

LEGAL NOTICE NO. 134 OF 2016

THE ELECTRONIC COMMUNICATIONS ACT, 2013

(Act No. 09 of 2013)

THE ELECTRONIC COMMUNICATIONS (QUALITY OF SERVICES) REGULATIONS, 2016

(Under Section 17)

In exercise of the powers conferred by Section 17 of The Electronic Communications Act, Of 2013 the Minister for Information, Communications and Technology makes the following regulations –

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PART I

PRELIMINARY PROVISIONS

Citation and commencement

1. (1) These Regulations may be cited as The Electronic Communications (Quality of Service) Regulations, 2016.

(2) These Regulations shall come into force on the date of publication in the gazette.

Application

2. These Regulations shall apply in relation to Electronic Communication Services.

Objectives

3. These objectives of these regulations are to –
 - (a) create conditions for customer satisfaction by making known the quality of service which the Service Provider is required to provide and the user has a right to expect;
 - (b) measure the quality of service provided by the Service Providers from time to time and to compare them with the norms so as to assess the level of performance; and
 - (c) protect the interest of consumers of electronic communications services.

Interpretation

4. In these Regulations, any word or expression to which a meaning has been assigned in the Act shall have the meaning so assigned and, unless the context indicates otherwise –

“Act” means the Electronic Communications Act No. 09 of 2013;

“Basic Telephone Service” includes collection, carriage, transmission and delivery of voice messages over licensee’s Public Switched Telephone Network in licensed service area and includes provision of all types of services except those requiring a separate licence;

“Busy Hour” means the one hour period each day for which the traffic of the resource group concerned is greatest in the day under consideration;

“Call Connection Success Rate” means the percentage of successfully connected calls to the number of call attempts;

“Call Drop Rate” means the percentage of calls which, once they have been correctly established and therefore have an assigned traffic channel, are interrupted prior to their normal completion by the user, the cause of the early termination being within the operator’s network;

"Cellular Mobile Services" means services derived from a Public Land Mobile Network;

"Downtime" means the sum of all the time during reporting period when the fault exists on the service;

"Electronic Communication Services" means transmission and provision of information by wire, radio waves, optical media or other electromagnetic systems, between or among points of the user's choice;

"Electronic Communications Services Provider" means an entity engaged in the provision of electronic communications services'

"Fault" means a state where a network does not meet the service specifications and some repair action is required;

"Force Majeure" means earthquake, epidemic, war, famine, state of emergency or any other event declared as such by the Government;

"Interconnect Route Utilisation" means the amount of transmission capacity utilised with respect to the total transmission capacity provided for interconnection;

"Interactive Voice Response (IVR) Time" means the duration of the announcement of the entire Interactive Voice Response (IVR) options before a customer can make a choice;

"Mean Opinion Score (MOS)" means a numerical indication of the perceived quality of received media after compression or transmission. The Mean Opinion Score (MOS) is expressed as a single number in the range 1 to 5, where 1 is lowest perceived quality, and 5 is the highest perceived quality;

"Time to Repair (TTR)" means duration of the instant a fault notified to the published point of contact of the Service Provider to the instant where the service has been restored to the normal working order;

"Multimedia Message Service (MMS)" means mobile phone communication messages that could include audio, video and text messages;

"Public Switched Telephone Network" means a network set up and operated by basic service providers for the specified purpose of providing fixed communication services between subscribers using telephone sets or accessories;

"Public Land Mobile Network" means a network set up and operated by a licensed operator for the purpose of providing land based mobile communication services to the public and which provides communications facilities to subscribers using mobile stations (MS) or mobile handsets;

"Short Message Service (SMS)" means, text messages component of mobile communications systems.

PART II

ELECTRONIC SERVICE PROVIDER OBLIGATIONS

Electronic Service Provider obligations

5. An Electronic communication services provider shall ensure that –

(a) performance of electronic communication services meet or exceed levels of performance as set out in these regulations; and

- (b) customers are provided with information to enable them to make informed decisions.

Compliance with Electronic Service Provider obligations

- 6. An Electronic communications services provider shall –
 - (a) Establish measurement systems consistent with the framework that will be proposed by the Commission in consultation with stakeholders; and
 - (b) Provide monthly returns of measurement results for all services to the Commission.

Services to be provided on payment

- 7. An Electronic communication services provider shall provide services to a person who applies and is capable of paying the appropriate charges for the provision of the services.

Provision of Service

- 8. An Electronic communication services provider shall not intentionally interrupt the operation of the services in the normal course of business, nor may it in the normal course of business suspend the provision of any type of the service without having first notified the Commission in writing and having provided reasonable advance notice to persons affected by such interruption or suspension.

