



# **Telecom Regulatory Authority of India**

## **The Indian Telecom Services Performance Indicators January– March 2008**

**June 2008**

**TRAI**  
**Mahanagar Doorsanchar Bhawan,**  
**Jawahar Lal Nehru Marg,**  
**New Delhi-110002**  
**Tel: +91-11- 23211934**  
**Fax: +91-11- 23211998**  
**Website: [www.trai.gov.in](http://www.trai.gov.in)**

## Table of Contents

<b>OBSERVATIONS: -</b>	<b>Page Number</b>
<b>Introduction</b>	<b>4</b>
<b>Executive Summary</b>	<b>5</b>
<b>Performance Indicators at a glance</b>	<b>21</b>

<b>Chapter One</b>	<b>:</b>	<b>Performance of Wireline Services</b>	<b>24</b>
<b>Chapter Two</b>	<b>:</b>	<b>Performance of Wireless Services</b>	<b>29</b>
<b>Chapter Three</b>	<b>:</b>	<b>Performance of Internet Services</b>	<b>37</b>
<b>Chapter Four</b>	<b>:</b>	<b>Performance of Value Added Services</b>	<b>41</b>
		(i) <b>PMRTS</b> (ii) <b>VSAT</b>	
<b>Chapter Five</b>	<b>:</b>	<b>Quality of Service (QoS) Performance</b>	<b>42</b>
<b>Chapter Six</b>	<b>:</b>	<b>Performance of Cable TV, DTH &amp; Radio Broadcasting Services</b>	<b>52</b>
<b>Chapter Seven</b>	<b>:</b>	<b>Financial Details of Telecom Service Sector</b>	<b>56</b>

### **TABLES:**

1.1	Subscribers Base of Wireline Services	58
1.2	Details of Public Call Offices (PCO)	59
1.3	Details of Village Public Telephones (VPT)	60
2.1	Subscriber Base of Wireless Operators	61
2.2	Market Share of Wireless Operators	62
2.3	Growth pattern of Wireless Subscribers Base	63
3.1	Subscribers Base of Internet Services	64
4.1	Subscriber Base of Public Mobile Radio Trunk Services (PMRTS)	68
4.2	Subscriber Base of VSAT Service Providers	69
6.1	List of Broadcasters alongwith their pay channels	70
6.2	List of new pay channels introduced after 26.12.2003	75
6.3	List of pay channels converted from FTA after 26.12.2003	78
6.4	List of operationalised private FM radio station in India	80
6.5	List of Number of applications received/ letters of Intent issued/ Licenses issued in respect of Community Radio Stations	86
6.6	List of applicant who have been granted DTH Licences.	87

**ANNEXURES:**

<b>2.1</b>	<b>List of Wireless, Wireline &amp; Unified Access Service Providers</b>	<b>88</b>
<b>2.2</b>	<b>Usage Pattern for GSM</b>	<b>91</b>
<b>2.3</b>	<b>Usage Pattern for CDMA</b>	<b>93</b>
<b>2.4</b>	<b>Average Subscriber Outgo (rental + call charges) per Min. for GSM</b>	<b>96</b>
<b>2.5</b>	<b>Average Subscriber Outgo (rental + call charges) per Min. for CDMA</b>	<b>97</b>
<b>3.1</b>	<b>Growth Pattern of Internet subscribers</b>	<b>98</b>
<b>3.2</b>	<b>List of Internet Telephony Service Providers</b>	<b>99</b>
<b>4.1</b>	<b>Growth Rate of PMRTS subscribers</b>	<b>100</b>
<b>4.2</b>	<b>Growth Rate of VSAT subscribers</b>	<b>101</b>
<b>5.1</b>	<b>Quality of Service Performance for Wireline Services</b>	<b>102</b>
<b>5.2</b>	<b>Quality of Service Performance for Wireless Services</b>	<b>107</b>
<b>5.3</b>	<b>Quality of Service Performance for ISPs</b>	<b>116</b>
<b>5.4</b>	<b>Quality of Service Performance for Internet Service Providers providing broadband service</b>	<b>117</b>

## INTRODUCTION

- 1.1 This report presents the growth trends for the telecom services in India for the quarter ending March 2008. This report provides a broad perspective on the Telecom Services to serve as a reference document for various stakeholders, research agencies and analysts. Under the Unified Access Service (UAS) Regime, the details of subscriber base under wireless services combine both GSM & CDMA (WLL(F) + WLL(M)) technologies. The Executive Summary of various Telecom Services has been given in the beginning followed by 'Performance Indicators at a Glance' showing the growth pattern of Wireline, Wireless, Internet and Broadband services in the first four chapters. Chapter Five includes QoS performance analysis of various service providers. Chapter Six is on performance of Cable TV, DTH & Radio Broadcast services. Financial details of telecom service sector is given in Chapter Seven.
- 1.2 The report has been compiled on the basis of information received from various telecom service providers. TRAI collects performance-based data from various service providers on quarterly basis to monitor the growth trends in the telecom sector.
- 1.3 This performance indicator report is also available on TRAI's website ([http://www.trai.gov.in/Reports\\_list\\_year.asp](http://www.trai.gov.in/Reports_list_year.asp)). Any suggestion pertaining to this may please be addressed to S. K. Gupta, Advisor (CN), TRAI; Tel. +91-11-23217914, Fax. +91-11-23211998 and e-mail: [skgupta@trai.gov.in](mailto:skgupta@trai.gov.in) or [guptask61@gmail.com](mailto:guptask61@gmail.com)

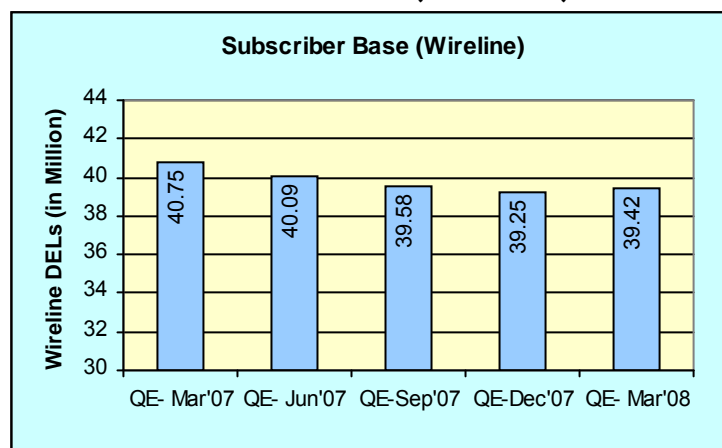
\*\*\*\*\*

## EXECUTIVE SUMMARY

### A. Wireline Services

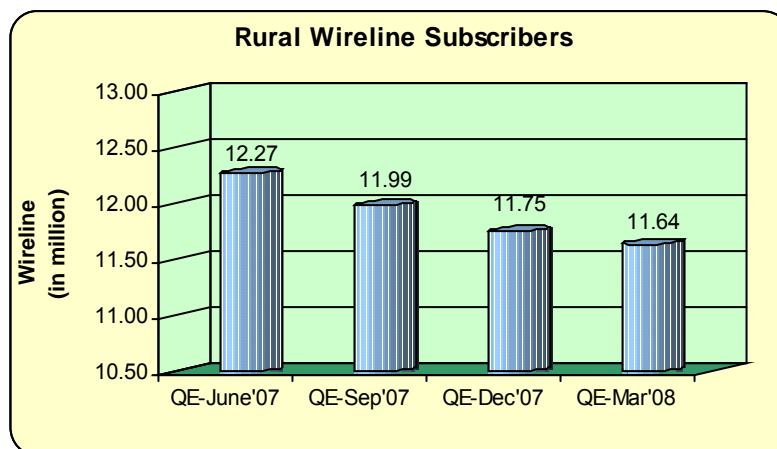
Wireline services subscriber base stood at 39.42 million in quarter ending March 2008 as compared to 39.25 million in quarter ending December 2007

**Chart -I : Subscriber Base (Wireline)**



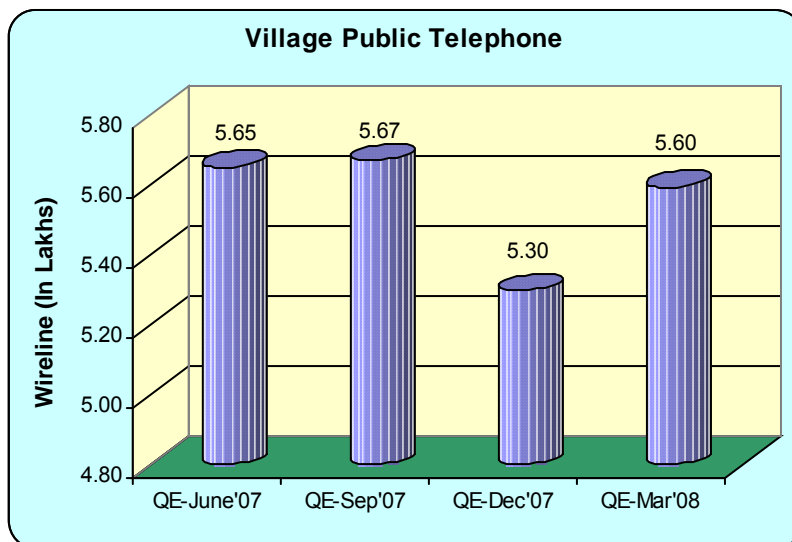
Rural Wireline Subscriber base stood at 11.64 million in quarter ending March 2008 as compared to 11.75 million in quarter ending December 2007.

**Chart- II : Rural Wireline Subscribers**



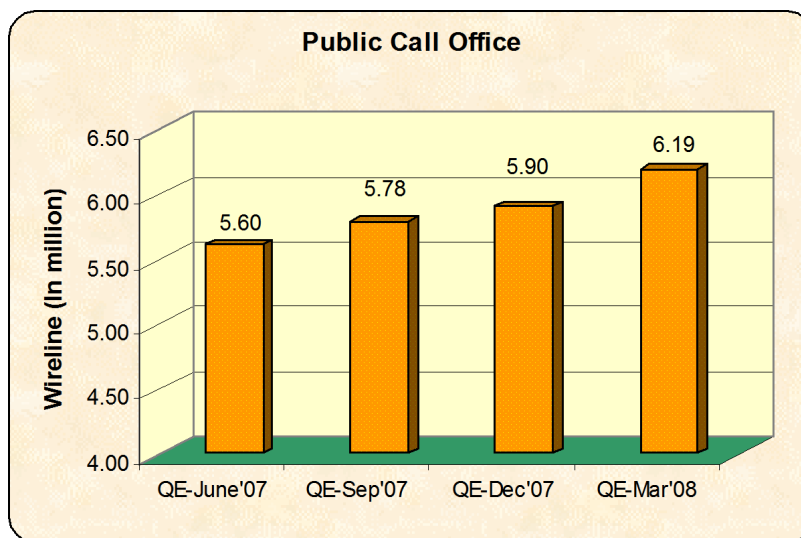
**Number of VPTs has increased from 5.30 lakhs in quarter ending December 2007 to 5.60 lakhs in quarter ending March 2008.**

**Chart –III : Village Public Telephone**



**Number of Public Call Offices (PCOs) has increased from 5.90 million in quarter ending December 2007 to 6.19 million in quarter ending March 2008.**

**Chart –IV : Public Call Office**

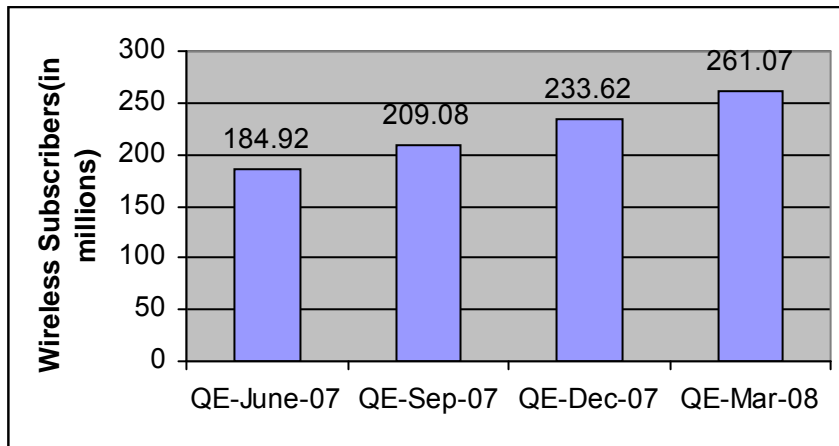


## B. Wireless Services

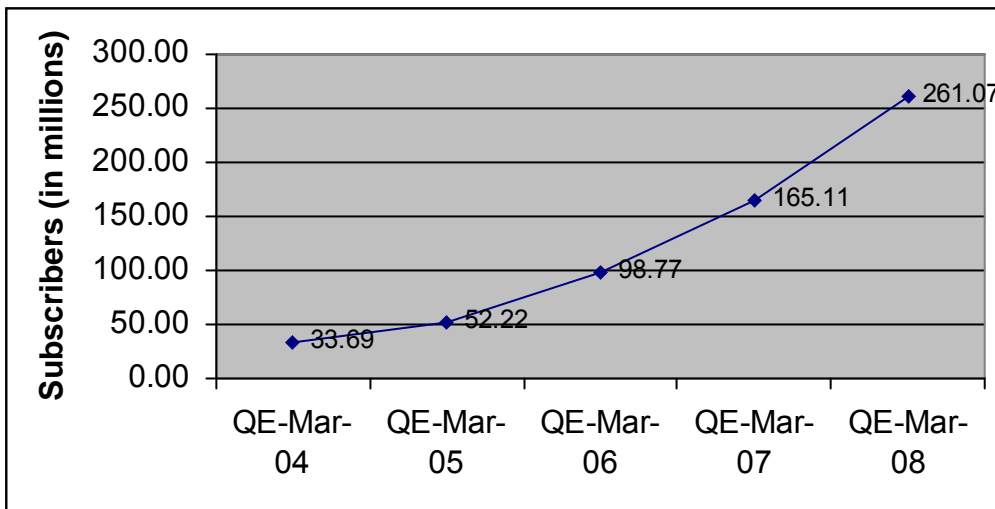
The Wireless subscribers have reached to 261.07 million as on 31<sup>st</sup> March 2008 as against 233.62 million subscribers in the previous quarter. During this quarter 27.45 million subscribers were added.

### (i) Subscriber Growth/Market Share

**Chart -V : Wireless Subscribers**



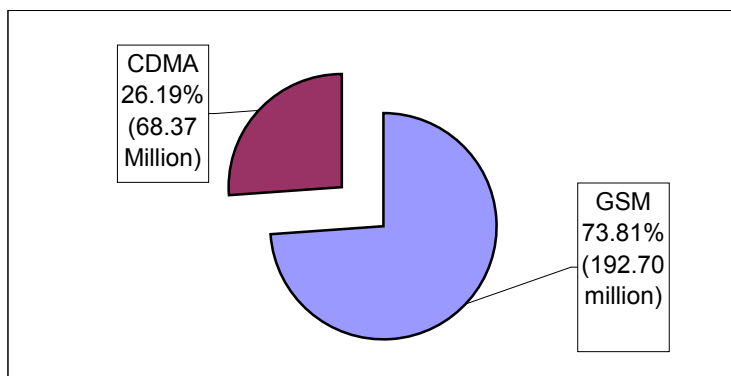
**Chart -VI: Total Subscriber Base (Wireless)**



### Technology-wise Wireless Market Share

There are 192.70 million GSM subscribers (73.81%) and 68.37 million CDMA subscribers (26.19%) at the end of March 2008.

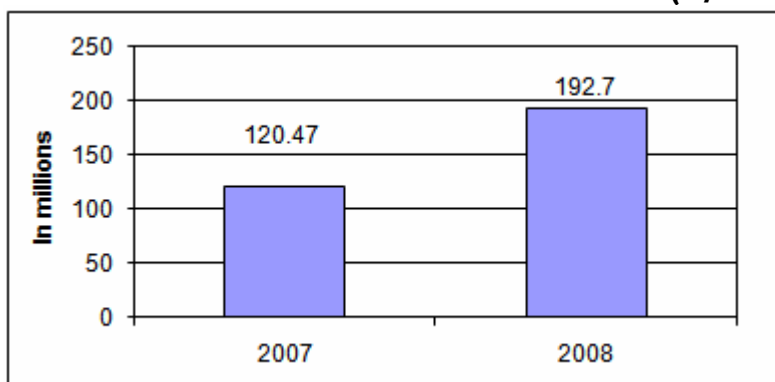
Chart -VII : Technology wise Wireless Market Share



### (ii) GSM

GSM Subscribers recorded 59.96% growth during the year and reached subscriber base of 192.70 million at the end of March 2008.

Chart -VIII : GSM Subscriber Growth (F/Y Ending in million)

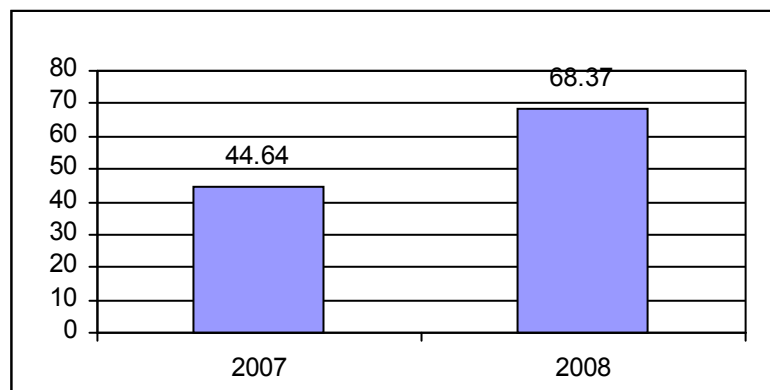




**(iii) CDMA**

**CDMA subscribers recorded a growth of 53.16% during the year and reached subscriber base of 68.37 million.**

**Chart - IX : CDMA Subscriber Growth(F/Y ending)**



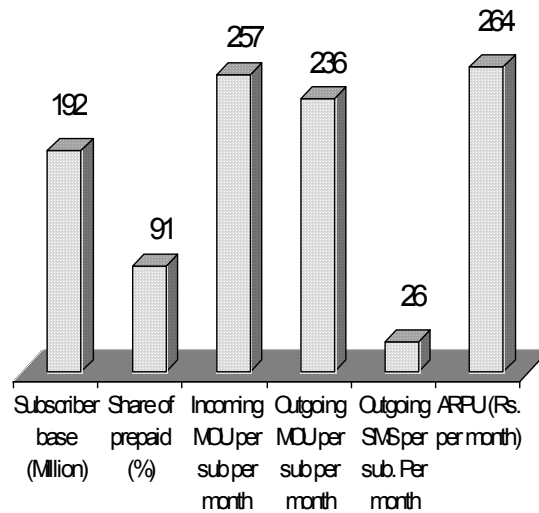
**(iv) Average Revenue Per User (ARPU), Minutes of Usage (MoU) etc.**

**(a) GSM – Full Mobility Service**

- **The all India blended ARPU per month for the GSM segment has increased by 1.15% from Rs. 261 in Dec-07 to Rs. 264 in Mar-08. This increase is result of steep increase in ARPU in category “A” Circle (5.9%).**
- **ARPU for postpaid service has shown an increase of 1.59% from Rs. 628 in Dec-07 to Rs. 638 in Mar-08. Prepaid service has shown a higher growth rate in ARPU of 2.3% from Rs. 219 in Dec -07 to Rs. 224 in Mar-08.**
- **MOU per subscriber has increased from 464 in Dec-07 to 493 in Mar-08, thereby showing an increase of 6.25% as against 0.46% in quarter ending Dec-07.**
- **Both, outgoing and incoming MOUs have grown, higher growth being in outgoing MOUs (7.04%). Incoming MOUs have grown by 5.49%. Individually, both for postpaid and prepaid, Metros continue to have lowest outgoing MOU per subscriber as compared to other circle categories.**
- **Overall ratio of incoming-outgoing MOUs has been 52:48 for GSM services. For postpaid, ratio of incoming-outgoing minutes is 46:54 and for prepaid segment, it is 54:46.**
- **As per the revenue reports furnished by the service providers, revenue net of “pass through”, is Rs. 14,329 Crores in the quarter ending Mar-08 as against Rs. 12,738 Crores in the Dec-07 quarter, thereby showing a growth of 12.5%.**

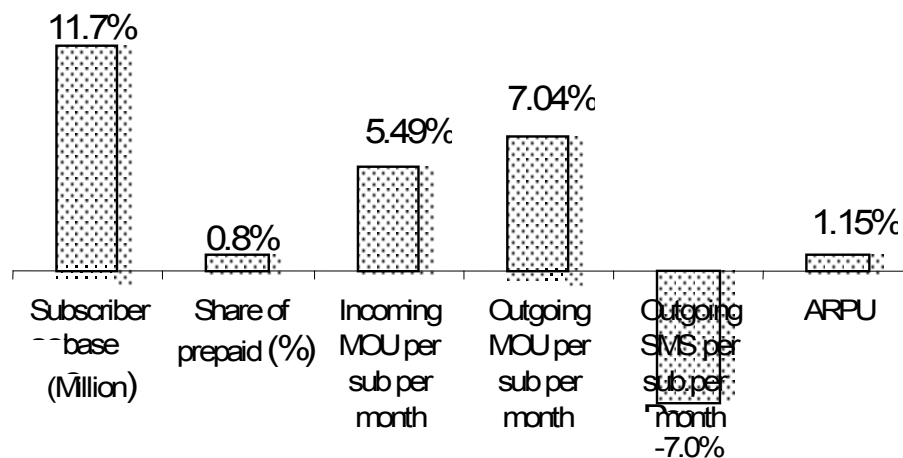
- **Tamil Nadu continues to be the circle with lowest ARPU (Rs.216/ -) and highest MOU (557) per subscriber in Category 'A' circle.**
- **Karnataka continues to be highest ARPU generating circle among Category 'A' circle service areas.**

