

S.I. 122 of 2022

BROADCASTING AND TELECOMMUNICATION ACT

(Cap 19)

**Broadcasting and Telecommunication Act (Quality of Service)
Regulations, 2022**

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S.I. 122 of 2022**BROADCASTING AND TELECOMMUNICATION ACT***(Cap 19)***Broadcasting and Telecommunication (Quality of Service)
Regulations, 2022**

In exercise of the powers conferred by section 38 of the Broadcasting and Telecommunication Act, the Vice-President being the Minister for Information Communications Technology makes the following regulations —

Citation

1. These Regulations may be cited as the Broadcasting and Telecommunication (Quality of Service) Regulations, 2022.

Interpretation

2. In these Regulations, unless the context otherwise requires —

“access technology” means a class of closely related transmission techniques; it can be GSM/GPRS/EDGE, UMTS/WCDMA/HSPA or LTE/LTE-A/LTE-U;

“broadband internet” means the class of services in which a service provider, supports data transfers between the equipment of customers and a public network, and in which the service provider advertises the Services as providing “broadband” or as having Data Transfer Rates of at least 1,000,000 bits per second in some conditions;

“business hour” means an hour starting at 8:00, 9:00, 10:00, 11:00, 12:00, 13:00, 14:00 or 15:00 on a working day;

“campaign test” means a field test that does not use the equipment of customers but that might use equipment typical of customers;

“crowd test” means a field test that uses the equipment of customers;

“customer” means a person who is provided with a service by a service provider under a contract;

“data transfer rate” means the speed at which data is transferred, as calculated by dividing the quantity of data transferred by the time taken to transfer the data;

“downlink” means the direction in which data is transferred to the equipment of a customer;

“field test” means a test of access to communications facilities typical for customers at a time and place typical for customers;

“fixed access” means the class of services that are not designed to let customers continue perceptible access to communications while moving within the area for which the service provider holds a licence;

“indicator” means a measurable characterisation of the quality of an aspect of a service;

“licence” means a permit issued by the Seychelles Licensing Authority to authorise the provision of a service by a service provider;

“measurement” means a measurement of an Indicator made using a Measurement Method for the Indicator;

“measurement agent” means an agent appointed to make measurements on behalf of a service provider or the Minister;

“measurement domain” means a class of services that for any service provider are not likely to differ perceptibly in the quality of a particular aspect and can therefore be classed together in the characterisation of that quality;

“measurement method” means a method for measuring an indicator by performing field tests or collecting system readings;

“measurement result” means the value of an indicator obtained by making measurements;

“Minister” means the minister responsible for broadcasting and telecommunication;

“mobile access” means the class of services that are designed to let customers continue perceptible access to communications while moving within the area for which the service provider holds a licence;

“participating provider” means a service provider that undertakes, or is legally obliged, to comply with these Regulations;

“reporting area” means an area for which the Minister requires a participating provider to report measurement results;

“reporting period” means a period of time for which the Minister requires a participating provider to report measurement results;

“representative sample” means a collection of measurements that the Minister requires to be made at different times and places in order to represent a reporting period and a reporting area adequately;

“service” means a broadcasting or telecommunication service in Seychelles;

“service provider” means an organisation that provides a service to the general public or to other service providers;

“subscription television” means the class of services in which a service provider provides visual content to the equipment of customers according to a programmed schedule;

“system reading” means a reading obtained from data accumulated without special tests in the network or support systems of a service provider;

“target” means a value of an Indicator that signifies a satisfactory level for the quality of the aspect of a service characterised by the Indicator;

“telephony” means the class of services in which a service provider supports voice calls between the equipment of customers and a public network;

“uplink” means the direction in which data is transferred from the equipment of a customer; and

“working day” means a day other than a Saturday, a Sunday or a public holiday.

Application of Regulations

3.(1) All service providers holding a licence under the Licences (Broadcasting and Telecommunication) Regulations, 2021, whether they operate their own networks or whether their Licences contain quality of service requirements, shall be bound by these Regulations.

