

**Telecom Regulatory Authority of India**

**24<sup>th</sup> January, 2007**

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**TRAI Releases Report of the independent agency engaged for the Objective Assessment and Customer Satisfaction Survey of the Basic and Cellular Mobile Telephone Service – Quality of Service (QoS) for the quarter ending 30<sup>th</sup> September 2006.**

To protect the interest of consumers and improve Quality of Service, TRAI had laid down the QoS standards for basic and cellular mobile service through QoS regulations in July, 2005. These regulations provide for various QoS parameters along with benchmarks. The parameters in QoS regulations are service provisioning, fault repairing, network performance and billing related etc. These regulations have also prescribed the parameters relating to customer perception of service.

TRAI had engaged an independent agency for (1) conducting an objective assessment of the Quality of Service provided by basic and cellular mobile service providers and (2) subjective customer satisfaction surveys for assessing the customers' perception of the service. The agency submitted the report for the quarter ending 30<sup>th</sup> September, 2006. The salient features of the report are given below: -

The agency has made objective assessment of QoS through (i) audit of telephone exchanges spread in different areas for basic service and Mobile Switching Centres (MSCs) in every circle on sample basis (ii) assessing the effectiveness of the customer care help lines of each operator circle-wise through test calls; (iii) assessing the network conditions of each cellular mobile operator circle-wise through drive tests in sample cities/towns of circle; (iv) inter-operator call assessment of cellular mobile operator in each circle through inter-network test calls.

The customer perception of service is assessed through Customer Satisfaction Surveys conducted for each operator circle-wise through Questionnaire. For Rural subscribers, 100% of the subscribers were personally interviewed. In the case of Urban Subscriber, 75% were personally interviewed and 25% were interviewed telephonically. Subscribers were selected based on their age, gender and usage basis.

## **Key Findings:**

### **1. Objective Assessment of QoS performance**

#### **(A) Cellular Service**

The parameters for objective assessment of Quality of Service (QoS) and the percentage of audited cellular mobile service providers who meet the laid down benchmarks in QoS regulation are given in the Table -1 below.

**Table 1- Objective Assessment of Quality of Service (QoS) Cellular Service:**

<b>S.N</b>	<b>QoS Parameter</b>	<b>Bench mark</b>	<b>% of cellular operator meeting Bench mark</b>	<b>Operators whose performance is significantly poorer than benchmarks are indicated below</b>
1	Accumulated Down Time of Community Isolation	<24	98.45	<b>BSNL</b> – Gujarat (59.8 hrs.)
2	Call Set up Success Rate	>95%	96.09	<b>BSNL</b> -J&K (32.6%)
3	Service Access Delay	9-20 sec	100.00	-----
4	SDCCH/Paging Channel Congestion	<1%	84.50	<b>MTNL</b> – Mumbai (10.98%), <b>MTNL</b> -Delhi (8.18%) <b>Tata</b> – Chennai (3.94%) <b>BSNL</b> -TN (3.82%), <b>Dishnet</b> – NE (42.04%), <b>Bharti</b> – Bihar (4.19%)
5	TCH Congestion	<2%	85.27	<b>RISL</b> -Kolkata (4.3%), <b>BSNL</b> -TN (22.25%), <b>Spice</b> -Karnataka (15.43%), <b>Rel Tele</b> – MP (15.6%) , Bihar (14.01%), Assam(4.92%), NE (11.5%), Orissa (9.96%) <b>Dishnet</b> -NE (14.45%),

S.N	QoS Parameter	Bench mark	% of cellular operator meeting Bench mark	Operators whose performance is significantly poor than benchmarks are indicated below
6	Call Drop Rate	<3%	99.21	<b>BSNL</b> -Chennai (5.3%).
7	% Connection with Good voice quality	>95%	86.07	<b>Rel Info</b> - Kolkata (85%), <b>Hutch</b> -Rajasthan (84%)
8	Billing complaints per 100 bills issued	<0.1	74.60	<b>Bharti</b> -Chennai (0.34), Karnataka(0.68%), MP (0.44%), J&K(0.60%) <b>BPL</b> – TN (0.9%), <b>Tata</b> – Guj (0.84) Karnataka(0.65%), Haryana((0.99%), Punjab(0.77%), MP (0.66%), HP(0.54%), AP(0.4%), UP- E(0.36%) <b>Aircel</b> - TN (0.67%), <b>BSNL</b> – UP W (2.11%), J&K (0.66%), HP(0.58%),
9	% of Billing complaints resolved within 4 weeks	100%	85.60	-----
10	Period of all refunds due to customers from the date of resolution	100%	86.07	<b>Tata</b> -Mumbai (40.16%), TN (57.14%) <b>MTNL</b> -Delhi (50 %),

**(ii) POI congestion:** POI congestion level check was carried out in a number of places on a sample basis and it was observed that majority of the service provider's network was having congestion. The independent agency also carried out inter-operator call congestion assessment on a sample basis by making live inter-network calls. This assessment also revealed difficulty in connecting to other operator's networks.