Duty of Service Provider to Customers

- 9. In executing obligations to customers, an Electronic communication services provider shall –
 - (a) establish and maintain efficient information services to assist a customer with queries relating to the services, including installation, customer assistance and directory assistance;
 - (b) provide to customers in respect of each category of the licensed service, equal access to service in the licensed area at the same quality of service and at the same tariff;
 - (c) submit to the Commission for approval a service level agreement containing the minimum quality of service standards to which customers are entitled, and the remedies and compensation available when the service falls below such standards;
 - (d) notify all Customers of the terms and conditions of the Service Level Agreement and thereafter provide licensed services based upon the agreement; and
 - (e) modify the Service Level Agreement and notify the customer accordingly.

PART III

QUALITY OF SERVICES

Quality of Service for Network Operators

- 10. A network licensee shall install, repair and maintain electronic communications facilities at quality of services parameters as specified in the First, Second, Third and Fourth Schedules.

Quality of Service for Service Providers

- 11. An Electronic communications services provider shall operate an electronic communications network as per the schedules.

Review of Quality of Service Parameters

12. The Commission may review the quality of services parameters from time to time.

Over-riding Effect

13. Whenever higher quality of service parameter has been stipulated as a condition of licence, the quality of service as required by the licence shall override the parameters given herein.

Public Emergencies

14. (1) In the event of force majeure the Commission may require the licensee to provide the necessary services to the Government giving priority to the support activities required to overcome the emergency.

(2) The licensee shall submit to the Commission its plan for the procedures and operations which the licensee shall follow in the event of any such emergency and shall update the emergency plan upon request by the Commission.

(3) In the event that the emergency or crisis is related to matters concerning national security, the licensee shall coordinate with the relevant authority indicated by the Commission and shall implement the emergency plan as far as reasonably practicable in accordance with the instructions as may be given by the Commission.

Procedures for rectifying violation of Quality of Service requirements (QoS)

15. In case of a violation, a formal notice will be sent to the Electronic Communication Service Provider to correct the problem within fourteen (14) days. An applicable sanction will be applied if the problem persists after the stipulated period or reoccurs after an initial notification.

Notifications on Service degradation and outages

16. An Electronic Communications Service Provider shall notify the Commission and affected Customers in any locality within an hour for service degradation or outages which may extend beyond an hour.

Applying Sanctions

17. Sanctions as per the Fifth Schedule shall be imposed on an Electronic Communications Service Provider if the problem after the stipulated period or reoccurs after an initial notification.

Compensation

18. In addition to the sanctions stipulated in the Fifth Schedule, affected customers shall be compensated by the Electronic Communication Service Provider as may be prescribed by the Commission except in the cases of force majeure.

Publishing service quality measurements

19. The Commission shall publish results of service quality measurements on monthly and Regional basis.

FIRST SCHEDULE

QUALITY OF SERVICE (QoS) PARAMETERS FOR INTERCONNECTION

Every Service Provider shall meet the following Quality of Service benchmarks for any interconnected service in respect of each specified parameter measured by real calls on any interconnected route and shall submit a monthly report based on daily peak hour conditions.

No.	Parameter Name	Target	Measurement Method
1	Interconnection Route Utilisation	Not more than 80% of capacity	<u>Amount of carried traffic to another network x 100</u> Total capacity of route to another network
2	Time to Repair (TTR) Interconnection Route	Not more than One Hour	Time of Total Service Restoration – Time of Notification of Fault

SECOND SCHEDULE

QUALITY OF SERVICE (QoS) PARAMETER FOR CELLULAR MOBILE SERVICE

Every cellular mobile Service Provider shall meet the following Quality of Service benchmarks for cellular mobile service in respect of each specified parameter measured by test traffic in any locality and shall submit a monthly report based on daily peak hour conditions.

No	Parameter Name	Target	Measurement Method
1	Service Coverage	>75dBm for Indoors >85dBm for In-vehicles >95dBm for outdoor in city	Field Strength measurements
2	Call Connection Success Rate	>99%	<u>Number of successfully connected call attempts x 100</u> Total number of attempts
3	Call Drop Rate	>2%	<u>Number of calls dropped x 100</u> Total number of attempts
4	Voice Service Access Delay	<10sec	Maximum time taken for Voice service connection in all cases
5	Voice Quality (Mean Opinion Score (MOS))	>3.5	ITU Recommendation on Voice Quality testing
6	Downtime for Cell (Site)	<4 hours	Time Restored – Time of Fault
7	Downtime for Interconnect Route	<1 hour	Time Restored – Time of Fault
8	Minimum Data Speed Rate	>2Mbps	Throughput
9	Data Service Availability	≥99.9%	As measured in data networks
10	Data Service Utilisation	≥80%	As measured in data networks
11	Data Service Access Time	<Five (5) seconds	Maximum time taken for data service connection in all cases

