

Information note to the Press
(Press Release No. 106/2008/QoS)
Telecom Regulatory Authority of India

For Immediate release

Tel. No.:011-23230404
Fax: 011-23213036
E-mail: advqos@traf.gov.in
Website: www.traf.gov.in

TRAI Releases Report of the independent agencies engaged for the Objective Assessment of Quality of Service and Customer Satisfaction Survey of Telecom Services in Punjab service area

New Delhi, 24th December, 2008 - TRAI engaged [M/s. IMRB International](#) as independent agency for conducting an objective assessment of the Quality of Service provided by basic, cellular mobile telephone service providers and broadband service providers and [M/s Voluntary Organization in the interest of consumer education \(VOICE\)](#) for conducting subjective customer satisfaction surveys for assessing the customers' perception of the service and to assess the implementation and effectiveness of Telecom Consumers Protection and Redressal of Grievances Regulations, 2007.

2. Methodology

2.1 The audit and objective assessment of QoS has been done with the following aspects in view: –

- The scope of the audit and assessment work included a three stage verification process. The first stage consisted of auditing the records of the service providers and verifying the Performance Monitoring Report (PMR) data submitted to TRAI. The second stage involved three days live measurement of all the network parameters and determination of busy hour. The third stage consisted of collection and verification of one month Quality of Service performance data.
- audit of telephone exchanges for basic service, Mobile Switching Centers (MSCs), network operating centre/point of presence for broadband service spread in the service area on sample basis;
- assessing the network conditions of each cellular mobile service provider through drive tests;
- inter-operator call assessment of cellular mobile operator through inter-network test calls;
- assessing the effectiveness of the customer care help lines of each operator through test calls;

2.2 The subjective assessment of customer perception of service and assessment of implementation and effectiveness of Telecom Consumers Protection and Redressal of Grievances Regulations, 2007 was made through a survey using questionnaire approved by the Authority. The sample size of customers for survey was determined for confidence level of 95% and with a confidence interval of 4% for category B Circles for each of the service provider. All the subscribers in the sample selected in the rural areas, were interviewed personally and in urban areas 75% were personally interviewed and 25% were interviewed telephonically.

Findings of the independent agency report on Quality of Service

3 Cellular Mobile Telephone Service:

3.1 In Punjab service area the audit of quality of service data of service providers, namely, Bharti Airtel, Reliance Communications, HFCL, Tata Teleservices, Spice, Vodafone and BSNL was conducted.

3.2 Objective Assessment/Audit of Quality of Service performance: For almost all network parameters, all the service providers meet the TRAI specified benchmark. The Time Consistent Busy Hour (TCBH) reported by all the service providers matched the network busy hour calculated by IMRB auditors. Service Provider's performance in respect of cellular mobile telephone service based on one month data is given in Annex-`1A'. The areas of concern i.e. parameters, for which benchmark is not met by the service providers, are identified based on analysis of one month QoS performance data and live measurement .

3.3 **Drive Test:** The drive tests were conducted to verify parameters like Call Drop Rate, Call Set-up Success Rate, Call Block Rate and Percentage of Connections with Good Voice Quality. The areas of concern (i.e. parameters) are identified as below:

- Call Set-up Success Rate
- Connections with good voice quality
- Call Drop rate

3.4 **Customer perception of service:** Service Providers' performance in respect to the level of customer perception of service against the specified benchmark is given in Annex-`1B'.

3.5 **Percentage of Customers Satisfied:** The gradation on "Satisfaction" score scale i.e. scores of "Very Satisfied" to "Satisfied" is given in Table-1 below.. The survey results reveal that there is a need to improve the satisfaction level of subscribers with respect to maintainability and supplementary services across the service providers.

Table-1 (Cellular Mobile Telephone Service)-Punjab Service Area

S. No.	%Customer Satisfied	Bharti Airtel	Vodafone	BSNL	RCOM	TATA	Spice	HFCL
1	% satisfied with the provision of service	96.6%	98.1%	98.7%	96.8%	97.7%	98.1%	94.8%
2 a	% satisfied with the billing performance (Postpaid customers)	96.3%	96.7%	88.9%	98.1%	98.1%	96.7%	99.3%
2 b	% satisfied with the billing performance (Prepaid customers)	96.4%	97.6%	97.1%	95.9%	96.3%	96.1%	94.5%
3	% satisfied with help services	96.4%	97.9%	96.6%	94.8%	93.2%	94.7%	91.6%
4	% satisfied with network performance, reliability and availability	97.1%	98.4%	96.0%	97.6%	97.8%	97.4%	97.4%
5	% satisfied with maintainability	93.6%	80.3%	85.3%	84.1%	85.2%	84.9%	83.8%
6	Overall customer satisfaction	98.8%	98.5%	98.7%	98.3%	97.8%	98.8%	97.3%
7	Customer satisfaction with offered supplementary services % satisfied	92.5%	94.7%	93.9%	89.8%	91.4%	90.1%	92.4%