**Chart- X : Key Indicators for GSM**

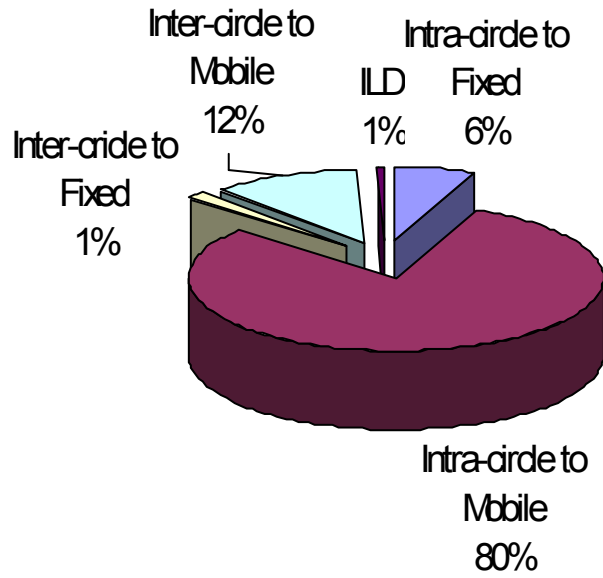


**Chart -XI : Variation in Key Indicators over Last Quarter**

**Error!**



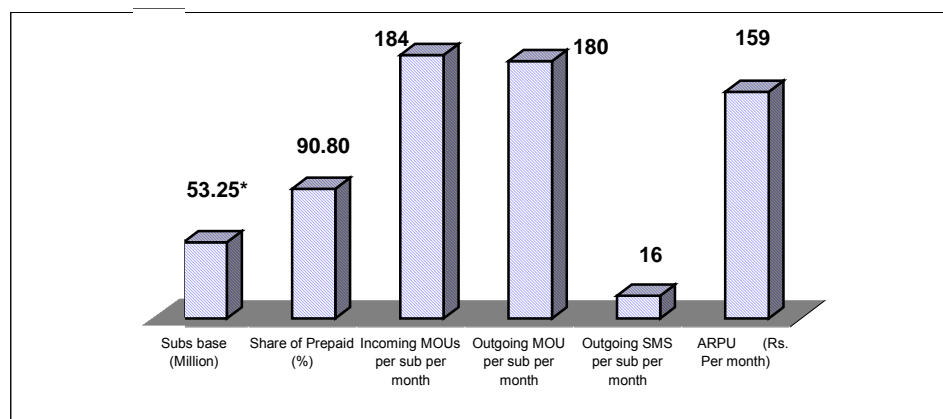
**Chart- XII : GSM Originated Traffic - distribution by terminating network**



## (b) CDMA (Full Mobility)

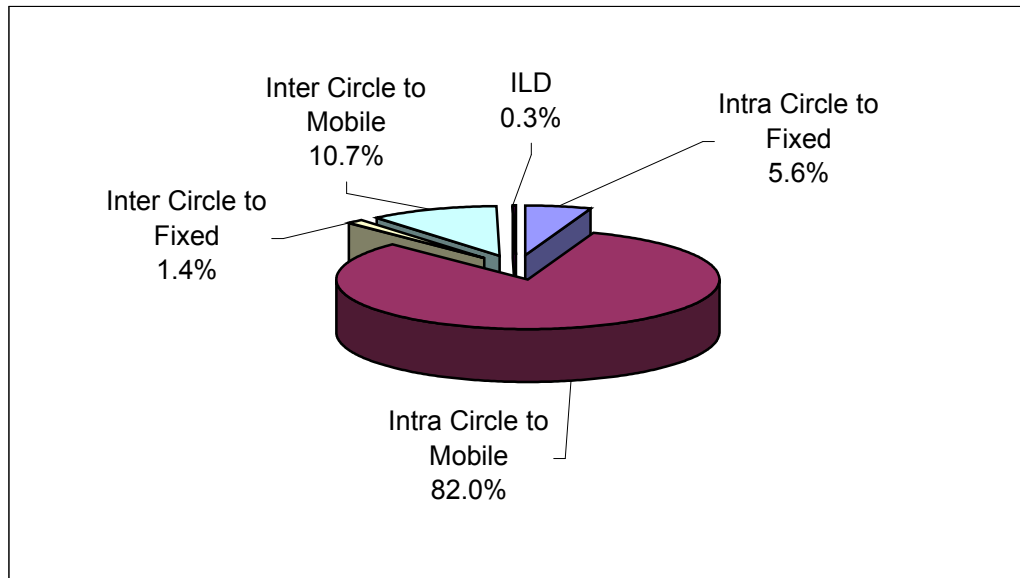
- All India blended ARPU (per month) for the quarter ending March 2008 is Rs. 159/- as compared to Rs. 176/- for the quarter ending December 2007 registering a decrease of 9.65%.
- The lowest blended ARPU per month is in U P West (Rs.117/-) while the highest blended ARPU is in Mumbai (Rs. 228/-).
- All India Total Blended MOU per subscriber per month has shown a decline from 375 minutes for the quarter ending December 2007 to 364 minutes for the quarter ending March 2008. The highest MOUs are recorded in Andhra Pradesh circle at 492 per subscriber per month, which is 35.2% higher than the all India figure. The lowest MOUs have been reported in Punjab Circle at 262, which is 39% lower than the all India figure.
- According to the revenue reports submitted by the service providers, revenue net of “pass through”, from CDMA full mobility service is Rs. 2410.00 Crores for the quarter ending March 2008 which was 2381.01 Crores for the quarter ending December 2007, thereby showing a growth of 1.21%.

Chart – XIII : Key Indicators for CDMA



\* Does not include WLL (F) & WLL (M) subscribers

**Chart – XIV : CDMA Originated Traffic - distribution by terminating network**



### **C. Internet Services**

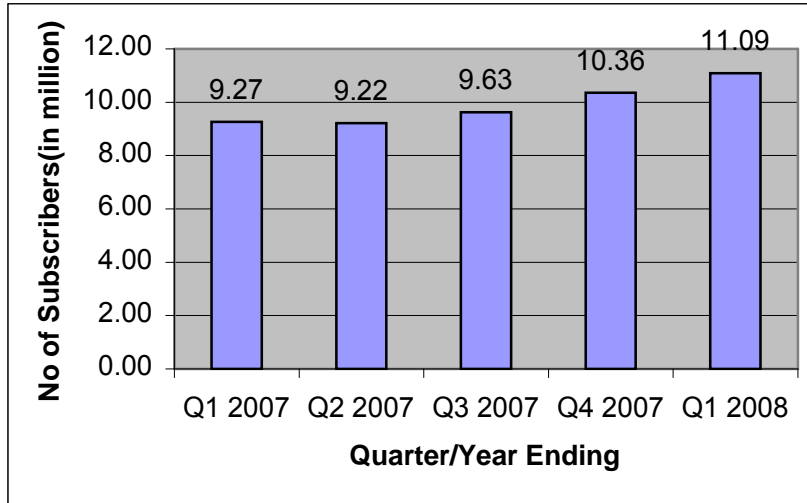
**There are 11.09 million Internet subscribers approximately at the end of March 2008 as compared to 10.36 million at the end of December 2007 registering a growth of 7.08%. This growth rate is slightly less than the growth rate of 7.64% at the end of December 2007.**

**Besides above, there are 66.09 million wireless data subscribers at the end of March 2008 (capable of accessing data services including internet through mobile handsets (GSM/ CDMA)).**

**The key indicators for Internet Services are presented in bar charts XV & XVI.**

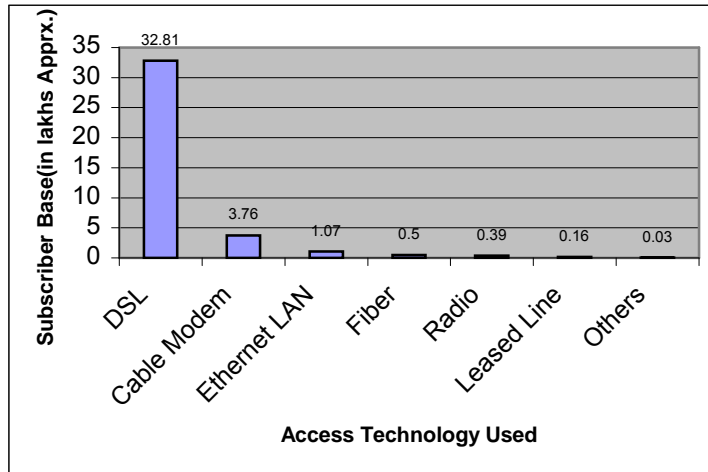
- i) **Internet Subscribers Growth - There are 11.09 million wireline Internet Subscribers at the end of March 2008.**

**Chart -XV : Internet Subscriber Base**



- ii) **Broadband Subscriber Growth - The number of Broadband subscribers (with a download speed of 256 Kbps or more) was 3.87 million at the end of March 2008 as compared to 3.13 million at the end of December 2007. The growth rate of broadband subscribers in this quarter is 23.64%.**
- iii) **Broadband Subscribers Share (Technology wise) - Out of these 3.87 million broadband subscribers, 3.28 million are DSL based; 0.37 million Cable Modem; 0.11 million Ethernet LAN; 0.05 million Fibre; 0.039 million Radio, Leased Line 0.016 million and 0.003 million use other technologies.**

**Chart - XVI : Technology Trends for Broadband**



## **D. Quality of Service Performance**

### **(a) Wireline Services**

**This report covers 78 licenses providing basic services . In this quarter the performance of the Basic Service Providers have improved as compared to the previous quarter in respect of parameters like Faults incidences, Mean Time to Repair (MTTR), Call Completion Rate, Metering & Billing credibility, Customer Care Services (Closures, Additional Facilities), Response time to the customer for assistance - %age of calls answered by operator (Voice to voice) and Time Taken to Refund t he deposits.**

**However, the performance of Basic Service Providers have deteriorated in this quarter, as compared to the previous quarter, in respect to parameters like Provision of Telephones, Faults repaired by next working day and Grade of Service.**

**The performance of the Basic Service Providers remained at same level as compared to the previous quarter in respect of the parameter like Customer Care Services (Shifts), Response time to the customer for assistance - %age of calls answered Electronically.**

**The summary of performance of the service providers who have not met the benchmarks in this quarter as compared to previous quarter is given in the table -1.**

**Table 1: Summary of Performance of Service Providers**

Sr. No.	Parameters	Benchmark	No. of operators not meeting the benchmarks				
			Dec, 2007		Mar, 2008		
			Out of 78 In Nos	Out of 78 In %age	Out of 78 In Nos	Out of 78 In %age	
1.	Provision of Telephones after registration of demand	100% within 7 Days	57	73.08%	65	83.33%	
2	Fault incidences per 100 subs/month	<5%	27	34.62%	25	32.05%	
3	Fault repaired by next working day	>90%	16	20.51%	18	23.08%	
4	MTTR	<8Hrs	27	34.62%	25	32.05%	
5	Grade of Service (Junction between local exchange)	2/1000	1	1.28%	2	2.56%	
6	Call Completion Rate (in local network)	>55%	9	11.54%	7	8.97%	
7	Metering & billing credibility - % of bills	<0.1%	8	10.26%	5	6.41%	
8	Customer Care Service (95% of requests)						
(i)	Shifts	<3 Days	21	26.92%	21	26.92%	
(ii)	Closures	<24 hrs.	18	23.08%	7	8.97%	
(iii)	Additional Facilities	<24 hrs.	17	21.79%	15	19.23%	
9	Response time to the customer for assistance						
(i)	%age of calls answered (electronically)						
	Within 20 sec = 80%	80%	1	1.28%	1	1.28%	
	within 40 sec = 95%	95%	1	1.28%	1	1.28%	
	(ii)	%age of calls answered by operator (voice to voice)					
		Within 60 sec = 80%	80%	9	11.54%	1	1.28%
		within 90 sec = 95%	95%	18	23.08%	9	11.54%
10.	Time taken for refund of deposits after closures	100% within 60 days	17	21.79%	8	10.26%	



## (b) Wireless Service

This report covers performance of 93 GSM Cellular Mobile Licensees and 44 CDMA service Licensees vis -à-vis the QoS benchmarks prescribed by TRAI. All Cellular Mobile Service Providers have achieved prescribed TRAI benchmark in respect of the following parameters:-

1. Accumulated down time of Community isolation
2. Service Access Delay
3. Call Drop Rate
4. %age of Connections with good voice quality
5. Response time to the customer for assistance

The performance has improved in this quarter as compared to the previous quarter in respect of the parameter like accumulated down time of Community isolation, Service access Delay, %age of Connections with good voice quality, Response time to the customer for assistance and % of Complaints resolved within 4 weeks.

The performance has deteriorated in this quarter as compared to the previous quarter related to the parameters as Call Set-Up Success Rate (Within Licensee's Own network), Blocked Call rate (SDCCH/paging channel congestion and TCH congestion), Complaints per 100 bills issued and Period of all refunds/payment due to customers from the date of resolution of complaints.

The performance of the Cellular Mobile Service Providers remained at same level as compared to the previous quarter in respect of the parameter of Call Drop Rate, Response time to the customer for assistance - %age of calls answered electronically within 20 seconds.

The comparative statement of the key parameters is given in the table 2:-

Sr.No.	Parameters	Bench-Marks	No. Of Operators Not Meeting The Benchmarks			
			Quarter Ending Dec. 2007		Quarter Ending March, 2008	
			Out Of 135 (Nos.)	Out Of 135 (in %)	Out Of 134* (Nos.)	Out Of 134* (in %)
1	Accumulated down time of Community isolation	<24 hrs	1	0.74%	0	0.00%
2	Call Set-Up Success Rate (Within Licensee's Own network)	>95%	1	0.74%	2	1.49%

3	<b>Service access delay</b>	<b>&lt;15 Sec</b>	2	1.48%	0	0.00%
4	<b>Blocked call rate</b> (i) SDCCH/paging channel congestion	<b>&lt;1%</b>	5	3.70%	9	6.72%
	(ii) TCH Congestion	<b>&lt;2%</b>	7	5.18%	12	8.96%
5	<b>Call drop rate</b>	<b>&lt;3.0%</b>	0	0.00%	0	0.00%
6	<b>%age of Connections with good voice quality</b>	<b>&gt;95%</b>	5	3.70%	0	0.00%
7	<b>Response time to the customer for assistance</b> %age of calls answered (electronically) within 20 seconds = 80%	<b>80%</b>	0	0.00%	0	0.00%
(i)	%Age of calls answered (electronically) within 40 seconds = 95%	<b>95%</b>	2	1.48%	0	0.00%
(ii)	%Age of calls answered by operator (voice to voice); within 60 seconds = 80%	<b>80%</b>	29	21.46%	22	16.42%
(iii)	%Age of calls answered by operator (voice to voice); within 90 seconds = 95%	<b>95%</b>	61	45.80%	52	38.81%
8	<b>Complaints per 100 bills issued</b>	<b>&lt;0.1%</b>	2	1.48%	6	4.48%
9	<b>% Of complaints resolved with 4 weeks</b>	<b>100%</b>	2	1.48%	1	0.75%
10	<b>Period of all Refunds/Payment due to Customers from the date of resolution of complaints As In (9) above</b>	<b>&lt;4 Weeks</b>	0	0.00%	1	0.75%

NOTE : \* M/s Bharti Airtel has submitted a combined PMR for TN & Chennai as the License of M/s Bharti Airtel Chennai circle has been merged with Tamilnadu circle. The Licence of M/s Reliable Internet Service has been merged with Reliance Telecom L td, Kolkata. So, total no. of Licensees providing PMR is 134.

### (c) **Broadband Service**

**Broadband Regulations came into force with effect from 1<sup>st</sup> Jan 2007. Total number of the Broadband Service providers was 72 in quarter ending December, 2007. No new service provider is added in this quarter .Total number of subscriber base of all the Broadband service providers is 3872348 in quarter ending March, 2008.**

**This report covers performance of 13 broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI.**

## **E. Broadcasting and Cable Services**

- Based on the data received from various Multi System Operators (MSOs) across the country, the maximum number of Free -to-Air (FTA) Channels being carried in the cable networks are 133. Out of 114 pay channels as reported by 17 broadcasters/their distributors at the end of Quarter of March 2008, maximum 94 pay channels are being carried in a cable network.
- Apart from All India Radio, there were 205 FM Radio station in operation as on March 31, 2008. During the quarter ending March 2008, 28 new private FM radio stations came into operation.
- No DTH license was issued during the quarter ending March 2008. Therefore, at present, apart from free to air DTH service of Doordarshan, there are 6 private DTH licensees. Out of these 6 licensees, 3 licensees are offering pay DTH services to the customers as on 31.03.2008, while others are in the process of rolling out their services.
- There were 47 Community Radio Station licensee and out of these, 28 were operational in the quarter ending December 2007. In the Quarter Ending March, 2008, 2 new licenses were issued and 7 new Community Radio Stations became operational. Now, at the end of March, 2008, out of 49 licensees of community radio stations, 35 stations are in operation.
- At the end of quarter December, 2007, there were 572706 number of set top boxes (STBs) installed in the CAS notified areas of Delhi, Mumbai, Kolkata and Chennai. Now, at the quarter ending March 2008, the STB number has increased to 607883 in the CAS notified areas of Delhi, Mumbai, Kolkata and Chennai registering a growth of 6.14%.
- During this quarter, M/s Star India Private Limited has informed that they have appointed M/s STAR DEN Media Services Private Limited ("STAR DEN") from February 2008 as the distributor of their channels.
- During this quarter, M/s Set Discovery India Private Limited has informed that they have changed their name from M/s Set Discovery India Private Limited to M/s MSM Discovery India Private Limited.

- During this quarter, M/s Sahara India Private Limited have informed that they have appointed 'M/s Mega Reach' as the distributor of their channels.

#### **F. Financial Details of the Telecom Network:**

- The total revenue for the whole financial year (Apr'07 – Mar'08) was Rs.1,29,083/- Crores.
- The total revenue for IVth Quarter (January- March 2008) of 2007-08 was Rs.35,770 Crores thereby showing a growth of 8.21%.
- The total revenue of the public sector operators for the IVth Quarter of 2007-08 was Rs.12233 showing a growth of 13.38%.
- The revenue contribution from the public sector operators for IVth Quarter of 2007-08 was 34%.
- The total revenue contribution from the private sector operators for IVth Quarter of 2007-08 was Rs. 23,537 Crores showing a growth of 5.71%.
- The revenue contribution from the private sector operators for IVth Quarter of 2007-08 was 66%.
- The Adjusted Gross Revenue (AGR) of the Telecom Services Sector for the IVth Quarter of 2007-08 was Rs.27,845 Crores there by showing a growth of 7.48%.
- The AGR of the public sector operators for the IVth Quarter of 2007-08 was Rs.10,417 crores showing a growth of 6.19%. The AGR share of public sector operators for the IVth Quarter of 2007-08 was 38%.
- The AGR contribution from the private sector operators for the IVth Quarter of 2007-08 was Rs.17,427 crores showing a growth of 8.28%.
- The AGR share of private sector operators for the IVth Quarter of 2007-08 was 62%.

## G. Performance Indicators at a Glance for Quarter ending 31<sup>st</sup> March 2008

### A. Growth of Wireline & Wireless Services: -

	QE Mar 2007	QE Jun 2007	QE Sep 2007	QE Dec 2007	QE Mar 2008	%age growth over Mar 2007 (12 months)	%age growth over Jun 2007 (9 months)	%age growth over Sep 2007 (6 months)	%age growth over Dec 2007 (3 months)
<b>1) Subscriber's Base (in million)</b>									
i) Wireline	40.75	40.09	39.58	39.25	39.42	-3.26	-1.70	-0.40	0.43
ii) Wireless	165.11	184.92	209.07	233.62	261.07	58.12	41.18	24.87	11.75
<b>Gross Total</b>	<b>205.86</b>	<b>225.01</b>	<b>248.65</b>	<b>272.87</b>	<b>300.49</b>	<b>45.96</b>	<b>33.54</b>	<b>20.84</b>	<b>10.12</b>
<b>2) Traffic (MOU) (minutes of use/ sub/ month)</b>									
<b>Wireless</b>									
i) GSM	471	476	462	464	493	4.67	3.57	6.71	6.25
ii) CDMA	471	462	413	375	364	-22.72	-21.21	-11.86	-2.93
<b>3) ARPU (Rs./sub/ month)</b>									
<b>Wireless</b>									
i) GSM	298	297	275	261	264	-11.41	-11.11	-4.00	1.15
ii) CDMA	202	206	173	176	159	-21.29	-22.82	-8.09	-9.66
<b>4) Teledensity</b>									
<b>Population in million (Estimated)</b>									
	1129	1133	1137	1143	1146				
i) Wireline	3.61	3.54	3.48	3.43	3.44	-4.71	-2.83	-1.16	0.29
ii) Wireless	14.62	16.32	18.39	20.44	22.78	55.82	39.59	23.88	11.45
<b>Gross Total</b>	<b>18.23</b>	<b>19.86</b>	<b>21.87</b>	<b>23.87</b>	<b>26.22</b>	<b>43.83</b>	<b>32.03</b>	<b>19.89</b>	<b>9.85</b>

**B. Growth of Internet & Broadband Services: -**

	QE Mar 2007	QE Jun 2007	QE Sep 2007	QE Dec 2007	QE Mar 2008	%age growth over Mar 2007 (12 months)	%age growth over Jun 2007 (9 months)	%age growth over Sep 2007 (6 months)	%age growth over Dec 2007 (3 months)
<b>1) Subscriber's Base (in million)</b>									
<b>i) Internet</b>	<b>9.27</b>	<b>9.22</b>	<b>9.63</b>	<b>10.36</b>	<b>11.09</b>	<b>19.63</b>	<b>20.28</b>	<b>15.16</b>	<b>7.05</b>
<b>ii) Wireless Internet *</b>	<b>31.30</b>	<b>38.02</b>	<b>46.37</b>	<b>57.83</b>	<b>65.50</b>	<b>109.26</b>	<b>72.28</b>	<b>41.26</b>	<b>13.26</b>
<b>ii) Broadband Connections (&gt;=256 Kbps download speed)</b>	<b>2.34</b>	<b>2.42</b>	<b>2.67</b>	<b>3.13</b>	<b>3.87</b>	<b>65.38</b>	<b>59.79</b>	<b>44.94</b>	<b>23.64</b>
<b>2) Minutes of Use (Dialup Internet) (MOU/ subs/month)</b>	<b>180</b>	<b>195</b>	<b>206</b>	<b>210</b>	<b>220</b>	<b>22.22</b>	<b>12.82</b>	<b>6.80</b>	<b>4.76</b>
<b>3) ARPU (Dialup Internet) (Rs/subs/month)</b>	<b>200</b>	<b>203</b>	<b>200</b>	<b>210</b>	<b>220</b>	<b>10.00</b>	<b>8.37</b>	<b>10.00</b>	<b>4.76</b>

\* Accessing Internet through wireless (GSM & CDMA) networks

%age Growth figures are calculated by rounding the actual figures to nearest million. These may vary with values given in the subsequent chapters of this report.