**(iii) Drive Test: (a)** 360 number of drive test were conducted to verify parameters like Call Drop Rate (CDR) (Benchmark < 3 %), Call Set up Success rate (CSSR) (Benchmark >95%), Blocked Call Rate (Benchmark <3%) and % connection with good voice quality (Benchmark > 95%).

In **Metro Circles**, drive test was carried for 24 operators. Bharti - Mumbai did not meet any of the parameters of the drive test. Out of the 24 operators, 14

operators (58.33%) meet benchmarks for all the parameters. The detail of the operators who do not meet the benchmark is given below:

**Bharti:** Chennai (Good voice quality 90.56 %), **Tata:** Mumbai (Call drop rate 6.10%, Call setup success rate 91.60%, Blocked call rate 14%), **Idea:** Delhi (good voice quality 92.83%, CSSR 93.79%, Blocked call rate 4.44%), **Hutch:** Mumbai (Good voice quality 92%, CDR 4%), **Rel Comm :** Mumbai (Good voice quality 85.5%, CDR 7.7%, Blocked call rate 3.3%), **MTNL:** Delhi (Good voice quality 92.5%, CSSR 94.52%, Blocked call rate 5.57%), Mumbai ( Good voice quality 85.55, CDR 7.70%, Blocked call rate 3.3%), **BSNL:** Chennai (Good voice quality 88.6%, CSSR 94%, Blocked call rate 4.2 %), **BPL:** Mumbai (CDR 3.5%, Blocked call rate 3.70%)

In **A Circles**, drive test was carried for 30 operators. **BSNL -TN** did not meet any of the parameters of the drive test. Out of 30 operators, 21 operators (70%) met benchmarks for all the parameters. The detail of the operators who do not meet the benchmark is given below:

**BSNL:** AP (Good voice quality 93%), Gujarat (Good voice quality 87%, CDR 11.67%), Karnataka (Good voice quality 87.13%), Maharashtra (Good voice quality 93.46%), **Hutch:** Karnataka (Good voice quality 92.54%), **Aircel:** TN (Good voice quality 82.75%), **Tata:** TN (Good voice quality 91.4%)

In **B Circles**, Drive test was carried for 47 operators. 34 operators (72.34%) met benchmarks for all the parameters. The detail of the operators who do not meet the benchmark is given below:

**BSNL:** Kerala (CDR 5.33%), MP (CDR 10.18%, CSSR 93.76%, Blocked calls rate 3.54%), Rajasthan (Good voice quality 93.7%, CSSR 91.66%), UP-E (Good voice quality 88.30%, CSSR 93.14%), WB (Good voice quality 85.75%, CDR 3.7%), **Idea:** Haryana (Good voice quality 94.41%), UP-W (Good voice quality 90.71%), **Rel Tele:** MP (CSSR 91.95%, Blocked call rate 5.22%), **Rel Comm:** UP-W (CDR 5.07%, Blocked call rate 3.8%), **Bharti:** UP-W (Good voice quality 93.37%), **Hutch:** UP-W (CSSR 91.84%, Blocked call rate 4.7%), Rajasthan(Good voice quality 88.6%), UP-E(Good voice quality 89%)

In **C Circles**, Drive test was carried for 27 operators. 17 operators (62.96%) met benchmarks for all the parameters. The detail of the operators who do not meet the benchmark is given below:

**BSNL:** Assam (Good voice quality 84.71%, CSSR 88.99%), Bihar (Good voice quality 94.94%, CSSR 93.09%), HP (Block Call rate 4.34%), J&K (Good voice quality 92.88%, CDR 6.45%, CSSR 94.49%), Orissa (Good voice quality 71.6%, CDR 4.02%, Blocked call rate 5.9%), **Dishnet:** Assam (Good voice quality 89.92%), NE (Good voice quality 92.67%, Blocked call rate 3.83%), **Bharti:** Assam (Good voice quality 91%), **Rel Tele:** Assam (Blocked call rate 3.98%).

**(b) Independent drive test:**

Independent drive tests were also carried out for all the operators in Delhi circle. Only **Rel comm** meets benchmark for all the parameters.

