

COMMUNICATIONS AUTHORITY OF KENYA

INTERCONNECTION DISPUTE BETWEEN SAFARICOM LIMITED AND GEONET COMMUNICATIONS LIMITED

DETERMINATION NO. 1 OF 2018

1. INTRODUCTION

This Determination is issued pursuant to Section 27 of the Kenya Information and Communications Act, 1998, the Kenya Information and Communications (Interconnection and Provision of Fixed Links, Access and Facilities) Regulations, 2010, and the Kenya Information and Communications (Registration of SIM-cards) Regulations, 2015.”

This Determination is as a result of certain complaints between Safaricom Limited and Geonet Communications Limited mainly on a question of traffic origin & legitimacy on one hand and on a question of service interference and interruption on the other hand, and is applicable to similar interconnection arrangements between any other licensees in similar circumstances.

Whereas the dispute was not filed in strict compliance with dispute resolution procedures, the Authority hereby exercises its powers under Regulation 7 (2) of the Kenya Information and Communications (Dispute Resolution) Regulations, 2010.

2. BACKGROUND

Geonet Communications Limited, (hereinafter referred to as Geonet), is duly licensed by the Communications Authority of Kenya, (hereinafter referred to as the Authority), to provide various types of telecommunication services under the International Gateway Systems and Services license, the Network Facility Providers Tier 2 License, the Application Service Providers license and the Content Service Provider license categories.

Safaricom Limited (Hereinafter referred to as Safaricom) on the other hand is duly licensed by the Authority to provide various types of telecommunication services under the Network Facilities Provider Tier 1 license, International Gateway Systems & Services provider license, the Application Service Provider license and the Content Service Provider license.

On the 15th day of November 2016, Safaricom filed a complaint with the Authority against Geonet in respect of an alleged “illegal termination of international voice traffic” and requested that the Authority convenes a meeting to discuss the same.

On 22nd November 2016, Geonet wrote to the Authority indicating their interest to participate in the proposed meeting and at the same time filed their own complaint regarding alleged “interference and interruption of its services by Safaricom who they alleged were blocking their calls particularly those conveyed via Session Initiation Protocol (SIP) trunks which they indicated were carrying Geonet’s calls arising from

Calling Cards being promoted by several of their distributors and also small businesses that use multi-channel SIPs to link their businesses in Kenya and USA.

The main bone of contention between the two parties seems to stem from Clause 3.7 of their interconnection agreement, which appears to prohibit termination of international calls through the local interconnect link between the two parties. The said Clause states:

“It is hereby agreed that XXXX shall not transit, terminate or re-sell international traffic or telephone calls originating from outside Kenya into the Safaricom system. On breach of this clause by XXXX, Safaricom may exercise the option to suspend or terminate this Agreement in accordance with clause 21 herein below”.

The two complaints are interrelated in the sense that whereas Safaricom felt aggrieved based on their belief that Geonet was terminating international traffic disguised as local calls into their network contrary to the above provision of their inter-connection agreement, Geonet felt aggrieved based on their belief that Safaricom was preventing some of their traffic from terminating into their network. Meanwhile on 15th December 2016, Safaricom enumerated the reasons why they had blocked some calls from Geonet. The reasons they gave include the follows:

- i). That Geonet was engaged in SIM boxing activities;
- ii). That Geonet was using numbers outside the national numbering plan;
- iii). That Geonet was disguising international calls as local calls among others.

Further, Safaricom asserted that the interconnection was established to exchange national traffic based on national numbering plans and therefore the interconnection agreement prohibited termination of international calls using the local interconnect link. Safaricom also asserted that in the past, Geonet had indicated that their focus was to terminate international traffic and Safaricom was therefore of the view that Geonet was taking advantage of low Mobile Termination Rates (MTRs) to terminate international calls.

Meanwhile, on 6th February 2017, another licensee M/S Elige Communications Limited (hereinafter referred to as Elige), an Application Service Provider (ASP) licensee, raised an objection to the inclusion of clause in the Interconnection Agreements between them and the Mobile Network Operators (MNOs) prohibiting the termination of international calls.

3. ANALYSIS AND CONSIDERATION OF THE COMPLAINTS

3.1. Consultations with the Parties in Dispute

Upon receipt of the complaint and in an effort to resolve them, the Authority organized various meetings with the parties on 16th December 2016, 20th December 2016, 4th July 2017, 24th October 2017 and on 21st November 2017. In the initial meetings the Authority requested for written submissions and production of Call Detail Records (CDR's) from the relevant parties to enable it consider the issues more comprehensively pursuant to Regulations 3 (3) of the Kenya Information and Communications (Dispute Resolution) Regulations, 2010.

