

Chapter 10

Regulatory Guidelines for Mobile Network

Regulatory Guidelines for Mobile Network

Regulatory guidelines for mobile network can be divided in two categories-

1. Guidelines related to Quality of Service (QoS) of mobile network.
2. Guidelines related to Mobile Number Portability (MNP).

1. Regulatory Guidelines Related to QoS of Mobile Network-

Quality of Service parameters in respect of which compliance reports are to be submitted to TRAI, mainly belong to following two categories-

- A. Network Service Quality Parameters.
- B. Customer Service Quality Parameters.

S. N.	Name of Parameter	Benchmark	Average over a Period
A	Network Service Quality Parameters		
(i)	Network Availability		
	(a) BTSs Accumulated downtime (not available for service)	$\leq 2\%$	One Month
	(b) Worst affected BTSs due to downtime	$\leq 2\%$	One Month
(ii)	Connection Establishment (Accessibility)		
	(a) Call Set-up Success Rate (within licensee's own network)	$\geq 95\%$	One Month
	(b) SDCCH/ Paging Channel Congestion	$\leq 1\%$	One Month
	(c) TCH Congestion	$\leq 2\%$	One Month
(iii)	Connection Maintenance (Retainability)		
	(a) Call Drop Rate	$\leq 2\%$	One Month
	(b) Worst affected cells having more than 3% TCH drop (call drop) rate	$\leq 5\%$ up-to 31.03.2011 $\leq 3\%$ From 01.04.2011	One Month
	(c) connections with good voice quality	$\geq 95\%$	One Month
(iv)	Point of Interconnection (POI) Congestion (on individual POI)	$\leq 0.5\%$	One Month

Measurement - “BTSs accumulated downtime (not available for service)” shall basically measure the downtime of the BTSs, including its transmission links/circuits

during the period of a month, but excludes all planned service downtime for any maintenance or software up-gradation. For measuring the performance against the benchmark for this parameter the down time of each BTS lasting for more than 1 hour at a time in a day during the period of a month shall be taken for computation. The total duration in hours of all such instances of downtime of BTSs shall be calculated. Thereafter, the performance against the benchmark shall be measured through the following formula:

$$\text{BTSs accumulated downtime (not available for service)} \\ = \frac{\text{Sum of downtime of BTSs in a month in hours}}{24 * (\text{No. of days in the month}) * (\text{No. of BTSs in the network in the licensed service area})} * 100$$

Worst affected BTSs due to downtime - For measuring the parameter “Percentage of worst affected BTSs due to downtime” the down time of each BTS lasting for more than 1 hour at a time in a day during the period of a month shall be recorded and wherever the accumulated downtime of a BTS during the period of a month exceeds 24 hours the said BTS shall be taken as worst affected BTS for computation. The total number of such worst affected BTSs in a month shall be determined. Thereafter, the performance against the benchmark shall be measured through the following formula:

$$\text{Worst affected BTSs due to downtime} = \\ \frac{\text{No. of BTSs having accumulated downtime of >24 hours in a month}}{\text{Total No. of BTSs in the licensed service area}} * 100$$

Further, for computation of performance against the benchmark for these two parameters, performance affected due to force majeure conditions shall be excluded for calculation purposes.

S. N.	Name of Parameter	Benchmark	Average over a Period
B	Customer Service Quality Parameters:		
(v)	Metering and billing credibility – post paid	Not more than 0.1% of bills issued should be disputed over a billing cycle	One Billing Cycle
(vi)	Metering and billing credibility – pre paid	Not more than 1 complaint per 1000 customers i.e. 0.1% complaints for metering, charging, credit, and validity	One Quarter
(vii)	(a) Resolution of billing/ charging complaints	100% within 4 weeks	One Quarter
	(b) Period of applying credit/ waiver/ adjustment to customer’s account from the date of resolution of complaints	within 1 week of resolution of complaint	One Quarter

(viii)	Response Time to the customer for assistance		
	(a) Accessibility of call centre/ customer care	$\geq 95\%$	One Quarter
	(b)Percentage of calls answered by the operators (voice to voice) within 60 seconds	$\geq 90\%$	One Quarter
(ix)	Termination/ closure of service	≤ 7 days	One Quarter
(x)	Time taken for refund of deposits after closures	100% within 60 days	One Quarter

The compliance of the parameters specified in A and B above is to be reported to TRAI by the service provider. From time to time TRAI may verify and assess the performance by the CMTS service provider w. r. t. of the Quality of Service benchmarks.

C) Quality of Service parameter in respect of which compliance is to be monitored by the service provider.