4. Basic Service (wire line)

4.1 Objective Assessment/Audit of QOS performance: Basic (Wire line) services audit for Punjab circle broadly indicates that most of the service providers are not meeting the benchmark for some of the Parameters. Service Provider's performance in respect of basic service (wire line) based on one month data is given in Annex-`2A'. The areas of concern i.e. parameters, for which benchmark is not met by the service providers, are identified based on analysis of one month QoS performance data and live measurement as below:

- Fault incidences(No. of fault/100 subscribers/month)
- Fault repaired by next working day/ three working days,
- Mean time to repair (MTTR),

4.2 Customer perception of service: Service Providers' performance in respect to the level of customer perception of service against the specified benchmark is given in Annex-`2B'.

4.3 Percentage of Customers Satisfied: The gradation on "Satisfaction" score scale i.e. scores of "Very Satisfied" to "Satisfied" is given in Table-2 below.. The survey results reveal that there is a need to improve the satisfaction level of subscribers with respect to the billing performance (Pre-Paid) and maintainability,

Table-2 {Basic Service (Wire line)} -Punjab Service Area

S. N.	Customer Perception of Services	Bharti	BSNL	R.Com	TATA	HFCL
1	%age subscribers satisfied with the provision of service	95.6%	98.6%	98.5%	96.0%	96.6%
2	%age subscribers satisfied with the billing performance (Post paid customers)	97.6%	97.7%	96.8%	92.5%	98.1%
	%age subscribers satisfied with the billing performance (Pre paid customers)	84.4%	91.8%	84.4%	87.5%	93.8%
3	%age subscribers satisfied with help services	94.3%	97.5%	93.8%	95.9%	95.3%
4	%age subscribers satisfied with network performance, reliability and availability	96.8%	98.4%	98.8%	97.8%	98.3%
5	%age subscribers satisfied with maintainability	84.4%	79.5%	89.6%	73.3%	79.3%
6	Overall customer satisfaction	89.9%	97.0%	99.5%	100%	95.6%
7	%age subscribers satisfied with offered supplementary services	95.7%	96.7%	96.8%	98.9%	98.0%

5. Broadband Service

5.1 Objective Assessment/Audit of QOS performance: The audit for Broadband Service Providers was conducted at their respective network operating centre/point of presence (POPs) in the Punjab circle. Service Provider's performance based on one month data is given in Annex -`3A'. The area of

concern (i.e. parameters) for which benchmark is not met by the service provider is identified based on analysis of one month QoS performance data and live measurement as below:

- Fault repaired by next working day,

5.2 Customer perception of service: Service Providers' performance in respect to the level of customer perception of service against the specified benchmark is given in Annex-'3B'.

5.3 Percentage of Customers Satisfied: The gradation on "Satisfaction" score scale i.e. scores of "Very Satisfied" to "Satisfied" is given in Table-3 below.. The survey results reveal that the Billing performance, Help Services, and Maintainability are areas where all service providers have scored relatively lower score as compared to other parameters.

Table-3 (Broadband Service) -Punjab Service Area

S. N.	Customer Perception of Services	Bharti Airtel	BSNL	Rel. Com.	HFCL	VSNL	Hathway
1	% satisfied with the provision of service	99.0%	98.6%	98.2%	99.6%	98.4%	99.6%
2a	% satisfied with the billing performance (Prepaid customers)	75.0%	84.6%	80.0%	70.0%	63.2%	95.4%
2b	% satisfied with the billing performance (Postpaid customers)	99.2%	97.3%	96.9%	98.0%	97.5%	97.5%
3	% satisfied with help services	74.3%	91.1%	81.2%	83.3%	85.2%	80.7%
4	% satisfied with network performance, reliability and availability	99.2%	98.3%	98.1%	99.3%	100.0%	100.0%
5	% satisfied with maintainability	97.5%	93.5%	94.4%	96.9%	79.3%	99.2%
6	% satisfied Overall customer satisfaction	98.7%	98.3%	99.7%	99.0%	96.8%	100.0%
7	% satisfied with customer satisfaction with offered supplementary services such as allocation of static / fixed IP addresses, email ids etc.	100.0%	100.0%	98.0%	100.0%	98.2%	100.0%

6. Telecom Consumers Protection and Redressal of Grievances score: The Authority noted with concern that the awareness of subscribers of all the service providers regarding the three stage grievance redressal mechanism is still very low. The summary of survey results for assessment of implementation and effectiveness of Telecom Consumer Protection and Redressal of Grievances Regulations in respect of Cellular Mobile Service, Basic (Wire line) Service and Broadband Service is given in Annex-'1C', Annex '2C' and Annex "3C' respectively.