**(iv) Help Line:**

Calls were made to verify the percentage of call Answered Electronically and Operator response time. It is observed that 63.6%% and 62.8% operators meet the parameter with respect to **calls answered by operator within 60 seconds and 90 seconds** respectively. In case of **% age of calls answered electronically within 20 Sec and 40 Sec.**, 82.2% of the operators meet the benchmark.

**(B) Basic Service**

(i)The parameters for objective assessment of Quality of Service (QoS) and the percentage of Basic Service Operators audited who meet the laid down benchmarks in QoS regulation are given in the Table 2 below: -

**Table 2 Objective Assessment of Quality of Service (QoS) Basic Service:**

<b>Sl</b>	<b>QOS Parameters</b>	<b>Benchmark</b>	<b>% of Basic operator meeting the bench mark</b>	<b>Operators whose performance is significantly poorer than benchmarks are indicated below</b>
1	Provision of telephone after registration of demand	100% Of cases in <7 days subject to technical feasibility.	4.1	% of cases in <7 days - <b>BSNL</b> –Maharashtra(35.31),Gujarat(34.56), Karnataka (38.52), J&K (8.25), NE1 (15.80), HP (23.07), A&N (34.10), Jharkhand (47.45), WB (10.22), UP (E) (33.33), Kerala(38.54),Rajasthan (46.16), Uttarnchal (48.48) <b>Bharti</b> -UP (32.11)
2	Fault incidences (No. of faults/100 subscribers/month)	<5	49.25	<b>MTNL</b> –Mumbai (18.41), Del (14.16), <b>BSNL</b> –Kol (13.89), Jhar (23.31), Orissa (21.84), NE2 (20.32), A&N (20.10) Bihar (16.57), Assam (16.35), UP (E) (28.33), WB (22.56), UP (W) (17.62), CTG (11.87), Haryana (10.91), Uttarchal (10.80) <b>Bharti</b> – AP (9.6) , Gujarat (10.38), UP(W) (12.51)
3	Fault repaired by next working days	By next working day:>90% and within 3 days 100%	55.22	<b>MTNL</b> – Mumbai (46.96%), <b>BSNL</b> – Mah (17.22%), J&K (4.82%)

<b>Sl</b>	<b>QOS Parameters</b>	<b>Benchmark</b>	<b>% of Basic operator meeting the bench mark</b>	<b>Operators whose performance is significantly poorer than benchmarks are indicated below</b>
4	Mean Time to Repair	<8 hour	63.64	<b>BSNL</b> – Guj (28.52 hrs.), Mah (17.08 hrs.), J&K (62.42 hrs.) <b>Tata</b> – Guj (15.91 hrs.),
5	Grade of service (Junction between local Exchanges)	<.002%	71.01	<b>Tata</b> – Mum (0.12%), <b>Rel Com</b> – Kol (0.49%), Gujarat (0.32%), Orissa ( 2.64%) <b>BSNL</b> – Kol (0.118%), Assam (0.29%), WB (0.54%)
6	Call completion rate within local network	>55%	57.14	<b>BSNL</b> – Orissa (24.95%), <b>Rel Com</b> – HP (32%), UP(E) (31.50%),Raj (34%),WB (34.50%), <b>Bharti-Kerala</b> (30.46%),
7	Metering and Billing credibility	Not more than 0.1% of the bills issued should be disputed over a billing cycle	83.10	<b>BSNL</b> – Chennai (0.35%), Kol (0.48%), Raj(0.835%), UP(W) (0.37%), Har (0.324%) Uttranchal (0.3%) <b>Bharti</b> – AP (0.34%),
8	Customer Care (promptness in attending to customers request) (a)Shift	95% of request within 3 days	13.63	<b>Tata</b> – Chennai (15%), TN (15%) <b>BSNL</b> – Chennai (17%), Karnataka (20.46%), TN (31.87%), Maharashtra (36.68%), Gujarat (43.79%), J&K (0%), NE-2 (10.14%), Kerala (15.61%), Uttranchal (33.33%), <b>MTNL</b> – Mum (25%), <b>Bharti</b> – Delhi (43.98%), Kol (0%), UP-W (25.92%)
	(b) Closure	95%of the request within 24hrs	36.50	<b>Tata</b> – Chennai (30), TN (30%), Kar(0%), Mumbai (0%). <b>BSNL</b> – Chennai (28.36%), Mah(23.64%), TN( 31.51%), J&K(0%), NE-1( 25.04%). <b>Bharti</b> – AP (0%),
	(c) Additional Facility	95% of request within 24 hrs	68.65	<b>BSNL</b> – Kar (23.19%), NE1 (35.67%)

