

AN ASSESSMENT OF INTERNATIONAL VOICE TRAFFIC TERMINATION RATES

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EXECUTIVE SUMMARY

The international termination rates (ITR) refers to interconnection charges set by mobile traffic carriers as carrier-to-carrier charges. The ITRs are assessed by mobile carriers on calls originating from other networks, including both fixed-line networks and rival mobile networks, with identical charges usually applied to all off-net calls, irrespective of whether they are local, long-distance, or international calls. There are several components involved in setting up cost of termination and completing an international call by telecommunications service providers. There is first the cost of the national portion of the call from the customer's terminal to the international gateway; the second cost component of the call is the international transmission portion; and the third cost component is the international call is the cost of access to the network of the terminating Country.

Therefore, the cost incurred in switching and transmitting an international call from the originating terminal to the international gateway can be considered as the major cost elements for such calls. These costs include capacity cost and operating cost. The reflection of these costs in tariff schedules varies from Country to Country depending on how they structure telecommunications tariff.

Differences in telecommunication charging structure will have implications for international telecommunication prices. Where subscription is high, international call charges may be lower compared to where subscription may be low. This difference will be more obvious where the international operator is separate from the national operator. In such a situation the international operator needs the national operator in its own Country for an originating call since the originator has already paid for access through subscription charge.

ITU recommends that the carrier in the destination country can be remunerated on the basis of a flat-rate price per circuit or the traffic units carried or through a procedure whereby accounting revenue is shared between terminal operators. And lastly, through "sender keeps all", which involves no exchange of international accounts.

Following liberalisation of telecommunication markets around the world, there has been a trend of declining rates for incoming international termination. These rates, which were previously held at artificially high levels by government imposed monopolies, rapidly converged towards the levels available to operators in domestic markets.

The rate of growth has decreased in recent years, which was attributed to the rise in VoIP - to-VoIP calls that are not captured in those figures but represent a further increase in the total.

One of the primary objectives of National Regulatory Authorities is to protect the rights and interest of service providers and consumers within their Country. The telecommunications service providers and Government would prefer higher rates that brings in hard currency and can fund investment, expand domestic network, fund innovation and improve quality of service.

Where the balance of traffic is heavily in favor of inbound international calls, it is hard to regulate settlement rates down, since international termination rate have no impact on the domestic subscribers, it would be in the interest of the economy to allow international traffic termination rate to be settled through negotiation and commercial agreement between the domestic service providers and international traffic carriers instead of setting a floor rate for international incoming calls.

CHAPTER ONE

1.0 INTRODUCTION

The provision of an international telephone call requires the interconnection of the domestic network of the Country where the call originates, through an international exchange to an international line and, through another international exchange, to the domestic exchange of the Country where the call is terminating.

As a result of these connections, it has become necessary for carriers of international traffic to reach agreement with carriers in call terminating Countries in order to ensure end-to-end connectivity resulting in a structure where there is joint provision of international telecommunications service and transmission of traffic. Such agreements have to include tariffication and revenue distribution issues. In most cases, agreement had to be executed with Countries through which traffic transits.

According to Professor Leonard Waverman, international telecommunication pricing structures have important implications for national telecommunication sectors given that revenues from international calls is seen as means of cross-subsidising domestic calls. International telecommunications services also have long- run structural implications on the operations and management of transactional enterprises. Telecoms have become an important factor in the production of goods and services and in their global distribution, consequently the price of telecommunication is having relatively greater impact on enterprises carrying out their international activities and in their decision on geographic location of their activities. There are a couple of reasons why changes in international tariff practices and procedures may be required:

- The evolution of international competition in telecommunications will depend on the existence of efficient price structure;
- Prices can impact on access to services;
- Prices are important in providing the correct market signals to suppliers and user.

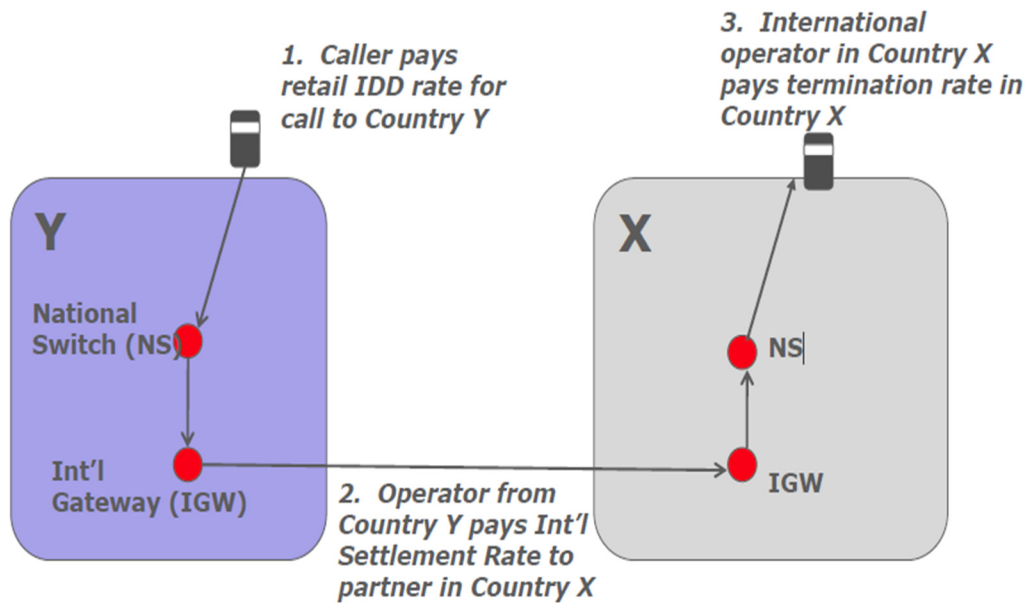
International telecommunications traffic is also the source of a growing invisible trade imbalance in several Countries which has led to more focus being placed on rates and accounting practices.