7. *The detailed Report on Quality of Service – Audit/Objective Assessment and Customer Satisfaction Survey, including grievance redressal mechanism, conducted during the period May, 2008 to August, 2008 is placed at TRAI Website (www.traigov.in).*

Contact Address in case any clarification required:

**M.C.Chaube,
Advisor (QOS), TRAI
Mahanagar Door Sanchar Bhawan,
Jawahar Lal Nehru Marg (Old Minto Road),
New Delhi -110002, Tel. No. 23230404/23220708**

Authorized to issue: Advisor (QOS)

Annex-1A'

Objective Assessment of Quality of Service - Service Provider's Performance in respect of Cellular Mobile Telephone Service-Punjab Service Area

S.N	QOS Parameter	Benchmark	Bharti	RCOM	HFCL	TATA	Spice	Vodafone	BSNL
1	Accumulated downtime of community isolation	< 24 hrs.	0.00	1.11	17.25	0.00	14.73	1.35	0.00
2	Call Setup Success Rate	> 95%	98.05%	99.30%	99.10%	98.21%	97.03%	99.44%	94.54%
3	Service Access Delay	9 to 20 seconds (< = 15 seconds for 100 calls)	9.54	4.10	12.38	4.71	8.90	5.50	3.76
4	SDCCH / Paging Channel congestion	<1%	0.13%	0.00%	4.85%	0.00%	0.12%	0.02%	0.92%
5	TCH Congestion	< 2%	0.39%	0.48%	0.00%	0.00%	0.18%	0.01%	1.90%
6	Call Drop Rate	< 3%	1.44%	0.70%	0.71%	1.18%	0.31%	1.26%	1.32%
7	% of connections with good voice quality	> 95%	95.50%	99.34%	99.10%	97.12%	96.84%	97.19%	85.08%
8	POI Congestion	< 0.5%	Complie d	Complie d	Complied	Complied	Complie d	Complie d	Complie d
9(a)	% Call answered electronically within 20 seconds within 40 seconds	80%	100.00%	97.90%	Electronic segregation facility NA	100.00%	DNP	96.80%	57.17%
		95%	100.00%	97.90%		100.00%		97.20%	78.67%
9(b)	% Call answered by the operator within 60 seconds within 90 seconds	80%	96.70%	95.54%	95.15%	95.81%	DNP	89.13%	62.89%
		95%	97.19%	96.11%	97.26	96.84%		95.10%	72.67%
10	Complaints per 100 bills issued	<0.1%	0.04%	0.09%	0.08%	0.04%	DNP	0.09%	0.00%
11	% of Billing complaints resolved within 4 weeks	100%	100%	100%	100%	100%	DNP	100%	No refunds due to customers
12	Period of refunds from the date of resolution of complaints	<4 weeks	100%	100%	100%	26%	DNP	93%	

Annex-`1B`
Customers Perception of Service for Cellular Mobile Telephone Service through Survey-Punjab Service Area

S. No.	Customer Perception of Services	Bench mark	Bharti	Vodafone	BSNL	RCOM	TATA	Spice	HFCL
1	% satisfied with the provision of service	>95%	75.6%	78.1%	75.4%	77.4%	74.4%	76.6%	74.4%
2 a	% satisfied with the billing performance (Postpaid customers)	>90%	70.7%	68.1%	65.4%	71.3%	73.9%	70.0%	68.3%
2 b	% satisfied with the billing performance (Prepaid customers)	>90%	73.5%	73.2%	73.5%	73.6%	75.1%	73.8%	73.0%
3	% satisfied with help services	>90%	72.4%	71.6%	71.8%	73.7%	74.4%	72.1%	71.9%
4	% satisfied with network performance, reliability and availability	>95%	76.8%	77.9%	76.9%	76.8%	77.1%	77.7%	76.7%
5	% satisfied with maintainability	>95%	72.9%	66.6%	67.9%	68.3%	67.9%	68.3%	66.2%
6	Overall customer satisfaction	>95%	74.6%	74.7%	75.2%	75.1%	77.3%	74.8%	74.3%
7	Customer satisfaction with offered supplementary services % satisfied	>95%	66.7%	67.8%	67.3%	66.9%	66.4%	65.2%	66.9%