Sl	QOS Parameters	Benchmark	% of Basic operator meeting the benchmark	Operators whose performance is significantly poorer than benchmarks are indicated below
9	Time taken for refund of deposits after closure	100%with in 60 days	67.14	<b>Bharti</b> – Del (19.75%), Mum (24.20%), Punjab (30.64%), Mah(27.09%), <b>Tata</b> – Mum (32.96%) <b>BSNL</b> – Mah (44.86%), Assam (3.47%),Jhar (50%), Kerla (50.75%)

**(ii) Help Line:**

Calls were made to verify the percentage of call Answered Electronically and Operator response time. 13.60% operators do not meet the benchmark with respect to parameter % age of calls answered by operators within 60 sec and 17.80% of the operators do not meet the benchmark for the parameter % age of calls answered by operator within 90 sec.

**II. Customer Satisfaction Survey**

**(A) Cellular Mobile Service**

Customer perception related to operators’ service was assessed for seven defined parameters through 29 questions for cellular mobile service subscriber. On an all India basis, 74 out of 124 (59.6%) operators do not meet the benchmark criteria for all the parameters taken together. ***The detailed results of the customer Satisfaction Survey, Service Area wise for the Cellular Mobile Service are given in Annex – A.***

The key-findings in respect to major parameters are given below: -

**Overall Customer Satisfaction level: (Benchmark >95%)**

The customer perception of overall customer satisfaction level is poor in all the circles. Only one licensee out of a total of 128 licensees (0.78%) meets the benchmark of >95%. In Metro Circles only Airtel-Mumbai 96% attained the overall customer satisfaction level. Poor performance amongst all the operators in a circle is noticed in Karnataka (68%-71%), Tamilnadu (69%-74%), Kerala (68%-71%), Rajasthan (69%-79%), West Bengal (59%-76%), Bihar (68%-75%) and Orissa (70%-73%) Circles.

**Network performance (Benchmark >95%)**

The customer perception of the parameter network performance is poor as only 14 out of 128 operators (10.94%) meet the benchmark. In Metro Circles, only Airtel-Mumbai (99%) meets the benchmark. In A Circles all the six operators surveyed in Maharashtra meet the benchmark, In B circle only 4 operators namely Tata, Hutch, Airtel – UP (E) and Rel Com - Rajasthan meet the benchmark. In C circles only three licensees (Dishnet – J & K, Airtel – HP, BSNL – HP) met the benchmark

of > 95%. BSNL and Rel Com-UP (E) are the worst with satisfaction level of 1% only.

**Billing (Benchmark >95%)**

The survey was conducted separately on post-paid and pre-paid customers. In the case of post-paid segment, overall 52.34% of the operators achieved the satisfaction level of 90% and in the prepaid segment the number of licensees who achieved this level is 75.5%. The worst performance in respect of post paid is in the range 36%-67% in Chennai and 45% - 62% in Delhi circles.

**Maintainability (Benchmark >95%)**

90 out of 105 (85.7%) service providers do not meet the benchmark. The achievement level of operators not meeting the benchmark ranges between 55%-90% in Metro Circles, 35%-90% in A Circles, 19%-93% in B Circles and 8%-93% in C Circles.

**Help Line Service (Benchmark >90%)**

89 out of 123 (72.3%) service providers do not meet the benchmark. The achievement level of the operators not meeting the benchmark ranges between 62%-88% in Metro Circles, 43%-88% in A Circles, 36%-89% in B Circles and 42%-88% in C Circles.

**(B) Basic Service**

***The detailed results of the Customer Satisfaction Survey, Service Area wise for the Basic Service are given in Annex-B***

The key-findings in respect to major parameters are given below: -

In the case of basic service on an all India basis, 54% (38 out of 70 service providers) do not meet the benchmark for all the parameters taken together on customer perception of service.

**Overall Customer Satisfaction (Benchmark >95%):**

In respect of Metro Circles only Mumbai-Airtel has met the benchmark. In A Circles 7 out of 19, in B Circles 5 out of 26 operators meet the benchmark of overall satisfaction level of >95%. In C Circle, none of the operators meets the benchmark. The performance of C Circle is poorer than all other circles with achievement level 56%-91%.

**Maintainability (Benchmark >95%):**

Only Rel Communication in Chennai meets the benchmark in Metro Circles. 8 out of 15 operators in A Circles, 9 out of 26 operators in B Circles meet the benchmark. None of the 12 operators in C Circles meets the benchmark.



**Billing Services (Benchmark >90%)**

In Metro Circles, 9 out of 15 operators, in A Circles 14 out of 18, in B Circles 20 out of 26 and in C Circles, 2 out of 10 operators meet the benchmark.

