

**ELECTRONIC COMMUNICATIONS (QUALITY OF SERVICE)
REGULATIONS**

[NAME OF CONTRACTING STATE]

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Electronic Communications (Quality of Service) Regulations

[NAME OF CONTRACTING STATE]

[STATUTORY RULES AND ORDERS/STATUORY INSTRUMENT], No. [-] of 200[-]

(Gazette [Date])

Made by the Minister under section [-] of the Electronic Communications Act, 200[-] No. [-] of 20[-].

Citation

1. These Regulations may be cited as the Electronic Communications (Quality of Service) Regulations, 20[-].

[Commencement

2. These Regulations shall come into force on the date of its publication in the Gazette.]

Interpretation

3. In these Regulations –

“**Act**” means the Electronic Communications Act No. [-] of 200[-];

“**Compliance Manual**” means a document that includes details of work processes and information systems concerning criteria and parameter treatment, and details of algorithmic treatment of parameter calculations;

“**force majeure**” means any event or effect that cannot be anticipated or controlled and includes both acts of nature such as earthquake, flood, lightning and hurricane, and acts of people such as riot, strike, civil disorder, declared state of emergency and war or any similar act which the Commission determines to be *force majeure*;

“**quality of service**” means the measurement of the performance for an electronic communications service and the degree to which the electronic communications service conforms to the stipulated parameters;

“**quarter**” means a period of three months ending 31st March, 30th June, 30th September or 31st December in a calendar year;

“**reseller of service**” means a licensee engaged in the subsequent sale or lease on a commercial basis with or without adding value, of an electronic communications service provided by a licensee on a wholesale basis;

“Service Level Agreement” means a formally negotiated agreement between a wholesale licensee and a reseller of service with the main purpose of agreeing on the level of electronic communications service the wholesale licensee provides to the reseller of service;

“service level objectives” means the level of electronic communications service the wholesale licensee and the reseller of service agree on and usually include a set of service level indicators such as availability, performance and reliability;

“standard installation” means an installation where the necessary equipment to carry out the installation is readily available and no significant additional resources are required.

Application

4. These Regulations apply to a licensee of any of the following electronic communications services -

- (a) a public fixed electronic communications service;
- (b) a public mobile electronic communications service;
- (c) a fixed and wireless broadband service;
- (d) a subscriber television service.

Quality of service criteria and parameters

5. (1) The quality of service criteria and parameters -
- (a) in the case of a public fixed electronic communications service are set out in Part A of the Schedule;
 - (b) in the case of a public mobile electronic communications service are set out in Part B of the Schedule;
 - (c) in the case of a fixed and wireless broadband service are set out in Part C of the Schedule; and
 - (d) in the case of subscriber television are set out in Part D of the Schedule.
- (2) Nothing in these Regulations exempts a licensee that is required to provide universal service from complying with the established quality of service criteria and parameters.
- (3) Subject to subsection (4), the Commission may, after consultation with ECTEL, and having regard to market needs or the regulatory objectives of the Commission make a recommendation to the Minister to amend the service criteria and parameters set out in the Schedule.
- (4) The Minister may, upon receipt of a recommendation from the Commission, amend the Schedule.

(5) An amendment by the Minister under subsection (4) shall be published in the [Official Gazette].

Adoption of additional service criteria or parameters

6. (1) A licensee may in addition to the criteria set out herein adopt additional service criteria or parameters to determine its level of quality of service.
- (2) Where a licensee adopts additional criteria in accordance with sub-regulation (1) and introduces procedures and information systems intended for the treatment of quality of service criteria and parameters, it shall –
- (a) notify the Commission at least 30 days prior to the intended introduction; and
 - (b) subject to regulation 7, notify the public of its quality of service information.
- (3) A notification under sub-regulation (2) (a) must contain details of all relevant matters including the methods and systems used for the measurement of quality of service criteria and parameters.

Publication of quality of service information

7. (1) The Commission shall publish the information provided by a licensee on the overall level of an electronic communications service being offered to customers on the Commission's website.

