

COMMUNICATIONS (FAULT HANDLING) REGULATIONS 2020

In exercise of the powers conferred by Section 200 (1) of the Communications Act, Cap 68:01 of the Laws of Malawi the Minister of Information on advice from the Malawi Communications Regulatory Authority (MACRA) does hereby issue the following Regulations:-

ARRANGEMENT OF REGULATIONS

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PART II - SCOPE AND OBJECTIVES

3. Scope of Application
4. Objectives of the Regulations.
5. Network and service Management

PART I

Citations 1. These Regulations may be cited as the Communications (Fault Handling) Regulations.

Definitions

Definitions 2. In these regulations unless otherwise provided for:

“ Electronic Communication” means the emission, transmission or reception of signs, signals, writing, images, sounds, data or intelligence of any nature partially or fully transmitted by any radio, electromagnetic, photo electronic or photo optical system.

“a licensee” means the holder of a licence issued or deemed to have been issued

under this regulation or a person registered under a general licence issued under this regulation.

“Emergency traffic”

means incoming or outgoing traffic in a communications network in the event of an emergency (described in schedule 1).

Scope of application

Scope

3. These regulations apply to entities licensed to provide communication services in Malawi.

Objectives of the Regulations

“Objectives of these Regulations”

4. These Regulations have the following objectives:

- (a) To promote speedy recovery of network outages
- (b) To improve fault handling processes for all communication services licencees in Malawi;
- (c) To harmonise the fault handling processes among all communication services licencees in Malawi;
- (d) To avail the Authority with fault statistics for its regulatory function.

PART II

Network and service management

“Monitoring of networks and services ”

5. (1) A licensee shall continuously monitor its networks and services, in order to detect faults and interruptions which may interfere with the provision of its services;

(2) In monitoring its network and services pursuant to sub regulation (1) above, the licensee shall deploy alert systems.

(3) A licensee shall have appropriate systems and code of practice for receiving and analysing internal and external fault reports, interruptions reports, software alerts, equipment alerts, environmental alerts and other monitored information related to networks or services.

“Fault
management

6. (1) A licensee shall develop and submit to the Authority Fault Handling Procedures for the identification of faults and interruptions, minimisation of their effects and repair without undue delay.

(2) The Fault Handling Procedures envisaged in sub regulation (1) above shall include:

- (a) definitions of responsibilities,
- (b) information on the location of reserve units ,
- (c) equipment and guidelines for securing emergency services through temporary arrangements;
- (d) escalation process; and
- (d) any other information deemed necessary by the Authority.

(3) Definitions of responsibilities stipulated in sub regulation (2) (a) above shall include information needed to contact the maintenance staff conducting fault repair.

(4) A licensee shall at all times take all necessary measures to repair or reduce effects of any fault classified as critical and crisis in accordance with regulation 10 of these Regulations.

“Management
of Fault
Reports from
Customers”

7. (1) A licensee shall receive fault reports from customers by telephone, personal contact and email or any other mode of communication approved by the Authority.

(2) A licensee shall ensure that fault reporting is availed to customers 24hrs. The licensee may implement system such as automated fault handling system to ease fault reporting from customers.

(3) A licensee shall ensure that faults report from customers are handled within (1) hour from time of submission

“Management
of System
Changes and
Upgrades”

8. (1) A licensee shall implement planned network and systems changes and upgrades in a controlled manner and in accordance with its plans so as to minimize service disruption.

(2) A licensee shall define and document the processes and practices guiding the changes envisaged in sub regulation (1)

above.

(3) A licensee shall carry out the changes in networks and services envisaged in sub regulation (1) above in such a manner that it shall not disturb the networks or services of other licensees.

(4) Where the changes affect other licensees' networks or services, the licensee responsible for the changes shall inform the Authority and the affected licensees of the effects not later than 48 hours prior to effecting the changes and shall make arrangements to minimise the interruptions.

PART III

Notification to the Authority

“Notice of Failure of a Network Management System”

9 (1) A licensee shall, without undue delay, not later than 1 hour notify the Authority of any significant failure in its Network Management System.

(2) All faults reported to the Authority shall be assigned fault reference number which will be used to track the progress of the fault.

