



Regulations on International Traffic

LTA – REG – 0005

AMENDED June 29, 2015

Republic of Liberia

Liberia Telecommunications Authority

Table of Contents

Part I: Preliminary	2
1.1 Preamble:.....	2
1.2 Citation	3
1.4 Scope of application.....	3
1.5 Definitions	3
Part II: General Principles for call volume/flow monitoring and termination.....	4
Part III: Right to Inspect	6
Part IV: Regulatory Charges on International Traffic	6
PART V: PENALTIES	7
PART VI: ENTRY INTO FORCE	7

Part I: Preliminary

1.1 Preamble:

These Regulations have been developed by the Liberia Telecommunications Authority (LTA) pursuant to part III Section 11 (1) (Q) (R) of the Telecommunications Act of 2007 of the Republic of Liberia.

1.2 Citation

These Regulations may be cited as the “**International Traffic Regulations.**”

1.3 Purposes

The purposes of these Regulations are to:

- a. Institute policies and systems for traffic measurement at all interconnection points for Quality of Service (QoS) Management and Accounting and Fraud Management purposes;
- b. Give the LTA the mandate to measure all traffic flow at the interconnections between networks;
- c. Give the LTA the instruments to fight, detect and minimize fraud and grey traffic routing, discourage unfair market practices, identify and measure all transit and roaming calls among others by ensuring that international call traffic is properly regulated and revenues therefrom appropriately accounted for;
- d. Set regulatory surcharge for international calls origination and termination.

1.4 Scope of application

These Regulations shall apply to all calls routed to and originating from Liberia irrespective of the routing method.

1.5 Definitions

- a. “**CDRs**” means call detail records.
- b. “**Fraudulent Calls**” means calls illegally channeled through grey routes or undeclared routes by the use of SIM Box, PBX, VoIP, etc. to avoid regulatory charges.
- c. “**Fraudulent Route**” means any undeclared or grey route used to terminate international calls.
- d. “**Fraudulent Routing**” means terminating calls via undeclared or grey routes.
- e. “**Grey Route**” means an illegal route used to bypass the International Gateways through the use of SIM Box, PBX, VoIP, etc. and usually terminates international calls to a country as local calls.
- f. “**Grey Routing**” means terminating calls via Grey Routes.
- g. “**IGMS**” International Gateway Management System/Service.
- h. “**LTA**” means the Liberia Telecommunications Authority.
- i. “**Undeclared Route**” means any route used to terminate international calls by a Service Provider which has not been disclosed to the LTA.

- j. **“TDM”** means Time Division Multiplexing.
- k. **“Operator”** means a service provider.
- l. **Order** – Means a written order made by the LTA pursuant to the Act, a regulation or rule.
- m. **“PBX”** means private branch exchange.
- n. **“QoS”** means Quality of Service.
- o. **“Service Provider”** means a person or entity authorized by the LTA to provide a telecommunications service to the public or to own or operate a telecommunications network used to provide telecommunications services to the public.
- p. **“SIM Box”** means a device that maps calls from VoIP to a SIM Card (in the SIM Box) of a mobile service provider and is used to bypass the international gateway and generate fraudulent calls.
- q. **“VoIP”** means voice over Internet Protocols.

Part II: General Principles for call volume/flow monitoring and termination

- 2.1 No person or entity shall deploy radio communication equipment for the purpose of terminating international traffic into Liberia, or originating international traffic from Liberia without a valid license from the LTA to provide such service.
- 2.2 The LTA has identified the immediate need for the implementation of a traffic data monitoring solution for both domestic traffic and international inbound and outbound traffic as a priority for the purposes of strengthening the LTA’s ability to monitor the growth and performance of the telecommunication sector in addition to the QoS performance of each operator.
- 2.3 The LTA, in order to establish operators’ conformity to provisions of their licenses and to ensure fair competition, is authorized to establish and maintain an international gateway monitoring system (IGMS) to monitor voice traffic, capture call detail records (CDRs) and measure traffic volumes routed to or originating from Liberia regardless of the technology, platform or routing method used, as provided for in section 34 (1) (c) of the Liberia Telecommunications Act of 2007. To this effect all service providers are required to:
 - a. Mutually agree to the terms and conditions for termination of international inbound and outbound calls into other networks;
 - b. Refrain from fraudulently routing or Grey Routing calls into other networks;
 - c. Put in place an effective mechanism to block all grey calls in their networks.
 - d. Operators receiving a request from the LTA to block service to entities involved in fraudulent routing of calls, shall within 24 hours, be obligated

to honor the request and provide to the LTA all information about the entity routing fraudulent international traffic, for instance the International Mobile Subscriber Identity (IMSI), International Mobile Equipment Identification (IMEI), the Base Transceiver Station (BTS) used for a specific call, and any other identifying information.

2.4 Any service provider that breaches Section 2.3 of these Regulations shall be liable for the penalties described in section 5.2 of these regulations.