1.1 WHAT IS INTERNATIONAL TERMINATION RATE

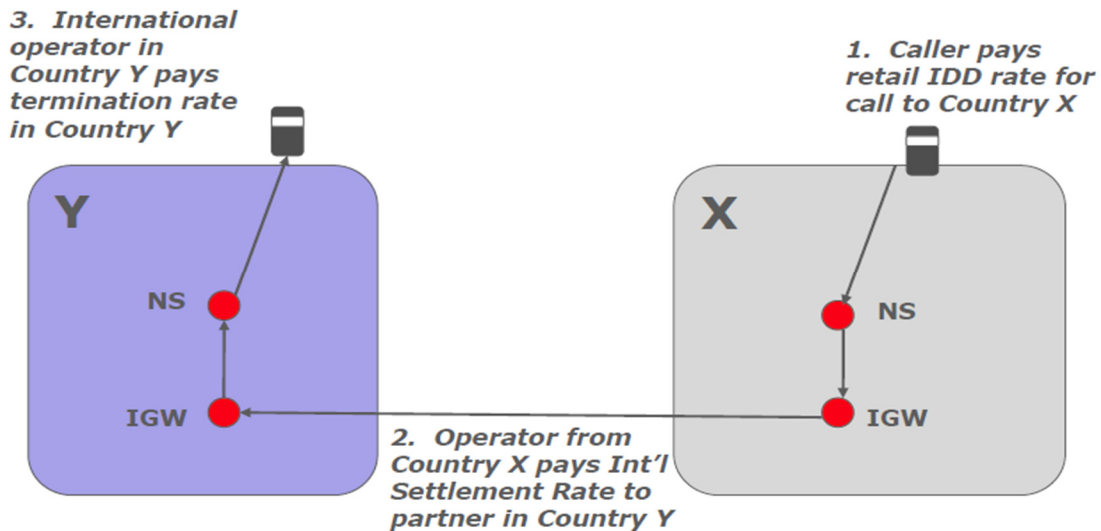
The international termination rates (ITR) refers to interconnection charges set by mobile traffic carriers. ITRs are carrier-to-carrier charges. These higher ITRs are assessed by mobile carriers on calls originating from other networks, including both fixed-line networks and rival mobile networks, with identical charges usually applied to all off-net calls, irrespective of whether they are local, long-distance, or international calls.

According to David Rogerson (2010), international traffic termination allows subscribers in one country to receive calls from subscribers in other countries. International Traffic Termination also applies to both fixed and mobile termination, although different charges may apply. For the purpose of this desk top research, our focus shall be on voice traffic but termination can also apply to text (SMS) and switched data services. Figure 1a and 1b below further explains the scenarios of an international call termination:

Figure 1 a: Typical call scenario.



Source: ITU (2010), presentation on International Traffic Termination
Figure 1b: The system is symmetrical



The system appears symmetrical, the money flows are from developed to developing countries:

- Most traffic originates from rich countries
- High settlement rates favor the recipient countries

Source: ITU (2010), presentation on International Traffic Termination

1.2 ADMINISTRATIVE AND LEGAL FRAMEWORK

The provision of international telecommunications service has resulted from co-operation between telecommunications service providers who have entered into bilateral operating agreements specifying the services to be provided and their condition. These operating agreements is based on the framework set down by the International Telecommunication Convention, its regulation and the recommendations of the International Telegraph and Telephone Consultative Committee (CCITT).

a. International Telecommunication Convention.

The International Telecommunication Convention and International Telecommunication Regulations set-up under this conventions have the status of international treaty binding on governments. They set down the basic framework and principles for international telecommunications pricing and payment procedures.

According to article 29 of the International Telecommunication Convention; settlement of international accounts shall be regarded as current transactions and shall be effected with current international obligations of the Countries concerned, in those Countries where their governments have concluded arrangements on the subject. Where no such arrangements have been concluded, and in the absence of special agreements made under Article 31, the settlement shall be effected in accordance with the Administrative Resolutions.

The regulation for accounting charges of an international telecommunication service recognized that:

- The level of charge is a national matter;

- In establishing charges there should not be too great a dissymmetry between the charge applicable in each of direction of the same relation;
- Charges for a given relation should be the same regardless of the route chosen by the telecommunication service providers.

b. International Telegraph and Telephone Consultative Committee (CCITT).

Charging and accounting in international telecommunications services are covered by the CCITT recommendations. Recommendations on tariff principles includes charging principles to ensure that Countries charge for international service in a similar way. Tariffication principle are aimed primarily at reducing the risk of tariff distortion over international routes and curtailing incentives to re-route traffic through possible transiting Countries.

According to recommendation D.150 (2.3.1), revenue from traffic exchanged between administrations of terminal Countries should be divided on the basis of accounting revenue division procedures. Under this procedure the norm has been to divide revenue on a 50:50 basis between the two terminating countries as specified by the CCITT Recommendations, also the ITU Plenipotentiary Conference of 1984 recognized that a departure from the 50:50 split could be warranted taken into account different cost incurred between different Countries. Consequently, recommendation D150 was revised to allow sharing of accounting revenues in proportion other than 50:50 where there are differences in cost of providing and operating telecommunications services.

1.3 PRICING PRINCIPLES FOR TELECOMMUNICATIONS

a. Cost based pricing in the presence of scale of economies

Imagine a situation where a firm's scale of economies in production is large relative to market demand. In such a situation pricing at marginal cost will not allow the firm to break even since marginal cost is below average cost. There are various means for the firm to break even, it could charge an average price or different prices to different set of customers. According to Ramsey, 1927 the average cost pricing (raising the price that would be charge at price equal to marginal cost, equal to all customers) is not generally the best means of pricing. Instead, in the presence of scale of economies, the firm would do better by discriminating between sets of customers, charging appropriately more to those groups whose demand is less elastic (i.e. they value the service more). Therefore, price discrimination of a specific type becomes a useful pricing device. Note that prices are not equal to cost but related to cost, the relationship depends on elasticity of demand.

b. Cost based pricing in telecommunications

Cost based pricing in telecommunications service can be disaggregated into several components- access, incoming calls, and outgoing calls. Access here refers to the cost of individual subscriber's connection to the network. In most jurisdiction domestic calls are not charged on the basis of distance but on the duration of the calls.