12	Data Access Success Rate	≥99%	$\frac{\text{Number of service connections made} \times 100}{\text{Total number of connections required}}$
13	Data Service Drop Rate	≤1%	$\frac{\text{Number of service connections lost} \times 100}{\text{Total number of services connections made}}$
14	SMS / MMS delivery success	>99%	$\frac{\text{Number of SMS/MMS to recipients delivered} \times 100}{\text{Total Number of SMS/MMS received at Service Centre}}$
15	SMS / MMS delivery time	<5s	Time of Service delivered to destination number – Time of service sent from originating number

BILLING, CUSTOMER SERVICE & SATISFACTION MEASURES

No	Parameter Name	Target	Measurement method
16	Voice calls	Accurate charging	Per second charging
17	Messaging	Accurate charging	Message Length of 160 characters
18	Internet Services	Accurate charging	QoS charging Volume Charging Time Charging
19	Interactive Voice Response (IVR)	<15sec	Duration of announcement of the entire IVR options before a customer can make a choice.
20	Call Centre Operator Response	<30sec	Duration of waiting after the option to a Customer Care Assistant has been chosen by the Customer.
21	Customer satisfaction on overall quality of service	>95%	$\frac{\text{Number of answers as good quality}}{\text{Number of customers interviewed}}$

CUSTOMER SATISFACTION ATTRIBUTES

The performance of the Cellular Mobile Service Providers in respect of the following Quality of Service benchmarks shall be subject to periodic assessment by the Commission through customer satisfaction surveys, which may be conducted by the Commission either through its own officers or employees or through any agency appointed by it.

No.	Parameter Name	Target
22	% of customers satisfied with the service availability	>90%
23	% of customers satisfied with the service accessibility	>90%
24	% of customers satisfied with the reliability	>90%
25	% of customers satisfied with billing performance	>90%
26	% of customers satisfied with the held/enquiry services	>90%

THIRD SCHEDULE

QUALITY OF SERVICE (QoS) PARAMETERS FOR BASIC TELEPHONE SERVICE

Every basic telephone Service Provider shall meet the following Quality of Service benchmarks for basic telephone service in respect of each specified parameter measured by test calls in any locality and shall submit a monthly report based on peak hour conditions.

No	Parameter Name	Target	Measurement method
1	Time to Repair (TTR)	≤ 8 hours	Sum of duration of each repair time in hours for all the fault incidences in a day
2	Call Connection Success Rate	>99%	Number of successfully connected call attempts x 100 Total number of attempts
3	Call Drop Rate	<2%	Number of calls dropped x 100 Total number of attempts
4	Voice Service Access Delay	<10sec	Maximum time taken for Voice service connection in all cases
5	Voice Quality (Mean Opinion Score {MOS})	>3.5	ITU Recommendation on Voice Quality testing

BILLING, CUSTOMER SERVICE & SATISFACTION MEASURES

No	Parameter Name	Target	Measurement method
6	Voice calls	Accurate charging	Per second charging
7	Provision and installation of telephone on premises after payment	≤5 days	Number of days from service request to service operators
8	Interactive Voice Response (IVR)	≤15sec	Duration of announcement of the entire IVR options before a customer can make a choice
9	Call Centre Operator Response	<30sec	Duration of waiting after the option to a Customer Care Assistant has been chosen by the Customer
10	Customer Satisfaction on overdraft quality of service	>95%	<u>Number of answers as good quality</u> Number of customers interviewed

CUSTOMER SATISFACTION ATTRIBUTES

The performance of the Basic Telephone Service Providers in respect of the following Quality of Service benchmarks shall be subject to periodic assessment by the Commission through customer satisfaction surveys, which may be conducted by the Commission either through its own officers or employees or through any agency appointed by it.

No.	Parameter Name	Target
11	% of customers satisfied with the service availability	>90%
12	% of customers satisfied with the service accessibility	>90%
13	% of customers satisfied with the reliability	>90%
14	% of customers satisfied with billing performance	>90%
15	% of customers satisfied with the help/enquiry services	>90%

FOURTH SCHEDULE

QUALITY OF SERVICES (QoS) PARAMETERS FOR INTERNET SERVICE

Every Internet Service Provider shall meet the following Quality of Service benchmarks for Internet service in respect of each specified parameter measured by test calls in any locality and shall submit a monthly report based on peak hour conditions.