**C. Performance of service providers during the quarter: -**

**(I) Wireline Subscribers Base(in Million)**

1) Wireline Service Providers	QE Mar 2007	QE Jun 2007	QE Sep 2007	QE Dec 2007	QE Mar 2008	%age growth over Mar 2007 (12months)	%age growth over Jun 2007 (9 months)	%age growth over Sep 2007 (6 months)	%age growth over Dec 2007 (3 months)
BSNL	33.74	32.91	32.22	31.71	31.55	-6.49	-4.13	-2.08	-0.50
MTNL	3.73	3.67	3.63	3.60	3.68	-1.21	0.27	1.38	2.22
Bharti	1.87	1.97	2.08	2.18	2.28	21.84	15.74	9.62	4.59
Reliance	0.57	0.64	0.70	0.78	0.87	53.17	35.94	24.29	11.54
Tata/ Hughes	0.527	0.58	0.63	0.67	0.72	36.62	24.14	14.29	7.46
HFCL	0.17	0.16	0.16	0.15	0.15	-10.71	-6.25	-6.25	0.00
Shyam	0.15	0.16	0.16	0.16	0.16	3.90	0.00	0.00	0.00
<b>Total</b>	<b>40.75</b>	<b>40.09</b>	<b>39.58</b>	<b>39.25</b>	<b>39.42</b>	<b>-3.30</b>	<b>-1.70</b>	<b>-0.43</b>	<b>0.42</b>

**(II) Wireless Subscriber Base (in Million)**

Service Providers	QE Mar 2007	QE Jun 2007	QE Sep 2007	QE Dec 2007	QE Mar 2008	%age growth over Mar 2007 (12 months)	%age growth over Jun 2007 (9 months)	%age growth over Sep 2007 (6 months)	%age growth over Dec 2007 (3months)
Bharti	37.14	42.70	48.88	55.16	61.98	66.88	45.15	14.45	14.45
Reliance	28.01	31.88	36.32	40.96	45.79	63.48	43.63	13.94	13.94
Vodafone	26.44	30.75	35.66	39.86	44.13	66.91	43.51	15.95	15.95
BSNL	30.98	32.05	34.13	36.81	40.79	31.67	27.27	6.48	6.48
Tata Tele	16.02	17.32	19.50	21.74	24.33	51.87	40.47	12.53	12.53
Idea	14.01	16.13	18.67	21.05	24.00	71.27	48.79	15.78	15.78
Aircel	5.51	6.77	8.04	9.43	10.61	92.56	56.72	18.67	18.67
Spice	2.73	3.17	3.48	3.80	4.21	54.21	32.81	9.82	9.82
MTNL	2.94	2.81	2.99	3.20	3.53	20.07	25.62	6.72	6.72
BPL	1.07	1.09	1.15	1.24	1.29	20.22	18.35	6.01	6.01
HFCL	0.15	0.15	0.15	0.25	0.30	100.00	100.00	1.61	1.61
Shyam	0.10	0.10	0.10	0.10	0.11	10.00	10.00	2.26	2.26
<b>Total</b>	<b>165.11</b>	<b>184.92</b>	<b>209.07</b>	<b>233.62</b>	<b>261.07</b>	<b>58.12</b>	<b>41.18</b>	<b>24.87</b>	<b>11.76</b>

## CHAPTER ONE

### PERFORMANCE OF WIRELINE SERVICES

#### 1.1 Subscribers Base: -

1.1.1 The Wireline services were provided by 5 licensed private operators in addition to incumbents BSNL and MTNL as on 31<sup>st</sup> March 2008. List of Wireline Service providers along with their areas of operation is given in the following Table.

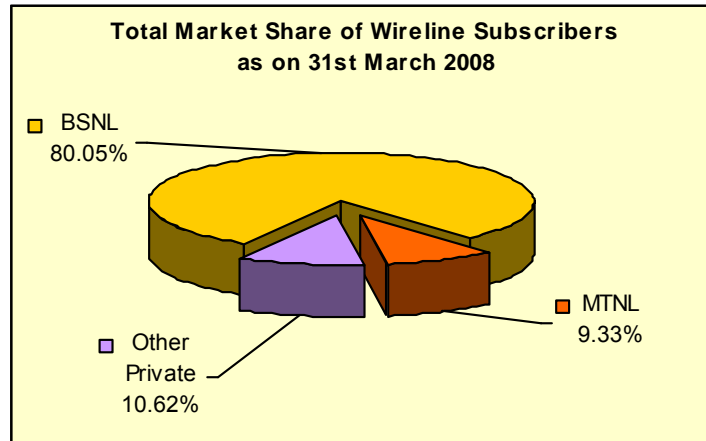
Sl. No.	Name of the Service Provider	Area of Operation
1	BSNL	All India except Delhi & Mumbai
2	MTNL	Delhi & Mumbai
3	Bharti Airtel Ltd	Andhra Pradesh, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Punjab, Rajasthan, Tamil Nadu(included Chennai circle), UP-East, UP-West (including Uttaranchal) and West Bengal.
4	Tata Teleservices (Maharashtra) Ltd.	Maharashtra, Mumbai
5	Tata Teleservices Ltd.	Andhra Pradesh, Bihar, Chennai, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, UP(E), UP(W) including Uttaranchal and West Bengal
6	HFCL Infotel Ltd	Punjab
7	Shyam Telelink Ltd	Rajasthan
8	Reliance Communications Ltd.	Andhra Pradesh, Bihar, Chennai, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata Madhya Pradesh, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Tamil Nadu, UP (E), UP (W) and West Bengal



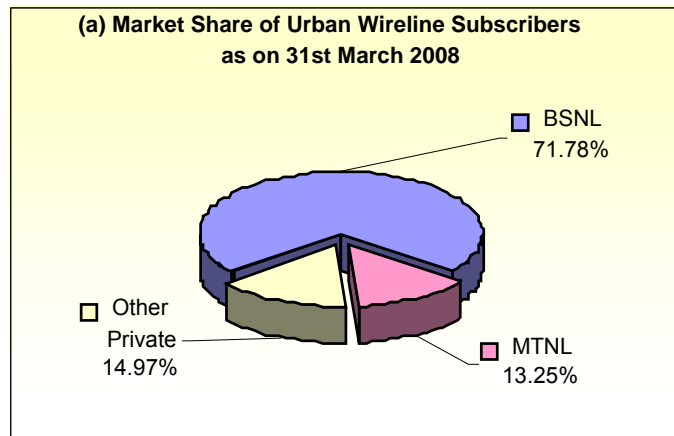
### 1.1.2 Market Share of Wireline subscriber base.

The total subscriber base of Wireline services stood at 39.42 million as on 31<sup>st</sup> March 2008. The incumbents BSNL and MTNL have 80.05% and 9.33% market share respectively in the subscriber base, while all the five private operators together have 10.62% share. The market share of total Wireline segment is shown in the chart below:

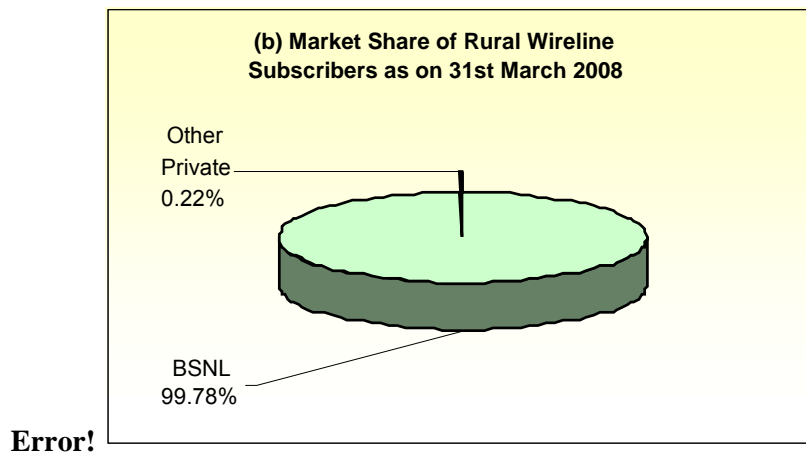
**Figure 1.1: Distribution of Market share of Urban + Rural Wireline subscriber**



**Figure 1.2 : Distribution of Market share of Urban Wireline subscriber**



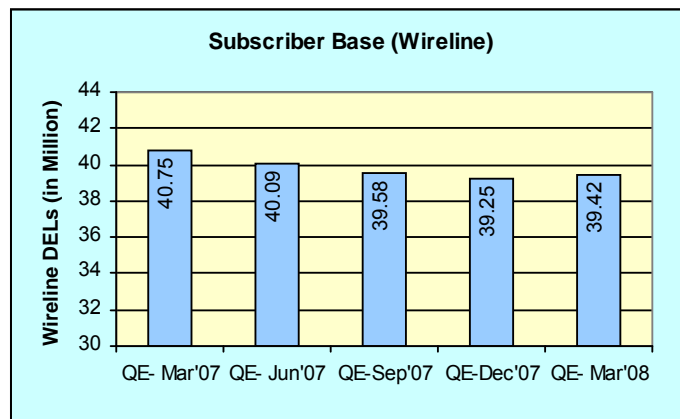
**Figure 1.3 : Distribution of Market share of Rural Wireline subscriber**



**1.1.3 Subscriber Base of Wireline for last five quarters**

The subscriber base of the Wireline service sector for last five quarters is depicted below:

**Figure 1.4: The subscriber base of the Wireline service sector for last five quarter**

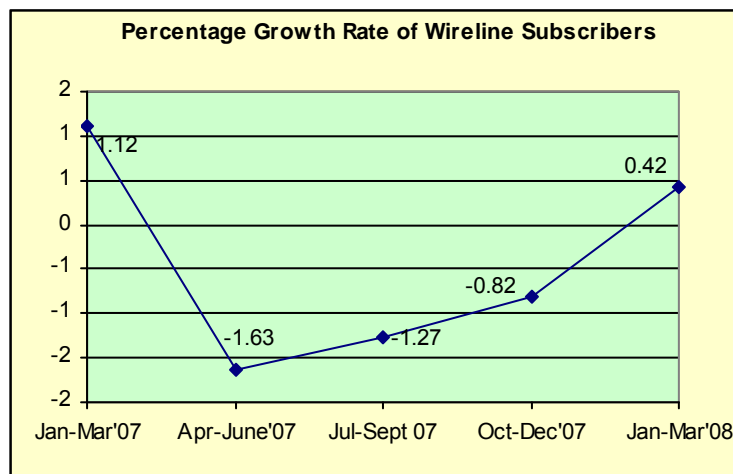


**1.1.4 Status of Wireline services**

The Fixed (Wireline) subscriber base registered an increase of 163,592 lines during the quarters starting from the month January' 2008 to March' 2008. The net number of fixed (wireline) has increased to 3,94,15,963 from 3,92,52,371 as on 31st March 2008. The overall percentage of increase in subscriber base during the quarters is 0.42%.

During the quarter ending 31st March 2008 some service providers have reported increase in their respective wireline subscriber base such as M/s Bharti Airtel Ltd. from 21,78,175 to 22,83,326 (+105,151), M/s Tata Teleservices Ltd. (TTL) (including TT(M)L) from 6,72,425 to 7,22,951 (+50,526), M/s MTNL from 35,97,029 to 36,78,370 (+81,341) and M/s Reliance Communications Ltd. (RCL) from 7,80,974 to 8,73,969 (+92,995). However others reported reduction in the subscriber base of Wireline during the quarter ending March '08 (M/s BSNL from 3,17,11,219 to 3,15,52,296 (-1,58,923), M/s Shyam Telelink Ltd. from 1,58,782 to 1,57,456 (-1,326) and M/s HFCL Infotel Ltd. from 1,53,767 to 1,47,595 (-6,172)).

**Figure 1.5 : Percentage Growth Rate of Wireline Subscribers**

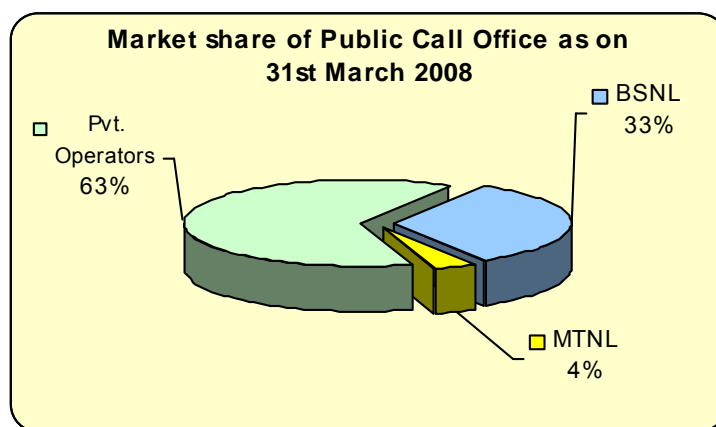


## 1.2 Other Performance Indicators: -

### 1.2.1 Public Call Offices:

- (i) During the current quarter 2,83,883 new PCOs have been added. Total number of PCOs in the country as on 31st March 2008 is 61,85,904. The share of BSNL is 20,51,518 i.e. 33% of the total PCOs. The share of MTNL and other private operators combined is 2,39,335 (4%) and 38,95,051 (63%) respectively.
- (ii) Operator-wise (BSNL/MTNL/Other Private Operator s) market share of PCO is depicted in the Figure 1.6. Operator-wise details of PCOs is available in Table 1.2.

**Figure 1.6 : Market Share of Public Call Office as on 31.03.2008**

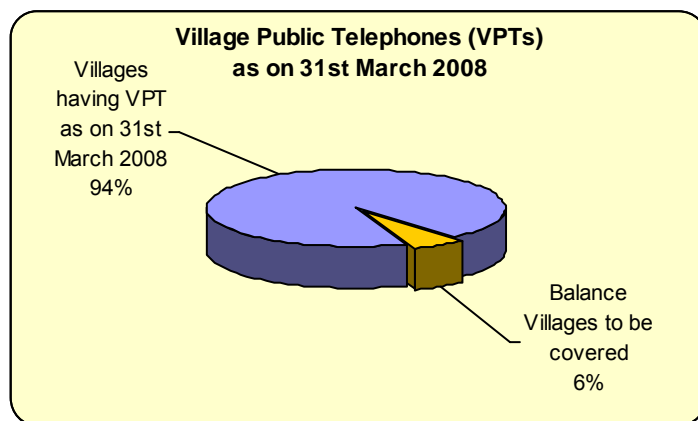


### 1.2.2 Village Public Telephones (VPT):

There are 5,93,485 villages in India as per census 2001 as reported by BSNL. During the previous quarter ending 30<sup>th</sup> December 2007 there were 5,30,127 VPTs in the country whereas by the end of this quarter i.e. 31st March 2008, the total number of VPTs have increased to 5,59,503. Thus 29,376 VPTs have increased during the current quarter. BSNL has reported increase of 1,547 VPTs during the quarter. All the five private operators together added of 27,829 VPTs during this quarter. The total number of villages left uncovered, are 33,982 as on 31st March 2008.

The status of VPT's is depicted in the Figure 1.7

Figure 1.7 : Village Public Telephones as on 31.03.2008



*(Note: the total number of villages in India has been shown as per census 2001 (as reported by BSNL) In census 1991 total number of villages were 607491 which have been reduced to 593485 as per census 2001).*

Circle-wise and Operator-wise details of village public telephones as on 31<sup>st</sup> March 2008 and addition/deletion during the quarter are available in Table 1.3.

\*\*\*\*\*

## CHAPTER TWO PERFORMANCE OF WIRELESS SERVICES

**Wireless Subscriber Base reached 261.07 million**

### PART A

**2.1 Details of service providers: - The list of all the Wireless service providers along with their licensed service areas is as under: -**

SLNO	Service Provider	Area for which licensed with No.	Area for which not licensed	UASL Service Licensed
1	BSNL/MTNL	All India (23)		
2	Bharti	All India (22)		All India except NE
3	Aircel Group	All India (23)		All India except Chennai & TN
4	Reliance Group	All India (23)		All India except NE & AS
	Reliance Infocomm	All India (except Assam & NE) (21)	Assam & NE	All India except NE & AS
	Reliance Telecom	Kolkata, MP, WB, HP, Bihar, OR, Assam & NE (8)	Delhi, Mumbai, Chennai, MH, Gujarat, AP, KTK, TN, KR, PB, Har, UP (W), UP (E), Raj & J&K	MP, WB, HP, Bihar, OR, Assam & NE
5	Vodafone	All India (23)		UP-W, MP, WB, HP, Bihar, OR, Assam, NE, J&K
6	Tata Teleservices	All India (23)		All India
7	IDEA	All India (22)		Mumbai, Chennai & TN, Kol, KTK, Pb, WB, Bihar, OR, Assam, NE & J&K
8	Shyam Telelink	All India (22)		All India
9	BPL/Loop Telecom Private Ltd	All India (22)		All India except Mumbai
10	M/s Volga Properties Pvt. Ltd., M/s Hudson Properties Ltd., M/s Unitech Infrastructure Pvt. Ltd., M/s Azare Properties Ltd., M/s Aska Projects Ltd., M/s United Builders & Estates Private Ltd., M/s Adonis projects Pvt. Ltd., M/s Nahan Properties P.Lt.	All India (22)		All India
11	Datacom Solutions Pvt. Ltd.	All India except Pb (21)	Punjab	All India except Pb
12	Swan Telecom Pvt. Ltd	Delhi, Mumbai, Mah, Guj, AP, Ktk, Chennai & TN, KR, Punjab, HR, UP (W), UP (E) & Raj (13)	Kol., MP, WB, HP, Bihar, OR, Assam, NE & J&K	All India except Kol., MP, WB, HP, Bihar, OR, Assam, NE & J&K
13	Spice Communications	Delhi, Mah, AP, KTK, Punjab, Har (6)	All India except (Delhi, Mah, AP, KTK, Pb & Har)	Delhi, Mah, AP, KTK, Pb, Har
14	S Tel Ltd	HP, Bihar, Orissa, Assam, NE, J&K (6)	All India except HP, Bihar, OR, Assam, NE, J&K	HP, Bihar, OR, Assam, NE, J&K
15	HFCL	Punjab (1)	All India except Punjab	Punjab

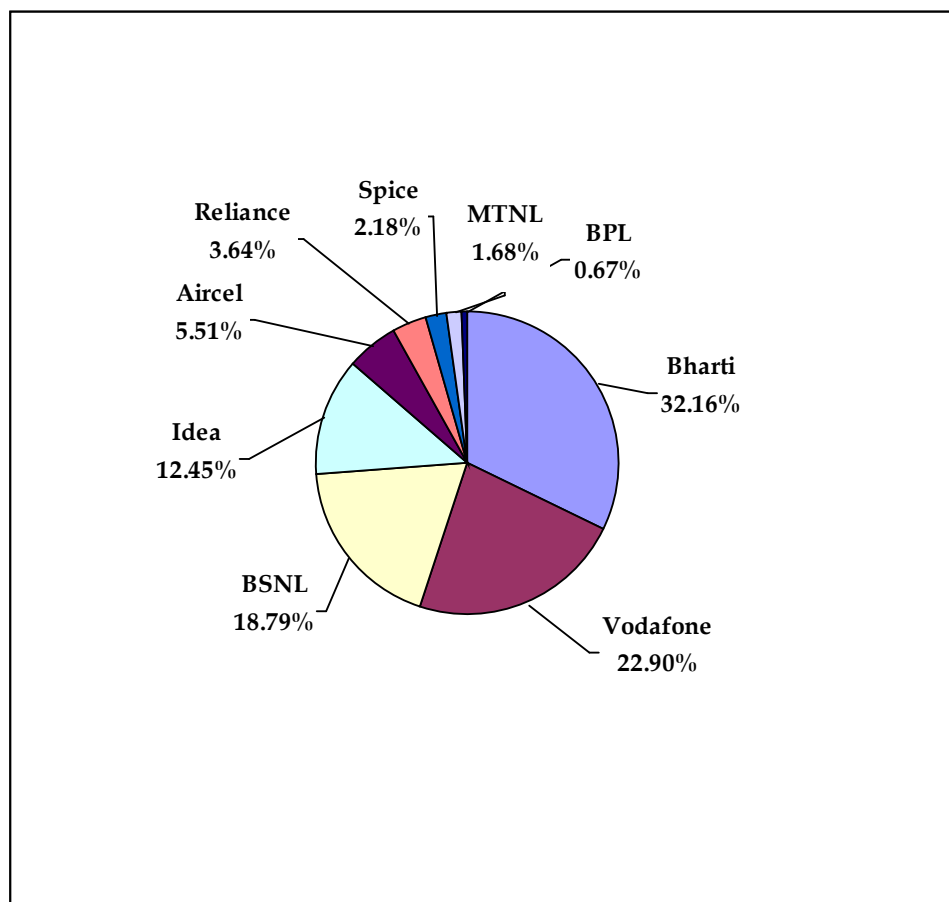
Circle-wise details of Wireless, Wireline & Unified Access Service providers for the quarter ending March 2008 are given at Annex 2.1.

## 2.2 Growth of Subscribers Base :-

### 2.2.1 GSM

The GSM subscribers base has reached 192.70 million in the quarter ending March 2008 as against 172.23 million at the end of the previous quarter. The quarterly growth for this quarter is 11.89%. M/s Bharti with 61.98 million subscriber base remains the largest GSM mobile operator followed by M/s Vodafone, M/s BSNL and M/s Idea with subscribers base of 44.13 million, 36.21 million and 24.00 million respectively. The market share of different GSM operators is given below:

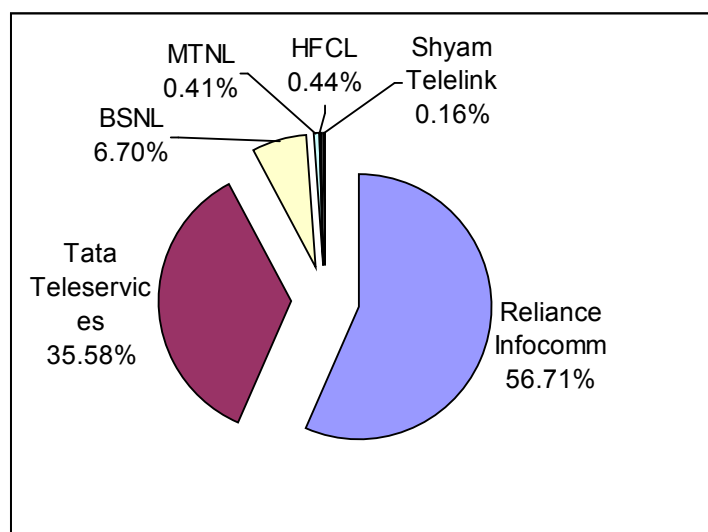
**Figure 2.1 : Operator-wise Market Share of GSM service providers as on 31st March 2008**



### 2.2.2 CDMA

The CDMA Subscribers Base has reached 68.37 million during the quarter ending March 2008 as against 61.39 million at the end of December 2007. The quarterly growth in this quarter is 11.37% as against 11.44% for the previous quarter. M/s Reliance remains the largest CDMA mobile operator followed by M/s Tata Teleservices and M/s BSNL with subscribers base of 38.78 million, 24.33 million and 4.58 million respectively. M/s BSNL in Kolkata & Punjab have reported negative growth .

