled access provider and a different for the DFTAS modelled access provider? Please explain your reasons for why or why not.

Telikom could support NICTA's view in principle.

Question 21: Do you agree that NICTA should not use the gearing values from the financial statements of the domestic operators, and that instead, should calculate notional gearing values based on international benchmarks from telecom companies that can be regarded as having an efficient capital structure? Please explain your reasons for why or why not.

Telikom could support NICTA's in principle.

Question 22: Do you agree that NICTA should use formula No. 6 to calculate the cost of debt of the modelled access provider of DFTAS and DMTAS? Please explain your reasons for why or why not.

Telikom could support NICTA's in principle.

Question 23: Do you agree that NICTA should use the interest rate on a 10-year U.S. bond or comparable sovereign bond interest rate, as the risk-free rate of return? Please explain your reasons for why or why not.

Telikom could support NICTA's in principle.

Question 24: Do you agree that to calculate the country risk premium (CRP) NICTA should use either the difference between the interest rate of the PNG government bonds and the riskfree interest rate of comparable maturity, or the widely used CRP calculated by Prof. Damodaran from NYU? Please explain your reasons for why or why not.

Telikom could support NICTA's in principle.

Question 25: To calculate the debt-risk premium, do you agree that NICTA should use the spread between the interest rate of comparable corporate bonds and government bonds in other jurisdictions, as long as the corporate bonds are from efficient operators that provide comparable services as the modelled operator? Please explain your reasons for why or why not.

Telikom could support NICTA's in principle.

Question 26: Do you agree that NICTA should use formula No. 8 to calculate the cost of equity capital for the modelled access provider of DFTAS and DMTAS? Please explain your reasons for why or why not.

Telikom could support NICTA's in principle.

Question 27: Do you agree that to calculate the market-risk premium (MRP), NICTA should use the difference between the rate of return on the U.S. Standard & Poor's 500 Index and the risk-free rate of return? Please explain your reasons for why or why not.

Telikom could support NICTA's in principle.

Question 28: Do you agree that to calculate the equity beta of the modelled access provider NICTA should either use benchmarks of equity betas from comparable publicly traded companies in the U.S or use the widely cited estimates from the U.S. telecommunications sector from Prof. Damodaran? Please explain your reasons for why or why not.

Telikom could support NICTA's in principle.