Service Level Agreement

8. (1) A licensee who intends to make his retail services available as wholesale services to a reseller of service shall enter into a Service Level Agreement with reseller to ensure that the electronic communications service being delivered to the customer meets the desired expectation of the customer with regard to the quality of service being provided.
- (2) A Service Level Agreement under sub-regulation (1) must include the following provisions related to -
- (a) the definition of the electronic communications service being provided;
 - (b) the measurement of performance;
 - (c) service level objectives;
 - (d) duties of the wholesale service licensee;
 - (e) duties of the reseller of service;
 - (f) problem management;
 - (g) warranties;
 - (h) disaster recovery;
 - (i) complaints and dispute resolution; and
 - (j) penalties.

(3) The Commission may, on the recommendation of ECTEL, include additional provisions to Service Level Agreements.

Compliance Manual

9. (1) A licensee shall keep a Compliance Manual in respect of each electronic communications service that it is licensed to provide, within 3 months after the introduction of the criteria and parameters under regulation 5.
- (2) A licensee shall not delete any part of the Compliance Manual without the prior written consent of the Commission.
- (3) A licensee shall keep and provide the Compliance Manual in any format directed by the Commission.
- (4) Where pursuant to regulation 5 (4) the Schedule is amended, the affected licensee shall include the amendments with any necessary adaptations in the Compliance Manual within 30 days of the coming into effect of the amendments.

Record keeping

10. A licensee shall retain quality of service data, all measurements and related records for a minimum period of eighteen months after the end of the reporting period or until such time as the Commission may direct.

Information to Commission

11. (1) A licensee shall submit to the Commission on a quarterly basis a report on its achievements for each of the electronic communications service criteria and parameters under regulation 5 for the last reporting quarter.
- (2) A licensee shall submit the report referred to in sub-regulation (1) on the last working day of the month following the end of the quarter.
- (3) Where a licensee has not attained the service criteria and parameters under regulation 5, the licensee shall state the reasons and the time period within which it shall attain the required service criteria and parameters.

Unpredictable situations and *force majeure*

12. (1) In the event of an unpredictable situation or *force majeure* affecting quality of service, a licensee shall within the reporting period in which the unpredictable situation or *force majeure* occurred -
- (a) provide the Commission with satisfactory information with regard to compliance with quality of service requirements during the reporting period; and
 - (b) make available to the Commission and the public details of the achieved level of compliance during the reporting period.
- (2) The Commission may take into account factors relating to -

- (a) a change in environmental or operating conditions that could not have been reasonably foreseen by the licensee; or
- (b) an electronic communications service deficiency that arise partly or wholly from the operations of another licensee;

which may affect the ability of a licensee to achieve the quality of service criteria and parameters under regulation 5.

(3) Where a licensee is unable to submit a report during the relevant quarter as a result of an unpredictable situation or *force majeure*, he may apply to the Commission in writing for an extension of time.

(4) In the event of an unpredictable situation or *force majeure*, the Commission may exempt a licensee from the obligation to submit a report during the quarter in which the unpredictable situation or *force majeure* occurred until the subsequent quarter.

Making information available to customer

13. (1) A licensee shall, before it concludes a contract with a customer, make available to that customer clear and up-to-date information on its quality of service for each electronic communications service that it is licensed to provide.
- (2) Notwithstanding sub-regulation (1), before the last working day of January in each year, a licensee shall publish on its website and in one newspaper of wide circulation in [Name of Contracting State] -
- (a) clear and up-to-date information on the average performance levels achieved during the previous year compared with each criterion and parameter under regulation 5;
 - (b) clear and up- to- date information on the minimum and average quality of service levels it proposes to provide to consumers in the course of the year.

Advance notice

14. A licensee shall give consumers advance notice of planned interruption of service, in accordance with the timeframe provided in the Schedule, by publishing the notice in the electronic media and or the print media.

Compliance and enforcement

15. (1) Notwithstanding regulation 13, a licensee to whom these Regulations apply shall comply with the obligations provided for in these Regulations within 6 months of the coming into effect of these Regulations.

- (2) A licensee who -

- (a) fails to comply with these Regulations after six months have elapsed from the coming into effect of these Regulations;
- (b) fails to submit during a time period specified in these Regulations or by the Commission, information requested by these Regulations;
- (c) submits or publishes false or misleading information relating to quality of service; or obstructs or prevents an investigation by the Commission of the quality of service measurement, reporting or record keeping procedures;

commits an offence and is liable to the enforcement measures outlined in the Act including suspension or revocation of its licence as provided for in section 43 of the Act.