**Figure 2.2: Operator-wise Market Share of CDMA Wireless as on 31st March 2008**



### 2.2.3 Wireless Subscriber Base

At the end of March 2008, the Wireless (Mobile and WLL (F)) market has reached 261.07 million subscriber mark as against 233.62 million subscribers in the previous quarter.

### 2.2.4 Addition in Subscribers Base

During this quarter 27.45 million subscribers were added. The total subscriber base of 261.07 million comprises of 192.70 million GSM mobile (73.81%) & 68.37 million CDMA Mobile (26.19%). The growth rate in this quarter is 11.75% as against 11.73% in the previous quarter.

### 2.2.5 Company wise Market Share

- a) M/s Bharti has maintained its 1<sup>st</sup> position with a wireless subscriber base of 61.98 million. It has market share of 23.74% wireless subscriber base. M/s Reliance is on 2<sup>nd</sup> position at the end of this financial year with a total subscribers base of 45.79 million.
- b) The Wireless operators on the basis of market share are given below: -

SL NO	Operator (with number of Circle)	Subscribers Base as on Year ending Mar 08 (in Millions)	Market Share
1	Bharti (23)	61.98	23.74%
2	Reliance (23)	45.79	17.54%
3	Vodafone (16)	44.13	16.90%
4	BSNL (21)	40.79	15.62%
5	Tata (20)	24.33	9.32%
6	Idea (11)	24.00	9.19%
7	Aircel (9)	10.61	4.06%
8	Spice (2)	4.21	1.61%
9	MTNL (2)	3.53	1.35%
10	BPL (1)	1.29	0.50%
11	HFCL (1)	0.30	0.11%
12	Shyam (1)	0.11	0.04%
	Total	261.07	100.00%

The details of operator-wise subscribers of GSM and CDMA are given in Table 2.2.

- c) Distribution of Subscriber base and market share of Wireless services as on March 2008 among Metros, Circles A to C is given in Table 2.3.



## PART B : ARPU and MoU

### 2.3 GSM (Full Mobility)

#### 2.3.1 Average Revenue Per User (ARPU)

- The all India blended ARPU per month has turned around and registered a marginal increase (1.15%) from Rs. 261 in Dec-07 to Rs. 264 in Mar-08. This increase is result of steep increase in ARPU in Circle category “A” (5.9%).
- As per the data available the overall increase in ARPU for GSM has been largely due to sharp increase in revenue of BSNL.
- ARPU for postpaid service has shown an increase of 1.59% from Rs. 628 in Dec-07 to Rs. 638 in Mar-08. Prepaid service has shown a growth rate in ARPU of 2.3% from Rs. 219 in Dec-07 to Rs. 224 in Mar-08.
- As per the revenue reports furnished by the service providers, revenue, net of “pass through”, is about Rs. 14,329 Crores in the quarter ending Mar -08 as against Rs. 12,738 Crores in the Dec-07 quarter, thereby showing a growth of 12.5%.

#### Growth in Revenue of GSM Service Providers

Period	Revenue* (Rs. in Crores)	Quarterly rate of growth
Jan-07 to Mar-07	10,040	8.4%
Apr-07 to June-07	11,336	12.9%
July-07 to Sept-07\$	11,903	5.0%
Oct-07 to Dec-07\$	12,738	7.0%
Jan-08 to Mar-08\$	14,329	12.5%

\* Net of pass through

\$ Data excludes revenue from FWP services

#### ARPU (Rs. per month during the quarter)

Circle	Postpaid	Prepaid	Blended ARPU
Circle A	632	225	264
Circle B	543	214	232
Circle C	590	244	266
Metro	712	235	333
All India	638	224	264
All private SPs	701	224	266
BSNL/MTNL	456	226	254

### Composition of Revenue (%)

Item	Dec-07	Mar-08
Rental Revenue	21.3%	19.9%
Revenue from Call charges (usage)	56.1%	57.4%
Revenue from Roaming	9.8%	9.8%
Revenue from SMS	4.6%	4.3%
Other Revenues *	8.2%	8.6%

Notes:

\* Other revenue includes revenue from other value added services, installation etc.

#### 2.3.2 Usage Pattern

- MOU per subscriber has increased from 464 in Dec-07 to 493 in Mar-08, thereby showing an increase of 6.25% as against 0.46% in QE Dec -07.
- Both, outgoing and incoming MOUs have grown, higher being in outgoing MOUs (7.04%). Incoming MOUs have grown by 5.49%.
- Individually, both for postpaid and prepaid, Metros continue to have lowest outgoing MOU per subscriber as compared to other circle categories.
- Overall ratio of incoming-outgoing MOUs has been 52:48 for GSM services. For postpaid, ratio of incoming-outgoing minutes is 46:54 and for prepaid segment, it is 54:46.
- Outgoing SMS per subscriber continued to decline. Rate of decline has been 7% from 28 in Dec-07 to 26 in Mar-08.  
Detailed data is given in Annex. 2.2.

#### 2.3.3 Average Subscriber outgo (rental + call charges) per minute

The tariff plans are of bundled nature and the trade-off is generally between monthly fixed charges and Variable (call) charges. Annex 2.4 indicates the average outgo per outgoing minute i.e. Rental revenue + Airtime revenue per outgoing minute.

- All India average outgo per minute has declined from Rs. 0.99 in Dec -07 to Rs. 0.92 in Mar-08 indicating an overall decline in tariff for GSM services in the country.

## 2.4 CDMA ( Full Mobility Service)

### 2.4.1 ARPU (Average Revenue Per User per month)

- All India blended ARPU per month for the quarter ending March 2008 is Rs. 159/- as compared to Rs. 176/- for the quarter ending December 2007.
- The lowest blended ARPU per month is in U P West (Rs.117/-) while the highest blended ARPU is in Mumbai (Rs. 228/-).
- According to the revenue reports submitted by the service providers for the quarter ending March 2008, revenue, net of “pass through”, from CDMA full mobility service is Rs. 2410.00 crores which was 2381.01 crores in the quarter ending December 2007 registering a growth of 1.22%.
- The huge difference between postpaid and prepaid ARPU noticed in the previous quarter continued to remain valid for this quarter as well. Postpaid ARPU has been 3.94 times that of prepaid ARPU, which perhaps, could be attributed to declining importance of processing fee on recharge coupon/ voucher purchased by prepaid subscribers. The gap is lowest in Circle C (2.92 times) and highest in Circle A (4.28 times).

#### ARPU (Rs. per month during the quarter) – CDMA

Circle	Postpaid	Prepaid	Blended ARPU
Circle A	484	113	150
Circle B	431	123	144
Circle C	446	153	167
Metro	537	132	185
All India	489	124	159

#### Composition of Revenue (%)

Item	Dec-2007	March-2008
Rental Revenue	27.6%	24.5%
Revenue from Call Charges (usage)	58.6%	62.2%
Revenue from SMS	1.9%	1.8%
Roaming Revenue	4.5%	2.9%
Other Revenues*	7.5%	8.6%

\* Includes revenue from other value added services, installations etc.

#### **2.4.2 Usage Pattern (Minutes of Usage)**

- **Two trends are visible in the traffic pattern: One; the total MOU per subscriber/ month has shown decline from 375 minutes (Q.E December 2007) to 364 minutes (Q.E March 2008). Second, the O/G MOU per subs/ month has also declined (i.e. by 9 minutes) in the current quarter as compared to previous quarter.**
- **ARPU has also decreased from Rs. 176/ - (Q.E December 2007) to Rs. 159/ - (Q.E March 2008) for the CDMA operators by 10.7%.**
- **The highest MOUs are recorded in Andhra Pradesh Circle at 492/- per subscriber per month, which is 35.2 % higher than the all India figure at 364/- per subscriber per month.**
- **The lowest MOUs have been reported in Punjab Circle at 262 minutes, which is 39% lower than the all India figure at 364 MOUs per subscriber per month.**
- **The ratio of incoming – outgoing traffic was 49.8:50.2 in the quarter ending December-2007 as against 49.4:50.6 reported for the quarter ending March-2008.**
- **The highest number of SMS per subscriber is recorded in Delhi & Gujarat (30 per subscriber per month), which is 88% higher than the all India at 16 SMS per subscriber per month.**

**Detailed data is given in Annex 2.3**

#### **2.4.3 Average Subscriber Outgo (rental + call charges) Per Minute**

**Average Subscriber Outgo per minute (Rental Revenue + Airtime Revenue per outgoing minute) is given in Annex. 2.5.**

**The All India Average Subscriber Outgo per minute is Rs. 0.79/ - in March 2008 as against Rs. 0.84/ - in December 2007.**

**\*\*\*\*\***

## CHAPTER THREE

### PERFORMANCE OF INTERNET SERVICES

#### 3.1 Service Providers & Subscribers Base: -

There are 11.09 million Internet subscribers approximately at the end of March 2008 as compared to 10.36 million at the end of December 2007 registering a growth of 7.08%. This growth rate is slightly less than the growth rate of 7.64% at the end of December 2007.

Among 132 ISPs reported their subscribers figure for Quarter ending 31<sup>st</sup> March 2008, Bharat Sanchar Nigam Ltd (BSNL) has retained its top position and reported a subscriber base of nearly 5.64 million Internet subscribers against 4.99 million at the end of last quarter. Mahanagar Telephone Nigam Limited (MTNL) has retained second position with a subscriber's base of nearly 1.89 million. M/s Bharti Airtel Ltd is third with subscriber base of 0.81 million. (Ref. Table 3.1).

Besides above, there are 66.09 million wireless subscribers at the end of March 2008 (capable of accessing data services including Internet through mobile handset (GSM/ CDMA)).

#### 3.2 Internet Telephony: -

As per the new guidelines for grant of license for operating Internet Services issued by DOT in August 2007, no separate category of Internet Telephony Service Providers (ITSPs) has been envisaged. The broad term used will be Internet Service Provider (ISPs) for all the Internet service including Internet Telephony services.

32 ISPs submitted their Internet Telephony reports to TRAI, the list of which is enclosed at Annex 3.2. Total minutes of the use (MoU) for Internet Telephony during the quarter were 115.04 million minutes as compared to 121.30 million minutes for the last quarter registering a decrease of 5.16% over the previous quarter.

#### 3.3 Market Share: -

- 3.3.1 The growth trend of Wireline Internet Subscribers indicates a slight increase in the market share of PSU owned ISPs vis-à-vis private operators. During the quarter private ISPs have captured only 32.06% market share as against 33.96% market share in the preceding quarter. The PSU owned ISPs market share has increased from 66.04% to 67.94% at the end of March 2008.

The market share of top 5 ISPs is as under:

Sl.	ISP	Subs. base	Share in %
1)	Bharat Sanchar Nigam Ltd	5640191	50.82
2)	Mahanagar Telephone Nigam Ltd.	1899747	17.12
3)	Bharti Airtel Ltd. (Bharti Televentures Ltd.)	815360	7.35
4)	Reliance Communications Infrastructure Limited	696440	6.28
5)	Sify Technologies Ltd.	576047	5.19

Among PSU owned ISPs; M/s BSNL has shown an increase of 12.97% in the subscriber base and have 50.82% share of total wireline subscriber base. MTNL is at second position and have a market share of 17.12%.

Figure 3.1: Internet Subscriber Base as on 31.03.2008

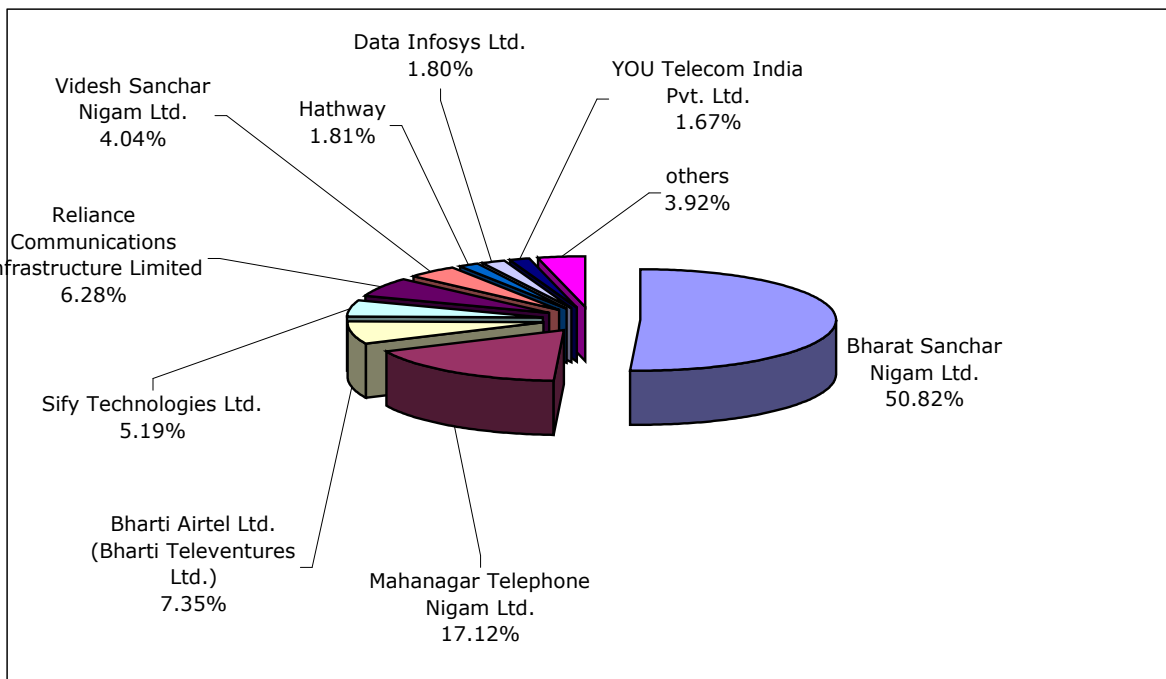
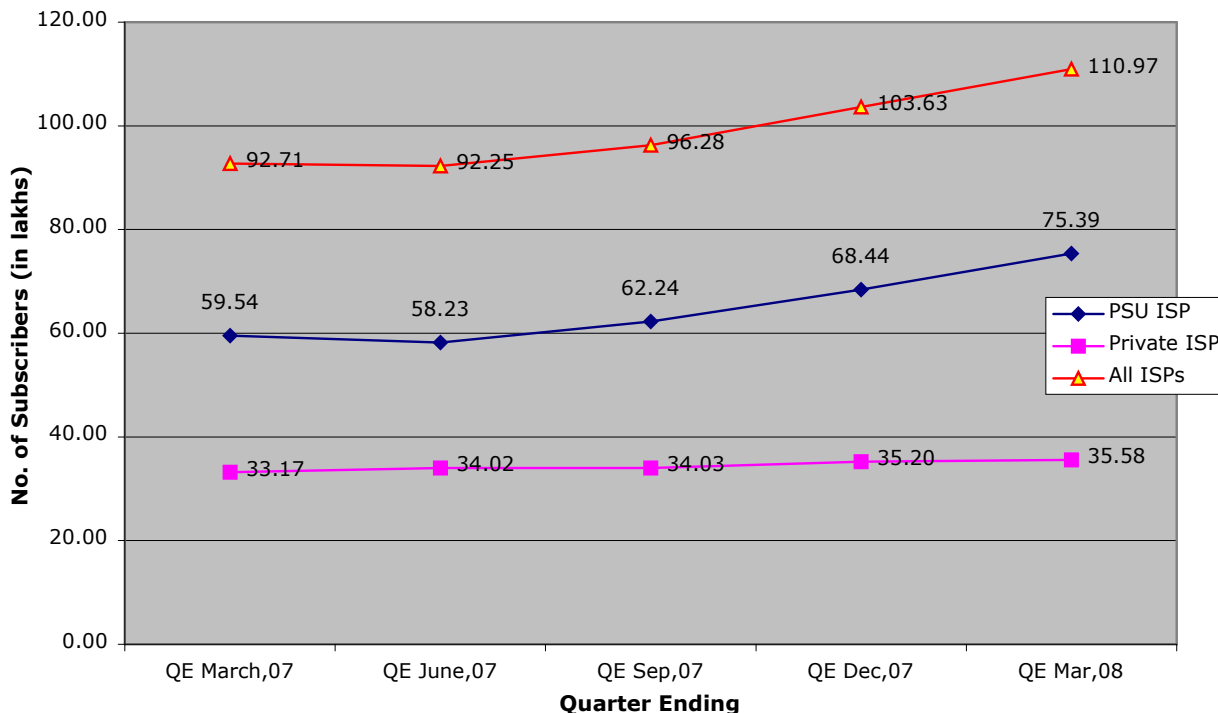
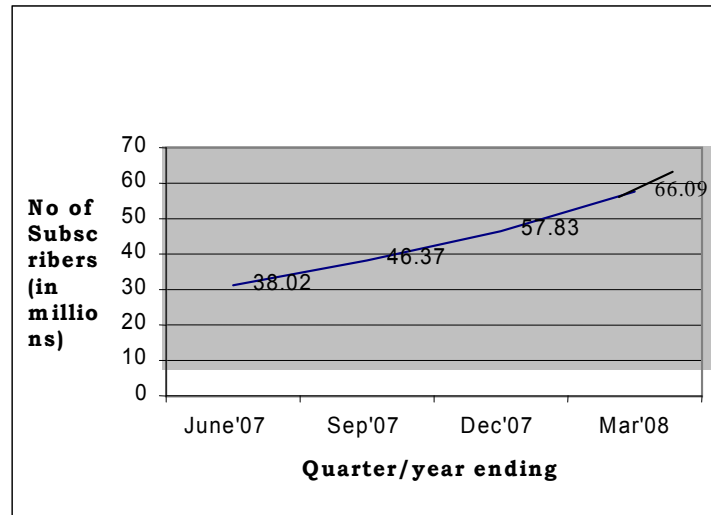


Fig 3.2 Growth Trends of Wireline Internet Subscribers



The growth trend of Wireless Subscribers capable of accessing data services including internet through their mobile handsets is shown below:

**Figure 3.3 : Growth of Wireless Subscribers Capable of Accessing Data Services/ Internet**



This segment has been showing an increasing trend during the year 2008. These subscribers are using mobile handsets which are having "Internet enabled" feature and they are potential broadband subscribers with the deployment of advanced wireless technologies such as 3G and WiMAX.

### 3.4 Leased Lines Connectivity:

The numbers of Internet Leased Line connections are 22752 at the end of March 2008 as compared to 21858 at the end of December 2007 registering a growth of 4.09%

### 3.5 Broadband Connectivity (>=256 Kbps):

The number of Broadband subscribers (with a download speed of 256 Kbps or more) was 3.87 million at the end of March 2008. Out of these 3281012 are DSL based; 376200 Cable Modem; 107128 Ethernet LAN; 50739 Fibre; 39051 Radio customers; Leased Line 16494 and 3555 Others.

### 3.6 Company wise market share of Broadband Service Providers:

The Top 10 Internet Service Providers providing broadband service on the basis of market share are:-

<b>Sl.No</b>	<b>ISPs Offering Broadband Services</b>	<b>Subscribers Base</b>	<b>Share in %</b>
1	Bharat Sanchar Nigam Ltd.	2033540	52.49
2	Mahanagar Telephone Nigam Ltd.	570703	14.73
3	Bharti Airtel Ltd. (Bharti Televentures Ltd.)	462990	11.95
4	Tata Communications Limited (Videsh Sanchar Nigam Ltd.)	198374	5.12
5	Hathway Cable & Datacom Pvt. Ltd.	173808	4.49
6	YOU Telecom India Pvt. Ltd.	141338	3.65
7	Sify Technologies Ltd.	67182	1.73
8	Reliance Communications Infrastructure Limited	65257	1.68
9	Asianet Satellite Communications Ltd.	38466	0.99
10	HFCL Infotel Ltd.	19772	0.51
	<b>Sub Total</b>	<b>3771430</b>	<b>97.35%</b>
	<b>Others</b>	<b>102749</b>	<b>2.65%</b>
	<b>TOTAL</b>	<b>3874179</b>	<b>100%</b>

### **3.7 Minutes of Use (MoU) per subscriber for Dialup Internet access:**

The average minutes of usage per subscriber/ month for dialup subscribers was approximately 220 minutes at the end of March 2008 as compared to 210 minutes at the end of December 2007.

### **3.8 Average Revenue Per User (ARPU) for ISPs:**

The average revenue per user (ARPU) per month for dialup Internet usage was Rs 220/- at the end of March 2008 as compared to Rs 210/- at the end of December 2007 having a growth of 4.76%.

### **3.9 International connectivity:**

The bandwidth owned by various IGSP for their ISP operations and Internet Leased lines is reported to be 47 GB for downlinking and 46 GB for uplinking at the end of March 2008 as compared to 42 GB for downlinking and 41 GB for uplinking at the end of December 2007.

\*\*\*\*\*



## CHAPTER FOUR

### PERFORMANCE OF VALUE ADDED SERVICES

#### 4.1 Public Mobile Radio Trunk Service (PMRTS): -

The subscriber base of PMRTS increased from 34825 in December, 2007 to 36240 in March, 2008 registering a growth rate of 4.06%.

Delhi, Bangalore, Mumbai and Chennai together account for 70.59% of market share of the total subscribers. Operative area Delhi leads the tally with the market share of 9787 subscribers followed by Bangalore, Mumbai and Chennai with the market share of 6772, 5093 and 3907 subscribers respectively.

M/s Arvind Mills Limited leads the tally of subscribers with a subscriber base of 11817 followed by M/s Procall and M/s Quick Calls India Pvt. Ltd. with a subscriber base of 9192 and 4668 respectively. The subscribers base for M/s United Liner is 2100, M/s Aryadoot Transport is 1649, M/s Bhilwara Telenet is 1392, M/s Arya Offshore Services Pvt Ltd is 1368, M/s Jety -Aiu is 511 & M/s India Satcom is 202. There is no change in the subscriber base for the PMRTS operator namely M/s Container Movement Transport Pvt Ltd.

M/s Smarttalk (2449) and M/s German Express (887) have registered a negative growth rate in their subscriber base. The highest negative growth rate in this quarter is reported by M/s German Express which is 5.13% of their subscriber base.

The subscriber base of service providers of PMRTS is given in Table 4.1.

#### 4.2 VSAT services: -

VSAT services are being provided by 9 VSAT Service Providers. M/s Bharat Sanchar Nigam Limited have submitted their first Performance Monitoring Report of VSAT service in this quarter.

In this quarter, there was an addition of 13986 new subscribers. The total number of subscribers increased from 67409 in Dec, 2007 to 81395 in March, 2008, registering a growth of 20.75% as against the growth rate of 3.15% in quarter ended Dec, 2007.

M/s Hughes Communication Limited is the market leader with subscribers base 25464 followed by M/s HCL Comnet with 23050 and M/s Bharti Airtel Limited Bangalore with 18193 VSAT subscribers respectively.