1.5 INTERNATIONAL TELECOMMUNICATION PRICING: STRUCTURE AND TRENDS

i. Pricing and General Cost Structure of International Telecommunications

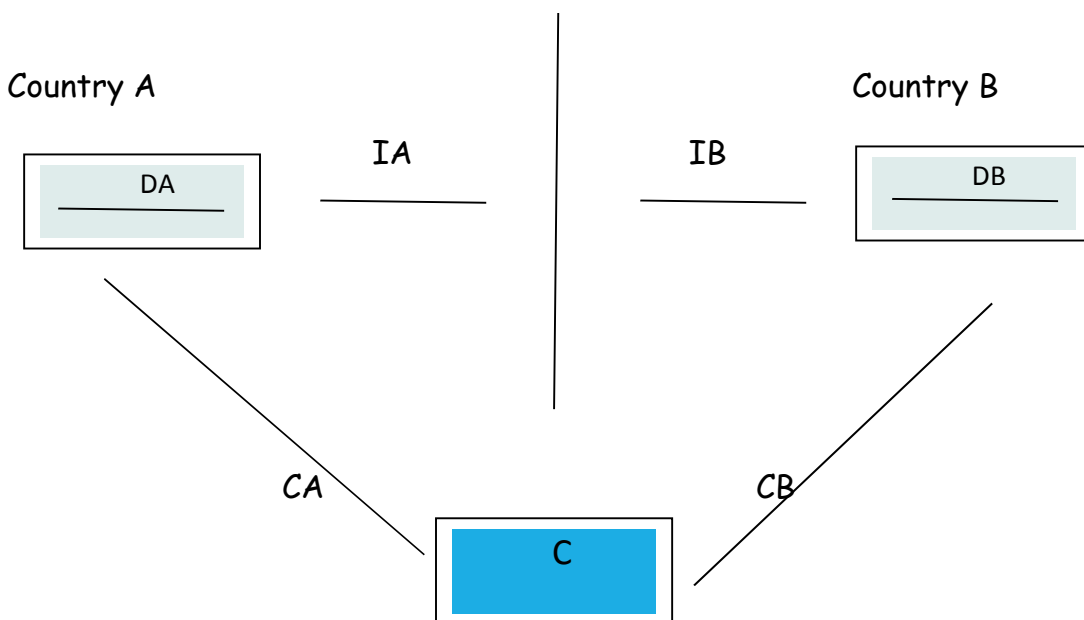
In relation to cost of termination, there are several components involved in setting up and completing an international call by telecommunications service providers. There is first the cost of the national portion of the call from the customer's terminal to the international gateway; the second cost component of the call is the international transmission portion; and the third cost component is the international call is the cost of access to the network of the terminating Country.

Figure 2 below describes the connection of international call between two countries. Telecom facilities within Country A (DA) are connected to the facilities within country B (DB) by international link (AI&IB) owned jointly so that half of the link, AI can be said to be owned by Country A (or by its firm) and one half, IB, can be said to be owned by Country B. There is an indirect path between Country A and B through C with C having similar relationships with both A and B, i.e. the line CA is jointly owned as in CB.

Some means must be arrived at to ensure that:

- 'B' will allow 'A's call and vice Versa;
- Compatibility between equipment exist;
- The revenues from the ensuing calls are shared.

Figure 2: Description of Connection of International Call between two Countries.



Source: OECD international telecommunication tariffs:

ii. Pricing Structure

The cost incurred in switching and transmitting an international call from the originating terminal to the international gateway can be considered as the major cost elements for such calls. These costs include capacity cost and operating cost. The reflection of these costs in tariff schedules varies from Country to Country depending on how they structure telecommunications tariff. For some access to the network is levied through subscription charges, therefore usage charges tends to be low. In some jurisdictions pricing philosophy favors low subscription charges (access) and higher usage charges, such that access can be viewed as being pro-rated on the basis of the use of the network.

Differences in telecommunication charging structure will have implications for international telecommunication prices. Where subscription is high, international call

charges may be lower compared to where subscription may be low. This difference will be more obvious where the international operator is separated from the national operator. In such a situation the international operator needs to the national operator in its own Country the equivalent of the usage charge for an originating call since the originator has already paid for access through subscription charge.

1.5 TRADITIONAL INTERNATIONAL TELECOMMUNICATION ACCOUNTING AND SETTLEMENT ARRANGEMENTS

Settlement for international telecommunications traffic between and among countries is carried out within an international framework of standards known as recommendations developed and approved by members of the International Telecommunication Union (ITU) within the International Telegraph and Telephone Consultative Committee (CCITT), now known as the Telecommunication Standardization Sector (ITU-T). International operators tends to adhere to these internationally agreed standards because they facilitated not only the interconnectivity and interoperability of the international network, but also provided a degree of harmony in operating and administering it. International telecommunication operators and service providers were and are, however, free to agree to any arrangements between or among themselves, so long as this does not cause technical harm to the whole network.

International telecommunication accounting practices distinguish between remuneration of the corresponding carrier in the country of destination or transit for the delivery of its traffic (accounting rate) and the charge in national currency collected by an operator from its customers for the international facilities and services provided (collection charge).

According to ITU-T Recommendations D.150 and D.155, which concern tariff and accounting practices in the international telephone service, the carrier in the destination country can be remunerated on the basis of a flat-rate price per circuit, the traffic units carried, or through a procedure whereby accounting revenue is shared between terminal operators. A fourth option, "sender keeps all", involves no exchange of international accounts. These are briefly described below:

- Under the **Flat-Rate Price Method**, the international carrier of the country of destination receives payment for facilities provided at a flat-rate price per circuit covering the international circuit section provided by the country of destination, the use of its international exchange, and the national extension. While very rarely applied for the remuneration of the country of destination, this method is used to remunerate the transit point in direct transits.
- Under the **Traffic-Unit Price Method**, the international carrier of the country of destination receives payment on the basis of the price it has established per unit of traffic. This price is related to the facilities made available and takes account of the length of the international circuit section provided by the country of destination, the use of its international exchange, and the national extension. This method was used in Europe and the Mediterranean Basin on the basis of the standard rates established by the TEUREM Group.
- Under the most commonly used method, the **Accounting-Revenue Division Method** of **Accounting Rate Method**, the value of traffic in each direction between two corresponding international carriers is multiplied by a mutually agreed tariff or "accounting rate" to give an accounting revenue which is "in principle, shared equally between the (carriers) of the terminal countries in respect of each traffic direction". In theory, international carriers can agree on other than equal shares when their costs or the extent of the facilities that