(2) A service provider shall be a participating provider if it holds a licence and provides a telephony, broadband internet or subscription television service to the general public for monetary consideration.

(3) Notwithstanding a requirement imposed to the contrary by the Minister through any law, these Regulations shall prevail over all broadcasting and telecommunication quality of service requirements except requirements for the reporting of statistical market information.

Measurement coverage by a participating provider

4.(1) A participating provider shall, within twelve months of the coming into operation of these Regulations, ensure that for each Indicator applicable to a service of a participating provider obtained from system

readings as defined in Schedule 1, Schedule 2 and Schedule 5, a measurement result is obtained in each measurement domain, in each reporting period and in each reporting area.

(2) A participating provider shall ensure that each of its measurement result is obtained from all the measurements made using the measurement method described for the measurement result in the applicable schedules in one measurement domain, one reporting period and one reporting area.

(3) Notwithstanding subregulation (2), the Minister may accept exclusions of measurements on the grounds that the measurements are inaccurate, irrelevant or obsolete.

(4) A participating provider shall ensure that each of its measurement result is obtained from measurements that form a representative sample unless the Minister accepts that the circumstances make this obligation impractical to carry out or the measurement method described for the measurement result in the applicable schedules do not involve sampling.

Measurement coverage by the Minister

5.(1) The Minister shall, within twelve months of the coming into operation of these Regulations ensure that a measurement result is obtained in each measurement domain, in each reporting period and in each reporting area for each indicator which depends on field tests for its calculation.

(2) The Minister may appoint a measurement agent for the purpose of subregulation (1).

(3) The Minister or a measurement agent appointed under subregulation (2) shall have access to a participating provider's fixed networks to connect necessary equipment to those networks to obtain measurements in accordance with this regulation.

Measurement planning

6.(1) At least 30 days before the beginning of a reporting period, a

participating provider shall submit to the Minister the plan of approximately when and where it expects its measurements to be made.

- (2) The Minister may request revisions to the plan.

Measurement reporting

7.(1) Within one month after the end of a reporting period, a participating provider shall submit to the Minister in a manner approved by the Minister, its measurement results and any supplementary information required in the Schedules for that reporting period.

(2) The Minister shall cause the measurement results to be audited whenever the need arises after it has been published.

Record keeping

8.(1) A participating provider and the Minister shall hold records about their respective measurements for at least thirty six months after the reporting period in which the measurements were made.

(2) The records shall include the times and places of the measurements, the observations and calculations underlying the measurements and any fault report or service complaint which necessitated the measurements.

(3) The Minister shall have access to the records of a participating provider for the purpose of verification and auditing.

Measurement publication

9.(1) A Participating Provider shall display prominently on its website in a manner approved by the Minister, its measurement results and any associated explanatory remarks for that reporting period, within two months after the end of every Reporting Period.

(2) The Minister shall display prominently on its website, its Measurement Results obtained in accordance with regulation 5 and any associated explanatory remarks for that Reporting Period, within two months after the end of every reporting period.

(3) Before the Minister audits the measurement results, the measurement results thus published shall be marked clearly as not yet approved.

(4) If after an audit the Minister refuses to approve the measurement results, the measurement results so published shall be removed.

(5) The Minister may refuse to approve measurement results only if they have not been obtained in accordance with these Regulations.

(6) The explanatory remarks referred to in subregulation (1) may include matters relating to —

- (a) the failure to reach targets;
- (b) the deficiencies in services that are due wholly or partly to other service providers;
- (c) the changes in environmental, financial or operating circumstances that could not have been reasonably foreseen;
- (d) the times and places where the measurements are made;
- (e) the expectations about quality that are appropriate to the pricing of the service;
- (f) the performance of popular applications;
- (g) plans to improve services; and
- (h) arrangements for paying credits or rebates as compensation.