M/s M/s Bharti Airtel Limited has the highest growth rate of 81.58% in this quarter.

M/s ITI is having a negative growth rate of 2.17% in this quarter. The subscriber base of M/s ITI has decreased from 46 in Dec, 2007 to 45 in March, 2008.

M/s GNFC ltd has been reporting the VSAT subscriber as NIL since last December 07 quarter.

Number of VSAT Subscribers has been steadily growing over the last four quarters. Service Providers especially M/s Bharti Airtel Limited, M/s Hughes Communications Ltd., M/s HCL Comnet, M/s Bharti Broadband, M/s Essel Shyam and M/s Tatanet have reported good growth in their Subscriber base in this quarter and is given in Table 4.2.

\*\*\*\*\*

## CHAPTER FIVE

### QUALITY OF SERVICE (QoS) PERFORMANCE

#### 5.1 Quality of Service performance of Wireline Service Operators:

Based on Quality of Service Parameters reported by all the Wireline Service Operators for the quarter ending March 2008, the information on QoS performance is attached to this report at Annex 5.1.

The summary of status of the service providers who have not met the benchmarks in this quarter as compared to previous quarter is given in the Table below:

Sr. No.	Parameters	Benchmark	No. of operators not meeting the benchmarks			
			Dec, 2007		March, 2008	
			Out of 78 (In Nos)	Out of 78 (In %age)	Out of 78 (In Nos)	Out of 78 (In %age)
1	Provision of Telephones after registration of demand	100% within 7 Days	57	73.08%	65	83.33%
2	Fault incidences per 100 subs/month	<5	27	34.62%	25	32.05%
3	Fault repaired by next working day	>90%	16	20.51%	18	23.08%
4	MTRR	<8Hrs	27	34.62%	25	32.05%
5	Grade of Service (Junction between local exchange)	2/1000	1	1.28%	2	2.56%
6	Call Completion Rate (in local network)	>55%	9	11.54%	7	8.97%
7	Metering & billing credibility - % of bills	<0.1%	8	10.26%	5	6.41%
8	Customer Care Service (95% of requests)					
(i)	Shifts	<3 Days	21	26.92%	21	26.92%
(ii)	Closures	<24 hrs.	18	23.08%	7	8.97%
(iii)	Additional Facilities	<24 hrs.	17	21.79%	15	19.23%
9	Response time to the customer for assistance					
(i)	%age of calls answered (electronically)					
	Within 20 sec = 80%	80%	1	1.28%	1	1.28%
	within 40 sec = 95%	95%	1	1.28%	1	1.28%
(ii)	%age of calls answered by operator (voice to voice)					
	Within 60 sec = 80%	80%	9	11.54%	1	1.28%
	within 90 sec = 95%	95%	18	23.08%	9	11.54%
10	Time taken for refund of deposits after closures	100% within 60 days	17	21.79%	8	10.26%

**The parameter wise performance is given as under:**

Parameters	Benchmarks	Service Providers not meeting the benchmarks
Provision of Telephones after registration of demand	100% within 7 Days	<p><b>BSNL</b> = AP (89.01%), GJ (97.20%), Chhatisgarh (89.15%), MH (86.51%), Punjab (99.60%), Raj (99.83%), HR (99.92%), KTK (99.86%), A&amp;N (90.71%), Assam (88.62%), Chennai (99.53%), Jharkhand (98.80%), Kerala (98.37%), Kolkata (99.65%), NE-I (82.20%), Orissa (96.00%), UP-E (98.73%), UP-W (92.79%), Uttranchal (98.97%)</p> <p><b>MTNL</b> = Delhi (99.91%), Mumbai (94.46%)</p> <p><b>Reliance</b> = AP (85.84%), Bihar (93.10%), Delhi (19.35%), GJ (89.25%), MP (89.27%), MH (67.22%), Punjab (92.78%), RJ (78.41%), HR (99.08%), KTK (64.26%), HP (0.00%), Kerala (34.53%), Kolkata (38.87%), Mumbai (17.77%), Orissa (0.14%), UP-E (66.34%), WB (50.00%)</p> <p><b>Bharti</b> = All circles except Haryana</p> <p><b>Tata</b> = AP (90.98%), Delhi (81.16%), GJ (98.67%), MH (79.98%), , PB (98.65%), TN (88.49%), KTK (74.13%), Chennai (91.37%), KR (96.65%), Kolkata (81.36%), Mumbai (84.53%)</p> <p><b>HFCL</b> = Punjab (98.91%)</p> <p><b>Shyam</b> = Rajasthan (98.46%)</p>
Fault incidences per 100 subs/month	<5	<p><b>BSNL</b> = All circles except AP, TN, MP, HP, A&amp;N, Chennai, Jharkhand, Kolkata, NE-I, Orissa</p> <p><b>MTNL</b> = Delhi (6.33), Mumbai (6.79)</p> <p><b>Reliance</b> = UP -E (10.04)</p> <p><b>Bharti</b> = MP (5.90), TN (5.50), UP-E (7.00), UP-W (7.00)</p> <p><b>Tata</b> = Gujarat (5.30)</p>
Fault repaired by next working day	>90%	<p><b>BSNL</b> = Bihar (82.33%), Chhattisgarh (85.16%), MH (87.73%), Punjab (89.28%), A&amp;N (87.25%), Assam (72.64%), HP (89.95%), Jharkhand (88.76%), J&amp;K (73.04%), KR (87.16%), West Bengal (84.97%)</p> <p><b>MTNL</b> = Mumbai (89.95%)</p> <p><b>Reliance</b> =TN (88.21%)</p> <p><b>Bharti</b> = AP (89.60%), Kerala (89.52%)</p> <p><b>Tata</b> = Delhi (77.14%), PB (66.67%), HR (73.17%)</p>
MTTR	<8Hrs	<p><b>BSNL</b> = All circles except GJ, MP, RJ, TN, HR, KTK, A&amp;N, J&amp;K, Orissa, UP-E, UP-W</p>

		and Uttaranchal <b>MTNL</b> = Mumbai (13.11) <b>Bharti</b> = Delhi (8.80 hrs), PB (9.10 hrs), RJ (10.80 hrs), TN (20.96 hrs.), HR (11.00 hrs.), Kolkata (8.70 hrs.), UP-E (10.30 hrs.), UP-W (11.10 hrs) <b>Tata</b> = Delhi (13.90 hrs.), PB (22.61 hrs.) HR (20.08 hrs.)
<b>Grade of Service</b>	<b>(2/1000)</b>	<b>Bharti</b> = Kolkata (0.0030), UP-W (0.0140)
<b>Call Completion Rate (in local network)</b>	<b>&gt;55%</b>	<b>BSNL</b> = MH (53.59%), A&N (50.67%), Jharkhand (52.40%), J&K (50.34%) <b>MTNL</b> = Delhi (49.42%) <b>Bharti</b> = MH (39.73%), KTK (54.27%)
<b>Metering &amp; billing credibility - % of bills</b>	<b>&lt;0.1%</b>	<b>Bharti</b> = AP (0.72%), TN (0.25%), KTK (0.14%), Kerala (0.31%) <b>Tata</b> = Mumbai (0.105%)
<b>Customer Care Service (95% of requests)</b>		
Shifts	<b>&lt;3 Days</b>	<b>BSNL</b> = AP (79.00%), MH (83.00%), A&N (90.00%), Kerala (92.00%), NE-I (90.00%), Orissa (89.00%) and Uttaranchal (94.00%) <b>MTNL</b> = Delhi (92.05%), Mumbai (83.95%) <b>Bharti</b> = MH (94.26%), RJ (86.49%), TN (86.03%), KTK (93.50%), KR (93.32%), Kolkata (93.88%), UP-W (92.81%). <b>Tata</b> = AP (91.95%), Delhi (85.71%), GJ (82.59%), MH (71.51%), KTK (73.33%)
Closures	<b>&lt;24 hrs.</b>	<b>BSNL</b> = AP (91.35%), Bihar (84.54%), MH (93.76%), Assam (93.28%), HP (93.49%), Orissa (94.02%) <b>Reliance</b> = Chennai (94.64%)
Additional Facilities	<b>&lt;24 hrs.</b>	<b>BSNL</b> = AP (84.47%), Bihar (84.70%), A&N (88.50%), Assam (92.35%), J&K (94.82%), NE-I (94.54%) <b>Bharti</b> = AP (93.10%), Delhi (92.89%), MP (89.45%), TN (92.08%), KTK (94.46%), KR (81.76%) <b>Tata</b> = Delhi (94.82%), MH (85.63%), HR (83.33%)
<b>Response time to the customer for assistance</b>		
%age of calls answered electronically		
Within 20 sec = 80%	<b>80%</b>	<b>BSNL</b> - NE-II (73.29%)
Within 40 sec = 95%	<b>95%</b>	<b>BSNL</b> - NE-II (82.00%)
%age of calls answered by operator (voice to voice)		
Within 60 sec = 80%	<b>80%</b>	<b>Bharti</b> - KTK (75%)

within 90 sec = 95%	<b>95%</b>	<b>BSNL</b> = AP (92.47%) <b>MTNL</b> = Mumbai (87.42%) <b>Bharti</b> = AP (90%), KTK (83%) <b>Tata</b> = Delhi (92%), GJ (89%), MH (90%), KTK (93%), Mumbai (93.33%)
<b>Time taken for refund of deposits after closures</b>	<b>100% within 60 days</b>	<b>Bharti</b> = Delhi (96%), MP (99.27%), RJ (92%), UP-E (93%), UP-W (97%) <b>Tata</b> = GJ (94.05), PB (97.71%), HR (93.94)

## 5.2 Quality of Service performance of Wireless Service Providers for quarter ending 31<sup>st</sup> March 2008: -

5.2.1 This report covers performance of 93 GSM and 44 CDMA service operators vis -à-vis the QoS benchmarks prescribed by TRAI. The summary of performance of service providers not meeting the benchmark as compared to previous quarter is given in the table below:

Sr.No.	Parameters	Bench-Marks	No. Of Operators Not Meeting The Benchmarks			
			Quarter Ending Dec. 2007		Quarter Ending March, 2008	
			Out Of 135 (Nos.)	Out Of 135 (in %)	Out Of 134* (Nos.)	Out Of 134* (in %)
1	Accumulated down time of Community isolation	<24 hrs	1	0.74%	0	0.00%
2	Call Set-Up Success Rate (Within Licensee's Own network)	>95%	1	0.74%	2	1.49%
3	Service access delay	<15 Sec	2	1.48%	0	0.00%
4	Blocked call rate (i) SDCCH/paging channel congestion	<1%	5	3.70%	9	6.72%
	(ii) TCH Congestion	<2%	7	5.18%	12	8.96%
5	Call drop rate	<3.0%	0	0.00%	0	0.00%
6	%age of Connections with good voice quality	>95%	5	3.70%	0	0.00%
7	Response time to the customer for assistance %age of calls answered (electronically) within 20 seconds = 80%	80%	0	0.00%	0	0.00%
(i)	%Age of calls answered (electronically) within 40 seconds = 95%	95%	2	1.48%	0	0.00%
(ii)	%Age of calls answered by operator (voice to voice); within 60 seconds = 80%	80%	29	21.46%	22	16.42%
(iii)	%Age of calls answered by operator (voice to voice); within 90 seconds = 95%	95%	61	45.80%	52	38.81%
8	Complaints per 100 bills issued	<0.1%	2	1.48%	6	4.48%
9	% Of complaints resolved with 4 weeks	100%	2	1.48%	1	0.75%
10	Period of all Refunds/Payment due to Customers from the date of resolution of complaints As In (9) above	<4 Weeks	0	0.00%	1	0.75%

NOTE: M/s Bharti Airtel has submitted a combined PMR for TN & Chennai as the Licence of M/s Bharti Aircel Chennai circle has been merged with Tamilnadu circle. The Licence of M/s Reliable Internet Service has been merged with Reliance Telecom Ltd, Kolkata So, total no. of Licences providing PMR is 134.

**The parameter wise performance is given as under:**

Parameters		Service Providers Not Meeting The Benchmarks
Accumulated down time of Community isolation	<24 hrs	<b>All the Operators meeting this Benchmark</b>
Call Set-Up Success Rate (Within Licensee's Own network)	>95%	<b>MTNL - Delhi (83.99) – GSM Service</b> <b>Bharti Airtel - WB (93.80%)</b>
Service Access Delay	<15 sec.	All the Operators meeting this Benchmark
Blocked call rate <b>(i) SDCCH/paging channel congestion</b>	<1%	<b>MTNL - Mumbai (1.61%) – CDMA Service</b> <b>Bharti Airtel – AP (1.31%), Rajasthan (4.14%), Bihar (6.25%), WB (2.66%), NE (1.50%)</b> <b>RTL - Assam (1.64%), NE (1.47%)</b>
<b>(ii) TCH Congestion</b>	<2%	<b>BSNL - Andhra Pradesh (3.03%), Kerala (2.80%)</b> <b>MTNL - Delhi (4.45%) – GSM Service</b> <b>RTL – Assam (4.96%), NE (4.76%)</b> <b>Bharti Airtel - AP(2.84%), Rajasthan (5.11%), Bihar (4.98%), WB (2.19%), NE (2.18%)</b>
Call Drop Rate	<3%	All the Operators meeting this Benchmark
%age of Connections with good voice quality	>95%	All the Operators meeting this Benchmark
Response time to the customer for assistance <b>%age of calls answered (electronically) within 20 seconds = 80%</b>	80%	All the Operators meeting this Benchmark
<b>%Age of calls answered (electronically) within 40 seconds = 95%</b>	95%	All the Operators meeting this Benchmark
<b>%Age of calls answered by operator (voice to voice); within 60 seconds = 80%</b>	80%	<b>BSNL - Raj (79.00%)</b> <b>MTNL - Delhi (25.00%) - GSM Service</b> <b>Bharti Airtel - UP-W (79.00%), UP-E (51.00%), Assam (79.00%), Raj (53.00%)</b> <b>Reliance Comm - AP (64.50%), TN (68.10%), Chennai (73.00%)</b> <b>RTL - HP (78.00%)</b> <b>Tata - Guj (65.70%), AP (73.30%), HR (54.90%), UP-W (40.20%), UP-E (52.30%), RJ (71.60%), MP (66.10%), Delhi (42.10%)</b> <b>Dishnet - WB (67.00%), Bihar (56.31%), Assam (71.73%),</b>
<b>%Age of calls answered by operator (voice to voice); within 90 seconds = 95%</b>	95%	<b>BSNL – Raj (93.00%), Chennai (94.00%), Kolkata (94.00%)</b> <b>MTNL - Delhi (41.00%) – GSM Service</b> <b>Bharti Airtel - Guj.(92.80%), UP-W(86.00%), UP-E (69.00%), Raj (62.00%), MP (86.00%), HP (93.70%), Assam (84.00%), Bihar (94.90%), Orissa (92.10%), NE (89.00%), Mumbai (93.80%)</b> <b>Reliance Comm - AP (72.40%), KTK (87.60%), TN (73.50%), Punjab (86.70%), HR (93.30%), UP-W (92.70%), UP-E (93.50%), HP (86.70%), Chennai (77.90%)</b> <b>Vodafone - UP-W (85.33%)</b> <b>Tata Tele - MH (90.33%), Guj (72.00%), AP (78.90%), KTK (92.30%), TN (90.60%), KR (88.90%), PB (87.00%), HR (59.00%), UP-W (45.00%), UP-E (57.10%), RJ (78.50%), MP (72.80%), WB (86.10%), HP (83.30%), Bihar (85.90%), Orissa (87.90%), Delhi (47.20%), Mumbai (93.33%), Chennai (90.30%), Kolkata (86.70%)</b> <b>Dishnet Wireless - WB (67.00%), Assam (71.73%), Bihar (56.31%), Orissa (91.09%), J&amp;K (93.94%)</b>
Complaints per 100 bills issued	<0.1%	<b>MTNL - Delhi (0.18%) – GSM Service</b>

		Bharti Airtel – Bihar (0.12%), UP-W (0.11%), UP-E (0.20%), Assam (0.20%), NE (0.13%)
% Of complaints resolved within 4 weeks	100%	BSNL- Bihar (99.78%)
Period of all Refunds/Payment due to Customers from the date of resolution of complaints	<4 Weeks	RTL – Kolkata (40 days)

**Some of the Service Providers are having problems in achieving the benchmarks in respect of parameters (i) %age of calls answered by operator (voice to voice); within 60 seconds (ii) %Age of calls answered by operator (voice to voice); within 90 seconds.**

### **5.2.2 Details of Quality of Service Parameters :**

**Detail of performance related to Network Performance, Customer help line and billing complaints are available at Annex 5.2.**



### **5.3 Quality of Service Performance of Internet Service Providers for quarter ending 31<sup>st</sup> March 2008: -**

**5.3.1 Annex 5.3 indicates the Quality of Service achieved by the ISPs during the quarter.**

**5.3.2 The observations on QoS Benchmarks are as follows:**

#### **5.3.2.1 Service Activation Time (6 hrs):**

**All the ISPs have met the TRAI benchmark of 6 hrs. M/s HFCL Infotel Ltd has not provided the data and M/s Broadband Pacenet has not provided the data as per format.**

#### **5.3.2.2 Time to Access ( 30 sec) :**

**All the ISPs have met the TRAI benchmark of 30 sec**

#### **5.3.2.3 Probability of Accessing the ISP Node**

**All the Internet Service Operators have met this benchmark of 80% for first attempt, 90% for second attempt and 99% for third attempt in this quarter. All the ISPs have met the TRAI benchmark.**

#### **5.3.2.4 ISP Node Unavailability ( 30 min):**

**ISP Nodes unavailability should not exceed 30 minutes in a month. All the ISPs have met the TRAI benchmark. M/s HFCL Infotel Ltd and M/s Broadband Pace net have not provided the data.**

#### **5.3.2.5 Grade of Service ( 1 in 100):**

**ISPs are required to maintain the Grade of Service on the link connecting PSTN Node to the ISP Node as 1 in 100. M/s SHYAM INTERNET SERVICES LTD has not met the benchmark of this parameter. M/s Reliance Communication Infrastructure Ltd and M/s Broadband Pace net has not provided the data.**

#### **5.3.2.6 Mean Time to Restore (MTTR) ( 3 days):**

**As per clause 1.9 schedule "C" of ISPs license, ISPs are required to rectify 90% of faults resulting due to subscriber complaint within 24 hours and 99% within three days. All the Operators have met this benchmark.**

## 5.4 Quality of Service Performance of Internet Service Providers providing broadband service for quarter ending 31<sup>st</sup> March 2008

Broadband Regulations came into force with effect from 1<sup>st</sup> Jan 2007. Total number of the Broadband Service providers was 72 in last quarter ending December, 2007. No new service provider is added in this quarter. Total number of subscriber base of all the Broadband service providers is 3872348 in quarter ending March, 2008.

Out of 72 Broadband Service providers only 13 Service Providers are having subscriber base more than 10,000 subscribers and these 13 Service providers share the 98.77% of total subscriber base in this quarter. The total no. of Broadband Subscribers of these 13 Service Providers have increased from 3100720 to 3824955 by adding 7,24,235 (23.35%) subscribers in the quarter ending March, 2008. But the Subscribers Base of M/s Beam Cables has been reduced from 11494 to 3176 in this quarter ending March, 2008 as such, M/s Beam Cables has not been included in this PMR. This report covers performance of 13 broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI.

Broadband Regulations came into force with effect from 1<sup>st</sup> Jan 2007. Based on Quality of Service Parameters reported by Internet Service Providers providing broadband service for the quarter ending March 2008, the information on QoS performance is attached to this report as Annex 5.4.