Annex-`1C`
Assessment of implementation and effectiveness of Telecom Consumer Protection and Redressal of Grievances Regulations in respect of Cellular Mobile Telephone Service through Survey-Punjab Service Area

S.N.	Sub Parameter	Bharti	Vodafone	BSNL	R Com	TATA	Spice	HFCL
1	Awareness of three stage grievance redressal mechanism	7.5%	11.3%	8.3%	20.3%	21.5%	14.7%	22.7%
2	For pre-paid customers, awareness about item-wise call charge details on request	23.8%	40.2%	30.8%	31.1%	30.7%	21.8%	44.0%
3	If aware (for pre-paid customers), ever denied of item wise usage charge details for pre-paid connection	4.0%	40.1%	30.0%	37.3%	39.1%	3.8%	17.5%
4	For new customers, provisioning of 'Manual of Practice' while taking the new connection	29.1%	69.9%	76.5%	51.5%	55.3%	76.2%	53.2%
5	Awareness of Call center for redressing grievances	99.7%	99.2%	94.8%	98.8%	95.7%	99.3%	98.7%
6	Percentage of consumers made any complaints to the toll free number within last 6 months	84.3%	59.3%	79.2%	67.0%	57.8%	74.8%	64.0%
7	Call center informing about the action taken on complaints	66.7%	60.5%	66.1%	72.1%	67.7%	66.0%	66.5%
8	Resolution of complaint by customer care within 4 weeks of lodging complaint	76.9%	79.3%	87.9%	59.3%	88.6%	88.6%	83.3%
9	percentage satisfied with complaint resolution by call center	96.6%	95.3%	99.1%	97.3%	95.4%	94.7%	92.8%
10	Awareness of Nodal officer for redressing grievances	0.4%	0.3%	1.1%	0.2%	1.1%	0.7%	1.4%
11	Awareness of appellate authority for redressing grievances	0.0%	0.0%	1.5%	0.0%	0.2%	0.2%	0.2%

Annex-`2A'

Objective Assessment of Quality of Service - Service Provider's Performance in respect of Basic Service (Wire line) -Punjab Service Area

S.no	Parameters	B'mark	Bharti	BSNL	RCOM	HFCL	Tata
1	Provision of telephone after registration of demand						
1.1	Connections completed within 7 days	100%	100%	66%	74%	99%	97%
2	Fault incidence/clearance statistics						
3	Fault incidences(No. of faults/100 subscribers/month)	<3	3.13	10.83		6.06	1
3.1	Faults repaired within 24 hours	>90%	99%	58%	96%	97%	70%
3.2	Faults repaired within three working days	100%	99%	91%	100%	100%	100%
4	Mean time to Repair (MTTR)	<8 hours	3.50	14.00	3.23	5.60	17.70
5	Call Completion Rate (CCR)	>55%	97%	60%	DNA	56%	90%
6	Metering and billing credibility						
6.1	Billing complaints per 100 bills issued	<0.1%	0.01%	0.05%	0.02%	0.14%	0.04%
6.2	%age of billing complaints resolved within 4 weeks	100%	100%	82%	100%	100%	Only one billing compliant not resolved in time
7	Customer care/helpline promptness						
7.1	<u>Shift requests attended</u>						
	Shift requests attended within 3 days	95%	100%	58%	100%	96%	NA
7.2	<u>Closure request attended</u>						
	Closure within 24 hours	95%	100%	92%	100%	100%	NA
7.3	<u>Supplementary (additional) service requests attended</u>						
	Additional facility provided within 24 hours	95%	99%	36%	98%	100%	100%
8	Response time to customer for assistance						
8.1	% age call answered through IVR in 20 seconds	80%	Not measured by the operator	Details not available at the respective exchanges	100%	100%	100%
	% age call answered through IVR in 40 seconds	100%			100%	100%	100%
8.2	% age calls answered by operator in 60 seconds	80%	87%		99%	95%	90%
	% age calls answered by operator in 90 seconds	95%	93%		100%	97%	93%
9	Time taken for refund of deposits after closure						
9.1	%age cases where refund received within 60 days	100%	DNA	100%	100%	100%	NA