each provides vary significantly; however, in practice, accounting rates are shared 50/50. If, during a given settlement period (say, a month or a quarter), there is more traffic flowing in one direction than the other, the carrier which receives more traffic than it sends will receive a greater amount of compensation from the corresponding operator for delivering its traffic than it has to pay out. The direction of the traffic imbalance, therefore, determines which operator has to pay its partner in a bilateral relations more than it receives. If, for example, the accounting rate between Brazil and a given foreign destination is \$ 1.00 and the accounting rate is divided 50/50, then Brazil pays its foreign partner $\frac{1}{2} \times 1.00 = \$ 0.50$ per minute of traffic to deliver each call to its destination from the mid-point to the destination subscriber (**The factor by which the minutes of traffic are multiplied is also referred to as the "settlement rate"**); to facilitate accounting, however, partners in a bilateral relation look at the sum of the traffic in both directions for a given period and apply the accounting rate only to the difference. If, therefore, during the period there are more minutes of traffic flowing into Nigeria than flowing out, the imbalance obtained by multiplying by half of the accounting rate gives the net "traffic settlement". The greater a country's outgoing traffic imbalance with another country, the greater its net payments outflow. **The long run trend has been to reductions in accounting rates reflecting the decreasing unit cost to the international carrier to deliver the traffic that it receives and the decreasing charges collected by the originating operator for an international call.**

- When there is minimal or no imbalance in the traffic exchanged between terminal points, the corresponding carriers may agree that no accounting is necessary. The **Sender Keeps All Method** is used for example in relations among the Southern African Development Council countries (i.e. Malawi,

Zambia, Zimbabwe, South Africa, Botswana, Mozambique) where the traffic exchanged is roughly equal in each direction and for the Internet where there are no accounts exchanged at the higher network levels.

Transit Arrangements

This kind of settlement arrangement is carried out such that Carriers in countries which are used as transit points between origin and destination are remunerated either according to a **flat-rate price** for facilities made available on a dedicated circuit basis rather than on demand or according to a **traffic-unit price** on the traffic which is switched through the transit point(s). The terminal and transit carriers in a switched transit relation would normally negotiate an accounting rate for the relation and then divide it into two terminal shares and one or more transit shares.

The balance of the accounting rate after reduction of the transit share(s) are divided equally between the terminal carriers; however, as in the case of direct relations they may also agree to something other than a 50/50 share. With the advent of competition for transit traffic, transit carriers began in the late 1970's to offer so-called Transit Remuneration Plans (TRPs), whereby transit facilities were offered to terminal operators at competitive rates. These rates were then deducted from the total rate between the two terminals. The balance is then divided between the terminal carriers. This competition for transit traffic has more recently lead to international operators' refiling each other's international traffic. Refile is discussed later in this paper.

1.6 COLLECTION CHARGES

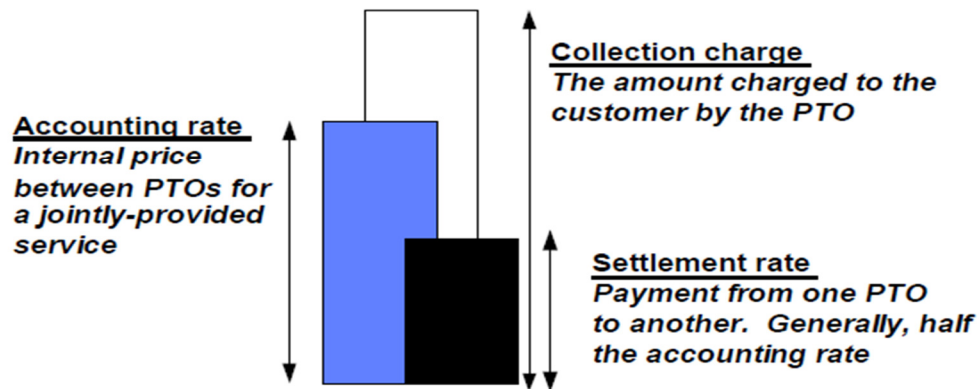
Collection charges are considered to be a purely national matter fixed by the provider of the international services subject to government, regulatory, financial and competitive constraints. Collection charges for a given service may differ considerably at each end of a given relation.

The ability of the international carrier to set prices for its international services and facilities allows for a more efficient use of the international network. For example, lower tariffs in off-peak hours to certain destinations can stimulate traffic to fill circuits which would otherwise lay idle but which are required to cater for peak periods. This flexibility has been enhanced through computerization of real-time information on capacity utilization which allows fine tuning of collection charges applied to different destinations at different times. Characteristic of this international accounting and payment mechanism is that each customer's contact is limited to the local telecommunications company that provides these (basic) services to its premises. The customer settles the total cost of an international call that it has initiated with this carrier which then settles with the international carrier (if they are not one and the same) according to a formula that they have agreed between themselves.

The international carrier then settles with its foreign partner according to one of the international settlement procedures just described. Neither the domestic nor the international carrier have any transactional responsibilities with respect to a customer in a foreign country that originates or receives a call.

A graphical illustration of an accounting rate, a settlement rate (normally half the accounting rate) and a collection charge can be found at Figure 3.

Figure 3: Accounting Rate, Settlement Rate and Collection Charge for telecoms operators.



Source: ITU World Telecommunication Report, 1996/97

CHAPTER TWO

2.0 LITERATURE REVIEW

International mobile termination rates, according Cathy Hsu and Mark Uretsky December 2013, are the per-minute fees that mobile carriers in most countries charge unaffiliated domestic carriers to terminate calls on their networks. Cathy Hsu and Mark Uretsky further defined international termination rates as *mobile settlement rates*, which are rates set to recover the costs of international transport, domestic long-distance transport in the foreign country, and termination on a mobile network in the foreign country.

In most cases, terminating on a mobile network is more expensive than terminating on a fixed-line network. The amount by which mobile termination rates exceed fixed-line termination rates is flowed through to mobile settlement rates and largely explains the extra amount, termed a *mobile settlement rate premium*, by which mobile settlement rates exceed fixed-line settlement rates. In essence, the mobile settlement rate premium is the extra fee that carriers pay their foreign correspondents to terminate traffic on foreign mobile networks.