**Help-line Services (Benchmark >90%):**

In Metro Circles, 3 out of 15, in A Circles, 11 out of 18, in B Circles 2 out of 26 and in C Circles only one out of 11 operators meet the benchmark.

***The Synopsis and Detailed Report on Quality of Service & Customer Satisfaction Survey of quarter ending July-September 2006 is placed at TRAI Website ([www.trai.gov.in](http://www.trai.gov.in)).***

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## Annex – ‘A’

Customer Satisfaction Survey of Cellular Mobile Service										
SL	Name of the Service Providers	Sample Size	% Satisfied with							
			Provision of service	Billing performance		Help services	Network Performance Reliability and Availability	Maintainability	Overall customer satisfaction	Supplementary services
				Post-paid	Pre-paid					
	<b>Benchmark</b>		<b>&gt;95%</b>	<b>&gt;90%</b>	<b>&gt;90%</b>	<b>&gt;90%</b>	<b>&gt;95%</b>	<b>&gt;95%</b>	<b>&gt;95%</b>	<b>&gt;95%</b>
	<b>CIRCLE-A</b>									
<b>(i)</b>	<b>AP</b>									
1	Airtel	401	99	92	100	99	82	***	79	99
2	BSNL	401	96	98	100	98	80	***	80	99
3	Hutch	400	97	100	100	98	81	***	80	99
4	Idea	402	96	98	100	100	82	***	79	97
5	Rel comm	399	98	96	100	99	78	***	83	83
6	Tata	400	97	92	100	100	69	***	80	86
<b>(ii)</b>	<b>Gujarat</b>									
7	Airtel	404	100	95	90	45	89	45	71	95
8	BSNL	402	97	90	94	50	81	***	75	100
9	Hutch	401	98	92	89	50	86	100	72	95
10	Idea	400	99	97	95	49	86	100	75	96
11	Rel comm	401	99	94	96	49	87	75	78	97
12	Tata	200	99	84	94	43	81	100	77	97
<b>(iii)</b>	<b>Karnataka</b>									
13	Airtel	423	72	85	74	94	70	90	71	91
14	BSNL	404	70	88	69	91	71	88	70	97
15	Hutch	375	72	85	71	94	69	82	70	97
16	Rel comm	399	70	86	67	94	71	86	69	94
17	Spice	398	68	80	70	95	71	69	68	95
18	Tata	402	66	79	71	95	71	79	69	94
<b>(iv)</b>	<b>Maharashtra</b>									
19	Airtel	401	100	100	100	88	96	80	86	84
20	BPL	399	100	99	98	97	99	***	86	90
21	BSNL	400	95	100	84	53	95	***	82	90
22	Idea	400	100	100	99	92	95	***	89	94
23	Rel comm	400	100	100	98	99	98	***	90	84
24	Tata	198	99	100	98	94	97	***	86	92
<b>(i)</b>	<b>Tamilnadu</b>									
<b>25</b>	Aircell	496	95	67	92	74	90	55	72	95
26	Airtel	401	95	57	95	83	91	62	74	96
27	BPL	444	96	79	94	79	90	49	72	92
28	BSNL	453	98	79	95	82	85	56	72	97

## Customer Satisfaction Survey of Cellular Mobile Service

SL	Name of the Service Providers	Sample Size	% Satisfied with							
			Provision of service	Billing performance		Help services	Network Performance Reliability and Availability	Maintainability	Overall customer satisfaction	Supplementary services
				Post-paid	Pre-paid					
29	Rel comm	345	98	63	95	80	90	53	73	96
30	Tata	159	98	65	86	57	91	35	69	90
	<b>CIRCLE-B</b>									
	<b>(ii) Haryana</b>									
31	Airtel	250	81	86	98	89	87	43	74	67
32	BSNL	249	93	100	98	85	79	68	72	65
33	Hutch	250	99	100	99	85	88	43	71	55
34	Idea	252	98	86	99	94	92	44	75	59
35	Rel comm	278	100	87	99	92	92	100	79	73
36	Tata	250	100	100	100	92	90	75	78	64
	<b>(iii) Kerala</b>									
37	Airtel	251	90	67	84	64	90	48	70	97
38	BPL	260	96	60	92	64	89	38	71	96
39	BSNL	248	94	69	87	61	89	44	70	99
40	Idea	252	94	57	83	60	90	31	68	92
41	Rel comm	399	94	75	83	65	90	35	69	95
42	Tata	394	92	73	86	60	90	49	70	97
	<b>(iv) MP</b>									
43	Airtel	250	100	100	99	82	91	74	83	99
44	BSNL	256	100	76	100	79	90	73	82	96
45	Idea	259	99	100	98	78	90	70	82	99
46	Rel comm	254	99	100	99	79	89	***	84	100
47	Rel Tel	249	100	82	98	79	88	80	84	98
48	Tata	251	100	100	100	78	89	85	83	97
	<b>(v) Punjab</b>									
49	Airtel	306	100	100	100	96	94	84	81	85
50	BSNL	182	96	100	99	90	89	100	80	90
51	Hutch	253	99	97	99	94	93	88	82	92
52	Rel comm	395	99	98	99	90	94	82	81	93
53	Spice	291	100	96	100	90	80	93	78	90
54	Tata	200	100	100	98	90	94	99	83	97
	<b>Rajasthan</b>									
55	Airtel	264	98	87	79	69	94	61	74	76
56	BSNL	269	96	77	86	67	69	19	69	72
57	Hutch	240	95	95	91	75	92	44	79	80
58	Rel comm	261	96	93	87	68	95	54	78	86
59	Tata	253	98	100	91	61	89	***	79	82