Field tests

10.(1) The Minister shall use campaign tests for any required field tests, unless it is deemed appropriate to use crowd tests.

(2) The Minister may make the use of crowd tests instead of campaign tests in a reporting area only if at least 80% of the customers in the reporting area have equipment and subscriptions that enable the download and execution of accurate, free and widely used programmes implementing the crowd tests.

Reporting periods

11.(1) (a) A reporting period shall start on the same day for all participating providers and shall extend for a period of 1 year, from the first day of the first month to the last day of the twelfth month , unless the Minister determines otherwise.

(b) There shall be one reporting period, within a period of 12 months, unless the Minister determines otherwise.

(2) Subregulation (1) shall apply to the Minister when making measurement coverage in accordance with regulation 5.

System readings

12. For the purpose of collecting system readings from a node in the network for a participating provider, the node shall be assigned to the reporting area where the participating provider expects that most of the users served by the node will be.

Reporting areas

13.(1) For the purpose of these Regulations, Mahé constitutes one reporting area, Praslin and La Digue constitute another reporting area.

(2) The outer islands shall be outside the reporting areas referred to under sub-regulation (1).

Representative samples

14.(1) Every representative sample shall comprise measurements made on every working day in only one reporting period and shall consist of measurements made in at least one occurrence of each business hour.

(2) For any representative sample, at most 20% of the measurements shall be made on any single working day and at most 20% of the measurements shall be made in occurrences of any single business hour.

(3) For any representative sample, measurements shall be made in only one reporting area and at least 2% of the measurements made on Mahé or at least 20% of the measurements made on Praslin and La Digue, shall be made in any single administrative district.

(4) Every representative sample shall include at least four hundred measurements.

Bearing of cost

15. A participating provider shall bear his or her own costs for complying with the requirements of these Regulations and for satisfying the requirements imposed under the sanctions under these Regulations.

Governance

16.(1) The Minister may establish and chair working groups to discuss quality of service requirements, such as the detailed obligations implicit in measurement methods.

(2) A participating provider may take part in working groups.

(3) Notwithstanding subregulation (2), a participating provider shall as and when the Minister so requests, take part in the working groups.

Customer awareness

17.(1) A participating provider shall promote among its current and prospective customers, awareness of the Indicators and targets and their significance to popular applications.

(2) A participating provider shall for each of its broadband internet services, identify a pair of downlink and uplink data transfer rates along with any likely constraints on the performance of popular applications.

(3) The Minister may conduct surveys among customers and review complaints by customers to determine how services are perceived or to consider instances where these Regulations need revision.

(4) The Minister shall display prominently on a website and publicise through the press and broadcasters, the measured values of indicators, outcomes of surveys and summaries of complaints.

(5) Before displaying or publicising measured values of indicators, outcomes of surveys and summaries of complaints, the Minister shall discuss every aspect of what will be displayed with the participating provider whose name will appear on the website or in any publication.

Obligation to reach target

18. An operator shall with regards to an indicator ensure that it reaches a target using the procedure named in the Schedule under “measurement result” and described under “measurement method”.

Contravention of regulations

19.(1) A participating provider commits a contravention of these Regulations if he or she fails to —

- (a) satisfy requirements imposed under these Regulations;
- (b) ensure that its measurement results reach each target stated in the Schedules; or
- (c) comply with regulations 3, 4, 6, 7, 8, 9, 16, 17 and 18.

(2) Where a participating provider commits a contravention of these Regulations, the Minister may impose the following sanctions —

- (a) require the publication of information about quality with contents and formats determined by the Minister;
- (b) require submission and implementation of plans to improve services;

- (c) require the payment of credits or rebates to customers; or
- (d) impose a penalty fine of R2000.