2.1 INTERNATIONAL SETTLEMENTS PROCESS

For an international telecommunications service provider, international telecommunication accounting practices distinguish between remuneration of the corresponding carrier in the country of destination or transit for the delivery of its traffic and the charge in national currency collected by an operator from its customers for the international facilities and services provided. According to CCITT

Recommendations D.150 and D.155, which concern tariff and accounting practices in the international telephone service, the carrier in the destination country can be remunerated on the basis of a flat-rate price per circuit, on the basis of the traffic units carried, or through a procedure whereby accounting revenue is shared between terminal operators. Under the flat-rate price and traffic unit price procedures the carrier at the destination establishes its prices broadly based on the cost of the international circuit section it provides, the use of its international exchange (gateway) and the national extension. Under the accounting revenue division procedure the value of traffic in each direction between two corresponding international carriers is multiplied by a mutually agreed tariff or "accounting rate" to give an accounting revenue which is "in principle, shared equally between the (carriers) of the terminal countries in respect of each traffic direction".

In theory, international carriers can agree on other than equal shares when their costs or the extent of the facilities that each provides vary significantly; however, in practice accounting rates are shared 50/50. If during a given settlement period (say a month or a quarter) there is more traffic flowing in one direction than the other, the carrier which receives more traffic than it sends will receive a greater amount of compensation from the corresponding operator for delivering its traffic than it has to pay out. The direction of the traffic imbalance, therefore, determines which operator has to pay its partner in a bilateral relation more than it receives.

CHAPTER THREE

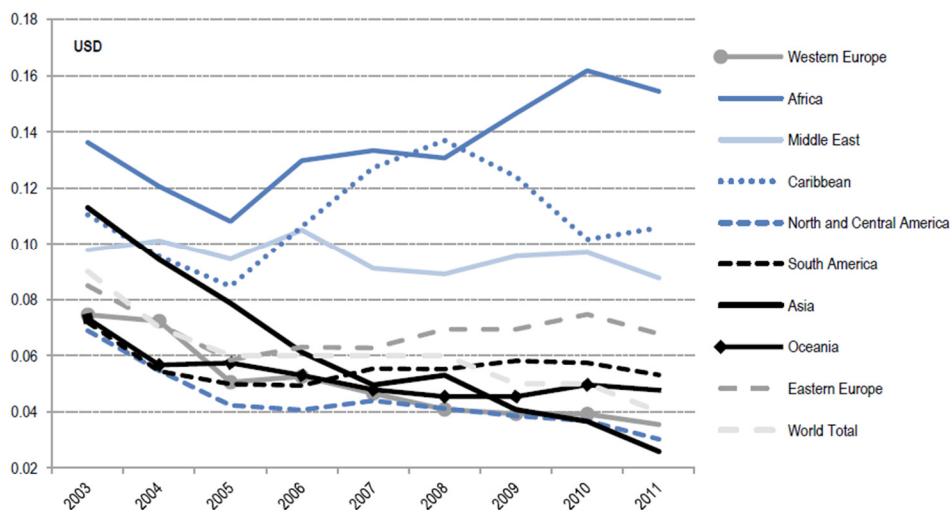
3.0 INFORMATION ANALYSIS

3.1 Trends in International Termination Rates

Following liberalization of telecommunication markets around the world, there has been a trend of declining rates for incoming international termination. These rates, which were previously held at artificially high levels by government imposed monopolies, rapidly converged towards the levels available to operators in domestic markets. Also the advent of private sector led participation in the telecoms industry, an operator that owns a network in two Countries can regard subscribers call between the two countries as an internal company affairs. In cases where the operator could no terminate the traffic over its own facilities, liberalization enables them to buy or build capacity that crossed international borders for final termination by operator with local capacity access facilities.

The table below shows the amounts paid by telecommunications operators carrying traffics from the United States to other destinations.

Figure 2: Average payment per minute to foreign carriers for outgoing traffic - United States carriers by regions



Source: OECD (2014), "International Traffic Termination", OECD Digital Econom

The graph above, displays the average price per minute that United States' carriers pay foreign carriers to accept traffic for termination in their country. The data is grouped with regional averages by year. The regions are based on the FCC's classification of regions. This average payment per minute can be thought of as a proxy for international termination charges.

According to Tele-geography, the wider availability of telecommunication access increased the demand for international calling. In the two decades between 1992 and 2012, it estimated that the volume of international minutes terminating on public switched telecommunication networks (PSTNs) increased by around 10 fold (50 billion international minutes per year to 490 billion). The rate of growth has decreased in recent years, which Tele-geography attributes to the rise in VoIP - to-VoIP calls that are not captured in those figures but represent a further increase in the total.

The trend toward lower termination and increased volumes can be exemplified in the relationship between the United States and Asia. The payments made by carriers taking traffic from the United States to Asia decreased from above USD 0.11 per minute in 2003 to less than USD 0.03 per minute in 2011.

Over the same time, the number of calls and minutes from the United States to Asian countries dramatically increased, a trend that was not witnessed in calls to other regions (Figure 3) below;