It is to be noted that in the meeting of 4th July 2017, the Authority urged the parties to amicably resolve the matter amongst them but failed to do so. In a meeting held on 21st November 2017, in which the Authority had invited all the Mobile Network Operators (MNOs), Elige and Geonet Communications Limited, Safaricom and Geonet reported that no progress had been made towards reaching an amicable solution. The parties therefore discussed the contentious Clause 3.7, which prohibits the termination of international calls.

3.2. Identification, Analysis and Determinations of the Main Issues

Based on the submissions and consultations with the parties, the Authority has narrowed down the issues in contention as follows:

- Issue i:* Engagement in Telecommunications Service Interruption Activities (Call Duration Time Down),
- Issue ii:* Participation in Traffic Re-origination (SIM Boxing)
- Issue iii:* Participating in the use of numbering resources outside the National Numbering Plan
- Issue iv:* Provision of International Incoming & Outgoing Transit Services,
- Issue v:* Provision of Clause prohibiting International Call Termination in Interconnection Arrangements,
- Issue vi:* Adherence to Subscriber Registration Requirements.

3.2.1. Engagement in Telecommunications Service Interruption Activities (Call Duration Time Down),

3.2.1.1. Analysis

Geonet alleged that Safaricom has been interrupting their services by timing down their client's calls to less than 30 minutes. In an attempt to verify the allegations the Authority analysed the Call Detail Records (CDRs) for the corresponding period from both Geonet and Safaricom and arrived at the following findings.

Based on analysis of CDRs provided by Geonet for calls from their network destined to Safaricom's Network, it is noted that all calls that lasted for 1,767 seconds were dropped by the terminating network (Safaricom), while for any other duration of calls, the termination was triggered either by the call originator or call recipient and the occurrences exhibited a normal distribution.

For example, for the period 7th November 2016 to 31st December 2016, the calls that lasted for 1,767 seconds constituted 13.3%, of the total calls (235,658) as per the CDRs. The calls that lasted beyond 1,800 seconds in length accounted for 5% of the total calls for the same period. These findings appear to be consistent with Geonet's allegation that Safaricom disconnected some of their calls that last beyond 30 minutes.

Analysis of CDRs provided by Safaricom for calls from Geonet's network destined to their Network for the same period (7th November to 31st December 2016) indicates

that out of the total 278,584 calls, those that lasted 1,768 seconds accounted for 12% while calls that lasted more than 30 minutes accounted for 0.1%.

However a comparison of the CDRs provided by the two parties for the same period failed to reconcile with observation made on disparities in the number of call records running up to 42,926 that had differing call durations.

Whereas the comparison of the CDRs of the two parties showed significant differences on the number of calls, there was a close correlation between the CDRs of both parties in terms of percentage of calls that lasted just under 30 minutes. Based on Geonet's CDRs a significant number of calls (13.3%) terminated at 1,767 seconds instant and in the case of Safaricom's CDRs a significant number of calls (12%) terminated at 1,768 seconds instant. The closeness in the termination points of 1,767 and 1,768 seconds, and the closeness in percentage of calls terminated at these points appear to confirm Geonet's claim that Safaricom was engaged in disrupting their services.

Moreover Safaricom's letter of 15th December 2016, indicates that indeed they had been blocking calls from Geonet's network on account of perceived violation of the interconnection agreement.

3.2.1.2. Determination

Based on the above analysis it is the view of the Authority that Safaricom engaged in activities that resulted in interruption of interconnection services between themselves and Geonet contrary to Section 32(a) of the Kenya Information and Communications Act, 1998, Section 10(2) of the Kenya Information and Communications (Interconnection and Provision of Fixed Links, Access and Facilities) Regulations, 2010 and the license condition in respect of interruption of licensed service in the respective licenses.

3.2.2. Participation in Traffic Re-origination (SIM Boxing)

3.2.2.1. Analysis

Safaricom asserted that, although the alleged SIM Boxing calls were not re-originated by Geonet using Safaricom SIM cards, the calls were being re-originated using Geonet's own numbers disguising them as local calls.

On 15th December 2016 Safaricom made a submission to the effect that they decided to block calls from Geonet as they believed Geonet was engaged in SIM boxing activities and disguising international calls as local calls.