(3) Without prejudice to sub-regulation (2), the Commission may take one or more of the following enforcement measures -

- (a) direct the licensee to implement a remedial plan to improve the quality of service of the relevant services over a period to be determined by the Commission; and
- (b) direct the licensee to publish additional information about the quality of the service and, if so determined by the Commission, its implementation of the remedial plan.

SCHEDULE

(Regulation 5)

Definitions

1. In this Schedule –

“answered” means the duration from the instant when the address information required for setting up a call is received by an electronic communications network to the instant a human operator answers the calling party to provide the electronic communications service requested where the electronic communications service provided is not wholly automatic or does not employ the use of a voice response system;

“billing accuracy” means the measure of the number of incorrect bills per 1000 bills issued where an incorrect bill is one which has been determined by the licensee or Commission to have been issued with an error;

“call completion rate” means the ratio of successfully completed calls to the total number of attempted calls, that is, the ratio of the number of completed call attempts to the total number of call attempts, at a given point of an electronic communications network;

“call completion success rate” means the percentage of originated calls successfully completed where a successfully completed call is established by a successful connection to the called number although the called party may not answer;

“connection” means the interval between approval of a request for an electronic communications service and the provision of the electronic communications service by the licensee;

“customer care accessibility” means 100% of calls to the center must be answered by a customer care personnel or a machine within 30 seconds;

“drop call rate” means the number of calls that are prematurely terminated before being released normally by the caller or called party divided by the total number of call attempts Or $(1 - \text{Call Completion Ratio}) \times 100\%$;

“fault rate per access line” means a measure of the faults per distribution circuits from the exchange to the distribution point, including the fiber, copper, access multiplexers and any other access equipment where applicable;

“fault repair” means the time taken to restore an existing customer’s electronic communications service to operational level from the time that a problem is reported or a fault report is received but faults due to the customer premises equipment which is owned by a customer, such as

computer hardware and software are excluded from the measurement of performance against this benchmark;

“fault report” means a report of disrupted or degraded electronic communications service that is made by a customer and is attributable to an electronic communications network of the licensee or any interconnected public electronic communications network, and that is not found to be invalid;

“grade of service” means the probability of call failure over the junctions between switches due to non-availability of junctions;

“handover success rate” means the ratio of the number of successfully completed handovers to the total number of initiated handovers expressed as a percentage;

“jitter” means packets from the source will reach the destination with different delays which can seriously affect the quality of streaming audio or video;

“latency” means the measure of duration of a round trip for a data packet between specific source and destination Router Port or Customer Premises Equipment;

“maintainability” means the probability of performing a successful repair action within a given time;

“packet loss” means the percentage of packets lost to the total packets transmitted between two designated Customer Premises Equipment or Router Ports;

“peak period” means a continuous twelve-hour period of the day that the licensee designates as the period of high level of electronic communications traffic on its electronic communications network;

“POI congestion” means the ratio of calls failed over the POI between two licensees due to unavailability of free circuits to the total call requests for seizure of POI circuit;

“post dialing delay”, in relation to a GSM electronic communications network, means the average time between pressing send button after pressing correct digits and getting a ring back tone;

“planned disruption” means the scheduled or planned downtime of the electronic communications service by the licensee;

“reconnection of service” means the restoration of an electronic communications service by the licensee after the licensee receives overdue payment from the customer;

“response time” means the duration from the instant when the address information required for setting up a call is received by an electronic communications network to the instant the human operator answers the calling user to provide the electronic communications service requested. **The electronic communication services covered are the electronic communication services for operator controlled and assisted calls that are accessed with special access codes. Access to emergency services is excluded;**

“service availability” means the measure of the degree to which the electronic communications service is operable and not in a state of failure or outage at any point of time for all users;

“successful call attempt” means a call from a calling party who is successfully switched through to the called party, or receives busy tone when the called party is engaged speaking;

“time consistent busy hour” means the one hour period starting at the same time each day for which the average traffic of resource group is greatest over the days under consideration.

Application of this Schedule

2. (1) This Schedule does not apply to a request for connection of an electronic communications service that does not involve a standard installation because the licensee

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- (a) does not supply the particular electronic communications service in the requested geographical area;
- (b) cannot technically install the electronic communications service within the time frame provided for in this Schedule; or
- (c) cannot install the electronic communications service because it is not technically feasible.

(2) The burden of proving that the electronic communications service cannot technically be installed within the time frame set out in this Schedule or that it is not technically feasible to install the electronic communications service lies with the licensee.