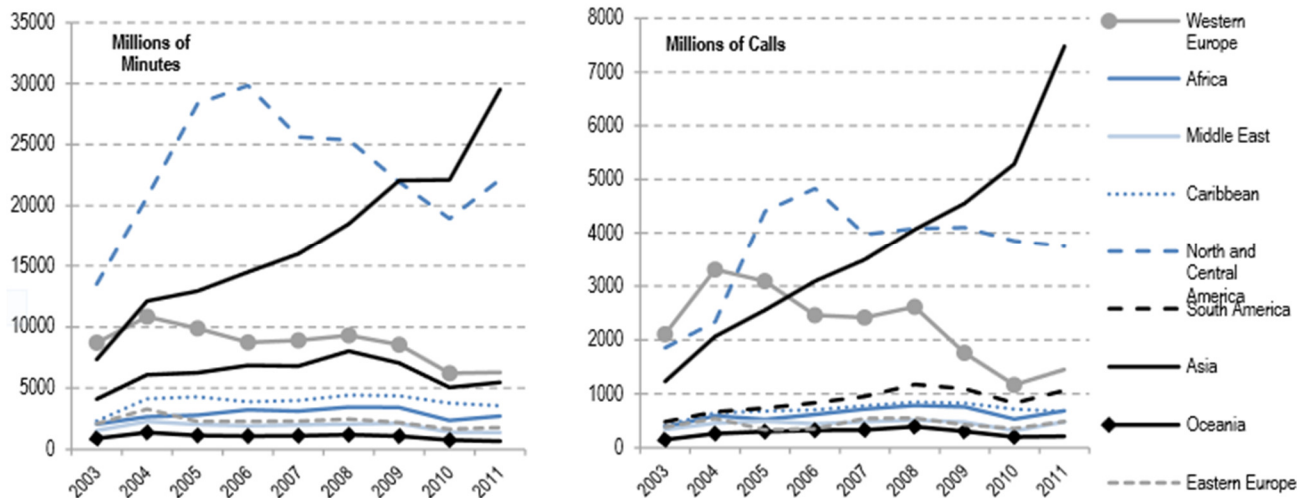


Figure 3: Number of outgoing minutes and calls (messages), United States carriers to regions

Source: OECD elaboration using FCC data

The rise in traffic associated with the increased telecommunications network access in Asian Countries and importance of their economies to the US, this increase in volume of traffic is associated with decrease in international termination rate. Also, the existence of strong competition at both ends of an international route, coupled with tremendous growth in access for people that did not previously have a telephone (i.e. calling opportunities) has transformed international telecommunication traffic between countries such as India and the United States.

3.2 THE OFFICE OF THE UNITED STATE TRADE REPRESENTATIVE (USTR)

3.2.1 Response to Increases in Fixed and Mobile International Call Termination Rates

The Office of the United States Trade Representative ("USTR") examines U.S. trading partners' compliance with commitments undertaken in bilateral and

multilateral trade agreements with respect to telecommunications services, equipment, and software-related as part of the following agreements:

- Various World Trade Organization (“WTO”) agreements, including commitments under the *General Agreement on Trade in Services*;
- WTO Reference Paper;
- WTO Agreement on Trade-Related Aspects of Intellectual Property Rights amongst others.

One of the main cost components of an international telephone call from one Country to another is the rate at which a telecommunications network operators charges an operator to terminate calls on its network and deliver the call to a local consumer. According to the USTR, both U.S. free trade agreements and the *GATS Telecommunications Services Reference Paper* include disciplines designed to ensure that the charge for terminating a call on a network of a major supplier is cost-oriented, non-discriminatory and transparent.

The Office of the USTR Section 1377 Reviews found that the following Countries/Regulatory Authorities increased their international termination rate in violation of their international treaties:

1. Ghana -Termination Rate Increase

In 2009, Ghana mandated an increase in the termination rate for incoming international calls from US\$0.10 to US\$ 0.19/minute. The government of Ghana has indicated several reasons for the rate increase including: the opportunity for increase revenues in Ghana, the stabilization of international rates to Ghana, the provision of universal access/service, and the financing of modern monitoring equipment.

The mandated increase is problematic for several reasons. First, the rates does not appear to be related to the costs associated with terminating calls. Ghana's commitments under the WTO Reference Paper require it to ensure that its major suppliers provide cost-based interconnection and from every indication, the US\$0.19/minute rate is not based on a cost analysis.

Increasing the rate arbitrarily to US\$ 0.19/minute sharply increases costs for U.S. operators, which will lead to increased rates for U.S. consumers and a likely reduction in the amount of traffic sent to Ghana. Ghanaian government officials have noted that this rate is within the FCC's "benchmark" rate for low income countries. However, the fact that a rate is within the "benchmark" rate is not determinative of whether the rate is cost -based. Indeed, the FCC recognized in its order establishing benchmark rates that, "benchmark settlement rates will continue to exceed, usually substantially, any reasonable estimate of the level of foreign carriers' relevant costs of providing international termination service."

Furthermore, in a subsequent order, the FCC noted that "establishing rate floors, even if below benchmarks, that are above previously negotiated rates" would serve as indicia of potential anticompetitive conduct. In any event, the existence of the FCC's benchmark ruling is unrelated to the Reference Paper commitments to ensure that major suppliers charge cost-based rates.

Second, it will be difficult to verify whether the portion of the fee that will be given to the government of Ghana (through its National Communications Authority) actually goes to covering the costs of universal service, since the money is to be deposited into the government's consolidated fund. The Reference Paper requires that any obligations regarding universal services be administered in a transparent, non-

discriminatory and competitively neutral manner. The government of Ghana has not provided sufficient information about the manner in which part of the increased fees will be used directly for universal service. This raises questions about compliance with its Reference Paper commitments in this regard.

Finally, FCC do not agree with Ghana's assertion that illegal (or "grey") traffic is responsible for any decrease in international termination revenues into Ghana. As has been seen in most countries around the world, competition tends to reduce inbound termination rates toward more cost-based levels, but at the same time stimulates the volume of inbound and outbound traffic, to the benefit of consumers and operators in both countries.

According to FCC data, in 2009, the United States sent over 300 million minutes of traffic to Ghana. In 2011, however, the number of minutes was less than 170 million, a decline of over 48 percent. This mandated minimum rate raises concern about Ghana's obligations under the GATS Annex on Telecommunications and GATS Reference Paper. USTR (2013), states that it will continue to engage with Ghana to seek removal of the mandated rate increase.

2. Uganda

Uganda enacted legislation in 2013 imposing a tax of US\$ 0.09 on inbound international calls. The tax substantially increases international termination rates without any demonstration of increased costs and calls into question Uganda's commitment and obligation under the GATS Reference Paper and the GATS Annex on Telecommunications to ensure reasonable terms for access and use of its telecommunications network.

3. Tonga Termination Rate Increase

USTR urged the government of Tonga to follow through on its pledge to rescind the mandated rate of US\$ 0.30/minute rate that it had unexpectedly announced in August 2008 .U.S. carriers were previously paying a termination rate of approximately US\$ 0.13/minute and were in the process of renewing their interconnection agreements with the country's major supplier, the fixed -line operator calling volumes. When Tonga first moved to implement the US\$ 0.30/minute rate, it appeared that TCC and Digicel would be the main beneficiaries. Now the government of Tonga is seeking to retain a portion of the increase, and at the same time allow its carriers to increase the rates without any cost justification.