It was also noted further that the interconnection link between the two parties is based on Session Initiation Protocol (SIP), which was said to have challenges including inability to identify calling line identity. It was mentioned that the choice of interconnection through SIP was due to the physical challenge of establishing an E1 connectivity between the two parties' premises

On the other hand, Geonet in their presentation made to the Authority on 20th December 2016, particularly slides 21 to 25, Geonet indicated that they originate calls from USA and terminates them into the Mobile Operators' networks in Kenya. Despite this, it was noted from the analysis of CDRs submitted by Geonet that, there were no calls bearing USA numbers or any other foreign country, which begs the question as to how all calls in CDRs reviewed bore Geonet local numbers only when some are generated from foreign countries. This pointed to support the claim from Safaricom that Geonet could be re-originating international incoming calls using their local numbers (SIM-Boxing).

It is to be noted however that the use of SIM-Boxes is expressly prohibited under the regulatory framework and operators have been advised to install SIM-Box detection tools with instructions that whenever detected, they notify the Authority for appropriate apprehension and prosecution of those involved.

3.2.2.2. Determination

Based on the assertion by Safaricom, the presentation by Geonet as captured above and in the absence of any evidence of international numbers in CDRs analyzed submitted by parties, it is the Authority's conclusion that Geonet terminates international calls disguised as local calls by re-originating international calls using local numbers.

It is instructive to note that such a practice amounts to SIM-boxing which apart from degrading quality of services, conceals the true identity of a caller, which could easily compromise national security.

The Authority therefore wishes to reiterate the provision under Section 15 of the Kenya Information and Communications (Interconnection and Provision of Fixed Links, Access and Facilities) Regulations, 2010 in respect of calling line identity and ensure that interconnecting parties provide each other accurate calling line data which provide for the correct identification of the true origin of the call as provided for by the relevant ITU-T Standard. Parties must appreciate that this requirement is very critical for various reasons including those relating to national security and must therefore be strictly adhered to without fail.

3.2.3. Participating in the use of numbering resources outside the National Numbering Plan

3.2.3.1. Analysis

On 15th December 2016 Safaricom submitted that Geonet was fraudulently manipulating numbers and using the same to terminate calls into Safaricom's network using numbers that were outside the national numbering plan such as +254888888888.

A review of the CDRs submitted by Safaricom shows that there are records of numbers outside the national numbering plan that terminated calls into Safaricom network from Geonet network. However a review of Geonet's CDRs did not reveal any such records.

It was however noted that some Safaricom lines were making calls from Geonet systems, and some Geonet to Geonet calls passed through the interconnect link (transit calls). Geonet further admitted that this was a mistake arising from a malfunctioning call forwarding facility and committed to address the problem through system upgrades to be effected in December 2017 to eliminate the problem.

3.2.3.2. Determination

In the absence of corroborating evidence on the alleged use of numbering resources outside the numbering allocation framework and more so outside the national numbering plan, the Authority is unable to make a conclusive determination based on the submission made. Moreover the parties in dispute failed to reconcile their CDRs before submission despite the Authority's directive to this effect.

It is notified to the parties that both the originating and terminating parties must not allow origination or termination of calls originated by numbers outside the national numbering plan and the Authority wishes to reiterate the need for all licensees to strictly adhere to the provisions under the Kenya Information and Communications (Numbering) Regulations, 2010 and the Kenya Information and Communications (Interconnection and Provision of Fixed Links, Access and Facilities) Regulations, 2010 as well as the license conditions on Numbering and Interconnection and in particular the prohibition on the use of unallocated numbering resources let alone those outside the national numbering plan.

3.2.4. Provision of International Incoming & Outgoing Transit Services,

3.2.4.1. Analysis

On 21st November 2017 Safaricom made submissions backed with evidence, in the form of CDRs, to the effect that Geonet had been sending traffic to destinations outside the country (transit traffic) through Safaricom's network via the interconnect link. Safaricom was also able to demonstrate Geonet's Internet Protocol (IP) address as the source of the said international calls. Geonet did not contest these submissions.

Further in a presentation made on 20th December 2016, Geonet indicated that part of their core business is transiting of calls destined to other networks including both local and international destinations.

3.2.4.2. Determination

Based on the above submissions, it is the Authority's view that Geonet transited international calls through the interconnection link with Safaricom outside the provisions of the interconnection agreement entered into between the two parties.

Similarly it is the Authority's view that Safaricom has been facilitating transit traffic from Geonet to destinations outside its network outside the provisions of the interconnection agreement entered into between the two parties.