2.5 To ensure proper working of the IGMS, Operators shall:

- a. provide unrestricted access and connectivity for the LTA Traffic Monitoring Systems;
- b. allow the LTA, or any entity acting on its behalf, to install in the operator's networks all the hardware and software necessary for the monitoring in real time of the international traffic managed by the network;
- c. ensure that all international traffic is connected to the Traffic Monitoring System established by the LTA;
- d. provide the following conditions (electric supply, protection against unauthorized elements, and security,) for the effective functioning and operations of the monitoring equipment installed on their premises;
- e. provide the necessary links to the center where LTA shall manage the data extracted from the network via a wireless or terrestrial connectivity to be provided by the network operator to the LTA.

2.6 Hardware and software installed for the monitoring of traffic shall not have the capability to record, monitor or tap into the content of any electronic communication. This limitation applies to voice communications and also to data communications such as SMS. It also extends to location data in mobile communications. In order to guarantee the effectiveness of the limitations on access to the content of communications, network operators shall carry over a dedicated link the ISUP SS7 signaling data (or equivalent SIP signaling) in such a way that the dedicated link does not carry any other data and in particular content data or SCCP signaling data

2.7 In order to guarantee the effectiveness of the limitations on access to the content of communications, the mechanisms and measures in place to monitor traffic will be limited to the specific links carrying signaling methods approved by the LTA.

2.8 Signaling data shall be processed and managed exclusively with the purpose of monitoring compliance with the obligations defined in Parts III and IV of these Regulations. LTA shall never transmit the signaling data to third parties, neither public nor private, except upon receipt of duly signed court orders.

2.9 Signaling data shall be managed in a manner that would not allow a third party to identify the individual or corporation behind a telephone number. Signaling data shall

be managed in modified versions, either encrypted or with the last three digits of the calling numbers and the called numbers eliminated.

- 2.10 Signaling data shall be processed and managed with convenient security measures, both physical and logical. Signaling data shall be stored only for the duration necessary for the purpose of monitoring compliance with the obligations defined in Parts III and IV of these Regulations.

Part III: Right to Inspect

- 3.1 All service providers shall capture and maintain accurate inbound and outbound international call data separately from the gateway monitoring system established by the LTA. Each service provider shall provide LTA a copy of its Call Detail Records (CDRs) covering all the international voice traffic within the first five business days of the month subsequent to the relevant month. In the event that prevailing circumstances require the LTA to receive the CDRs on a more frequent basis, the service provider shall be obliged to provide said data within the time frame specified by the LTA.
- 3.2 All inbound and outbound international call data captured pursuant to section 3.1 of these Regulations shall be retained by the service providers for no less than five (5) years and shall be made available to the LTA or its duly authorized representative(s) at any time upon request.
- 3.3 The LTA, or its authorized representative(s), shall have the right to inspect the interconnection sites where the Traffic Monitoring Equipment has been installed in order to conduct performance test, including entering into a dialogue with the system through Input/output devices or terminals. The Inspection will be carried out after reasonable notice except in circumstances where giving such a notice will defeat the very purpose of the inspection.
- 3.4 All service providers shall furnish to the LTA or its authorized representative(s), in such manner and at such times as may be required, complete technical details with all calculations for engineering, planning and dimensioning of the system, location, concerned relevant literature, drawing, and installation materials regarding the international gateway deployed.

Part IV: Regulatory Charges on International Traffic

- 4.1 All international inbound and outbound calls terminating in and originating from Liberia shall incur regulatory fees as established by the LTA via Order. Said Order shall take effect thirty (30) days after issuance.
- 4.2 All fees collected pursuant to section 4.1 of these Regulations shall be properly and appropriately accounted for by the terminating and originating service provider or the transiting party and shall, on a monthly basis, be paid into an account designated by the LTA. LTA shall submit the relevant monthly request for payment within five business days subsequent to the preceding month. Operators shall pay LTA within forty five (45)

days after receiving the monthly request.

- 4.3** The LTA shall issue an Order, consistent with the Telecommunications Act of 2007, to change the regulatory fees for international traffic.

PART V: PENALTIES

- 5.1 Any individual or service provider that terminates international traffic into Liberia or originates international traffic out of Liberia without a valid license shall be subject to a fine of five (5) percent of the total annual gross revenue generated from both inbound and outbound international traffic by all service providers in the preceding year
- 5.2 Any individual and /or licensed service provider found terminating calls through grey routing shall be subject to penalty of five percent (5 %) of the total annual gross revenue generated from both inbound and outbound international traffic by all service providers in the preceding year. In addition, the following penalties shall apply:
- (a) **Individual** - Seizure and forfeiture of equipment and all assets related to the grey routing;
 - (b) **Service Providers** - Seizure and forfeiture of equipment and all assets related to the grey routing and the payment of a fine three (3) times the penalty stipulated in Section 5.1 of these Regulations.
- 5.3 No service provider shall willfully misrepresent or deliberately omit material information from its international origination and termination call data associated with its international signaling links to the LTA. Any service provider found to be in breach of this provision shall be liable to a fine of not less than one (1) million United States dollars and not more than two million United States dollars, plus all revenue generated from the undeclared link(s).

PART VI: ENTRY INTO FORCE

These Regulations shall come into effect on the date on which it is published by the Board of Commissioners of the LTA.