(*Note: For BSNL data pertains to the sample 5% of exchanges audited during the period of April to July 2008, whereas for rest of the operators figures pertain to all the exchanges present in the circle)

** Methodology not in line with QoS ■ Figures provided on All Ind ■ Not meeting the benchmark **B'mark** = TRAI Benchmark, **DNA** = Details not available, **NA**: Not Applicable

Annex-`2B'
Customers Perception of Service for Basic Service (Wire line)
through Survey-Punjab Service Area

S. N.	Customer Perception of Services	Benchmark	Bharti	BSNL	R.Com	TATA	HFCL
1	%age subscribers satisfied with the provision of service	>95%	73.3%	73.3%	74.5%	72.1%	73.3%
2	%age subscribers satisfied with the billing performance (Post paid customers)	>90%	71.9%	74.7%	72.0%	64.7%	67.1%
	%age subscribers satisfied with the billing performance (Pre paid customers)		59.9%	62.9%	59.3%	62.5%	64.7%
3	%age subscribers satisfied with help services	>90%	74.2%	74.5%	73.5%	74.6%	73.5%
4	%age subscribers satisfied with network performance, reliability and availability	>95%	76.0%	76.4%	75.0%	76.0%	78.1%
5	%age subscribers satisfied with maintainability	>95%	65.7%	68.7%	68.9%	60.0%	66.2%
6	Overall customer satisfaction	>95%	73.9%	73.7%	74.7%	77.8%	78.1%
7	%age subscribers satisfied with offered supplementary services	>95%	68.2%	66.5%	73.3%	68.5%	68.9%

Annex-`2C'
Assessment of implementation and effectiveness of Telecom Consumer Protection and Redressal of Grievances Regulations in respect Basic Service (Wire line) through Survey-Punjab Service Area

S.N.	Sub Parameter	Bharti	BSNL	Rel Comm	Tata Teleservices	HFCL
1	Awareness of three stage grievance redressal mechanism	16.5%	15.8%	13.5%	12.2%	9.2%
2	For pre-paid customers, awareness about item-wise call charge details on request	3.7%	4.1%	2.8%	6.3%	5.7%
3	If aware (for pre-paid customers), ever denied of item-wise usage charge details for pre-paid connection	1.8%	2.1%	3.5%	3.1%	1.8%
4	For new customers, provisioning of 'Manual of Practice' while taking the new connection	61.9%	40.0%	55.1%	33.3%	35.7%
5	Awareness of Call center for redressing grievances	99.2%	99.7%	98.7%	98.9%	98.2%
6	Percentage of consumers making any complaints to the toll free number within last 6 months	32.2%	28.7%	38.8%	27.8%	33.2%
7	Call center informing about the action taken on complaints	96.4%	97.1%	92.3%	100.0%	89.4%
8	Resolution of billing complaint by customer care within 4 weeks of lodging complaint	39.6%	65.7%	62.5%	60.0%	47.5%
9	Level of satisfaction with the complain resolution by call center	91.7%	92.4%	93.6%	92.0%	95.0%
10	Awareness of Nodal officer for redressing grievances	1.0%	1.2%	1.5%	3.3%	0.8%
11	Awareness of contact details of Nodal officer	1.0%	0.7%	0.5%	2.2%	0.7%

Annex-3A'
**Objective Assessment of Quality of Service - Service Provider's Performance in
 respect of Broadband Service-Punjab Service Area**