Based on the above findings, it's the Authority's view that there is need for the two operators to establish an interconnect agreement that allows for exchange of transit traffic in order to facilitate the apparent demand/need between the interconnected parties.

For avoidance of doubt, the interconnection for international traffic is a commercial engagement between the interconnect parties and not subject to local termination rates.

Further, it is to be noted that just like Safaricom, Geonet holds an International Gateway Systems and Services license, which authorizes them to establish international telecommunications systems and provide international telecommunications services. With this licence, Geonet is authorized to establish its own international gateway facilities and transmit and receive its own international traffic through its internal facilities.

The Authority does not therefore expect that Geonet to transit its international traffic through any other party unless by mutual consent under an appropriate interconnection agreement.

3.2.5. Provision of Clause prohibiting International Call Termination in Interconnection Arrangements

3.2.5.1. Analysis

A review of the interconnection agreements between the Mobile Network Operators and other licensed operators confirms existence of a Clause prohibiting termination of international traffic to their networks. Extracts of the said clauses are as quoted below:.

In case of Airtel Networks Kenya Limited the Clause reads; *“For avoidance of doubt, this Agreement is intended for transmission of local voice traffic only. All unknown calls, being calls without valid Caller Line Identity (CLI) as per Airtel's Call Directory Records (CDR) and terminated by SECOND PARTY on Airtel's Network shall be treated as international incoming calls and shall be billed at Airtel's international termination rate set out in Annex 2 hereof or such other rate as may be notified by Airtel in writing (the “International Rate”). Any international calls found by Airtel to be national calls transmitted through SECOND PARTY's network shall be billed at the said international rate. The provision of this Clause 10.3 shall survive termination of this agreement”.*

In case of Safaricom the Clause reads; *“It is hereby agreed that XXXX shall not transit, terminate or re-sell international traffic or telephone calls originating from outside Kenya into the Safaricom system. On breach of this clause by XXXX, Safaricom may exercise the option to suspend or terminate this Agreement in accordance with clause 21 herein below”*

In case of Telkom Kenya Limited the Clause reads; *“XXXX shall only use the Telkom Kenya PSTN Terminating Access Service for calls, which originate from*

customers in XXXX System in Kenya. Telkom Kenya will be under no obligation to convey calls if there is reason to believe they do not originate from customers of the XXXX system in Kenya and the calling subscriber number must be part of the XXXX Numbering plan as defined in schedule 11”.

Meanwhile the Kenya Information & Communications (Interconnection & Provision of Fixed Links, Access & Facilities) Regulation 2010 defines Interconnection as; quote *“the physical and logical linking of telecommunication networks used by the same or different service licensees in order to allow the users of one licensee to communicate with users of the same or another licensee or to access services provided by another licensee”.*

In addition the said Regulations further expounds the Rights and Obligations within the interconnection framework under Clause 4 as follows:

- *Clause 4(1); “An interconnecting licensee shall, subject to compliance with the provisions of the Act and any guidelines on interconnection of telecommunications systems and services that the Commission may from time to time publish, have the right to choose its interconnection licensee to route its data traffic and calls towards customers of another licensee.”*
- *Clause 4(2) “Notwithstanding paragraph (1), an interconnecting licensee shall route its data traffic and calls towards international destinations through a licensee who has been licensed to provide the service”.*

Currently, the distinction between local and international calls is deduced from ITU-T Recommendation E.100, under foot note 1, on definition of terms used in international telephone operation, where the word “international” is applied to any relation between countries whether those countries are in the same continent or not.

The Kenya Communications Regulation 2001 also defines “international telephone call” as an effective or completed telephone call exchanged with a telecommunications station outside the country in which the calling telecommunications station is situated.

Consequently, and given the technology neutral licensing framework adopted in Kenya, “International call” is defined as any call that is made from Kenya to another country or from another country into Kenya, technology used notwithstanding.

3.2.5.2. Determination

The import of the above is that whereas the regulatory framework accords the interconnecting licensee the right with respect to how to route its traffic towards customers of another licensee, the obtaining interconnection agreements between the Mobile Network Operators and other licensed operators should be done in a manner that facilitates all forms of traffic.

For the avoidance of doubt, interconnection agreements facilitate the exchange/termination of local calls under local termination rates, or for transiting

international bound local calls from interconnecting licensee through interconnect licensee or terminating calls of international origin through interconnect licensee to local subscribers of the interconnecting licensee under commercially agreed terms. It is also to be noted that an interconnecting licensee may also bring in international Voice over Internet Protocol (VoIP) traffic for termination to the interconnect licensee's network but under commercially agreed terms and with clear Caller Line Identification for appropriate billing under the commercially agreed terms.

