

THE UNITED REPUBLIC OF TANZANIA
TANZANIA COMMUNICATIONS REGULATORY AUTHORITY



**DETERMINATION ON REVIEW OF TELECOMMUNICATIONS NETWORK
INTERCONNECTION RATES IN THE UNITED REPUBLIC OF TANZANIA,
ISSUED IN 2007**

INTERCONNECTION DETERMINATION NO. 2 ISSUED IN 2007

1.0 INTRODUCTION

This Determination is made under the Tanzania Communications Regulatory Authority Act No.12 of 2003 and the Second Schedule of the Tanzania Communications Act No.18 of 1993. In compliance with the requirements of the TCRA Act an Inquiry was conducted by a Panel of Inquiry of Inquiry from 14th to 27th December 2007. Panel of Inquiry considered among others the report of the M/S Analysys (UK) Ltd; the Consultant who conducted the cost study to establish cost based interconnection rates among the network operators in the United Republic of Tanzania. The study used the Forward Looking Long Run Incremental Cost Study Methodology (FL-LRIC). The Panel of Inquiry submitted their report on 27th December 2007.

This Determination shall be known as Determination No.2 issued in 2007 on cost based Interconnection Rates for voice call termination in the United Republic of Tanzania (hereinafter referred to as the "Determination"). This Determination shall be effective on the 1st day of January 2008 and is binding to all Telecommunications Network Operators operating in the United Republic of Tanzania following the expiring on 31st December 2007 of Determination No 1 of 2004 as reviewed in March 2006 on cost based interconnection rates for fixed and mobile telecommunication networks.

2.0 CONSIDERATION OF THE FINDINGS OF THE PANEL OF INQUIRY

After thorough scrutiny of the Report of Inquiry on appropriate cost based interconnection rates, the Authority concurs with the findings of the Panel of Inquiry Inquiry that:

2.1 Conformity with the law

2.2.1 Panel of Inquiry

The Panel of Inquiry was appointed by the Authority in accordance with Rule 6(1) of the Tanzania Communications Regulatory Authority (Procedure for Rules of Inquiry) Rules, 2004. The notice of Inquiry was published in the Gazette on 14th December 2007.

2.2.2 Procedure of Inquiry

The procedure laid down in Section 18 of the TCRA Act, 2003, and the Tanzania Communications Regulatory Authority (Procedure for Rules of Inquiry) Rules, 2004 was complied with. The inquiry was conducted at the instance of the Authority pursuant to Section 18(3) of the TCRA Act. The Inquiry was conducted as a condition precedent to the issuance of interconnection rates determination as required by Section 18(2) of the TCRA Act.

The Inquiry was conducted in a transparent manner involving all the Telecommunications network operators and other stakeholders including the general public in accordance with the TCRA (Procedure for Rules of Inquiry) Rules of 2004.

The Inquiry process involved literature review, consultations, written submissions and public hearing to get views from operators, consumers and other stakeholders including the general public. Finally, the Panel of Inquiry produced the Report that was submitted to the Authority on 27th December 2007.

The Panel of Inquiry established that with the exception of Celtel (T) Ltd and Vodacom (T) Ltd; Benson Informatics, MIC (T) Ltd, Sixtelecoms Company Ltd, Tanzania Telecommunications Company Ltd and Zanzibar Telecommunications Ltd were in favour of the proposed rates.

Other stakeholders and most members of the public were of the view that the proposed interconnection rates are reasonable and adoption of the same rates should induce reduction of retail tariffs.

2.2 Natural Justice

The Authority has noted that the Panel of Inquiry has been satisfied that no principle of natural justice was breached in view of the fact that all procedural requirements were complied with and every interested party was afforded an opportunity to be heard.

2.3 Time of Inquiry

All operators, except Vodacom, were of the opinion that the time given was sufficient especially considering that all operators were involved in every aspect of the Consultant's work. Meetings were held between the Consultant and the operators at which interim cost model outputs were discussed, and the Consultants incorporated comments from operators. It is the Panel of Inquiry's considered opinion that all operators were sufficiently exposed to the subject and in the course of the Inquiry they all made detailed, well informed and substantive submissions to the Panel of Inquiry of Inquiry on this issue of great importance to their businesses.

2.3 Involvement of Stakeholders

In compliance with the Terms of Reference, the Authority is satisfied that all stakeholders were involved in a transparent manner. The Authority notes that the Panel of Inquiry visited all operators: TTCL, Benson informatics Ltd, Six Telecom were visited on 14th December 2007, Celtel, Vodacom and MIC were visited on 17th December 2007, and Zantel was visited on 19th December 2007. There was a stake holder's workshop with the consultant on 18th December 2007.

The operators submitted written submissions on 20th December 2007. Also the operators, other stakeholders and the general public made oral submissions during the public hearing conducted on 21st December 2007. A number of well reasoned comments were received at the public hearing. The major finding of the public hearing was that the telecommunication retails tariffs are still high and they need to be reduced to reflect actual costs involved.