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			Provision of service	Billing performance		Help services	Network Performance Reliability and Availability	Maintainability	Overall customer satisfaction	Supplementary services
				Post-paid	Pre-paid					
	<b>UP-E</b>									
60	Airtel	249	83	100	86	**	100	***	69	**
61	BSNL	280	81	62	77	**	1	***	61	**
62	Hutch	281	84	43	78	**	100	***	67	**
63	Rel comm	395	76	56	80	**	1	***	62	**
64	Tata	287	93	57	96	**	100	***	83	**
	<b>UP-W</b>									
65	Airtel	263	98	99	98	80	80	68	75	80
66	BSNL	263	95	71	100	75	73	78	74	91
67	Hutch	255	98	92	97	80	81	93	79	91
68	Idea	278	98	90	99	68	73	80	74	90
69	Rel comm	258	99	88	99	80	79	91	78	95
70	Tata	257	99	100	95	82	69	91	76	97
	<b>WB</b>									
71	Aircell	253	99	100	95	54	74	67	76	97
72	Airtel	253	97	100	79	49	78	***	66	89
73	BSNL	253	99	100	86	55	76	***	67	96
74	Hutch	253	100	100	77	50	80	70	67	87
75	Rel Tel	253	100	100	92	36	45	41	72	88
76	Rel comm	253	100	100	95	58	74	50	59	98
77	Tata	253	100	100	82	36	64	44	66	86
	<b>CIRCLE-C</b>									
	<b>Assam</b>									
78	Aircell	252	97	72	100	90	86	100	80	100
79	Airtel	254	98	89	98	86	88	100	78	100
80	BSNL	253	91	83	99	87	85	100	74	100
81	Rel Tel	253	95	74	79	77	71	60	68	92
	<b>Bihar</b>									
82	Airtel	252	98	100	100	53	79	100	72	98
83	BSNL	255	99	67	98	42	76	42	68	99
84	Rel comm.	252	99	100	100	58	83	93	75	99
85	Rel Tel	254	98	100	98	52	78	50	72	99
86	Tata	252	99	100	98	50	74	80	73	98
	<b>HP</b>									
87	Airtel	278	99	100	97	78	97	87	81	98
88	BSNL	263	96	100	98	71	95	87	80	99

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SL	Name of the Service Providers	Sample Size	% Satisfied with							
			Provision of service	Billing performance		Help services	Network Performance Reliability and Availability	Maintainability	Overall customer satisfaction	Supplementary services
				Post-paid	Pre-paid					
89	Rel comm.	129	100	100	97	86	86	67	79	98
90	Rel Tel	229	100	100	97	90	85	***	82	99
91	Tata	108	99	100	99	75	82	100	82	97
	<b>J&amp;K</b>									
92	Aircell (Dishnet)	23	100	100	*	94	99	***	89	96
93	Airtel	239	78	85	96	60	79	13	72	95
94	BSNL	317	61	84	78	53	69	8	61	88
	<b>NE</b>									
95	Aircell(Diahnet)	252	100	100	100	88	92	100	81	100
96	Airtel	255	99	74	98	91	86	***	81	100
97	BSNL	253	100	73	93	77	79	84	72	97
98	Rel Tel	252	100	29	89	77	78	73	74	99
	<b>Orissa</b>									
99	Aircell (Dishnet)	252	99	100	88	68	69	100	73	99
100	Airtel	252	97	93	88	82	68	90	73	97
101	BSNL	251	89	79	91	76	60	90	70	97
102	Rel comm	255	94	100	93	72	70	91	72	96
103	Rel Tel	253	96	100	91	72	62	90	70	93
104	Tata	253	96	68	90	68	69	89	73	95
	<b>CIRCLE-M</b>									
	<b>Chennai</b>									
105	Aircell	652	99	51	96	94	80	78	90	96
106	Airtel	529	98	67	98	92	86	86	93	97
107	BSNL	583	89	57	94	88	80	68	86	96
108	Hutch	603	98	55	99	91	76	90	89	96
109	Rel comm	567	96	47	98	91	79	84	90	96
110	Tata	182	100	36	96	94	76	62	87	91
	<b>Delhi</b>									
111	Airtel	615	97	62	91	74	86	73	85	87
112	Hutch	649	96	61	93	73	85	78	85	88
113	Idea	583	97	55	96	67	79	75	84	91
114	MTNL	555	98	54	94	70	82	55	84	88
115	Rel comm	589	98	53	96	75	83	72	86	90
116	Tata	604	98	45	97	69	79	68	85	93
	<b>Kolkata</b>									
117	Airtel	595	99	90	89	77	85	83	87	91