Following table indicates the status of non-compliance in respect of QoS benchmarks for Internet Service Providers providing broadband service:

Sl. No.	Parameters	Benchmarks	Name of Service Provider not Meeting the Benchmark
1	Service Provisioning/ Activation Time	100% in =< 15 working days	<b>BSNL:-</b> Bihar(98.00%), Chhattisgarh (97.00%), HR (97.00%) HP(98.00%), J&K(98.30%), Jharkhand (99.00%), KTK (64.00%), KR (81.00%), Kolkata (94.00%), MH (78.23%), NE -I(98.24%) NE-II(90.00%), Orissa (90.00%), TN (85.00%), UPW(95.00%), Uttaranchal (77.00%) ,WB(76.00%). <b>A&amp;N (97.00%)</b> <b>MTNL:-</b> Delhi (73.94%), Mumbai(47.80%). <b>Bharti Airtel:-</b> AP(99.04%), KTK(98.00%), MP&CG(98.90%), MH(98.00%), Mumbai (96.40%) TN(94.90%) <b>Tata Communications:-</b> Central Region(99.00%), South1 (99.00%), South 3(88.00%) <b>Hathway:-</b> Guj(94.94%),MH(92.00%). <b>Reliance :-</b> All India (58.00%)
2	Faults Repair /Restoration Time		
	% of faults repaired by next working day	>90%	<b>BSNL:-</b> Bihar(83.00%), Chennai(89.00%), KTK(89.00%), Kolkata(85.00%), MH(84.00%), NE-II(83.00%), Raj(78.00%), WB(74.00%). <b>MTNL:-</b> Delhi (81.10%), Mumbai (79.09%). <b>Bharti Airtel :</b> AP(70.50%), KTK(75.19%) <b>Tata Communications :-</b> Central Region (87.00%), North(86.00%),South1(89.00%), South3(82.00%), West1(87.00%)

			<b>Hathway : Guj(89.33%),MH(88.33%).</b>
	<b>% of faults repaired within 3 working day</b>	<b>=&gt;99%</b>	<b>BSNL:-Assam(97.80), Bihar(98.00%), Jharkhand(98.00%), KTK(97.00%), Kolkata(94.00%), MH(93.00%), Raj(95.00%) MTNL:- Delhi (95.77%), Mumbai(94.58%) Bharti Airtel:- AP(89.52%), KTK(87.73%), MP&amp;CG(98.30%), MH(98.70%), TN(96.68%). Siffy : All India(98.00%) Tata Communications:- Central Region (94.00%), East(97.00%), North(94.00%), South I (97.00%), South 3(93.00%), West I (95.00%), West 2(98.00%) Hathway:- Chennai(98.13%), Guj(97.33%), MH(96.67%), TN(98.87%)</b>
<b>3</b>	<b>Billing Performance</b>		
	<b>%age of bills disputed</b>	<b>&lt;2%</b>	<b>Tata Communications:- North(2.09%), South 3(2.04%), West 1(2.78%)</b>
	<b>%age of billing complaints resolved within 4 weeks</b>	<b>100% within 4 weeks</b>	<b>BSNL:- AP(95.15%), Bihar(96.00%), HP(67.00%), Jharkhand(99.68%), Karnataka(88.00%),Kolkata(98.00%), MH (94.00%), Orissa(93.00%), Raj(92.00%), TN(98.00%) Hathway: MH(99.17%) HFCL Infotel Ltd : Punjab (97.00%)</b>
	<b>%age of cases to whom refund of deposits is made within 60 days of closures</b>	<b>100% within 60 days</b>	<b>BSNL:- AP(99.80%), MH(97.00%), Orissa(83.00%) MTNL:- Delhi (98.84%) Bharti Airtel:- Delhi(93.00%) You Telecom India Pvt. Ltd.: All India (91.38%),AP( 79.36%), Guj(99.45%), HR(93.75%), KTK(98.85%), MH(99.12%), TN (85.71%).</b>
<b>4</b>	<b>Response Time to the Customer for assistance</b>		
	<b>%age of calls answered by operator (Voice to voice) within 60 sec</b>	<b>&gt;60%</b>	<b>BSNL:- KTK(45.00%)</b>
	<b>%age of calls answered by operator (voice to Voice) within 90 sec</b>	<b>&gt;80%</b>	<b>BSNL:- KTK(66.00%) MTNL:- Mumbai(72.98%) Bharti Airtel:- KTK(76.00%)</b>
<b>5</b>	<b>Bandwidth utilisation/throughput</b>		
	<b>No. of Intra network links having Bandwidth utilisation &gt;90% during peak hours (TCBH)</b>		<b>Bharti Airtel:- AP(4 Links), Delhi(5 Links), KTK(4 Links), TN(1 Link) Siffy: All India(2 Links)</b>
	<b>No. of Upstream links for International connectivity having bandwidth utilisation &gt;90% during peak hours (TCBH)</b>		<b>MTNL:- Mumbai (4 Links) Bharti Airtel:- Delhi(1 Link), MP &amp; CG(1 Link), UP(E) (1 Link)</b>
	<b>Broadband Connection Speed available (download) from ISP node to user</b>	<b>&gt;80%</b>	<b>Bharti Airtel:- KTK (0.94%)</b>
<b>6</b>	<b>Service availability /uptime (for all users) in %age</b>	<b>&gt;98%</b>	<b>Tata Comm. Ltd.):- North(97.95%), West 1(96.83%)</b>
<b>7</b>	<b>Packet loss (for wired broadband access) in %age</b>	<b>&lt;1%</b>	<b>Hathway:- HR(1.00%),UP(1.00%)</b>

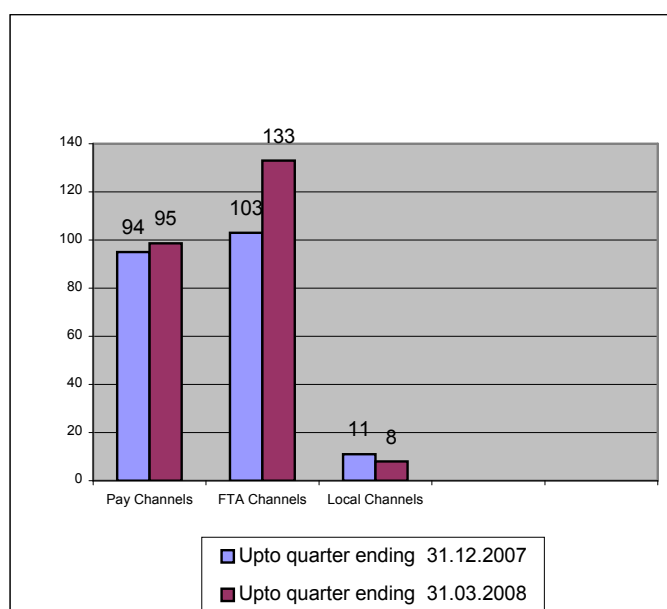
\*\*\*\*\*

## CHAPTER SIX

### PERFORMANCE OF CABLE TV, DTH AND RADIO BROADCASTING SERVICES

**6.1 Cable TV Services** The following figure depicts the maximum number of FTA channels, Pay channels and local channels being carried by the MSOs in their network across the country. The Figure 6.1 is based on the reports received from some of the major service providers regarding the number of channels being carried by them in their networks analogue and/or in digital form. These channels have been reported across different networks of the service providers having different combinations of pay, FTA and Local channels in their network.

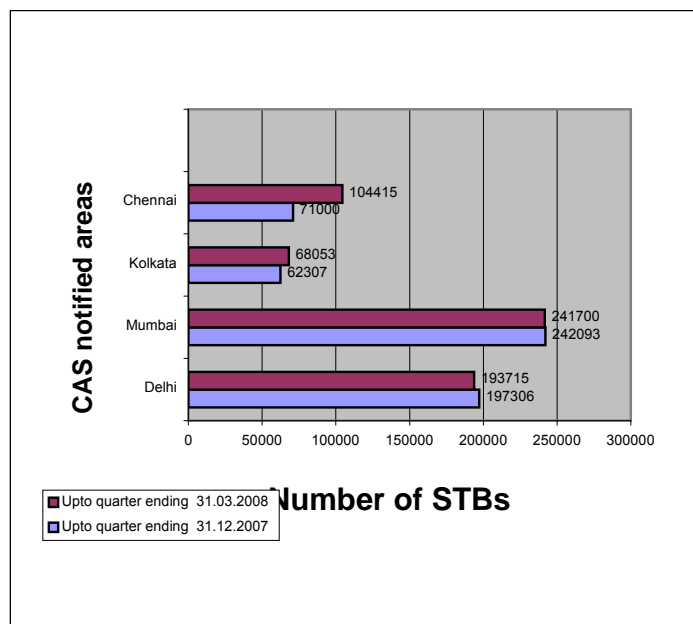
**Figure 6.1 : Maximum Number of Channels**



**6.2** The maximum number of Free-to-Air (FTA) and Pay Channels reportedly being carried in the cable networks are 133 and 95 respectively in this quarter. However, these numbers relate to different networks and hence cannot be added for arriving at the total number of channels.

**6.3** At the end of December, 2007, there are 572706 number of set-top box (STB) installed in CAS notified area of Delhi, Mumbai Kolkata and Chennai. Now, at the quarter ending March 2008, the number has increased to 607883 in the CAS notified areas of Delhi, Mumbai, Kolkata and Chennai. The following Figure 6.2 shows the city-wise status of STBs installed at these four places.

**Figure 6.2 : Set Top Boxes (STBs)**



## Satellite TV Channels

**6.4 At the end of March, 2008, there are reportedly 114 pay channels in existence. These 114 channels are being broadcasted / distributed by 17 broadcasters or their distributors. The list of broadcasters/distributors of pay channels alongwith the rates of pay channels for non-CAS areas is Table 6.1.**

**6.5 In this quarter, 4 pay channels were launched by different broadcasters. The details are as under:-**

S.No	Name of the Broadcaster	Name of the pay channel
1	M/s UTV Global Broadcasting Ltd	World Movies
2	M/s UTV Global Broadcasting Ltd	UTV Movies
3	M/s New Delhi Television Ltd	NDTV Imagine
4	M/s Sahara India TV Network	Firangi

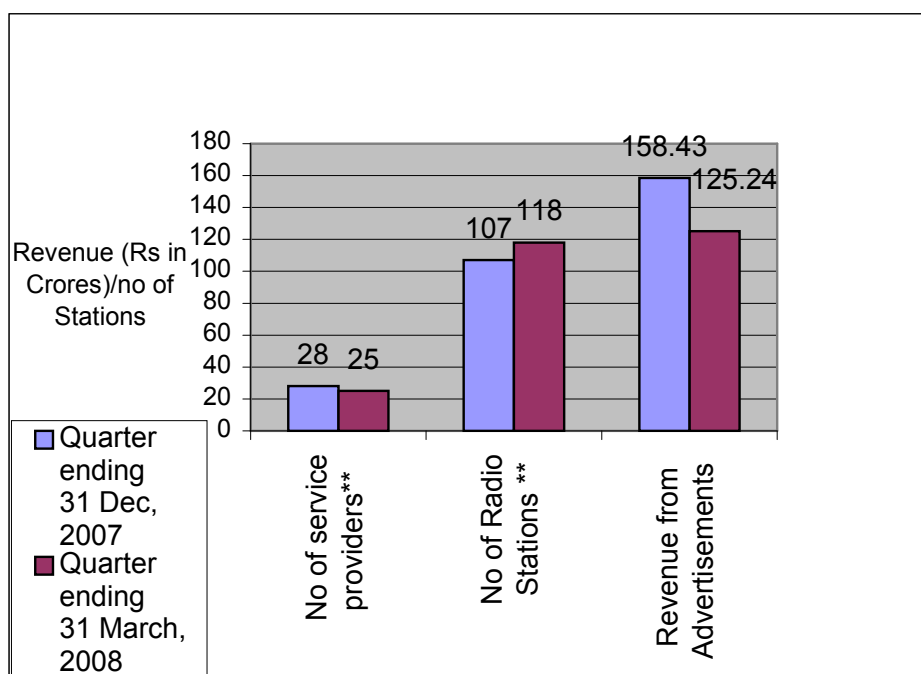
**6.6 The list of new pay channels introduced after 26.12.2003 and list of FTA channels converted into pay channels after 26.12.2003 are also placed at Table 6. 2 and Table 6.3 respectively.**

## FM Radio Services

**6.7** During the quarter, 28 private FM Radio Stations came into operation. Apart from the FM Radio stations of All India Radio, there are 205 private FM Radio stations in operation across the country as on March 31, 2008. The list of these stations is attached as Table 6.4.

**6.8** The total Advertisement Revenue up to the quarter ending December' 07 in respect of 28 FM Radio Service Providers and quarter ending March, 2008 in respect of 25 FM Radio Service Providers who have given their reports is given in the Figure 6.3 below. However, the details do not pertain to the same set of service providers.

**Figure 6.3 : Comparative Position of Revenue of FM Radio Station**

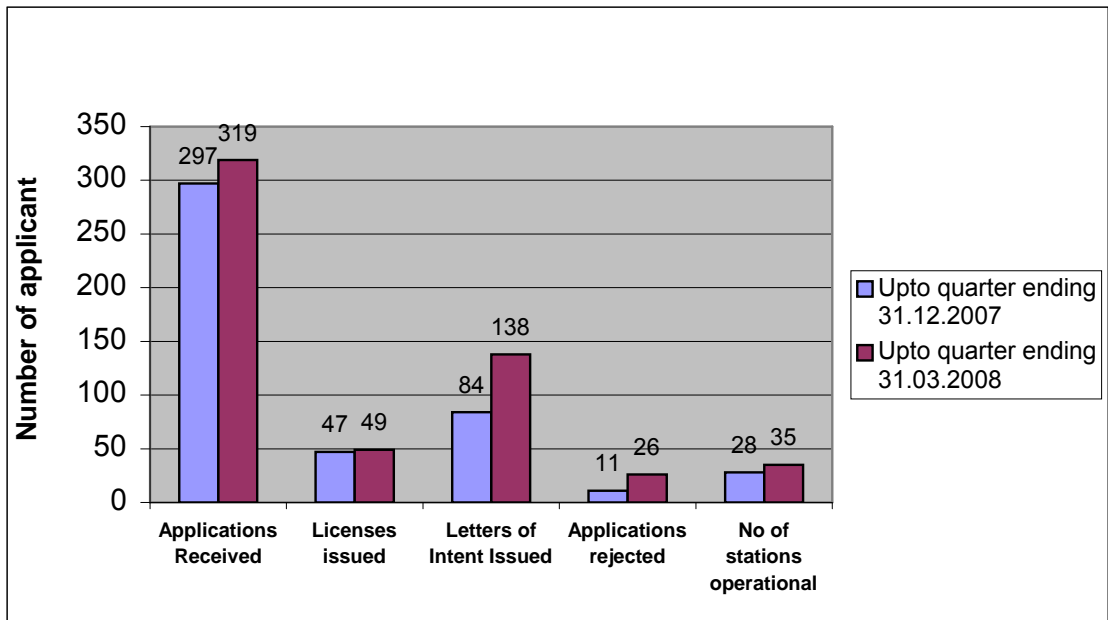


**\*\* Some of the service providers have not reported the advertisement revenue details.**

## Community Radio

**6.9** Upto quarter ending December 2007, there were 47 Community Radio Stations licensees and out of these, 28 were in operation . Now, at the quarter ending March, 2008, out of 49 licensees of community radio stations, 35 stations are in operation. The status of applications for community radio station licenses received in Ministry of Information and Broadcasting upto the end of March 2008 is at Table 6.5. The Figure 6. 4 below gives the status of applications for Community Radio licenses upto the quarter ending March 2008 received by Ministry of Information and Broadcasting: -

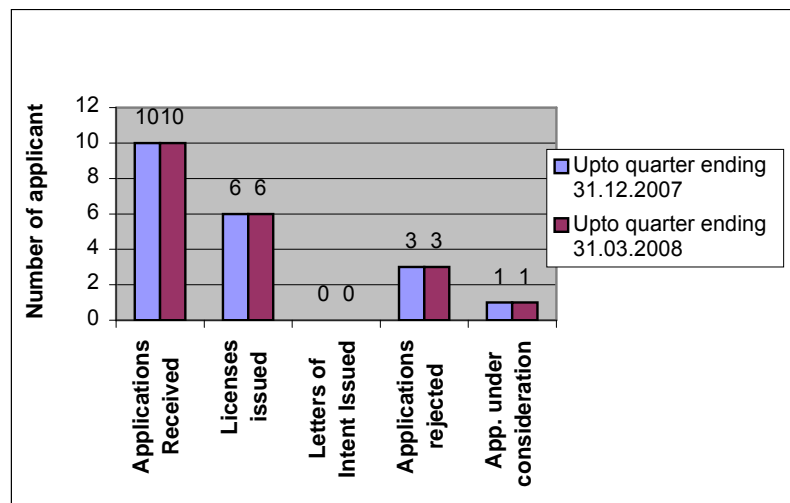
**Figure 6.4 : Status of Community Radio Stations Applications**



## DTH Services

**6.10** No DTH license was issued during this quarter. Therefore, at present, apart from free to air DTH service of Doordarshan, there are 6 private DTH licensees. The **Figure 6. 5** below gives the status of applications for DTH licenses upto the quarter ending March 2008 received by Ministry of Information and Broadcasting: -

**Figure 6.5: Status of DTH Applications**



**6.11** Out of these 6 licensees, only 3 licensees are offering pay DTH services to the customers as on 31.03.2008. The list of DTH licensees is placed at Table 6.6.

\*\*\*\*\*

## CHAPTER SEVEN

### FINANCIAL DETAILS OF TELECOM SERVICE SECTOR

#### 7.1 Revenue of Telecom Service Sector for Quarter Jan-Mar2008(F.Y. 2007-08):

- The Total revenue of the Telecom Services Sector for the I<sup>st</sup> Quarter (April – June 2007) of 2007-08 was Rs. 28,972 Crore, for the II<sup>nd</sup> Quarter (July – September 2007) of 2007-08 was Rs.31,286 Crore and for the III<sup>rd</sup> quarter (October-December 2007) of 2007-08 was Rs.33,055 Crores thereby showing a growth of 5.66%. The total revenue for IV<sup>th</sup> Quarter (January -March2008) of 2007-08 was Rs.35,770 Crores thereby showing a growth of 8.21%.
- The total revenue of the public sector operators for the I<sup>st</sup> and II<sup>nd</sup> Quarter of 2007-08 was Rs.9510 Crore and Rs.10717 Crore respectively, showing a growth of 11% and for the III<sup>rd</sup> Quarter of 2007-08 was Rs.10789 Crores showing a growth of 0.67%. For the IV<sup>th</sup> Quarter of 2007-08 was Rs.12233 showing a growth of 13.38%.
- The revenue contribution from the public sector operators for the Ist, IInd , III<sup>rd</sup> & IV<sup>th</sup> Quarter was 33%, 34% , 33% & 34%.
- The total revenue contribution from the private sector operators for the Ist , IInd & III<sup>rd</sup> quarter of 2007-08 was Rs.19462 Crore, Rs.20,569 Crore & 22,266 Crores respectively, showing a growth of 5% & 8.26% For the IV<sup>th</sup> Quarter of 2007-08 was Rs. 23,537 Crores showing a growth of 5.71%.
- The revenue contribution from the private sector operators for the Ist , IInd , III<sup>rd</sup> & IV<sup>th</sup> Quarter was 67% , 66% , 67% & 66% respectively.
- The AGR of the Telecom Services Sector for the Ist Quarter 2007-08 was Rs.22,868 Crore and for the IInd Quarter of 2007-08 was Rs.24,866 Crore there by showing a growth of 8.74% and for the III<sup>rd</sup> Quarter of 2007-08 was Rs.25,906 Crores thereby showing a growth of 4.18%. For the IV<sup>th</sup> Quarter of 2007-08 was Rs.27,845 Crores there by showing a growth of 7.48%.
- The AGR of the public sector operators for the I<sup>st</sup>, II<sup>nd</sup> & III<sup>rd</sup> Quarter of 2007-08 was Rs.8,539 Crore, Rs.9,753 Crore & Rs.9,810 crores respectively, showing a growth of 14.22% & 0.58%. For the IV<sup>th</sup> Quarter of 2007-08 was Rs.10,417 crores showing a growth of 6.19%.
- The AGR share of public sector operators for the II<sup>nd</sup> Quarter of 2007-08 was 39% as against 37% in the I<sup>st</sup> Quarter of 2007-08. For the III<sup>rd</sup> & IV<sup>th</sup> Quarter of 2007-08 was 38% respectively.
- The AGR contribution from the private sector operators for the Ist, IInd & III<sup>rd</sup> quarter of 2007-08 was Rs. 14,329 Crore, Rs. 15,113 Crore & Rs.16,095 Crores respectively, showing a growth of 5.47% & 6.50%. For the IV<sup>th</sup> Quarter of 2007-08 was Rs.17,427 crores showing a growth of 8.28%.



- The AGR share of private sector operators for the II<sup>nd</sup> Quarter of 2007-08 was 61% as against 63% in the I<sup>st</sup> Quarter of 2007-08. For the III<sup>rd</sup> & IV<sup>th</sup> Quarter of 2007-08 was 62% respectively.

<b>Total Revenue of Telecom Service Providers (Rs. in Crore)</b>				
<b>Particulars</b>	<b>I<sup>st</sup> Quarter of 2007- 08</b>	<b>II<sup>nd</sup> Quarter of 2007-08</b>	<b>III<sup>rd</sup> Quarter of 2007-08</b>	<b>IV<sup>th</sup> Quarter of 2007- 08</b>
<b>Total Revenue</b>	<b>28,972</b>	<b>31,286</b>	<b>33,055</b>	<b>35,770</b>
<b>Share of public sector operators in total revenue</b>	<b>9,510</b>	<b>10,717</b>	<b>10,789</b>	<b>12,233</b>
<b>Share of private sector operators in total revenue</b>	<b>19,462</b>	<b>20,569</b>	<b>22,266</b>	<b>23,537</b>
<b>Contribution of public sector operators in total revenue</b>	<b>33%</b>	<b>34%</b>	<b>33%</b>	<b>34%</b>
<b>Contribution of private sector operators in total revenue</b>	<b>67%</b>	<b>66%</b>	<b>67%</b>	<b>66%</b>
<b>Total AGR</b>	<b>22,868</b>	<b>24,866</b>	<b>25,906</b>	<b>27,845</b>
<b>Share of public sector operators in total AGR</b>	<b>8,539</b>	<b>9,753</b>	<b>9,810</b>	<b>10,417</b>
<b>Share of private sector operators in total AGR</b>	<b>14,329</b>	<b>15,113</b>	<b>16,095</b>	<b>17,427</b>
<b>Contribution of public sector operators in total AGR</b>	<b>37%</b>	<b>39%</b>	<b>38%</b>	<b>38%</b>
<b>Contribution of private sector operators in total AGR</b>	<b>63%</b>	<b>61%</b>	<b>62%</b>	<b>62%</b>
<i>Source: Un-audited figures submitted by the Operators.</i>				

\*\*\*\*\*

**Table 1.1****Subscriber Base of Wireline Services as on 31st December 2007**

Sl. No.	FSO	Area of Operation	31st December 2007			31st March 2008		
			Urban	Rural	Total	Urban	Rural	Total
1	BSNL	All India	19973178	11738041	31711219	19939639	11612657	31552296
2	MTNL	Delhi & Mumbai	3597029	0	3597029	3678370	0	3678370
3	Bharti Airtel Ltd	Andhra Pradesh, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Punjab, Rajasthan, Tamilnadu (included Chennai circle), UP-East, UP-West (including Uttaranchal) and West Bengal.	2178175	0	2178175	2283326	0	2283326
4	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Mumbai	368537	182	368719	389322	11461	400783
5	Tata Teleservices Ltd	AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	303706	0	303706	322167	1	322168
6	HFCL Infotel Ltd	Punjab	153767	0	153767	147595	0	147595
7	Shyam Telelink Ltd	Rajasthan	144184	14598	158782	143262	14194	157456
8	Reliance Communication Ltd	AP, Bihar, Delhi, Gujarat, Haryana, HP, KN, Kerala, MP, MH, Mumbai, Orissa, Punjab, Rajasthan, TN Chennai UP(E), UP(W), WB, Kolkata	780526	448	780974	873442	527	873969
<b>Grand Total</b>			<b>27499102</b>	<b>11753269</b>	<b>39252371</b>	<b>27777123</b>	<b>11638840</b>	<b>39415963</b>

**Table 1.2****Details of Public Call Offices (PCO)**

<b>Public Call Office</b>				
<b>S.No</b>	<b>Service Providers</b>	<b>Area of Operation</b>	<b>PCOs as on 31.03.08</b>	<b>PCOs added during the quarter ending 31.03.08</b>
1	BSNL	All India	2051518	32065
2	MTNL	Delhi & Mumbai	239335	-3053
3	Bharti Airtel Ltd.	Andhra Pradesh, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Punjab, Rajasthan, Tamilnadu (included Chennai circle), UP -East, UP-West (including Uttaranchal) and West Bengal.	202450	-1575
4	HFCL Infotel Ltd.	Punjab	36794	-3471
5	TATA Teleservices Ltd.	Maharashtra, Mumbai ,AP, TN, Chennai, Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	1568607	113654
6	Reliance Communications Ltd.	Karnataka, Gujarat, Delhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	2045500	148116
7	Shyam Telelink Ltd.	Rajasthan	41700	-1853
<b>TOTAL</b>			<b>6185904</b>	<b>283883</b>