Every cellular mobile telephone service provider shall meet and monitor the following Quality of Service benchmarks for cellular mobile telephone service in respect of the specified parameter, namely:

S. N.	Name of Parameter	Benchmark
1.	Service Coverage	For In-door coverage the signal strength at street level shall be ≥ -75 dBm and In-vehicle shall be ≥ -85 dBm.

The compliance of the Quality of Service benchmarks of the above parameter for CMTS need not be reported to TRAI.

D) Quality of Service parameters to be reflected in customer perception of service.

The performance of the service providers in respect of the following Quality of Service benchmarks for CMTS in respect of each specified parameter, shall be subject to periodic assessment by TRAI through customer satisfaction surveys, namely :-

S. N.	Name of Parameter	Benchmark
1.	customers satisfied with the provision of service	$\geq 90\%$
2.	customers satisfied with the billing performance	$\geq 95\%$
3.	customers satisfied with network performance, reliability and availability	$\geq 95\%$
4.	customers satisfied with maintainability	$\geq 95\%$
5.	customers satisfied with supplementary and value added services	$\geq 90\%$

6.	customers satisfied with help services including customer grievance redressal	$\geq 90 \%$
7.	customers satisfied with overall service quality	$\geq 90 \%$

2. Regulatory Guidelines MNP -

Limits of MNP—

- (1) The MNP shall be limited to within a given licensed service area.
- (2) MNP will be applicable only to cellular mobile telephone numbers.

Obligation to provide Mobile Number Portability. —Every Access Provider shall facilitate in its entire network, MNP to all subscribers, both pre-paid and post-paid and shall, upon request, provide the same on a non discriminatory basis.

Rights and obligations of Donor Operator—

- (1) The Donor Operator shall continue to provide all subscribed telecommunication services to the subscriber who has sought porting of his mobile number till the disconnection of the mobile number in accordance with the provisions.
- (2) Upon disconnection of a mobile number, the Donor Operator shall refund to the subscriber, within such time frame and in such manner as specified in the Standards of Quality of Service all amounts due to such subscriber on account of refundable payments or deposits made by such subscriber to the Donor Operator.
- (3) The Donor Operator shall maintain records of all mobile numbers ported out by it and all mobile numbers for which porting requests have been rejected by it for a minimum period of twelve months from the date of porting or the date of rejection of request, as the case may be.
- (4) In case of non payment of any outstanding bill issued to the subscriber after the porting request, for the services availed till the disconnection of the mobile number from the network of the Donor Operator, the Donor operator shall give a notice of not less than seven days to the subscriber, notifying him that in case of non payment within the said notice period, the Donor Operator shall request the Recipient Operator to disconnect the ported number.
- (5) In case after expiry of such period such subscriber fails to make payments as Specified in the notice, the Donor Operator shall communicate the details of such outstanding bills to the Recipient Operator through the Mobile Number Portability Service provider with an advice to take action for disconnecting the ported number.

Rights and obligations of Recipient Operator—

- (1) The Recipient Operator shall pay to the Mobile Number Portability Service provider, the Per Port Transaction charge at the rate as specified by TRAI from

- time to time, within fifteen days of receipt of the bill from the Mobile Number Portability Service provider or within such other time limit as may be mutually agreed upon.
- (2) The Recipient Operator shall maintain records in respect of all mobile numbers for which porting requests have been rejected, for a minimum period of twelve months from the date of rejection of such requests.
 - (3) Where a request is made by the Donor Operator for disconnecting the ported number, the Recipient Operator shall issue a notice to the concerned subscriber, the period of which shall be not less than seven days and not more than fifteen days, about the request received from the Donor Operator and calling upon such subscriber to produce evidence of having settled such outstanding dues with the Donor Operator within such notice period and in case the subscriber produces such evidence of having settled such dues, the Recipient Operator shall not take any further action in pursuance of the notice and shall inform the Donor Operator accordingly through Mobile Number Portability Service provider.
 - (4) In case, before expiry of the specified period, the subscriber fails to provide evidence of having settled such outstanding dues with the Donor Operator, the Recipient Operator shall disconnect the mobile number of such subscriber and inform the MNP Service provider forthwith about the disconnection of such mobile number and request for reversal of such mobile Number to the Number Range Holder after expiry of ninety days.
 - (5) In case, after porting of a mobile number to the Recipient Operator's network, there is disconnection of the mobile number, the Recipient Operator shall, after ninety days of such disconnection, inform the Mobile Number Portability Service provider about such disconnection with a request for reversal of such mobile number to the Number Range Holder.

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