## Customer Satisfaction Survey of Cellular Mobile Service

SL	Name of the Service Providers	Sample Size	% Satisfied with							
			Provision of service	Billing performance		Help services	Network Performance Reliability and Availability	Maintainability	Overall customer satisfaction	Supplementary services
				Post-paid	Pre-paid					
118	BSNL	604	99	72	98	64	81	68	86	94
119	Hutch	600	99	82	91	76	86	64	88	91
120	Rel comm	600	100	82	96	73	87	75	90	96
121	RISL	600	98	11	98	69	79	60	89	97
122	Tata	601	99	100	96	62	83	55	88	95
	<b>Mumbai</b>									
123	Airtel	590	98	98	95	64	99	96	96	100
124	BPL	587	95	97	98	70	92	78	92	98
125	Hutch	586	95	96	98	68	94	89	93	100
126	MTNL	584	98	94	99	75	90	86	92	98
127	Rel comm	505	81	89	99	81	68	88	85	97
128	Tata	600	93	96	99	69	87	83	91	96

**( \* ) Means Subscriber is either unable to answer or did not access the service or no incidences reported.**

## Annex – 'B'

Customer Satisfaction Survey for Basic Service									
Sl. No.	Name of Service Provider	Sample Size Q-III	% Satisfied With						
			Provision of Service	Billing Performance	Help Services	Network Performance, Reliability and Availability	Maintainability	Overall Customer Satisfaction	Supplementary Services
Benchmarks			>95%	>90%	>90%	>95%	>95%	>95%	>95%
<b>A-Circle</b>									
	<b>AP</b>	<b>1465</b>							
1	Airtel	253	98	99	100	92	***	96	99
2	BSNL	599	100	98	99	93	100	96	**
3	Rel comm	251	99	99	98	90	***	94	97
4	TATA	362	100	100	99	92	***	96	99
<b>Gujarat</b>									
5	Airtel	1	100	*	**	100	***	100	**
6	BSNL	249	100	72	51	97	59	80	100
7	Rel comm	410	100	67	36	96	100	77	100
8	TATA	381	100	93	39	97	65	79	100
<b>Karnataka</b>									
9	Airtel	602	78	83	97	96	97	94	100
10	BSNL	411	89	93	97	92	99	92	100
11	TATA	398	68	83	94	90	96	89	96
<b>Maharashtra</b>									
12	Airtel	4	80	100	100	100	100	99	**
13	BSNL	399	91	99	88	100	79	94	70
14	Rel comm	394	100	99	99	100	100	99	94
15	TATA	395	99	99	98	100	100	97	77
<b>Tamilnadu</b>									
16	Airtel	427	95	92	90	88	74	90	99
17	BSNL	387	80	92	81	89	79	87	99
18	Rel comm	201	94	93	69	95	90	93	98
19	Tata	411	95	96	80	93	87	92	98
<b>B-Circle</b>									
<b>Chattisgarh-</b>									
20	BSNL	454	95	91	63	92	90	90	98
<b>Haryana</b>									
21	Airtel	103	100	93	86	92	82	90	94
22	BSNL	401	53	100	72	96	83	88	100
23	Rel comm	216	99	100	85	97	93	94	100
<b>Kerala</b>									
24	Airtel	50	65	100	64	100	78	93	100
25	BSNL	320	73	95	71	100	81	91	98
26	Rel comm	318	72	96	70	100	83	91	99
<b>MP</b>									
		<b>893</b>							