(3) Where a participating provider is found to have committed a contravention of these Regulations, the Minister may when applying sanctions, take into account the following factors —

- (a) the extent to which the sanctions can be expected to improve the choice, price or quality of services;
- (b) the number and nature of the services, reporting periods, reporting areas, indicators and targets to which the contravention relates;
- (c) the effects of the contravention on customers or other participating providers;
- (d) the effects of the contravention that are due wholly or partly to other service providers;
- (e) the environmental, financial and operating circumstances of the participating provider;
- (f) the effectiveness of competition with and by the participating provider;
- (g) credits or rebates that have been provided by the participating provider to customers in compensation for the contravention;
- (h) the extent to which the participating provider has complied with these Regulations;
- (i) the number and nature of sanctions that the Minister applied on past occasions when there were contraventions.

(4) The Minister shall not impose sanctions on a participating provider who commits a contravention that is due to “force majeure”.

SCHEDULE 1

Indicators for all services with Fixed Access

Indicator	Target	Measurement Result	Measurement Method
Service supply time	<7 working days for residential services and <5 working days for business services	The mean time in working days taken to fulfil relevant service orders	<p>This is applicable to Fixed Access. For residential services and business services (other than any for which customers have individual service level agreements) separately, there are the following Measurement Domains:</p> <ul style="list-style-type: none"> • Telephony. • Broadband Internet. • Subscription Television. <p>A service order may be submitted in writing, by phone or at a customer service centre. It is relevant if it is not solely about:</p> <ul style="list-style-type: none"> • services that the Service Provider does not supply within fifty (50) metres of the premises of the customer (in which case it is a service complaint). • services that have been ordered already (in which case it is a service complaint). <p>The time taken to fulfill a relevant service order is measured from when the Service Provider undertakes to provide the service by a specific date to when the service is available in normal working order for use by the customer.</p> <p>The service orders contributing to the Measurement Result are the relevant ones that according to System Readings are fulfilled in the Reporting Area during the Reporting Period. The Measurement Result is the sum of the times taken to fulfil such service orders divided by the number of such service orders. It, the number of such service orders, and the number of relevant service orders, are reported separately for each Measurement Domain in each Reporting Area.</p> <p>Service orders that are to be fulfilled at multiple times or places are counted as multiple service orders.</p>

Indicator	Target	Measurement Result	Measurement Method
<p>Fault report ratio</p>	<p><9% per quarter</p>	<p>The percentage of relevant fault reports submitted per customer</p>	<p>This is applicable to Fixed Access. For residential services and business services separately (other than any for which customers have individual service level agreements), there are the following Measurement Domains:</p> <ul style="list-style-type: none"> • Telephony. • Broadband Internet. • Subscription Television. <p>A fault report may be submitted in writing, by phone or at a customer service centre. It is relevant if it is not solely about:</p> <ul style="list-style-type: none"> • Deficiencies that are not associated by the customer with particular network locations (in which case it is a service complaint). • Faults that have been reported already by the same customer (in which case it is a service complaint). • Faults that are not found when tested. • Equipment that is not supplied, connected or maintained by the Service Provider. • Faults that have arisen during, and because of, maintenance operations about which notice has been given through the press and broadcasters at least forty-eight (48) hours in advance. • Faults that have arisen because of a duly declared state of emergency. <p>The fault reports contributing to the Measurement Result are the relevant ones that according to System Readings are submitted in the Reporting Area during the Reporting Period. The Measurement Result is the number of such fault reports divided by the number of customers for Services in the Measurement Domain in the Reporting Area at the end of the Reporting Period. It, and the number of customers for services in the Measurement Domain in the Reporting Area at the end of the Reporting Period, are reported separately for each Measurement Domain in each Reporting Area.</p> <p>Fault reports about multiple paths are counted as multiple fault reports.</p>