2.4 The LRIC Methodology

The Authority has noted with satisfaction that the Panel of Inquiry satisfied itself that the Long Run Incremental Cost (LRIC) methodology, which was used by the Consultant, is the appropriate basis for determining interconnection rates because it reflects costs of the modern equivalent networks. These costs promote effective competition and attract new entrant to enter into the market.

2.5 Other Methodologies for Interconnection Rate Determination

The Authority has noted that the Panel of Inquiry has considered other methodologies particularly benchmarking. The Panel of Inquiry has looked at benchmarks of selected African countries which have undertaken some form of cost studies. That notwithstanding, it is the Authority's considered view that benchmarking presupposes that countries/operators being compared have exactly the same economic and operating environment, which may not be the case.

2.6 Relevant Costs for Interconnection Services

The Authority is satisfied that the report of the Panel of Inquiry has established that all licensed operators except Zantel and Benson Informatics submitted data to populate the model developed by M/S Analysys. Benson Informatics Ltd, MIC, Six Telecoms, TTCL, ZANTEL agreed with the proposed interconnection rates, while Celtel and Vodacom disagreed and wanted the current rates to remain or to be increased.

The Authority notes with approval the Panel of Inquiry agreement with Analysys' consideration of costs which are relevant for the provision of interconnection services, namely Long Run Incremental Costs, Equi Proportionate Mark-Up and location updates.

2.7 Desire to Promote Competitive Rates and Attract Market

The Authority concurs with the Panel of Inquiry's observation that all operators have monopoly on terminating calls on their networks. In order to promote fair competition there is indeed a need for regulating interconnection rates.

2.8 Financial Implications

The Authority accepts the view that in the short run there will be less revenue to be realized from interconnection by operators who are currently net receivers. However, net payers will experience a reduction in costs by paying less interconnection charges to other operators. It is the considered view of the Authority that traffic patterns will change through increase of subscribers and air time.

The Authority agrees with the value of Weighted Average Cost of Capital (WACC) of 22% as used by the Consultant in the final model. The Consultant's figure was based on recent African mobile telecommunications reports produced by investment banks, which the Authority considers to be more relevant to the telecommunication industry in Tanzania.

2.9 Consumers and Investor Interest

The Authority concurs with the Panel of Inquiry's agreement with the view of the majority of operators and other stakeholders that reduction of interconnections rates should translate to a reduction of retail tariffs. The Authority dismisses arguments by some operators that reduction of interconnection rates will hinder the roll-out and expansion of networks in the country.

The Authority notes the Panel of Inquiry's support of the views expressed by most of stakeholders that the proposed interconnection rates should be implemented with effect from 1st January 2008 without any delay.

2.10 Any Other Factors Specified in the Relevant Sector Legislation

The Authority is pleased that the Panel of Inquiry considered all other relevant factors as specified in the relevant sector legislation. From the submissions and the public hearing, it is evident that the proposed interconnection rates comply with the provisions of Section 5(1) (b, c, k, m and n) of the Tanzania Communications Act No.18 of 1993.

2.11 Network Externality

The Authority is satisfied with the Panel of Inquiry's observation that the network externality is a complex subject, very subjective and with both positive and negative impacts on the industry.

The Authority adopts the Panel of Inquiry's considered view that network externality should be for now excluded from the interconnection rate determination. It may be considered in the future when standards are set by the ITU and or TCRA.

2.12 Market trend

The Authority notes the observation of the Panel of Inquiry that the market is very dynamic and there is increasing competition evidenced by new products and services. The current customer base of about 7.7 million in a population of 39 million is still low.

The Authority has noted the potential market as estimated by operators at 15 million by 2010 and 20 to 25 million by 2012. The Authority concurs with the considered

view of the Panel of Inquiry that the proposed interconnection rates will create a level playing field, and promote fair competition in the interconnection and retail market segments.

Further, the Authority has noted that if only the percentage of active subscribers as defined by each operators, is considered, table 1 below indicates the market share of each operator.

Table 1: Market Share by Percentage of Active Subscribers as at 30TH September 2007

| Operator | Number of subscribers | Market share (%) |
|------------------------|------------------------------|-------------------------|
| VODACOM | 3,693,062 | 47.8 |
| CELTEL | 2,250,828 | 29.1 |
| MIC (T) Ltd (TIGO) | 992,036 | 12.8 |
| ZANTEL | 553,975 | 7.2 |
| TTCL | 233,890 | 3.0 |
| Benson Informatics Ltd | 3,500 | 0.1 |
| Total | 7,727,291 | 100.0 |

Source: Submission from operators

2.13. Currency for Interconnection rates

The Authority has considered and affirms the Panel of Inquiry's findings that though the interconnection rates are in USD, settlement should be made in Tanzania Shillings (TZS) based on an acceptable method of converting USD into TZS on 1st January of each year of the glide path. The Authority further notes and agrees with the Consultant recommendation that in order to reduce the impact of currency fluctuations, the exchange rate be based on a weighted average exchange rate as provided by the Bank of Tanzania for the previous 12 months to 15 December of every year.