**Table 1.3****Details of Village Public Telephones (VPT)**

<b>VILLAGE PUBLIC TELEPHONES</b>				
<b>S.No</b>	<b>Service Providers</b>	<b>Area of Operation</b>	<b>VPTs as on 31.03.08</b>	<b>Achievement during the Qtr. ending 31.03.08</b>
1	BSNL	All India	519616	1547
2	MTNL	Delhi & Mumbai	0	0
3	Bharti Airtel Ltd.	Andhra Pradesh, Delhi, Gujarat, Haryana, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Punjab, Rajasthan, Tamilnadu (included Chennai circle), UP-East, UP-West (including Uttaranchal) and West Bengal.	0	0
4	HFCL Infotel Ltd.	Punjab	299	-18
5	Tata Teleservices (Maharashtra) Ltd.	Maharashtra & Mumbai	2542	0
6	TATA Teleservices Ltd.	AP, TN, Chennai, Karnataka, Gujarat, De lhi, Bihar, Orissa, Rajasthan, Punjab, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, U.P. (E), U.P (W) including Uttaranchal, West Bengal and Kolkata	29921	27847
7	Reliance Communications Ltd.	AP, Bihar, Delhi, Gujarat, Haryana,HP, Karnataka, Kerala, MP, Maharashtra, Mumbai Orissa, Punjab, Rajasthan, TN, Chennai, UP(E), UP(W),West Bengal Kolkata	4115	0
8	Shyam Telelink Ltd.	Rajasthan	3010	0
<b>TOTAL</b>			<b>559503</b>	<b>29376</b>

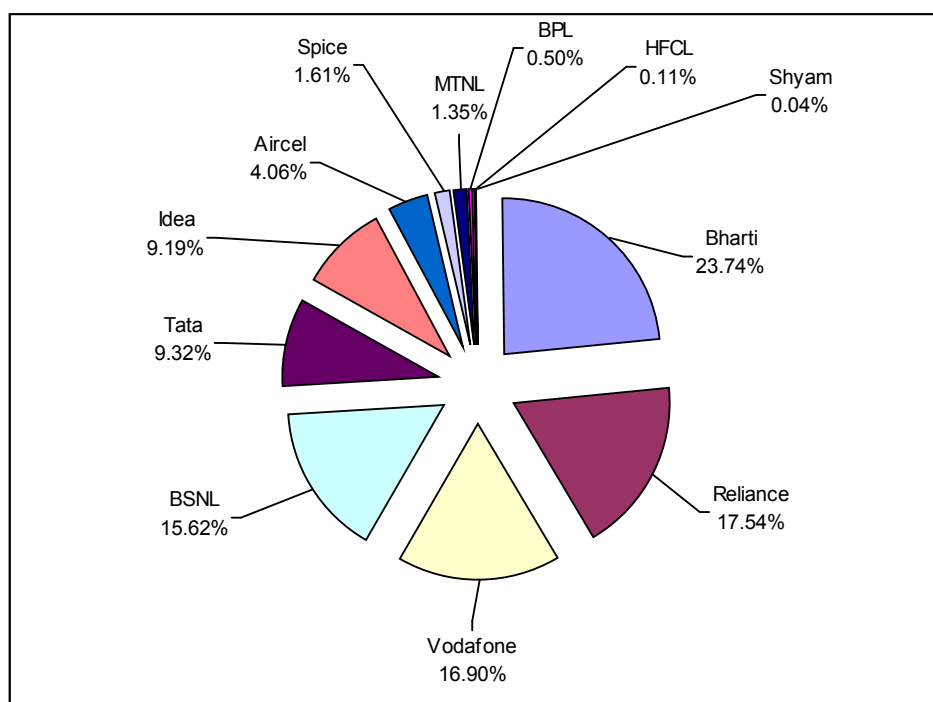
(Note: the total number of villages in India has been shown as per census 2001(as reported by BSNL). In census, 1991, total number of villages were **607491** which have been reduced to **593485** as per census 2001).

**Table 2.1**

**Subscriber Base of Wireless Operators**

Wireless Group (With number of Circle)	Subscribers Base as on Mar 08 (in Millions)	Rural Subscribers (in millions)	Percentage of rural subscribers	Market Share (in %age) Of Internet Subscribers	Technology used
<b>Bharti (23)</b>	61.98	15.76	25.43	23.74%	<b>GSM</b>
<b>Reliance (23)</b>	45.79	8.95	19.53	17.54%	<b>GSM &amp; CDMA</b>
<b>Vodafone/Hutchison(16)</b>	44.13	13.14	29.77	16.90%	<b>GSM</b>
<b>BSNL (21)</b>	40.79	13.74	33.69	15.62%	<b>GSM &amp; CDMA</b>
<b>Tata (20)</b>	24.33	1.55	6.37	9.32%	<b>CDMA</b>
<b>Idea (11)</b>	24.00	5.40	22.49	9.19%	<b>GSM</b>
<b>Aircel (9)</b>	10.61	3.29	30.99	4.06%	<b>GSM</b>
<b>Spice (2)</b>	4.21	0.46	8.79	1.61%	<b>GSM</b>
<b>MTNL (2)</b>	3.53	0.00	0	1.35%	<b>GSM &amp; CDMA</b>
<b>BPL (1)</b>	1.29	0.00	0	0.50%	<b>GSM</b>
<b>HFCL (1)</b>	0.30	0.002	0.70	0.11%	<b>CDMA</b>
<b>Shyam (1)</b>	0.11	0.001	0.55	0.04%	<b>CDMA</b>
<b>Total</b>	<b>261.07</b>	<b>62.28</b>	<b>23.86</b>	<b>100</b>	

**Market Share of Wireless Service Providers as on 31<sup>st</sup> March 2008**



**Table 2.2****Market Share of Wireless (GSM + CDMA) Operators****a) The market share of different GSM Service Providers is given below:**

<b>GSM Group</b>	<b>No of Subscribers (in Millions)</b>	<b>Market Share (in %age)</b>
Bharti	61.98	<b>32.16</b>
Vodafone	44.13	<b>22.90</b>
BSNL	36.21	<b>18.79</b>
Idea	24.00	<b>12.46</b>
Aircel	10.61	<b>5.51</b>
Reliance	7.02	<b>3.64</b>
Spice	4.21	<b>2.18</b>
MTNL	3.24	<b>1.68</b>
BPL	1.29	<b>0.67</b>
Total	<b>192.70</b>	

Source: Service Providers

**b) The market share of different CDMA Service Providers is given below:**

<b>Company Name</b>	<b>No of Subscribers (in Millions)</b>	<b>Market Share (in %age)</b>
Reliance Infocomm	38.78	56.72
Tata Teleservices	24.33	35.59
BSNL	4.58	6.70
MTNL	0.28	0.41
HFCL	0.30	0.44
Shyam Telelink	0.11	0.16
Total	<b>68.37</b>	

Source: Service Providers

**Table 2.3**

**Growth Pattern of Wireless Subscribers Base**

**Wireless Subscriber Base:**

➤ The market share distribution among Metros & Circles A to C is given below:

<b>Circle</b>	<b>No. of Subscribers</b>	<b>Market Share</b>
<b>Metros</b>	<b>44.81 million</b>	<b>17.16%</b>
<b>Circles 'A'</b>	<b>93.95 million</b>	<b>35.99%</b>
<b>Circles 'B'</b>	<b>95.09 million</b>	<b>36.42%</b>
<b>Circles 'C'</b>	<b>27.22 million</b>	<b>10.43%</b>

➤ The details of subscriber base in various categories of service areas for the last four quarters are given below:

Category	No. of Service Areas	June'07	Sept.'07	Dec.'07	Mar'08	% Growth in Dec.'08
		Figures (in millions)				
Metros	4	34.06	37.71	41.47	44.81	8.06
A' Circle	5	65.92	75.065	84.11	93.95	11.70
B' Circle	8	66.63	75.79	84.80	95.09	12.13
C' Circle	6	18.31	20.51	23.24	27.22	17.14

**Growth Trend of Wireless Subscribers**

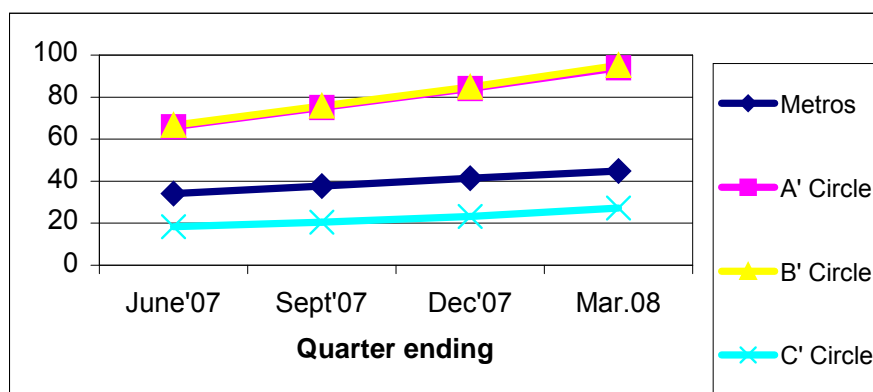


Table 3.1

**Subscribers Base of Internet Services**

Sl No.	Name of the Service Provider	Category	Geographical area of operation	Quarter ending Mar-08	Quarter ending Dec-07	% Growth
1	Bharat Sanchar Nigam Ltd.	A	All India	5640191	4992485	12.97
2	Mahanagar Telephone Nigam Ltd.	B	Delhi & Mumbai	1899747	1851291	2.62
3	Bharti Airtel Ltd. (Bharti Televentures Ltd.)	A	All India	815360	753754	8.17
4	Reliance Communications Infrastructure Limited	A	All India	696440	628832	10.75
5	Sify Technologies Ltd.	A	All India	576047	707609	-18.59
6	Tata Communications Limited (Videsh Sanchar Nigam Ltd.)	A	All India	448146	459430	-2.46
7	Hathway Cable & Datacom Pvt. Ltd.	A	All India	201212	175671	14.54
8	Data Infosys Ltd.	A	All India	199854	199854	0.00
9	YOU Telecom India Pvt. Ltd.	A	All India	185450	177810	4.30
10	Asianet Satellite Communicatio ns Ltd.	B	Kerala	55435	52428	5.74
11	HFCL Infotel Ltd.	B	Punjab Telecom Circle	46602	43689	6.67
12	HCL Infinet Ltd.	A	All India	42600	42490	0.26
13	Punj Lloyd (Spectra Net Ltd.)	A	All India	31116	28650	8.61
14	Shyam Internet Services Ltd	B	Rajasthan	25523	25465	0.23
15	Beam Cable System Pvt. Ltd.	B	Andhra Pardesh	24387	22720	7.34
16	Tata Teleservices (Maharashtra) Ltd. (Hughes Telecom)	A	All India	22606	18945	19.32
17	Hughes Communications India Ltd.	A	All India	22504	19891	13.14
18	Ortel Communication Ltd.	B	Orissa	19329	17860	8.23
19	Vodafone Essar Gujarat Ltd. (Fascel Ltd.)	B	Gujarat	18001	18001	0.00
20	Alliance Broadband Services Pvt. Ltd.	B	Kolkata	13903	11980	16.05
21	Broadband Pacenet (I) Pvt. Ltd.	A	Mumbai	12470	12999	-4.07
22	In2cable (I) Ltd.	A	All India	9206	8304	10.86
23	West Bengal Electronics Industry Development Corp. Ltd.	B	Kolkata, WB	6710	7917	-15.25
24	Swiftmail Communications Ltd.*	A	All India	6456	6456	0.00
25	Trikon Electronics Pvt. Ltd.	B	Mumbai	6016	5881	2.30
26	Ankhnet Informations Pvt. Ltd.	B	Mumbai	5465	5816	-6.04
27	Rajesh Multi Channel Pvt. Ltd.	B	Mumbai	4737	3577	32.43
28	Trak Online Net India Pvt.Ltd	A	All India	4580	4958	-7.62
29	WWW Communications Ltd.	B	Delhi	4198	4155	1.03
30	VSNL Internet Services Ltd. (DIL Internet Ltd.(Primus Telecommunications))	A	All India	3791	8368	-54.70
31	Spacenet Internet Services Pvt Ltd	B	Delhi	3559	3136	13.49
32	HCL Comnet Systems & Services Ltd.	A	All India	3243	3236	0.22
33	Wire & Wireless (I) Ltd. (Siti Cable Network Ltd)	A	All India	3096	3485	-11.16
34	Hathway Bhawani Cabletel & Datacom Pvt. Ltd.	B	Mumbai	2499	2273	9.94
35	Geocity Network Solutions Pvt. Ltd.	B	Delhi	2008	2126	-5.55
36	Bhupati Hotels Pvt Ltd	C	Visakhapatnam	1904	1586	20.05
37	CJM Consultancy Services Pvt. Ltd.	B	Delhi	1618	1305	23.98
38	Value Healthcare Ltd.	B	Mumbai	1598	1527	4.65



39	Icenet.net Limited*	B	Gujarat	1490	1490	0.00
40	Star Broadband Services (I) Pvt Ltd*	B	Delhi	1407	1407	0.00
41	Dishnet Wireless Ltd.	A	All India	1329	890	49.33
42	Broadlane Networks Pvt. Ltd.	C	Dombivli, Maharashtra	1249	1112	12.32
43	Cable Combine Communication Pvt. Ltd.	C	Siliguri SSA	1235	1121	10.17
44	Digital2Virtual ISP Pvt. Ltd.	B	Gujarat	1046	1125	-7.02
45	Space Online Ltd	B	Gujarat	1023		
46	ERNET India	A	All India	1020	1016	0.39
47	Kelnet Communication Services Pvt. Ltd	C	Trivandrum	993	1142	-13.05
48	Tulip IT Services Ltd.	A	All India	920	890	3.37
49	Pioneer eLabs Ltd (Pioneer Online Pvt. Ltd)	B	Andhra Pradesh	908	2591	-64.96
50	North East Dataa Network Pvt Ltd	B	Karnataka	883	1001	-11.79
51	Sanchar Telenetwork Pvt Ltd	C	Bhavnagar SSA	880		
52	Rajesh Patel Net Services Pvt. Ltd.	C	Indore(MP)	851		
53	Blazenet Ltd.*	B	Gujarat	834	834	0.00
54	ISP Solutions India Pvt. Ltd.	C	Coimbatore SSA	748	743	0.67
55	Sab Industires Ltd. (Sab Infotech)	B,C	Punjab, Karnal, Ambala, Hisar	655	1019	-35.72
56	Gomti Cable Network Pvt. Ltd.*	C	Lucknow SSA	631	631	
57	Southern Online Bio Technologies Ltd.	B	Andhra Pradesh	594	621	-4.35
58	Software Technology Park of India (STPI)	A	All India	588		
59	Speed Online.net Pvt. Ltd.	C	Rajkot	529	490	7.96
60	Ice Network Private Limited	B	Bangalore	527	589	-10.53
61	NetMagic Solutions(P) Ltd.	A	All India	523	464	12.72
62	Quest Consultancy Pvt. Ltd.	C	Valsad SSA	495	513	-3.51
63	F/X Wireless Technology Solutions Pvt Ltd	B	Mumbai	469	393	19.34
64	Bohra Pratisthan Pvt. Ltd.	C	Udaipur SSA	460	528	-12.88
65	Amber Online Services Ltd.*	B	Andhra Pradesh	453	453	
66	iPath India Pvt. Ltd.	C	Ernakulam SSA	442	502	-11.95
67	Bhiwani Communications Pvt. Ltd.	C	Rohtak	408	373	9.38
68	Rida Communication Pvt. Ltd.	C	Aligarh SSA	360	372	-3.23
69	delDSL Internet Pvt Ltd	B & C	Delhi & Gurgaon	335		
70	Micky Online Pvt Ltd.	C	Moradabad	310	350	-11.43
71	Multinet (Udaipur) Pvt. Ltd.	C	Udaipur SSA	283	308	-8.12
72	Netcom Online Solutions India Pvt Ltd	B	Tamil Nadu	268	253	5.93
73	Khetan Cable Network (P) Ltd	C	Indore SSA	263	265	-0.75
74	Karuturi Networks Ltd.*	B	Karnataka	230	230	
75	Rainbow Communications (India) Pvt Ltd	C	Salem SSA	228		
76	Pacific Internet India Pvt. Ltd.	A	All India	222	208	6.73
77	Eastern Teleservices Pvt Ltd	C	Jamshedpur SSA	211	192	9.90
78	Atria Convergence Technologies Pvt. Ltd.*	B	Karnataka	202	202	
79	Descon Ltd.	B&C	Kolkata & Burdwan District	197	137	43.80
80	Quick Online Pvt. Ltd.	C	Ghaziabad SSA	194	199	-2.51
81	Verizon Communications India Pvt. Ltd. (Worldcom Communications )	A	All India	193	192	0.52
82	Mynet Services India Pvt. Ltd.	C	Tamil Nadu SSA	186	165	12.73
83	Vainavi Industries Ltd. (MAC Info Pvt. Ltd.)	B	Andhra	175	150	16.67

			<b>Pradesh</b>			
84	BT Global Communications India Pvt. Ltd. (i2i Enterprise Ltd.)	A	All India	165	169	-2.37
85	Primenet Global Ltd.	A	All India	150	161	-6.83
86	R.S. Broadband Service Pvt Ltd *	B	Tamil Nadu SSA	144	144	
87	City Online Services Ltd.	B	Andhra Pradesh & Karnataka	123	106	16.04
88	Aeroway Networks Pvt Ltd	C	Mysore SSA	116		
89	DCT Networks Pvt Ltd (Manipal Software Pvt. Ltd.)	A	All India	106	91	16.48
90	Guj Info Petro Ltd. (GIPL)	A	Gujarat	106	103	2.91
91	Reach Network India Pvt. Ltd.	A	All India	95	83	14.46
92	World Phone Internet Services Pvt LTD	A	All India	84	58	44.83
93	Tarang Communications Pvt. Ltd.	C	Guwahati SSA	83		
94	Karuturi Telecom Private Limited(Estel Communications Pvt. Ltd).	A	All India	80	81	-1.23
95	Readylink Internet Services Corai Pvt Ltd*	C	Coimbatore SSA	79	79	
96	Shri Vinayagaa Internet Pvt Ltd	C	Madurai SSA	76	76	
97	Adya Tech One Services Pvt Ltd*	C	Ghaziabad SSA	73	73	
98	Mylai Karpagambal Information Systems (P) Ltd.	B	Chennai	69	76	-9.21
99	ISP Services (India) Pvt. Ltd.	C	Trichy	68	68	
100	Harisree Cable Net Pvt. Ltd.	C	Kanpur SSA	68	119	-42.86
101	Konark Infocomm Pvt Ltd	C	Ghaziabad SSA	62	62	
102	Nettlinx Ltd.	B	Andhra Pradesh	61	47	29.79
103	STN Communication & Advertising Pvt Ltd.	C	Guwahati	56	52	7.69
104	Bharti Broadband Ltd	A	ALL INDIA	54	54	
105	Gateway Systems (I) Ltd.	A	All India	53	71	-25.35
106	Nextgen Communications Ltd (RPG Infotech Ltd. (Sprint RPG India))	A	All India	53		
107	Swastik Netvision Telecom P. Ltd.	B	Gujarat	37	33	12.12
108	Eronet Broadband Service India Pvt. Ltd.*	C	Erode	37	37	
109	CJ Online Pvt. Ltd.	C	Ghaziabad	31	28	10.71
110	Maple PC & Peripherals Pvt Ltd	C	Jamshedpur SSA	31	54	-42.59
111	Conjoinix Technologies Pvt Ltd	C	J&K, Chandigarh	26	31	-16.13
112	Kerala State Electronics Development Corp. Ltd.(Keltron)	C	Thiruvananthapuram	25	185	-86.49
113	Chemical And Metallurgical Design Co. Ltd	B	Delhi	24	23	4.35
114	Nelco Ltd.*	A	All India	23	23	
115	Online Media Solutions Ltd.	B	Andhra Pradesh	22	22	
116	Global One India Pvt Ltd	A	All India	21	27	-22.22
117	United Villages Networks Pvt Ltd	C	Bhuvaneshwar	16		
118	Pulse Telesystems Pvt. Ltd.	B & C	Chennai & Pondicherry	11	7	57.14
119	Centre for Development of Advanced Computing, C-DAC	C	Ghaziabad SSA	11	11	
120	Virtela India Pvt. Ltd.	B&C	Mumbai, Bangalore, Gurgaon	11	12	-8.33
121	Direct Internet Ltd.	B&C	Delhi, Gurgaon, Noida	10	10	
122	My Own Infotech Pvt. Ltd.	C	Surat SSA	10		

123	Power Grid Corporation of India Ltd.	A	All India	10	10	
124	GTL Ltd.	A	All India	8	8	
125	Godrej Infotech Ltd.*	B	Mumbai	7	7	
126	Tata Internet Services Ltd.	A	All India	6	6	
127	Pan India Network Infravest Pvt. Ltd. (Cyquator Technologies Ltd.)	B	Mumbai, Navi Mumbai	5	5	
128	ABT Ltd.	C	Coimbatore SSA	4	4	
129	National Stock Exchange of India Ltd	A	ALL INDIA	3	3	
130	Manipal Ecommerce Ltd.*	B	Karnataka	3	3	
131	Opto Network Pvt. Ltd.	A	All India	2	2	
132	Compucom (I) Pvt. Ltd.	C	Jaipur	2	2	
133	Apna Telelink Ltd.	C	Jalandhar	1	0	
134	L&T Finance Ltd. (L&T Netcom Ltd.)	A	All India	1	19	-94.74
135	Spectrum Softech Solutions Pvt. Ltd.	C	Ernakulam SSA	0	0	
136	Gujrat Narmada Valley Fertilizer Co. Ltd. (GNFC)	A	All India	0	0	
137	VSNL Broadband Ltd.	A	All India	0	0	
138	Gujarat State Petroleum Corporation Ltd. (GSPC)	B	Gujarat	0	0	
	<b>TOTAL</b>			<b>11097499</b>	<b>10363466</b>	<b>7.08</b>

**Table 4.1****Subscriber Base of Public Mobile Radio Trunking Services (PMRTS )**

<b>Sr. No.</b>	<b>Name of the Service Provider</b>	<b>Subscriber Base as on 31.12.2007</b>	<b>Subscriber Base as on 31.03.2008</b>	<b>%age Growth in Subscribers</b>	<b>%age in Market Share</b>
1	Aryadoot Transport Pvt Limited	1574	1649	4.76	4.55
2	Jet-Aiu Skyline Transport Pvt Ltd.	456	511	12.06	1.41
3	Container Movement (Bombay) Transport Pvt Ltd.	5	5	0.00	0.01
4	Arya Offshore Services Pvt Ltd.	1319	1368	3.71	3.77
5	German Express Shipping Agency (India) Pvt Ltd. (Hapag Llyod)	935	887	-5.13	2.45
6	United Liner Agencies of India (Pvt) Ltd	1975	2100	6.33	5.79
7	Procall Limited	9141	9192	0.56	25.36
8	The Arvind Mills Ltd.	10833	11817	9.08	32.61
9	Smartalk Pvt Limited	2507	2449	-2.31	6.76
10	QuickCall	4578	4668	1.97	12.88
11	Bhilwara Telenet Services Pvt Limited	1322	1392	5.30	3.84
12	India Satcom Ltd.	180	202	12.22	0.56
	<b>Total</b>	<b>34825</b>	<b>36240</b>	<b>4.06</b>	<b>100.00</b>