Indicator	Target	Measurement Result	Measurement Method
<p>Fault report clearance time</p>	<p><72 hours for residential services and <24 hours for business services</p>	<p>The mean time in hours taken to clear relevant fault reports</p>	<p>This is applicable to Fixed Access. For residential services and business services (other than any for which customers have individual service level agreements) separately, there are the following Measurement Domains:</p> <ul style="list-style-type: none"> • Telephony. • Broadband Internet. • Subscription Television. <p>A fault report may be submitted in writing, by phone or at a customer service centre. It is relevant if it is not solely about:</p> <ul style="list-style-type: none"> • Deficiencies that are not associated by the customer with particular network locations (in which case it is a service complaint). • Faults that have been reported already by the same customer. • Faults that are not found when tested. • Equipment that is not supplied, connected or maintained by the Service Provider. • Faults that have arisen during, and because of, maintenance operations about which notice has been given through the press and broadcasters at least forty-eight (48) hours in advance. • Faults that have arisen because of a duly declared state of emergency. <p>The time taken to clear a relevant fault report is measured from when the Service Provider receives the fault report to when the service is restored to normal working order for use by the customer.</p> <p>The fault reports contributing to the Measurement Result are the relevant ones that according to System Readings are cleared in the Reporting Area during the Reporting Period. The Measurement Result is the sum of the times taken to clear such fault reports divided by the number of such fault reports. It, and the number of such fault reports, are reported separately for each Measurement Domain in each Reporting Area.</p> <p>Fault reports about multiple paths are counted as multiple fault reports.</p>

SCHEDULE 2

Indicators for all Services with Mobile Access

Indicator	Target	Measurement Result	Measurement Method
Community isolation		The durations of unplanned outages lasting at least an hour	<p>This is applicable to Mobile Access. For each Access Technology there is one Measurement Domain, comprising the services supported by that Access Technology.</p> <p>An outage is unplanned unless it occurs during, and because of, maintenance operations about which notice has been given through the press and broadcasters at least forty-eight (48) hours in advance.</p> <p>The unplanned outages contributing to the Measurement Result are those that according to System Readings could affect traffic to or from at least one (1) base station in the Reporting Area throughout at least one (1) hour during the Reporting Period. The Measurement Result is the list of the durations of such unplanned outages, along with when and where they occurred. It is reported separately for each Measurement Domain in each Reporting Area.</p> <p>Outages that take overlapping times but affect traffic to or from different base stations are counted as separate outages, with separate durations.</p>

Indicator	Target	Measurement Result	Measurement Method
Coverage		<p>The received signal strengths in decibelmilliWatts at different times and places</p>	<p>This is applicable to Mobile Access. For each Access Technology there is one Measurement Domain, comprising the services supported by that Access Technology.</p> <p>A signal strength is received if it is obtained as the value of:</p> <ul style="list-style-type: none"> • The Received Signal Strength Indicator (RSSI), if the Access Technology is GSM/GPRS/EDGE. • The Received Signal Code Power (RSCP), if the Access Technology is UMTS/WCDMA/HSPA. • The Reference Signal Receive Power (RSRP), if the Access Technology is LTE/LTE -A/LTE -U. <p>The received signal strengths contributing to the Measurement Result are those that are received according to Field Tests in the Reporting Area during the Reporting Period. The Measurement Result is the list of such received signal strengths, along with when and where they were obtained and whether they were obtained outdoors or indoors and at speeds of more or less than 10 kilometres/hour. It is reported separately for each Measurement Domain in each Reporting Area.</p>

SCHEDULE 3

Section 1.01 Indicators for Telephony with Mobile Access

Indicator	Target	Measurement Result	Measurement Method
Unsuccessful call setup ratio	<3%	The percentage of attempted calls not set up successfully	<p>This is applicable to Mobile Access. For it there is one Measurement Domain, comprising the Telephony Services.</p> <p>A call setup is unsuccessful if, after providing a valid number properly following receipt of dial tone, the calling user does not receive the called user busy tone, ringing tone or answer signal within 30 seconds. The calls counted for this purpose are all of those to destinations in the country, regardless of the networks that host the destinations.</p> <p>The unsuccessful call setups contributing to the Measurement Result are those that are unsuccessful according to Field Tests in the Reporting Area during the Reporting Period. The Measurement Result is the number of such unsuccessful call setups divided by the number of attempted call setups in the Field Tests. It, and the number of attempted call setups, are reported separately for each Measurement Domain in each Reporting Area.</p> <p>The proportion of test calls going off-net should be approximately the proportion of live traffic going off-net.</p>