2.14 Converged Licensing Framework

The Authority notes the introduction of the Converged Licensing Framework (CLF) by TCRA in February 2005 after the expiry of TTCL's exclusivity. The CLF has four license categories with four market segments as illustrated in table 2 below. The CLF is technology neutral and service neutral. The CLF enshrines competition in all telecommunications market segments. The Content Service License has additional market segment at community level.

Table 2: Market Segments in the CLF

| LICENSE CATEGORY | INTERNATIONAL (I) | NATIONAL (N) | REGIONAL (R) | DISTRICT (D) |
|------------------------------------|------------------------------|-------------------------|-------------------------|-------------------------|
| NETWORK FACILITY LICENSE (NFL) | NFL (I) | NFL (N) | NFL (R) | NFL (D) |
| NETWORK SERVICE LICENSE (NSL) | NSL (I) | NSL (N) | NSL (R) | NSL (D) |
| APPLICATION SERVICES LICENSE (ASL) | ASL (I) | ASL (N) | ASL (R) | ASL (D) |
| CONTENT SERVICES LICENSE (CSL) | — | CSL (N) | CSL (R) | CSL (D) |

2.15 Treatment of International Calls

The Authority notes that International voice call market includes incoming calls into Tanzania and outgoing calls to outside Tanzania which pass through an International Network Facility Licensee (also called an International Gateway).

2.15.1 Outgoing international calls

The Authority is in agreement with the Panel of Inquiry's observation that outgoing international calls are not subject to regulation because an international gateway operator must pay to an international carrier to terminate a call in a foreign country. The charges are arrived at by commercial negotiations.

2.15.2 Incoming international calls

The Authority notes that an incoming international call from outside Tanzania transits through an international gateway within Tanzania and terminates on a national network. The international gateway within Tanzania pays cost for terminating a call on the national network, and hence is subject to the Tanzania Communications (Interconnection) Regulations 2005. Therefore, the Authority affirms the recommendation by the Panel of Inquiry that calls transited through a gateway in Tanzania, irrespective of their origin, fall within the scope of the Regulation and this Determination.

2.16 Alignment of Fixed and Mobile Termination

The Authority concurred with the Panel of Inquiry support for the alignment of fixed and mobile termination rates, noting that on the average only 1.3 % of the outgoing off-net mobile traffic goes to fixed lines. Further, most retail mobile tariffs make no distinction between outgoing calls to fixed lines and other mobiles. Also the CLF is service neutral making no distinction between fixed and mobile. The Authority agrees with these views and adopts them accordingly.

3.0 THE DETERMINATION

The Authority hereby determines Interconnection rates to be applied among the Telecommunication network operators in the United Republic of Tanzania as follows:

3.1 The appropriate cost-based interconnection rates shown in glide path shown in table 3 below shall be used from 1st January 2008 to 31st December 2012:

Table 3: Glide path for cost-based Interconnection rates (US\$ Cents) with effect from 1st January 2008 to 31st December 2012:

| | 1 st January 2008 | 1 st January 2009 | 1 st January 2010 | 1 st January 2011 | 1 st January 2012 |
|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Voice call termination rates | 7.83 | 7.65 | 7.49 | 7.32 | 7.16 |

3.2 A review of the interconnection rates may be carried if the Authority deems necessary.

3.3 Though the interconnection rates are in US dollars Cents, settlement shall be made in Tanzanian Shillings (TZS) based on a weighted average exchange rate as provided by the Bank of Tanzania for the previous 12 months to 15 December of every year issued by the Authority before 1st January of each year of the glide path. For the first year of the glide path the interconnection rate is determined at TZS 97.00

3.4 The Authority determines that outgoing international calls are not subject to regulation because an international gateway operator must pay to an international carrier to terminate a call in a foreign country basing on charges arrived at by commercial negotiations.

3.5 The Authority determines that the incoming international calls transiting through the international gateways within Tanzania irrespective of their origin

- pay cost for terminating calls on the national network, and hence is subject to the Tanzania Communications (Interconnection) Regulations 2005 and this determination.
- 3.6 The Determined rates are appropriate cost based interconnection rates for termination of traffic into telecommunications networks in the United Republic of Tanzania. For avoidance of doubt, international incoming traffic transits through an international gateway within Tanzania and terminates on a national network fall under the ambit of this Determination.
 - 3.7 There shall be single termination rate for all types of networks irrespective of service and technology used.
 - 3.8 All operators are required to enter into new Interconnection Agreements and submit the same to the Authority by 31st January 2008.

Prof. John S. Nkoma
DIRECTOR GENERAL
TANZANIA COMMUNICATIONS REGULATORY AUTHORITY

27th December 2007