(3) Notwithstanding sub-paragraph (1), where a licensee and a customer agree that a request for connection would be completed within an agreed time frame, the delivery time shall be taken into consideration for measurement purposes.

PART A
Public Fixed Electronic Communications

PUBLIC FIXED ELECTRONIC COMMUNICATIONS	
PROPOSED QoS KPI	Proposed Target Level – Over period of 1 quarter
Service Availability	>99.00%
Supply Time for Connection	90% within 5 working days
Fault Repair Time	80% in 24 hours 95% in 48 hours 100% in 72 hours
Call completion success rate	>98%
Fault Rate per Access Line	≤ 3% per 100 lines per month
Reconnection of service after payment of overdue amounts within period (Business Hours)	85% within 3 hours
Advance Notice of planned disruption	Notification of 95% of planned disruptions should be issued within a 36-hour timeframe before the event.
Call Set Up Time (Post dialing delay to ring tone)	National calls @ busy hour 3 seconds; International calls @ busy hour 8 seconds
Customer Care Accessibility	100%
POI Congestion	< 1%
Grade of Service	< 1%
Billing Accuracy (valid accuracy-related complaints)	≤ 1 complaint per 1000 bills over billing cycle
Percentage of billing related errors cleared within a month	>99%
Period of all refund/payments due to customers from the date of resolution of complaints as in the above	<4 weeks
Response time to the customer for assistance	% of calls answered by operator (voice to voice): Within 10 seconds 80% Within 15 seconds 95%
Line Shifting or relocation	< 5 working days
Service disconnection	>99%
Period of all refund / payments due to customers from the date of resolution of complaints as in the above	< 4 weeks
Complaints with the provision of the service	<5%
Complaints with the billing performance	<1%
Complaints with help services	<5%
Complaints with network performance, reliability and availability	<5%
Satisfied with maintainability	<95%
Overall customer satisfaction	>95%
Customer satisfaction with offered supplementary services	>95%

Domestic Leased Line Services

DOMESTIC LEASED LINE SERVICES	
Proposed QoS KPI	Proposed Target Level – Over period of 1 quarter
Supply Time for Connection	≥90% completed on agreed day (as per the terms and conditions of the service)
Fault Repair Time	95% within 24 hours
Service Availability	≥99.70%
Billing Accuracy (valid accuracy-related complaints)	≤ 1 complaint per 1000 bills over billing cycle
Percentage of billing related errors cleared within a quarter	>99%
Period of all refund/payments due to customers from the date of resolution of complaints as in the above	<4 weeks

International Leased Line Services

INTERNATIONAL LEASED LINE SERVICES	
Proposed QoS KPI	Proposed Target Level – Over period of 1 quarter
Supply Time for Connection	90% completed on agreed day (as per the terms and conditions of the service)
Fault Repair Time	90% within agreed repair time.
Service Availability	≥96.00%
Billing Accuracy (valid accuracy-related complaints)	≤ 1 complaint per 1000 bills over billing cycle
Percentage of billing related errors cleared within a quarter	>99%

General Complaints

The number of general service related (not billing) complaints per 1000 subscribers over period specified.

Fault and Repair Parameters	Benchmarks	Average over a period
No of fault incidences per month per 100 subscribers	<3	1 month
Fault incidences repaired in; 24 hours 48 hours 72 hours More than 72 hours	90% 95% 99% 100%	1 day 2 days 3 days More than 3 days