Indicator	Target	Measurement Result	Measurement Method
Dropped call ratio	<2%	The percentage of successfully setup calls not continued until ended by a user	<p>This is applicable to Mobile Access. For it there is one Measurement Domain, comprising the Telephony Services.</p> <p>A call is dropped if, after successful setup, it does not continue until it is ended by a user or until it lasts for 120 seconds (whichever is the sooner). The calls counted for this purpose are all of those to destinations in the country, regardless of the networks that host the destinations.</p> <p>The dropped calls contributing to the Measurement Result are those that are dropped according to Field Tests in the Reporting Area during the Reporting Period. The Measurement Result is the number of such dropped calls divided by the number of successful call setups in the Field Tests. It, and the number of successful call setups, are reported separately for each Measurement Domain in each Reporting Area.</p> <p>The proportion of test calls going off-net should be approximately the proportion of live traffic going off-net.</p>

SCHEDULE 4**Indicators for Broadband Internet with Fixed Access or Mobile Access**

Indicator	Target	Measurement Result	Measurement Method
Latency	<250 milliseconds for services using cable connections to and from Seychelles and <1,000 milliseconds for Services using satellite connections to or from Seychelles	The mean time in milliseconds taken to complete successful round trip data transfers, for each remote end point	<p>This is applicable to Fixed Access and Mobile Access separately. For each of them and for each pair of Downlink and Uplink Data Transfer Rates separated out by the advertising of the Service Provider there is one Measurement Domain, comprising the Broadband Internet Services advertised with that pair of Data Transfer Rates.</p> <p>Separate Measurement Results are provided for two remote end points approved by the Minister. Each of these end points should be such that the traffic between Seychelles and places easily accessed from the end point is a significant proportion of the traffic carried by the Service Provider.</p> <p>A round trip data transfer is successful if is completed without error in a certain time period. The Minister may change the time period, the protocol for the data transfer and the payload size for the data packets. Unless the Minister does this, the time period is 2 seconds for a round trip, the protocol is the Internet Control Message Protocol (ICMP) and the payload size is between 32 and 96 bytes (depending on the time stamps carried).</p> <p>The successful round trip data transfers contributing to the Measurement Result for a given remote end point are those that are successful according to Field Tests in the Reporting Area during the Reporting Period. The Measurement Result is the sum of the times taken to complete such successful round trip data transfers divided by the number of such successful round trip data transfers. It, and the number of such successful round trip data transfers, are reported separately for each remote end point for each Measurement Domain in each Reporting Area.</p>

Indicator	Target	Measurement Result	Measurement Method
<p>Packet loss ratio</p>	<p><1%</p>	<p>The percentage of attempted round trip data transfers not completed successfully, for each remote end point</p>	<p>This is applicable to Fixed Access and Mobile Access separately. For each of them and for each pair of Downlink and Uplink Data Transfer Rates or each Access Technology separated out by the advertising of the Service Provider there is one Measurement Domain, comprising the Broadband Internet Services advertised with that pair of Data Transfer Rates.</p> <p>Separate Measurement Results are provided for two remote end points approved by the Minister. Each of these end points should be such that the traffic between Seychelles and places easily accessed from the end point is a significant proportion of the traffic carried by the Service Provider.</p> <p>A round trip data transfer is unsuccessful if it is not completed without error in a certain time period. The Minister may change the time period, the protocol for the data transfer and the payload size for the data packets. Unless the Minister does this, the time period is 2 seconds for a round trip, the protocol is the Internet Control Message Protocol (ICMP) and the payload size is between 32 and 96 bytes (depending on the time stamps carried).</p> <p>The unsuccessful round trip data transfers contributing to the Measurement Result for a given remote end point are those that are unsuccessful according to Field Tests in the Reporting Area during the Reporting Period. The Measurement Result is the number of such unsuccessful round trip data transfers divided by the number of attempted round trip data transfers in the Field Tests. It, and the number of attempted round trip data transfers, are reported separately for each remote end point for each Measurement Domain in each Reporting Area.</p>