**Customer Satisfaction Survey for Basic Service**

Sl. No.	Name of Service Provider	Sample Size Q-III	% Satisfied With						
			Provision of Service	Billing Performance	Help Services	Network Performance, Reliability and Availability	Maintainability	Overall Customer Satisfaction	Supplementary Services
Benchmarks			>95%	>90%	>90%	>95%	>95%	>95%	>95%
27	Airtel	244	98	89	85	80	87	85	95
28	BSNL	425	95	81	78	81	80	82	100
29	Rel comm	224	99	93	76	84	94	88	100
	<b>Punjab</b>	<b>1059</b>							
30	Airtel	91	98	100	90	99	100	97	100
31	BSNL	254	98	97	88	98	96	96	100
32	HFCL	464	95	96	88	97	98	95	89
33	Rel comm	250	97	100	94	99	99	95	100
	<b>Rajasthan</b>	<b>939</b>							
34	BSNL	483	75	91	67	88	71	80	93
35	Rel comm	201	95	95	70	94	86	89	100
36	Shyam	255	92	96	74	95	95	91	86
	<b>UP-W</b>	<b>400</b>							
37	Airtel	90	100	99	79	91	100	92	100
38	BSNL	158	100	66	79	92	71	83	100
39	Rel comm	152	95	93	85	93	88	92	100
	<b>UP-E</b>	<b>646</b>							
40	Airtel	107	90	92	60	86	67	82	100
41	BSNL	386	76	69	56	74	82	76	97
	Rel comm	153	97	90	60	84	89	79	100
42	<b>Uttranchal</b>	<b>92</b>							
43	BSNL	92	100	61	70	97	96	96	100
	<b>WB</b>	<b>501</b>							
44	BSNL	249	90	87	70	90	98	89	100
45	Rel comm	252	96	99	61	93	100	90	**
	<b>C-Circle</b>								
	<b>Assam</b>	<b>250</b>							
46	BSNL	250	80	83	44	87	78	87	100
	<b>A&amp;N</b>	<b>25</b>							
47	BSNL	25	76	96	**	100	94	91	**
	<b>Bihar</b>	<b>451</b>							
48	BSNL	251	77	72	76	87	59	80	100
49	Rel comm	200	94	*	54	81	82	82	100
	<b>HP</b>	<b>422</b>							
50	BSNL	256	86	95	89	86	73	75	100
51	Rel comm	166	100	*	91	93	91	83	100
	<b>J&amp;K</b>	<b>193</b>							
52	BSNL	193	58	82	63	85	67	76	73
	<b>Jharkhand</b>	<b>250</b>							



Customer Satisfaction Survey for Basic Service									
Sl. No.	Name of Service Provider	Sample Size Q-III	% Satisfied With						
			Provision of Service	Billing Performance	Help Services	Network Performance, Reliability and Availability	Maintainability	Overall Customer Satisfaction	Supplementary Services
Benchmarks			>95%	>90%	>90%	>95%	>95%	>95%	>95%
53	BSNL	250	***	36	75	77	57	69	**
	<b>NE2</b>	<b>749</b>							
54	BSNL	250	76	70	61	48	68	76	**
55	BSNL	499	55	66	52	82	80	56	100
	<b>Orissa</b>	<b>449</b>							
56	BSNL	250	83	61	64	75	66	82	88
67	Rel comm	199	95	75	59	80	91	85	99
	<b>M-Circle</b>								
	<b>Chennai</b>	<b>2966</b>							
58	Airtel	889	93	96	87	94	88	90	99
59	BSNL	1097	69	92	92	88	73	86	99
60	Rel comm	234	96	97	90	93	95	93	99
61	Tata	746	90	94	93	93	92	93	97
	<b>Delhi</b>	<b>3041</b>							
62	Airtel	619	93	86	62	86	92	85	93
63	MTNL	1216	86	84	67	85	84	83	90
64	Rel comm	599	95	88	76	84	92	88	86
65	TATA	607	93	88	68	85	90	87	91
	<b>Kolkata</b>	<b>1100</b>							
66	Airtel	253	98	93	61	89	33	88	80
67	BSNL	598	94	81	53	80	87	76	100
68	Rel comm	249	92	87	83	90	66	93	88
	<b>Mumbai</b>	<b>2461</b>							
69	Airtel	603	100	100	84	100	86	97	100
70	MTNL	761	68	97	68	91	82	86	100
71	Rel comm	643	86	93	64	94	79	89	100
72	TATA	454	100	100	78	99	87	94	100

,(\*) : Could not respond as the subscriber had not faced any situation . These operators are treated as meeting the benchmark.