PART B
Public Mobile Electronic Communications

PUBLIC MOBILE ELECTRONIC COMMUNICATIONS	
Proposed QoS KPI	Proposed Target Level – Over period of 1 quarter
Supply Time for Connection	On demand for pre-paid. Within 3 hours for postpaid
Call Completion Success Rate	>95%
Service Availability	>99.00%
Response Time for Operator Service	80% within 10 seconds 90% within 15 seconds
Reconnection of service after payment of overdue amounts within period	95% within 3 hours
Advance Notice of planned disruption	Notification of 95% of planned disruptions should be issued within a 36-hour timeframe before the event.
Drop Call Rate (during peak periods)	< 2%
Blocked call rate (during peak periods)	SDCCH congestion <1% TCH congestion <2%
Service Coverage (> 90% populated coverage)	In door \geq -75 dBm In-Vehicle \geq -85 dBm Outdoor – in city \geq -95 dBm
POI Congestion	< 0.5%
Prepaid Credits Complaints	<0.5% complaint over 1000 pre- paid credit top-ups
Call Set Up Time (Post dialing delay to ring tone)	National calls @ busy hour 5 seconds; International calls @ busy hour 10 seconds
Handover Success Rate (%)	>95%
Traffic Channel Congestion Ratio (for Busy Hour)	\leq 2%
Customer Care Accessibility	100%
Advanced Notice of Rate change	Notice to be publicized in two weekly newspapers, over a two week period using a quarter page Ad
Billing Accuracy (valid accuracy-related complaints)	\leq 1 complaint per 1000 bills over billing cycle
Percentage of billing related errors cleared within a quarter	>99%
Period of all refund/payments due to customers from the date of resolution of complaints as in the above	<4 weeks
Response time to the customer for assistance	% of calls answered by operator (voice to voice): Within 10 seconds 80% Within 15 seconds 95%
Line Shifting or relocation	< 5 working days
Service disconnection	>99%
Period of all refund / payments due to customers from the date of resolution of complaints as in the above	< 4 weeks
Complaints with the provision of the service	<5%
Complaints with the billing performance	<1%
Complaints with help services	<5%
Complaints with network performance, reliability and availability	<5%
Satisfied with maintainability	<95%
Overall customer satisfaction	>95%
Customer satisfaction with offered supplementary services	>95%

Note: It is to be noted that all the measurements of performance parameters should be carried out during the time consistent busy hour.

SMS Service

SMS SERVICE	
Proposed QoS KPI	Proposed Target Level – Over period of 1 quarter
SMS Service availability	>99%
SMS end-to-end delivery time	<5 sec, for 99% conditions: The receiving mobile equipment should be ON, have coverage and have adequate storage.
SMS Completion Ratio	>95%
SMS Promotion	ALL persons receiving SMS promotional text must have expressly given authorization that they are interested in receiving promotions. Customers can decide at a later date to opt in to promotions.
Billing Accuracy (valid accuracy-related complaints)	≤ 1 complaint per 1000 bills over billing cycle
Percentage of billing related errors cleared within a quarter	>99%
Period of all refund/payments due to customers from the date of resolution of complaints as in the above	<4 weeks

General Complaints

The number of general service related (not billing) complaints per 1000 subscribers over period specified.

Fault and Repair Parameters	Benchmarks	Average over a period
No of fault incidences per month per 100 subscribers	<3	1 month
Fault incidences repaired in;		
24 hours	90%	1 day
48 hours	95%	2 days
72 hours	99%	3 days
More than 72 hours	100%	More than 3 days

PART C

Fixed and Wireless Broadband Service

Fixed Broadband Service:

FIXED BROADBAND SERVICE	
Proposed QoS KPI	Proposed Target Level – Over period of 1 quarter
Service Availability	>99.00%

Supply Time for Connection	90% within 5 working days
Fault Repair Time	95% within 24 hours 100% within 72 hours
Fault Rate per Access Line	≤ 3% per 100 lines per month
Ratio of Packet Loss (Upload and Download)	≤ 3% Packet loss
Average Throughput for Packet data	>90% of the subscribed speed
Latency	< 150ms for Audio; <250 ms for Data < 75 ms for Data (interactive)
Drop Rate	<1%
Jitter	< 30 ms
Reconnection of service after payment of overdue amounts within period (Business Hours)	85% within 3 hours
Advance Notice of planned disruption	Notification of 95% of planned disruptions should be issued within a 36-hour timeframe before the event.
Customer Care Accessibility	100%
Billing Accuracy (valid accuracy-related complaints)	≤ 1 complaint per 1000 bills over billing cycle
Percentage of billing related errors cleared within a quarter	>99%
Period of all refund/payments due to customers from the date of resolution of complaints as in the above	<4 weeks
Response time to the customer for assistance	% of calls answered by operator (voice to voice): Within 10 seconds 80% Within 15 seconds 95%
Line Shifting or relocation	< 5 working days
Service disconnection	>99%
Period of all refund / payments due to customers from the date of resolution of complaints as in the above	< 4 weeks
Complaints with the provision of the service	<5%
Complaints with the billing performance	<1%
Complaints with help services	<5%
Complaints with network performance, reliability and availability	<5%
Satisfied with maintainability	<95%
Overall customer satisfaction	>95%
Customer satisfaction with offered supplementary services	>95%

General Complaints

The number of general service related (not billing) complaints per 1000 subscribers over period specified.