USTR urges the government of Tonga to ensure that its major supplier negotiates cost-based rates for the termination of international traffic.

However, Tonga Communications Corporation (TCC) refused to negotiate a cost-oriented and reasonable rate for the termination of international traffic in Tonga. The government of Tonga has also failed to take appropriate steps to ensure that TCC offers such rates. On April 7, 2014, the Federal Communications Commission upheld its 2009 order which directed all U.S. carriers that were authorized to provide facilities-based international switched voice services on the U.S.-Tonga route to suspend all U.S. carrier payments for termination services to TCC-U.S. traffic to Tonga has declined from 5, 657, 972 minutes in 2010 to 2,627,205 minutes in 2012.

4. Pakistan

Between 2012 and 2014, pursuant to a directive from the Ministry of Information and Technology (MIT), all carriers in Pakistan licensed to terminate international traffic assigned their rights to terminate inbound international calls in Pakistan to the incumbent carrier, the Pakistan Telecommunications Company Limited ("PTCL").

PTCL increased its rates by 400 percent over rates charged when the market for the services was competitive.

As a result of the increment, on March 5, 2013, the U.S. Federal Communications Commission (FCC) ordered all U.S. carriers not to pay termination rates to Pakistani carriers in excess of "the rates that were in effect immediately prior to the rate increase on or around October 1, 2012." On June 17, 2014, MIT withdrew its directive, but a lower court stayed the withdrawal pending the outcome of the litigation. On February 24, 2015, the Supreme Court of Pakistan lifted the lower court's stay and affirmed the decision of the MIT to withdraw its directive. The Pakistan Telecommunications Authority (PTA) also issued an order directing operators to ensure "fair competition while negotiating with the foreign operators for terminating international traffic."

USTR stated that they are optimistic that Pakistan will now return to a competitive market for the termination of international traffic, but will continue to watch closely on developments in this area.

5. Fiji

The Fijian government has required Fiji International (Fintel), the major supplier of telecommunications services, to charge U.S. carriers above-benchmark settlement rates since 2011. On March 7, 2013, the International Bureau of the FCC released an order prohibiting U.S. carriers from paying Fintel rates for U.S.-Fiji traffic in excess of the \$0.19 per minute benchmark

3.3 NIGERIA'S COMMITMENT UNDER WORLD TRADE ORGANISATION AND GATS REFERENCE PAPER

1. World Trade Organisation (WTO)

The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business.

WTO was established in 1995 as a successor to the *General Agreement on Tariffs and Trade (GATT)* which was established in the wake of the Second World War. It provides a platform for governments to settle trade disputes and operates a system of trade rules.

WTO currently has 161 members. Nigeria became a member of the Organisation on January 1, 1995. The bulk of the WTO's current work comes from the 1986-94 negotiations called the Uruguay Round and earlier negotiations under the *General Agreement on Tariffs and Trade (GATT)*. WTO is currently the host to new negotiations, under the 'Doha Development Agenda' launched in 2001.

WTO Commitments in the Telecommunications Sector

In October 2003, 105 WTO Country members made specific commitments in some or all aspects of the telecommunications sector. In the basic telecommunications service, 98 Country members made commitments. While in the area of value-added telecom services 89 Countries made market-access commitments.

These Commitments were first made during the Uruguay Round (1986-94), mostly in value-added services. During the post-Uruguay Round negotiations (1994-97), members negotiated on basic telecommunications services.

2. The GATS Reference Paper

The Reference Paper, which the majority of WTO members making telecom commitments (and all new WTO members who have acceded since 1997) adopted in their schedules of commitments, contains six basic obligations. WTO members adopting the Reference Paper must:

- **Implement—** either by means of telecommunication-specific laws and regulations, or general antitrust and competition laws—competitive safeguards, including the prevention of anticompetitive conduct, a ban on cross-subsidization, and a ban on the abuse of competitively sensitive information by carriers with market power.
- **Ensure timely, non-discriminatory, cost-oriented, unbundled, and transparent interconnection between carriers with market power and other carriers, and do so pursuant to publicly available procedures.**
- **Administer universal service obligations in a transparent, non-discriminatory, competitively neutral, and no-more-burdensome-than-necessary manner.**
- The Reference Paper specifies that universal service obligations will not be regarded as anticompetitive per se
- Ensure public availability of licensing criteria. The Reference Paper does not, however, specify whether those licenses must be issued on an individual, case-by-case basis, or with “class licenses” for entire classes of carriers established in dependent regulators, whether a government ministry or an independent commission.
- **Allocate scarce resources—such as radio spectrum, numbers, and rights of way—in an objective, timely, transparent, and non-discriminatory manner.**

Please note that the *GATS* contains an Annex on Telecommunications (“Annex”). The obligations in the Annex are undertaken by all WTO members, as they are all signatories to the *GATS*. The Annex establishes clearly that each WTO member shall ensure that service suppliers of any other member are accorded access to and use of public telecom transport network and services on reasonable and non-discriminatory terms and conditions “for the supply of a service included in its Schedule.”

As a member Country, Nigeria is bound to comply with commitments undertaken in the *WTO/GATS* Reference papers with respect to telecommunications services, equipment, and software-related and related Service.