S.no	Parameters	B'mark	Bharti	BSNL	Sify	H'way	VSNL	HFCL
1	Service provisioning							
1.1	Percentage connections provided within 15 days	100%	100%	96%	100%	100%	99%**	100%
2	Fault repair / Restoration time							
2.1	Percentage faults repaired by next working days	> 90%	96%	90%	100%	92%	86%**	99%
2.2	Percentage faults repaired within three working days	99%	100%	100%	100%	99%	95%**	100%
3	Billing performance							
3.1	Billing complaints per 100 bills issued	<2%	0.06%	0.00%		1.55%	2.01%	0.39%
3.3	%age of billing complaints resolved within 4 weeks	100%	100%	100%		100%	100%	100%
3.4	Time taken for refund of deposits after closure	100%	Details not available	No cases		Details not available	100%	100%
4	Customer care/helpline assessment							
4.1	Percentage calls answered within 60 seconds by the operator	> 60%	56%	87%	100%	84%	78%	72%
4.2	Percentage calls answered within 90 seconds by the operator	>80%	66%	100%	100%	Details not available	85%	80%
5	Bandwidth utilization/Throughput time							
5.1	Total number if intra network links crossing 90%		0	Uplink Traffic in Chennai BRAS is > 90%	4	0	1	0
	Upstream Bandwidth							
5.2	Total number of upstream links (From ISP Gateway Node to IGSP/NIXI Node for international connectivity)		2	97	28	3	28	1
5.3	Total number of upstream links > 90%		0	1	0	0	0	0
5.4	Percentage bandwidth utilised on upstream links	<80%	20%	75%	74%	68%	64%	88%
6	Broadband download speed	>80%		Complied	Complied	Complied	Complied	Complied
7	Service availability/uptime	>98%	99.98%	100.00%	100.00%	99.80%	97.35%	99.97%
8	Packet loss	<1%	<1%	<1%	<1%	<1%	<1%	<1%
9	Network Latency							
9.1	POP/ISP Node to NIXI (In msec)	<120	<60	<120	< 45ms	<30	<80	30-40 ms
9.2	ISP node to NAP port (In msec)	<350	<120	Complied	<250 ms	<100	<180	260-300

** Methodology not in line with QoS ■ Figures provided on India basis ■ Not meeting the benchmark B'mark = TRAI Benchmark, DNA = Details not available, NA: Not available

Annex-`3B`
Customers Perception of Service for Broadband Service through Survey
Punjab Service Area

S. N.	Customer Perception of Services	Benchmark	Airtel	BSNL	Rel Com	HFCL	VSNL	Hathway
1	% satisfied with the provision of service	>90%	78.0%	70.8%	80.6%	77.2%	66.5%	77.9%
2a	% satisfied with the billing performance (Prepaid customers)	>90%	66.7%	69.2%	73.3%	66.7%	54.4%	66.2%
2b	% satisfied with the billing performance (Postpaid customers)	>90%	74.3%	69.3%	76.7%	72.8%	67.9%	70.8%
3	% satisfied with help services	>90%	60.9%	65.3%	65.5%	64.0%	63.0%	64.8%
4	% satisfied with network performance, reliability and availability	>85%	76.7%	71.6%	79.4%	73.8%	69.7%	75.9%
5	% satisfied with maintainability	>85%	73.9%	69.1%	76.2%	71.0%	60.4%	68.9%
6	% satisfied Overall customer satisfaction	>85%	76.8%	71.6%	86.6%	78.5%	68.8%	84.6%
7	% satisfied with customer satisfaction with offered supplementary services such as allocation of static / fixed IP addresses, email ids etc.	>85%	75.8%	74.6%	73.2%	71.4%	66.1%	69.2%

Annex-`3C`

Assessment of implementation and effectiveness of Telecom Consumer Protection and Redressal of Grievances Regulations in respect Broadband Service through Survey -Punjab Service Area

S.N.	Sub Parameter	Bharti Airtel	BSNL	Rel Comm	HFCL	VSNL	Hathway
1	Awareness of three stage grievance redressal mechanism	23.6%	11.3%	9.9%	3.9%	28.5%	19.7%
2	Provision of Manual of Practice containing terms and conditions of service, grievance redressal mechanism etc	16.7%	23.1%	20.0%	10.0%	63.2%	53.8%
3	For pre-paid customers, awareness about item-wise call charge details on request	25.0%	0.0%	0.0%	60.0%	15.8%	26.2%
4	If aware (for pre-paid customers), ever denied of item-wise usage charge details for pre-paid connection	95.3%	88.7%	76.4%	85.7%	67.9%	66.4%
5	Awareness of Call center for redressing grievances	99.8%	99.3%	99.3%	99.8%	95.3%	99.7%
6	Percentage of consumers made any complaints to the toll free number within last 6 months	75.4%	85.0%	75.8%	94.3%	28.0%	98.4%
7	Call center informing about the action taken on complaints	57.0%	52.2%	77.8%	49.5%	73.2%	70.6%
8	Resolution of complaint by customer care within 4 weeks of lodging complaint	24.3%	43.8%	16.4%	15.1%	42.0%	39.3%
9	Percentage satisfied with the complaint resolution by call center	81.2%	88.0%	76.6%	84.7%	50.0%	92.2%
10	Awareness of Nodal officer for redressing grievances	0.8%	1.3%	1.3%	2.4%	1.0%	3.0%
11	Awareness of appellate authority for redressing grievances	0.5%	1.0%	0.7%	0.7%	1.3%	1.6%