Fault and Repair Parameters	Benchmarks	Average over a period
No of fault incidences per month per 100 subscribers	<3	1 month
Fault incidences repaired in; 24 hours 48 hours 72 hours More than 72 hours	90% 95% 99% 100%	1 day 2 days 3 days More than 3 days

Wireless Broadband Service:

WIRELESS BROADBAND SERVICE	
Proposed QoS KPI	Proposed Target Level – Over period of 1 quarter
Service Availability	>99.00%
Supply Time for Connection	95% within 3 working days
Fault Repair Time	95% within 24 hours
Ratio of Packet Loss (Upload and Download)	≤ 5% Packet loss
Average Throughput for Packet data	>90% of the subscribed speed
Latency	< 150ms for Audio; <250 ms for Data < 75 ms for Data (interactive)
Drop Rate	<1%
Jitter	< 30 ms
Signal Strength	≥-75 dBm
Billing Accuracy (valid accuracy-related complaints)	≤ 1 complaint per 1000 bills over billing cycle
Percentage of billing related errors cleared within a month	>99%
Period of all refund/payments due to customers from the date of resolution of complaints as in the above	<4 weeks
Response time to the customer for assistance	% of calls answered by operator (voice to voice): Within 10 seconds 80% Within 15 seconds 95%
Line Shifting or relocation	< 5 working days
Service disconnection	>99%

Period of all refund / payments due to customers from the date of resolution of complaints as in the above	< 4 weeks
Response time to the customer for assistance	% of calls answered by operator (voice to voice): Within 10 seconds 80% Within 20 seconds 95%
Complaints with the provision of the service	<5%
Complaints with the billing performance	<1%
Complaints with help services	<5%
Complaints with network performance, reliability and availability	<5%
Satisfied with maintainability	<95%
Overall customer satisfaction	>95%
Customer satisfaction with offered supplementary services	>95%

General Complaints

The number of general service related (not billing) complaints per 1000 subscribers over period specified.

Fault and Repair Parameters	Benchmarks	Average over a period
No of fault incidences per month per 100 subscribers	<3	1 month
Fault incidences repaired in; 24 hours 48 hours 72 hours More than 72 hours	90% 95% 99% 100%	1 day 2 days 3 days More than 3 days

PART D

Subscriber Television Service

SUBSCRIBER TELEVISION SERVICE	
Proposed QoS KPI	Proposed Target Level – Over period of 1 quarter
Installation time of service after application	< 5 working day
All installation and service related complaints (except those related to billing)	90 % in 48 hours 100% in 72 hours
Notice to consumers of preventive	A minimum of 36 hour notice to

maintenance of not more than 24 hours	consumers
Billing Accuracy (valid accuracy-related complaints)	≤ 1 complaint per 1000 bills over billing cycle
Percentage of billing related errors cleared within a quarter	>99%
Period of all refund/payments due to customers from the date of resolution of complaints as in the above	<4 weeks
Response time to the customer for assistance	% of calls answered by operator (voice to voice): Within 10 seconds 80% Within 15 seconds 95%
Line Shifting or relocation	< 5 working days
Service disconnection	>99%
Period of all refund / payments due to customers from the date of resolution of complaints as in the above	< 4 weeks
Response time to the customer for assistance	% of calls answered by operator (voice to voice): Within 10 seconds 80% Within 20 seconds 95%
Complaints with the provision of the service	<5%
Complaints with the billing performance	<1%
Complaints with help services	<5%
Complaints with network performance, reliability and availability	<5%
Satisfied with maintainability	<95%
Overall customer satisfaction	>95%
Customer satisfaction with offered supplementary services	>95%

Adherence to all relevant standards as outlined by the International Telecommunications Union for television broadcasting is required for all analogue and digital transmission systems, including but not limited to, National Television System Committee, Phase Alternating Line, and Séquentiel couleur avec mémoire, Advanced Television Systems Committee, Digital Video Broadcasting, Integrated Services Digital Broadcasting and Digital Terrestrial Multimedia Broadcast.

General Complaints

The number of general service related (not billing) complaints per 1000 subscribers over period specified.

Fault and Repair Parameters	Benchmarks	Average over a
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