(3) Where the failure is classified as a class A or B fault in accordance with regulation 10 of these Regulations, the licensee shall notify the Authority and shall give reasons for the failure as well as measures being taken by the licensee to rectify the situation.

(3) A licensee shall send regular progress reports to the Authority in rectifying the situation referred to in sub regulation 2, and notify the Authority on the rectification of the failure.

“Classification of faults”

10. A licensee shall classify faults in a network according to schedule 1 of these Regulations.

“Obligation to notify the Authority”

11. (1) A licensee shall file a report to the Authority of all faults and interruptions in networks or services falling into severity classes established under regulation 10.

(2) The type of reports to be filed with the Authority under

this regulation shall be determined by the classification of fault and shall include: :

- a. first incident report;
- b. follow-up report; or
- c. final report

“First Incident Report”

12. (1) A licensee shall file a first incident report for crisis or critical fault classifications to the Authority as stipulated in schedule 1 of these regulations.

(2) The first incident report stipulated in sub regulation (1) above shall include :

- (a) the severity class of the fault;
- (b) Time when the fault occurred
- (c) an estimate of communications network or service affected by the fault
- (d) how the use of the communications service is affected by the fault
- (e) an estimate of the geographical effect of the fault;
- (f) an estimate of the population which will be affected by the fault
- (g) an estimate of the effects on emergency traffic;
- (h) an estimate of the repair schedule;
- (i) a summary of reasons in the licensees’ knowledge that led to the fault;
- (j) the licensee’s contact details for further clarification regarding the fault; and
- (k) any other information as determined by the Authority.

“Follow-Up Reports”

13 (1) Where the effect of a crisis or critical fault on the communications service differs substantially from the information filed on the first incident report, the licensee shall, without undue delay, file a report of the change to the Authority.

(2) The licensee shall file regular progress reports of the repair measures regarding crisis or critical classification faults until the fault is rectified.

(3) If a crisis or a critical fault is not rectified within 12 hours, the

licensee shall , without undue delay, submit the following to the Authority:

- (a) an updated estimate of the repair schedule;
- (b) a detailed clarification of why the repair of the discontinued operation of a communications service is delayed; and
- (c) Any other information deemed necessary by the Authority.

(4) A licensee shall without undue delay file a report of the rectification of faults with the Authority as soon as the fault has been rectified.

“Final Report”

14 (1) A licensee shall file a hard copy of a final report of a crisis, critical or major classification fault within a week of rectification of the fault.

(2) The final report filed pursuant to sub regulation (1) above shall include:

- (a) the effects of a fault or interruption on the communications service;
- (b) the cause of the fault or interruption, and management of the fault or interruption
- (c) how similar faults or interruptions will be prevented in the future; and
- (d) any other information deemed necessary by the Authority.

(3) A final report for a major classification a fault submitted by a licensee, shall include reasons for delay where the fault or interruption is not rectified within three (3) days from the discovery of a fault or interruption.

(4) The Authority may request additional information on the final report and the licensee shall submit the requested information within seven (7) days from date of request.

PART IV

Notice to users

“Notice of Faults and Interruptions to Users”

15 (1) A licensee shall inform its customers of faults and interruptions in its network where the fault duration exceeds 30 minutes and affects at least 250 customers (use percentage).

(2) Any notice made pursuant to sub regulation (1) above may be

made through direct customer contact, news paper, internet services , SMS broadcast, Radio broadcasts and any other mode as determined by the Authority.

(3) The Licensee shall update without delay the contents of any notification issued pursuant to this regulation if the information given on the effects of a fault or interruption on users changes substantially.

“Fault and interruption Notifications”

16. (1) Any fault and interruption notifications issued by the Licensee pursuant to these Regulations shall include;

- (a) the communications service affected by the fault or interruption ;
- (b) how of the communications service has been affected by the fault or interruption;
- (c) the geographical coverage of the fault or interruption;
- (d) when the fault or interruption was discovered,
- (e) when the effects of the fault or interruption are estimated to be rectified.; and
- (f) Any other information deemed necessary by the Authority.

PART V

Miscellaneous

“Records of faults and Interruptions”

17. (1) A licensee shall compile and maintain the following records on minor faults with a continuous duration of at least 30 minutes:

- (a) Repair time of faults and interruptions reported by customers, for each communications service.
- (b) Repair time of faults and interruptions detected by the network management and the required repair measures, as for each communications network or service component.
- (c) reasons for the faults and interruptions .