We attached herewith, a copy of Nigeria's schedule of specific commitments with regards to the *General Agreements on Trades in Service* as 'Appendix 1'

3.4 NIGERIAN INTERNATIONAL TERMINATION RATE AND SELECTED AFRICAN COUNTRIES

To provide a clearer understanding of trends in Africa regarding international traffic termination, it is possible to group countries in specific groups and compare outcomes of their termination rates. See tables 1&2 below:

Table 1: Termination Rates within the African Continents

WEST AFRICA		EAST AFRICA	
COUNTRIES	INT'L MTR (USD)	COUNTRIES	INT'L MTR (USD)
GHANA	0.21	Kenya	0.11
BENIN	0.17	Ethiopia	0.20
COTE D' IVOIRE	0.24	Tanzania, United Republic of	0.31
SENEGAL	0.30	Uganda	0.25
TOGO	0.31	Zambia	0.14
NIGER	0.27	Rwanda	0.23
CHAD	0.50	Somalia	0.44
BURKINA FASO	0.27	Djibouti	0.29
GUINEA	0.33	Eritrea	0.22
GAMBIA	0.70	Madagascar	0.65
GUINEA BISSAU	0.50	Malawi	0.31

MALI	0.27	Mauritius	0.13
CAPE VERDE	0.26	Mayotte	0.31
LIBERIA	0.38	Mozambique	0.24
SEIRRA LEONE	0.38	Reunion	0.04
Nigeria	0.03	Zimbabwe	0.35

Source: Telegeography, Total international outbound traffic

Table 1a Termination Rates within the African Continents

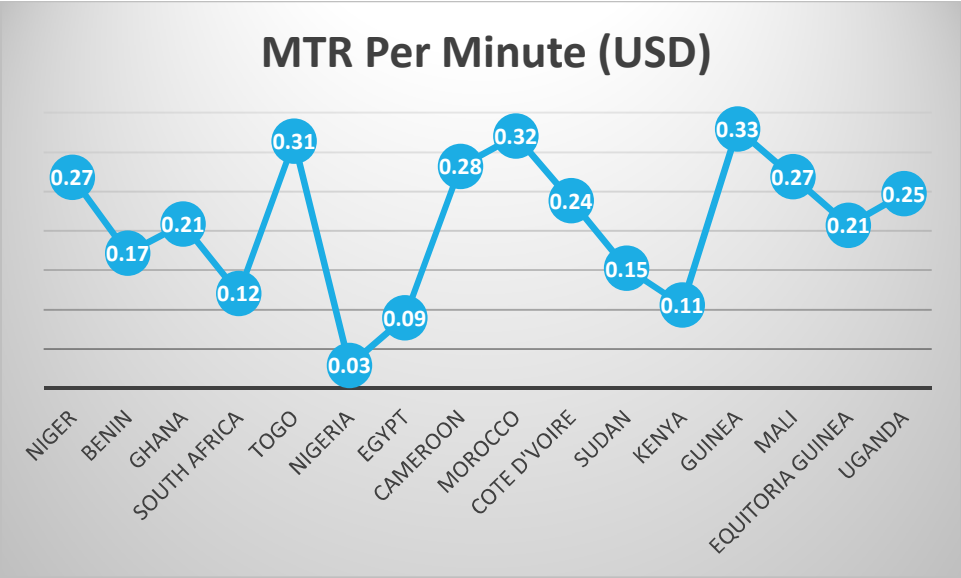
SOUTHERN AFRICA		CENTRAL	
COUNTRIES	INT'L MTR (USD)	COUNTRIES	INT'L MTR (USD)
SOUTH AFRICA	0.03	ANGOLA	0.20
NAMIBIA	0.11	CAMEROON	0.28
BOTSWANA	0.18	CENTRAL AFRICAN REPUBLIC	0.34
LESOTHO	0.32	CHAD	0.50
SWAZILAND	0.16	CONGO	0.35
ZIMBABWE	0.34	CONGO, DEMOCRATIC REPUBLIC	0.46
GABON	0.40	EQUITORIA GUINEA	0.21
SAO TOME AND PRINCIPLE	1.23		
NORTHERN AFRICA			
EGYPT	0.09		
MOROCCO	0.39		
ALGERIA	0.30		
TUNISIA	0.38		
LIBYA	0.22		
SUDAN	0.15		
SOUTH SUDAN	0.22		
MAURITANIA	0.36		

Table 2: Termination Rate Selected African Countries

No	Destination	MTR Per Minute (USD)
1	Niger	0.27
2	Benin	0.17
3	Ghana	0.21
4	South Africa	0.12
5	Togo	0.31
6	Nigeria	0.03
7	Egypt	0.09
8	Cameroon	0.28
9	Morocco	0.32
10	Cote D'Voire	0.24
11	Sudan	0.15

12	Kenya	0.11
13	Guinea	0.33
14	Mali	0.27
15	Equatoria Guinea	0.21
16	Uganda	0.25
Average MTR		0.22

Source: Telegeography, Total international outbound traffic



In comparison with other African Country's ITR, Nigeria termination rate at \$0.03 relatively too low and this will likely impact negatively on the inflow of revenue to the Nigerian economy.

CHAPTER FOUR

4.0 COMMENTS AND RECOMMENDATIONS

Comments

One of the primary objectives of National Regulatory Authorities is to protect the rights and interest of service providers and consumers within their Country. The NRAs are also charged with the responsibility of looking after National Economic interest. The crux of the matter is, will lower international traffic termination rates be in the national interests? Obviously, telecommunications service providers and Government may prefer higher rates that brings in hard currency and can fund investment, expand domestic network, fund innovation and improve quality of service.

Where the balance of traffic is heavily in favor of inbound international calls, it is hard to regulate settlement rates down, since international termination rate have no impact on the domestic subscribers, it would be in the interest of the economy to allow international traffic termination rate to be settled through negotiation and commercial agreement between the domestic service providers and international traffic carriers.

Recommendation

Consistent with the above, we recommend that upward reviews of international termination rate should be settled through negotiation and commercial agreement between the domestic service providers and international traffic carriers provided that the rate would not lead to decrease in in-bound traffic to the Country.

Reference:

1. <http://www.att.com/esupport/article.jsp?sid=KB409541&cv=820>
2. The Effect of Foreign Mobile Termination Rates on U.S. Carriers and Consumers by Cathy Hsu and Mark Uretsky, December 2013
3. OECD (2014), "International Traffic Termination", *OECD Digital Economy Paper*
4. ITU - T (2012), "Indicative rate for international mobile termination"
5. OECD (1994), International Termination Rate: Charging Practice and Procedures
6. David Rogerson (ITU 2010), presentation on "international traffic termination and international roaming", session 12.
7. Cathy Hsu and Mark Uretsky (Dec. 2013), 'The Effect of Foreign Mobile Termination Rates on U.S. Carriers and Consumers'
8. Codified at 19 U.S.C. §3106 (Review of trade agreement implementation by Trade Representative
9. 2211 -2015 Section 1377 Review On Compliance with Telecommunications Trade Agreements