Indicator	Target	Measurement Result	Measurement Method
Throughput	<20%	<p>The percentage of successful file access data transfers for which the measured Data Transfer Rate is less than the advertised Data Transfer Rate, for the Downlink and Uplink for each remote end point</p>	<p>This is applicable to Fixed Access and Mobile Access separately. For each of them and for each pair of Downlink and Uplink Data Transfer Rates separated out by the advertising of the Service Provider there is one Measurement Domain, comprising the Broadband Internet Services advertised with that pair of Data Transfer Rates.</p> <p>Separate Measurement Results are provided for the Downlink and Uplink for two remote end points approved by the Minister. Each of these end points should be such that the traffic between Seychelles and places easily accessed from the end point is a significant proportion of the traffic carried by the Service Provider.</p> <p>A file download or upload is successful if it is completed without error in a certain time period. The Minister may change the time period, the protocol for the file download or upload and the file size. Unless the Minister does this, the time period is 120 seconds, the protocol is HyperText Transfer Protocol (HTTP) over single Transmission Control Protocol (TCP) connections and the file size is between 500,000 bytes and 520,000 bytes (depending on the operating system attributes).</p> <p>A file download or upload is regarded as prolonged if it is successful but its measured Data Transfer Rate, obtained by dividing the size of the file by the time taken by the download or upload, is less than the corresponding advertised Data Transfer Rate.</p> <p>The successful file downloads or uploads contributing to the Measurement Result for a given remote end point are those that are successful according to Field Tests in the Reporting Area during the Reporting Period. The Measurement Result is the number of prolonged file downloads or uploads divided by the number of successful file downloads or uploads in the Field Tests. It, and the number of successful file downloads or uploads, are reported separately for the Downlink and Uplink for each remote end point for each Measurement Domain in each Reporting Area.</p>

Indicator	Target	Measurement Result	Measurement Method
<p>Unsuccessful file access ratio</p>		<p>The percentage of attempted file access data transfers not completed successfully, for the Downlink and Uplink for each remote end point</p>	<p>This is applicable to Fixed Access and Mobile Access separately. For each of them and for each pair of Downlink and Uplink Data Transfer Rates separated out by the advertising of the Service Provider there is one Measurement Domain, comprising the Broadband Internet Services advertised with that pair of Data Transfer Rates.</p> <p>Separate Measurement Results are provided for the Downlink and Uplink for two remote end points approved by the Minister. Each of these end points should be such that the traffic between Seychelles and places easily accessed from the end point is a significant proportion of the traffic carried by the Service Provider.</p> <p>A file download or upload is unsuccessful if it is not completed without error in a certain time period. The Minister may change the time period, the protocol for the file download or upload and the file size. Unless the Minister does this, the time period is 120 seconds, the protocol is HyperText Transfer Protocol (HTTP) over single Transmission Control Protocol (TCP) connections and the file size is between 500,000 bytes and 520,000 bytes (depending on the operating system attributes).</p> <p>The unsuccessful file downloads or uploads contributing to the Measurement Result for a given remote end point are those that are attempted according to Field Tests in the Reporting Area during the Reporting Period. The Measurement Result is the number of such unsuccessful file downloads or uploads divided by the number of attempted file downloads or uploads in the Field Tests. It, and the number of attempted file downloads or uploads, are reported separately for the Downlink and Uplink for each remote end point for each Measurement Domain in each Reporting Area.</p>