It is the Authority's view that licensees should enter into interconnection arrangements that provide for termination of local traffic, international traffic, international transit traffic and VoIP traffic under terms that are relevant to each category of traffic irrespective of the originating or termination destinations in order to ensure the maintenance of the rights of the interconnecting licensees with respect to how they route their traffic towards customers of another licensee. In doing so, it is instructive to note that traffic originating and terminating locally is subject to local termination rates while traffic originating or terminating internationally is subject to commercial negotiations and agreements between parties. In addition, given the technology neutral regulatory framework adopted in Kenya a voice call is a voice call irrespective of the technology used for delivery as long as the origin and destination of the calls are properly identified through presentation of appropriate Caller Line Identification.

Whereas the Authority regulates local interconnect and does not presently intervene on international regulatory arrangements, Kenya is a signatory of the International Telecommunications Regulations (ITRs), see <https://www.itu.int/en/wcit-12/Documents/final-acts-wcit-12.pdf>, which govern international telecommunications services which parties are invited to take note of.

It is therefore instructive that licensees should enter into interconnection arrangements that are consistent with the Kenya Information & Communications (Interconnection & Provision of Fixed Links, Access & Facilities) Regulation 2010 and where relevant the Final Acts of the World Conference on International Telecommunications (Dubai, 2012), which contains the ITRs.

The parties and indeed all other affected licensees are hereby directed, pursuant to Clause 6(3) of the Kenya Information & Communications (Interconnection & Provision of Fixed Links, Access & Facilities) Regulation 2010, to negotiate with a view to facilitating relevant interconnection agreements in compliance with the above stated principles and submit revised interconnection agreements to the Authority within 60 days from the date of issuance of this determination.

3.2.6. Adherence to Subscriber Registration Requirements.

3.2.6.1. Analysis

During the hearings in respect to the dispute under consideration, it was alleged that some licensees were not strictly observing the subscriber registration requirements.

It was noted that the Geonet communication App registers customers through online self-registration mechanisms, which rely on the customers' self-declared information

and uses third party information drawn from such sources as MPESA, or credit card transactions etc., to verify the identity of the person being registered. The Authority confirmed this to be true for Geonet's registration process by means of actual registrations as Geonet app users.

It was also noted that the registration mechanism is open and indeed allows anybody in the world to register as a customer of Geonet as long as one can access Internet. Based on this, Geonet therefore considers anybody who registers their app as their local customer and hence their assertion that their customers are entitled to local interconnection and call termination rates irrespective of their location and where in the world they make their calls from.

It is to be reiterated here that the requirement for a licensee to register her subscribers is provided for under Section 27D of the Kenya Information and Communications Act, 1998. The manner of undertaking the said subscriber registration is provided for under the Kenya Information and Communications (Registration of SIM-cards) Regulations, 2015.

The SIM registration Regulations prescribe a registration process, which includes personal appearance and the specific documents that must be presented during registration for verification by a human agent.

In view of the foregoing, the Authority concludes that the registration process adopted by Geonet app and indeed similar apps do not comply with the SIM Registration Regulations 2015 and that all licensees must comply with procedures under the Kenya Information and Communications (Registration of SIM-cards) Regulations, 2015.

3.2.6.2. Determination

It is also noted that whereas different technologies confer different benefits that should be leveraged for the benefit of consumers, the Authority regulates based on a technology neutral regulatory approach, which does not treat different technologies differently.

The Authority wishes to remind all licensees on the need for strict compliance with the Kenya Information and Communications (SIM Card Registration) Regulations, 2015 and that failure to do so would attract serious legal and regulatory consequences.

4. CONCLUSION

The Authority has duly considered the matters under contention and has issued various determinations and/or directives to the parties in dispute as well as general directives and reminders to the industry as a whole. It is to be noted that the observations and determinations contained herein have gone on record and may be relied upon in other future regulatory undertaking such as consideration for general compliance status as may be appropriate.

Meanwhile parties are required to implement the directives under this Determination and revert to the Authority within the timelines specified in the various subsections or latest within 60 days where such timelines have not been specifically provided for in the subsections above.

Finally the Authority wishes to thank all the parties as well as all other interested parties for their participation during the hearings.

Dated at Nairobi This 1st Day of August 2018



Francis W. Wangusi, MBS
DIRECTOR GENERAL