SERVICE QUALITY ATTRIBUTES

No.	Parameter Name	Target	Measurement method
1	Call Connection Success Rate	<99%	$\frac{\text{Number of successfully connected calls}}{\text{Total number of attempts}} \times 100$
2	Call Drop Rate	<2%	$\frac{\text{Number of calls dropped}}{\text{Total number of connected calls}} \times 100$
3	Voice Service Access Delay	<10%	Maximum Time taken for Voice service connection
4	Voice Quality (Mean Opinion Score {MOS})	>3.5	ITU Recommendation on Voice Quality testing
5	Downtime for Cell (Site)	<4hours	Time Restored – Time of Fault
6	Downtime for Interconnect Route	<1hour	Time Restored – Time of Fault
7	Minimum Data Speed	$\geq 2\text{Mb/s}$	Throughput
8	Data Service Availability	$\geq 99\%$	As measured in data networks
9	Data Service Utilisation	$\leq 80\%$	As measured in data networks
10	Data Service Access Time	<Five(5) seconds	In all cases
11	Data Access Success Rate	$\geq 99\%$	$\frac{\text{Number of successful connections made}}{\text{Total number of connections requested}} \times 100$
12	Data Service Drop Rate	$\leq 1\%$	$\frac{\text{Number of connection lost}}{\text{Total number of connection made}} \times 100$

BILLING, CUSTOMER SERVICE & SATISFACTION MEASURES

No.	Parameter Name	Target	Measurement method
13	Provision and installation of Internet equipment (modem and related accessories) on premise after payment	≤ 5 days	Number of days from Service request to Service operations

14	Interactive Voice Response (IVR)	<15sec	Duration of announcement of the entire IVR options before a customer can make a choice
15	Call Centre Operator Response	<30sec	Duration of waiting after the option to a Customer Care Assistant has been chosen by the Customer
16	Customer satisfaction on overall quality of service	>95%	<u>Number of answers at good quality</u> Number of customers interviewed

CUSTOMER SATISFACTION ATTRIBUTES

The performance of the Internet Service Providers in respect of the following Quality of Service benchmarks shall be subject to periodic assessment by the Commission through customer satisfaction surveys, which may be conducted by the Commission either through its own officers or employees or through any agency appointed by it.

No.	Parameter Name	Target
17	% of customers satisfied with the service availability	>90%
18	% of customers satisfied with the service accessibility	>90%
19	% of customers satisfied with the reliability	>90%
20	% of customers satisfied with billing performance	>90%
21	% of customers satisfied with the help/enquiry services	>90%

FIFTH SCHEDULE

SANCTIONS ON DEFAULT ON QUALITY OF SERVICE COMPLIANCE

No.	Parameter Name	Sanction	Amount (Emalangeni)
1	Interconnection Route Utilisation	Directive to expand capacity within 3 months	E20,000 per day after 3 months on default of Operator(s) responsible for delay
2	Time To Repair (TTR) Interconnection Route	Compensation	E20,000 per hour to be paid by defaulting Operator to the other interconnect party
3	SDCCH Congestion	Fine	E20,000 per hour per district to be paid by defaulting Operator to Commission
4	Call Connection Success Rate	Fine	E20,000 per hour per district to be paid by defaulting Operator to Commission
5	Call Drop Rate	Fine	E20,000 per hour per district to be paid by defaulting Operator to Commission

6	Voice Service Access Delay	Fine	E20,000 per hour per district to be paid by defaulting Operator to Commission
7	Downtime for Cell (Site)	Announcement to affected locality after first hour	E20,000 per hour after four (4) hours to be paid
8	Data Service Availability	Fine	E20,000 per hour per district to be paid by defaulting Operator to Commission
9	Data Service Utilisation	Directive to expand capacity within 3 months	E20,000 per day after 3 months on default of Operator(s) responsible for delay
10	Data Service Access time	Fine	E20,000 per hour per district to be paid by defaulting Operator by Commission
11	Data Access Success Rate	Fine	E20,000 per hour per district to be paid by defaulting Operator to Commission
12	Data Service Drop Rate	Fine	E20,000 per hour per district to be paid by defaulting Operator to Commission
13	% of SMS/MMS delivery success	Fine	E20,000 per hour per district to be paid by defaulting Operator to Commission
14	Time to Repair (TTR) a Fixed Telephone Service	Compensation	E200 per hour after eight (8)
15	Provision and installation of telephone on premise after payment	Hours per Customer Compensation	E1,000 per day after five (5) days per Customer
16	Provision and installation of Internet equipment (modem and related accessories) on premise after payment	Compensation	E1,000 per day after five (5) days per Customer
17	Accurate Charging of Services	Fine after notification by Commission to correct in four (4) hours	E20,000 per hour per service to be paid by defaulting Operator to Commission

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MINISTER FOR INFORMATION, COMMUNICATIONS AND TECHNOLOGY