SCHEDULE 5

Section 1.02 Indicators for all Services with Fixed Access or Mobile Access

Indicator	Target	Measurement Result	Measurement Method
Service complaint ratio	<3% per quarter	The percentage of relevant service complaints submitted per customer, for each topic of service complaints	<p>This is applicable to Fixed Access and Mobile Access separately. For each of them, there are the following Measurement Domains:</p> <ul style="list-style-type: none"> • + Telephony. • + Broadband Internet. • + Subscription Television. <p>For each of these the following topics of service complaints are distinguished from each other:</p> <ul style="list-style-type: none"> • + Billing, charging, payments and credit management. • + Network operation, coverage, availability and performance. • + customer service, complaint handling and request fulfilment. • + Other. <p>A service complaint may be submitted in writing, by phone or at a customer service centre. It is relevant if it is not solely:</p> <ul style="list-style-type: none"> • + A relevant service order. • + A relevant fault report. • + A request for information. • + A request to add, change or end services. • + A comment about services of other Service Providers. <p>The service complaints contributing to the Measurement Result for a given topic are the relevant ones that according to System Readings are submitted in the Reporting Area during the Reporting Period. The Measurement Result is the number of such service complaints divided by the number of customers for services in the Measurement Domain in the Reporting Area at the end of the Reporting Period. It, and the number of customers, are reported separately for each topic for each Measurement Domain in each Reporting Area.</p> <p>Service complaints about multiple topics are counted as multiple service complaints.</p>

Indicator	Target	Measurement Result	Measurement Method
Service complaint resolution time	<48 hours	The mean time in hours taken to resolve relevant service complaints, for each topic of service complaints	<p>This is applicable to Fixed Access and Mobile Access separately. For each of them, there are the following Measurement Domains:</p> <ul style="list-style-type: none"> • + Telephony. • + Broadband Internet. • + Subscription Television. <p>For each of these the following topics of service complaints are distinguished from each other:</p> <ul style="list-style-type: none"> • + Billing, charging, payments and credit management. • + Network operation, coverage, availability and performance. • + Customer Service, complaint handling and request fulfilment. • + Other. <p>A service complaint may be submitted in writing, by phone or at a customer service centre. It is relevant if it is not solely:</p> <ul style="list-style-type: none"> • + A relevant service order. • + A relevant fault report. • + A request for information. • + A request to add, change or end services. • + A comment about services of other Service Providers. <p>The time taken to resolve a relevant service complaint is measured from when the Service Provider receives the service complaint to when the customer is satisfied with the outcome.</p> <p>The service complaints contributing to the Measurement Result for a given topic are the relevant ones that according to System Readings are resolved in the Reporting Area during the Reporting Period. The Measurement Result is the sum of the times taken to resolve such service complaints divided by the number of relevant service complaints. It, and the number of such service complaints, are reported separately for each topic for each Measurement Domain in each Reporting Area.</p> <p>Service complaints about multiple topics are counted as multiple service complaints.</p>

Indicator	Target	Measurement Result	Measurement Method
Customer call answer time	<30 seconds	The mean time in seconds taken to answer customer calls	<p>This is applicable to Fixed Access and Mobile Access, which together form its one Measurement Domain.</p> <p>The time taken to answer a customer call is measured from when the calling user receives the called user busy tone, ringing tone or answer signal to when a human answers.</p> <p>A customer call is relevant if it is made to a telephone number that can provide a human answer, possibly after voice or keypad interactions and that is advertised as being for service orders, fault reports, service complaints, operator assistance or directory enquiries.</p> <p>The customer calls contributing to the Measurement Result are the relevant ones that according to System Readings are made from the Reporting Area during the Reporting Period. The Measurement Result is the sum of the times taken to answer such customer calls divided by the number of such customer calls. It, the number of such customer calls, and the number of relevant customer calls, are reported separately for each Reporting Area.</p>

MADE this 3rd day of November, 2022.

**AHMED AFIF
VICE-PRESIDENT**