“Offence and Penalty”

18 A licensee who fails to comply with any obligation in these Regulations commits an offence and shall be liable to a fine not exceeding MK..... or imprisonment for

“Regulatory
Sanctions”

19. Notwithstanding the criminal sanctions provided for in these Regulations, the Authority reserves the right to impose any of the following regulatory sanctions for any breach of these Regulations:

- (a) administrative fines;
- (b) issue warnings;
- (c) suspend a licence;
- (d) issue a compliance order;
- (e) issue a cease and desist order; or
- (f) Make any other order deemed necessary.

“Factors in
applying
enforcement
measures”

20. In imposing any regulatory sanctions under regulation 19, the Authority may take into account any of the following factors:

- (a) Duration of the breach;
- (b) The nature, gravity and frequency of the breach;
- (c) Any service credits or rebates that have been provided by the licensee to customers who may have been inconvenienced or otherwise affected by the committed contraventions;
- (d) Any failures to fulfill obligations that arise partly or wholly from the failures of another Licensee; or
- (e) Any other consideration deemed necessary.

INCIDENT CLASSIFICATION REFERENCE

Based on their effects on communications services, faults and interruptions in networks and services are categorised under four severity classes: crisis/emergency, critical, major and minor.

Faults and interruptions in communications networks and services are categorised in accordance with Table 1 and 2.

Table 1: Fault/Incident classification

Classification	Description
Crisis/Emergency	<p>Any failure event which results in:</p> <ul style="list-style-type: none"> • 100% power loss at all switching centres; • Failure of critical nodes (i.e. those that affect all services or causing severe interruptions to traffic handling) e.g HLR, Switching Subsystem, VAS e.t.c; • 100% synchronization loss in the network; • Loss of Management Center functionality (Loss of NOC’s surveillance capabilities); • Total Loss of switching and/or Transport capacity; • Total Loss of the Billing/charging function; • 100% loss of total geographical coverage area of a network • 100% loss of air-conditioning in facilities housing core network nodes
Critical	<p>Any failure event which is not Emergency/Crisis failure event and which results in:</p> <ul style="list-style-type: none"> • Failure of 3rd party services affecting interconnection traffic handling; • 100% Power loss affecting more than one switching centre; • ≥ 50% synchronization loss in the network; • ≥50% Loss of Management Center functionality (Loss of NOC’s surveillance capabilities); • ≥50% Loss of switching and/or Transport capacity;

	<ul style="list-style-type: none"> • $\geq 50\%$ loss of total geographical coverage area of a network; • $\geq 50\%$ Loss of the Billing/charging function; • $\geq 50\%$ loss of air-conditioning in facilities housing core network nodes;
Major	<p>Any failure event which is not Emergency/Crisis or critical failure event and which results in:</p> <ul style="list-style-type: none"> • 100% Power loss at one switching centre; • $< 50\%$ synchronization loss in the network • $< 50\%$ Loss of Management Center functionality (Loss of NOC's surveillance capabilities) • $< 50\%$ Loss of switching and/or Transport capacity • $< 50\%$ loss of total geographical coverage area of a network • $< 50\%$ Loss of the Billing/charging function • $< 50\%$ loss of air-conditioning in facilities housing core network nodes
Minor	<p>Any failure event not falling into any of the categories above and which is not service affecting or materially affecting the performance or quality of service</p>

Table 2: Fault/Incident classification

ISPs	
Class	Description
Crisis/Emergency	Any failure event which results in 100% loss of service
Critical	<p>Any failure event which is not Emergency/Crisis failure event and which results in:</p> <ul style="list-style-type: none"> • An outage of $\geq 50\%$ of the total network capacity; • $\geq 50\%$ of the serviced area not being reachable • $\geq 50\%$ loss of the network
Major	Any failure event which is not Emergency/Crisis or critical failure

	event and which results in: <ul style="list-style-type: none">• An outage of <50% of the total network capacity;• <50% of the serviced area not being reachable• <50% loss of the network
Minor	Any failure event not falling into any of the categories above and which is not service affecting or materially affecting the performance or quality of service

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