**Table 4.2****Subscriber Base of VSAT Service Providers**

S.No	Name of Service Provider	Quarter ending		%age growth rate	%age Market Share
		Dec,2007	March,2008		
1	Hughes Communications Ltd.	22416	25464	13.60	31.28
2	HCL Comnet	22416	23050	2.83	28.32
3	Bharti Airtel Limited, Bangalore	10019	18193	81.58	22.35
4	Bharti Broadband	5155	5276	2.35	6.48
5	Essel Shyam	2487	2647	6.43	3.25
6	Tatanet Services	4870	5069	4.09	6.23
7	ITI	46	45	-2.17	0.06
8	GNFC	0	0	0.00	0.00
9.	BSNL	---	1651	NA	2.03
	<b>Total</b>	<b>67409</b>	<b>81395</b>	<b>20.75</b>	<b>100.00</b>

**Table 6.1****List of Broadcasters alongwith their pay channels**

<i>S. No</i>	<i>Name of the Broadcaster</i>	<i>S.No</i>	<i>Name of the channel</i>	<i>Reported Rates( in INR)</i>	<i>Remarks</i>
1	M/s Zee-Turner Limited	1	Zee TV	13.10	
		2	Zee Cinema	13.10	
		3	Cartoon Network	12.50	
		4	Zee Marathi	08.00	
		5	CNBC TV 18	07.50	This channel was reported as distributed upto 31.03.2008.
		6	Zee News	07.50	
		7	CNN	01.50	
		8	Zee Café	08.00	
		9	Zee Studios	07.00	
		10	Zee Bangla	08.10	
		11	Zee Gujrathi	01.50	
		12	Zee Punjabi	01.50	
		13	Zee Trendz	01.00	
		14	Reality TV	01.50	
		15	HBO	15.60	
		16	POGO	12.50	
		17	CNN-IBN	02.00	This channel was reported as distributed upto 31.03.2008.
		18	CNBC Awaaz	03.50	This channel was reported as distributed upto 31.03.2008.
		19	Zee Business	04.80	
		20	Zee Classic	10.00	
		21	Zee Action	10.00	
		22	Zee Premier	11.20	
		23	Zee Sports	10.40	
		24	Zee Telugu	10.40	
		25	Zee Kannada	07.46	
		26	Play TV	04.00	
		27	ETC Punjabi	09.00	
		28	ETC	03.00	
		29	Zee Music	05.00	
		30	Zee Jagran	02.00	
		31	Zee Smile	06.14	
		32	24 Ghante	06.00	
		33	24 Taas	08.50	
		34	Zee Talkies	15.50	

		35	Zee Next	20.00	
2	M/s MSM Discovery India Private Limited	36	SET(Sony Entertainment Television)	20.00	
		37	MAX	20.00	Acceptance of advised pricing at Rs. 17.00 is awaited from b'caster.
		38	Discovery	20.00	Acceptance of advised pricing at Rs. 15.00 is awaited from b'caster.
		39	Animal Planet	05.00	
		40	AXN	17.00	Acceptance of advised pricing at Rs. 14.50 is awaited from b'caster.
		41	Animax	02.00	
		42	Discovery Travel and Living	09.00	
		43	SAB TV	15.00	Rs. 13.74 w.e.f. 1 <sup>st</sup> April, 2008.
		44	SET PIX	12.00	
		45	MTV	08.00	Acceptance of advised pricing at Rs. 07.00 is awaited from b'caster.
		46	NICK	06.00	
		47	VH1	03.00	
		48	NDTV 24X7	09.00	Acceptance of advised pricing at Rs. 08.50 is awaited from b'caster.
		49	NDTV Profit	06.00	
		3	M/s Channel Plus	50	Ten Sports
51	Aaj Tak			07.00	
52	Headlines Today			03.00	
53	Tez			02.00	
54	SUN TV			12.40	
55	Gemini TV			10.30	
56	Udaya TV			11.50	
57	K TV			15.00	
58	Teja TV			05.30	
59	Udaya Movies			14.40	
60	Sun Music	07.00			
61	Gemini Music	07.00			
62	Sun News	01.40			
63	Gemini News	07.50			
64	Udaya Varthegalu	07.35			

		65	Gemini Cable Vision	17.00	
		66	Adithya	03.00	
		67	Teja News	01.60	
		68	Ushe	15.00	
		69	Udaya News	01.50	
4.	M/s STAR DEN Media Services Private Limited	70	Star Plus	17.50	
		71	Star Gold	16.50	
		72	Star Movies	16.50	
		73	Star World	04.55	
		74	Vijay TV	04.00	Rate of this channel is Rs. 11.80 in Tamilnadu
		75	NGC	05.75	
		76	The History Channel	04.40	
		77	Channel (V)	01.00	
		78	Star One	20.50	
		79	The Disney Channel	08.90	
		80	Toon Disney	08.90	
		81	Hungama	07.80	
		82	Times Now	08.50	
		83	Zoom	07.80	
	The discounts if any, given on bouquet rate to existing affiliate(s) will also be extended to a-la-carte rate(s) in the same proportion as the discounted bouquet rate.				
5.	M/s Ushodaya Enterprises Private Limited	84	ETV	10.00	
		85	ETV 2	05.60	
		86	ETV Bangla	10.40	
		87	ETV Marathi	10.40	
		88	ETV Kannada	10.40	
		89	ETV Gujarathi	10.40	
		90	ETV Oriya	10.40	
6.	M/s UTV Global Broadcasting Limited	91	Bindass	10.00	
		92	Bindass Movies	10.00	



		93	World Movies	10.00	Newly launched channel, reported vide letter dated 11 <sup>th</sup> February, 2008
		94	UTV Movies	15.00	Newly launched channel, reported vide letter dated 11 <sup>th</sup> March, 2008
7.	M/s BBC World India Private Limited	95	BBC World	05.00	
		96	BBC Entertainment	06.50	
		97	Cbeebies	06.50	
8.	M/s ESPN Software India Private Limited	98	ESPN	33.13	
		99	Star Sports	33.13	
		100	Star Cricket	28.00	
9.	M/s Raj Television Limited	101	Raj TV	11.00	Rate is Rs. 07.72 in Andhra Pradesh
		102	Raj Digital Plus	07.72	Rate is Rs. 04.68 in Andhra Pradesh
		103	Vissa TV	04.68	Rate is Rs. 11.00 in Andhra Pradesh
10.	M/s INX Media Private Limited	104	9XM	07.00	Newly launched channel, reported vide letter dated 5 <sup>th</sup> December, 2007
		105	9X	20.50	
		106	NewsX	08.50	Newly launched channel, reported vide letter dated 1 <sup>st</sup> April, 2008
11.	M/s Neo Sports Broadcast Private Limited	107	NEO Sports Plus	34.00	Acceptance of advised pricing at Rs. 33.13 or less is awaited from b'caster.
		108	NEO Sports	24.00	

12.	M/s New Delhi Television Limited	109	NDTV 'Imagine'	20.50	Newly launched channel, reported vide letter dated 24 <sup>th</sup> January, 2008
13.	M/s Sahara India TV Network	110	Firangi	15.00	Newly launched channel, reported vide letter dated 12 <sup>th</sup> February, 2008
14.	M/s B4U Television Network (India) Private Limited	111	B4U Movies	06.00	
15.	M/s MAA Television Network Limiter	112	MAA TV	05.50	
16.	M/s TV Today Network Limited	113	Dilli Aaj Tak	08.50	
17.	M/s Allied Infotainment Distribution Private Limited	114	E-24	15.00	Newly launched channel, reported vide letter dated 10 <sup>th</sup> March, 2008

**Table 6.2****List of new pay channels introduced after 26.12.2003**

<b>List of new pay channels introduced after 26.12.2003</b>			
S.No.	Name of the Channel	Name of Broadcaster /Distributor	Date of launching of channel
1	Pogo <sup>s</sup>	Zee Turner Ltd	January 2004
2	Zee Action (Action Cinema)	Zee Turner Ltd	April 2004
3	Zee Premier (Premier Cinema)	Zee Turner Ltd	April 2004
4	Zee Classic (Classic Cinema)	Zee Turner Ltd	April 2004
5	Zee Select (MX)	Zee Turner Ltd	April 2004
6	Animax India	Set Discovery P Ltd	05.07.2004
7	Discovery – Travel & Living	Set Discovery P Ltd	16.08.2004
8	Hangama TV	Star India P Ltd	26.09.2004
9	ZOOM	Distributed by M/s Star India Private Limited	11.10.2004 (Informed)
10	Star One	Star India P Ltd	01.11.2004
11	VH 1	M/s Set Discovery Private Limited	December' 04
12	ESPN Plus	ESPN Software India Private Limited	15.12.2004
13	Toon Disney	Star India P Ltd	17.12.2004
14	Disney Channel	Star India P Ltd	17.12.2004
15	Awaaz	Zee Turner Ltd	01.01.2005
16	Zee Business News	Zee Turner Ltd	01.01.2005
17	Channel [V] International	Star India P Ltd	17.02.2005 (Informed)

18	NDTV Profit	Set Discovery P Ltd	01.04.2005
19	ZEE SPORTS	ZEE Turner Ltd	01.06.2005
20	SAB TV	Set Discovery P Ltd	01.06.2005
21	Adithya Music <sup>\$</sup>	M/s Sun TV Network Limited	01.12.2005
22	Teja News <sup>\$</sup>	M/s Sun TV Network Limited	01.12.2005
23	Times Now <sup>\$</sup>	Distributed by M/s Star India Private Limited	31.01.2006
24	SET PIX	M/s Set Discovery Private Limited	01.04.2006
25	NDTV 24X7	Set Discovery P Ltd	05.04.2006
26	Zee Kanada	M/s Zee Turner Limited	14.07.2006
27	Zee Telegue	M/s Zee Turner Limited	14.07.2006
28	Play TV	M/s Zee Turner Limited	14.07.2006
29	ETC Punjabi	M/s Zee Turner Limited	14.07.2006
30	ETC	M/s Zee Turner Limited	14.07.2006
31	Zee Music	M/s Zee Turner Limited	14.07.2006
32	Zee Jagran	M/s Zee Turner Limited	14.07.2006
33	Zee Smile	M/s Zee Turner Limited	14.07.2006
34	24 Ghante	M/s Zee Turner Limited	14.07.2006
35	NEO Sports	M/s Nimbus Sports Broadcast Private Limited	29.09.2006 Informed
36	NEO Sports Plus	M/s Nimbus Sports Broadcast Private Limited	29.09.2006 Informed
37	TCN Turner Classic Movies	M/s Turner International India Pvt Ltd	13.04.2007

38	Boomerang	M/s Turner International India Pvt Ltd	13.04.2007
39	MAA TV	M/s MAA Television Limited	
40	BBC Entertainment	M/s BBC World India Private Limited	15.06.2007
41	24 Taas	M/s Zee Turner Limited	11.06.2007
42	Zee Talkies	M/s Zee Turner Limited	11.06.2007
43	Star Cricket	M/s ESPN Software India Private Limited	22.06.2007
44	Bindass	M/s UTV Global Broadcasting Limited	01.08.2007
45	9XM	M/s INX Media Private Limited	12.09.2007
46	9X	M/s INX Media Private Limited	12.09.2007
47	Bindass Movies	M/s UTV Global Broadcasting Limited	24.09.2007
48	Zee Next	M/s Zee Turner Limited	19.11.2007
49	CBeebies (Kids)	M/s BBC World India Private Limited	15.11.2007
50	World Movies	M/s UTV Global Broadcasting Ltd	11.02.2008
51	UTV Movies	M/s UTV Global Broadcasting Ltd	11.03.2008
52	NDTV Imagine	M/s New Delhi Television Ltd	24.01.2008
53	Firangi	M/s Sahara India TV Network	12.02.2008

**Table 6.3****List of pay channels converted from FTA after 26.12.2003**

<b>List of pay channels converted from m FTA after 26.12.2003</b>			
S.No.	Name of the Channel	Name of Broadcaster /Distributor	Date of conversion of channel from FTA to Pay.
1	MTV	Set Discovery Private Limited	01.05.2004
2	UDAYA TV	M/s Sun TV Network Limited	07.10.2004 (Informed)
3	Ushe TV	M/s Sun TV Network Limited	07.10.2004 (Informed)
4	Udaya News	M/s Sun TV Network Limited	07.10.2004 (Informed)
5	ETV <sup>\$</sup>	Ms Ushodaya Enterprises Limited	18.01.2006
6	ETV 2 <sup>\$</sup>	Ms Ushodaya Enterprises Limited	18.01.2006
7	DAN Cinema	M/s Dan Television Private Limited	06.03.2006
8	DAN Music	M/s Dan Television Private Limited	06.03.2006
9	DAN Tamil OZHI	M/s Dan Television Private Limited	06.03.2006
10	EURO News	M/s Dan Television Private Limited	06.03.2006
11	TRACE TV	M/s Dan Television Private Limited	06.03.2006
12	BBC World	M/s BBC Worldwide India Private Limited	15.06.2006
13	CNN IBN	Distributed by M/s Zee Turner Ltd	15.08.2006
14	Sahara One	M/s Sahara India TV Network	01.09.2006
15	Filmy	M/s Sahara India TV Network	01.09.2006

16	ETV-Bangla	M/s Ushodaya Enterprises Ltd	09.11.2006
17	Udaya Movies	M/s Sun TV Network Limited	15.11.2006
18	Udaya Vathegalu	M/s Sun TV Network Limited	15.11.2006
19	Gemini Music	M/s Sun TV Network Limited	15.11.2006
20	Gemini News	M/s Sun TV Network Limited	15.11.2006
21	Gemini Cable Vision	M/s Sun TV Network Limited	15.11.2006
22	ETV-Kanada	M/s Ushodaya Enterprises Ltd	15.11.2006
23	SUN TV	M/s Sun TV Limited	02.12.2006
24	ETV-Oriya	M/s Ushodaya Enterprises Ltd	11.01.2007
25	ETV-Gujrathi	M/s Ushodaya Enterprises Ltd	15.03.2007
26	ETV-Marathi	M/s Ushodaya Enterprises Ltd	15.03.2007
27	Aaj Tak	M/s Set Discovery Private Limited	12.11.2007
28	Headline Today	M/s Set Discovery Private Limited	12.11.2007
29	Tez	M/s Set Discovery Private Limited	12.11.2007
30	Dilli Aaj Tak	M/s Today Network India Private Ltd	12.11.2007

**Table 6.4****List of operationalised private FM radio Station in India**

List of operationalised private FM Radio Stations in India			
S.No	City	Name of the Company	Date of operationalisation
1	DELHI	CLEAR MEDIA	01.09.2006
2	DELHI	DIGITAL RADIO	29.04.2003
3	DELHI	E.N.I.L.	29.04.2003
4	DELHI	H.T. MUSIC	30.10.2006
5	DELHI	M.B.P.L.	29.04.2003
6	DELHI	RADIO MID-DAY	23.09.2006
7	DELHI	RADIO TODAY BROADCASTING LTD	28.05.2007
8	DELHI	ADLABS FILMS	24-09-2006
9	MUMBAI	ADLABS FILMS	14.11.2006
10	MUMBAI	DIGITAL RADIO	29.04.2002
11	MUMBAI	E.N.I.L.	23.04.2002
12	MUMBAI	H.T. MUSIC	15.01.2007
13	MUMBAI	M.B.P.L.	21.05.2002
<b>14</b>	<b>MUMBAI</b>	<b>RADIO TODAY BROADCASTING LTD</b>	<b>26.01.2008</b>
15	MUMBAI	RADIO MID-DAY	29.04.2003
16	KOLKATA	ADLABS FILMS	21.10.2006
17	KOLKATA	RADIO TODAY BROADCASTING LTD	04.10.2007
18	KOLKATA	ANANDA OFFSET	28.02.2007
19	KOLKATA	DIGITAL RADIO	03.05.2003
20	KOLKATA	E.N.I.L.	03.05.2003
21	KOLKATA	HITZ FM	03.05.2003
22	KOLKATA	INDIA FM	03.05.2003
<b>23</b>	<b>KOLKATA</b>	<b>H.T. MUSIC</b>	<b>23.01.2008</b>
24	CHENNAI	ADLABS FILMS	27.09.2006
25	CHENNAI	E.N.I.L.	05.05.2003
26	CHENNAI	M.B.P.L.	10.07.2006
27	CHENNAI	MALAR PUBLICATIONS	02.10.2006
<b>28</b>	<b>CHENNAI</b>	<b>MUTHOOT FINANCE</b>	<b>04.01.2008</b>
29	CHENNAI	NOBLE BROADCASTING	18.01.2007
30	CHENNAI	RADIO MID-DAY	10.01.2007
31	CHENNAI	SUN TV	05.05.2003
32	AGARTALA	POSITIVE RADIO	07.08.2007



33	AGRA	ADLABS FILMS	18.08.2007
34	AGRA	SHRI PURAN MULTIMEDIA	08.07.2007
35	AHMEDABAD	E.N.I.L.	10.12.2001
36	AHMEDABAD	M.B.P.L.	25.07.2007
37	AHMEDABAD	SYNERGY MEDIA	21.07.2007
38	<b>AHMEDNAGAR</b>	<b>B.A.G. INFOTAINMENT</b>	<b>01.03.2008</b>
39	<b>AHMEDNAGAR</b>	<b>M.B.P.L.</b>	<b>07.02.2008</b>
40	AJMER	ADLABS FILMS	28/08/2007
41	AJMER	KUSHAL GLOBAL	12.09.2007
42	AJMER	SYNERGY MEDIA	31.08.2007
43	ALIGARH	ADLABS FILMS	08.12.2006
44	ALLAHABAD	ADLABS FILMS	29.10.2007
45	AMRITSAR	ADLABS FILMS	01.08.2007
46	<b>AMRITSAR</b>	<b>PAN INDIA</b>	<b>26.01.2008</b>
47	AMRITSAR	SYNERGY MEDIA	27-7-2007
48	ASANSOL	ADLABS FILMS	29.06.2007
49	AURANGABAD	E.N.I.L.	24.07.2007
50	BANGALORE	ADLABS FILMS	09.10.2006
51	BANGALORE	E.N.I.L.	17.04.2006
52	BANGALORE	H.T. MUSIC	06.03.2007
53	BANGALORE	INDIA RADIO VENTURES	01.10.2006
54	BANGALORE	KAL RADIO	06.11.2006
55	BANGALORE	M.B.P.L.	10.06.2001
56	BANGALORE	RADIO MID-DAY	01.08.2006
57	BAREILY	ADLABS FILMS	30.03.2007
58	BAREILY	SHRI PURAN MULTIMEDIA	09.04.2007
59	BHOPAL	ADLABS FILMS	20.05.2007
60	BHOPAL	E.N.I.L.	26.05.2007
61	BHOPAL	SOUTH ASIA	06.11.2007
62	BHOPAL	SYNERGY MEDIA	26.05.2007
63	BHUBANESHWAR/ CUTTAK	ADLABS FILMS	14.04.2007
64	BHUBANESHWAR/ CUTTAK	EASTERN MEDIA	24.05.2007
65	BHUBANESHWAR/ CUTTAK	SOUTH ASIA	28.06.2007
66	BIKANER	ADLABS FILMS	19.01.2007
67	BILASPUR	SYNERGY MEDIA	27.09.2007
68	CHANDIGARH	ADLABS FILMS	12.02.2007

69	CHANDIGARH	SYNERGY MEDIA	19.02.2007
70	COIMBATORE	E.N.I.L.	03.11.2007
71	COIMBATORE	M.B.P.L.	12.11.2007
72	COIMBATORE	MALAR PUBLICATIONS	29.10.2007
73	COIMBATORE	SUN TV	07.03.2003
74	DHULE	B.A.G. INFOTAINMENT	15.08.2007
75	GORAKHPUR	SHRI PURAN MULTIMEDIA	03.06.2007
76	GUWAHATI	ADLABS FILMS	14.04.2007
77	GUWAHATI	POSITIVE RADIO	13.04.2007
78	GUWAHATI	PURVY BROADCASTING	09.10.2007
79	GWALIOR	ADLABS FILMS	06.08.2007
80	GWALIOR	GWALIOR FARMS	04.08.2007
81	GWALIOR	ITM SOFTWARE	07.09.2007
82	GWALIOR	SYNERGY MEDIA	06.08.2007
83	HISSAR	ADLABS FILMS	02.03.2007
84	HISSAR	B.A.G. INFOTAINMENT	18.06.2007
85	HISSAR	SHRI PURAN MULTIMEDIA	21.03.2007
86	HISSAR	SINGLA PROPERTY	17.03.2007
87	HYDERABAD	ADLABS FILMS	25.09.2006
88	HYDERABAD	E.N.I.L.	19.04.2006
89	HYDERABAD	KAL RADIO	06.11.2006
90	HYDERABAD	M.B.P.L.	30.05.2006
91	INDORE	ADLABS FILMS	03.08.2007
92	INDORE	E.N.I.L.	01.10.2001
93	INDORE	SOUTH ASIA	09.12.2007
94	INDORE	SYNERGY MEDIA	11.08.2007
95	<b>JABALPUR</b>	<b>B.A.G. INFOTAINMENT</b>	<b>01.03.2008</b>
96	<b>JABALPUR</b>	<b>E.N.I.L.</b>	<b>15.02.2008</b>
97	<b>JABALPUR</b>	<b>SYNERGY MEDIA</b>	<b>15.02.2008</b>
98	JAIPUR	E.N.I.L.	17.04.2006
99	JAIPUR	M.B.P.L.	08.09.2006
100	JAIPUR	RAJASTHAN PATRIKA	15.08.2006
101	JAIPUR	SOUTH ASIA	06.11.2006
102	JAIPUR	SYNERGY MEDIA	28.05.2006
103	JALANDHAR	ADLABS FILMS	14.04.2007
104	JALANDHAR	E.N.I.L.	24.04.2007
105	JALANDHAR	SHRI PURAN MULTIMEDIA	14.04.2007

106	JALANDHAR	SYNERGY MEDIA	19.04.2007
107	JAMMU	ADLABS FILMS	07.12.2006
108	JAMSHED PUR	ADLABS FILMS	07.11.2007
109	JHANSI	ADLABS FILMS	19.01.2007
110	JODHPUR	ADLABS FILMS	14.12.2007
111	JODHPUR	KUSHAL GLOBAL	14.12.2007
112	JODHPUR	SYNERGY MEDIA	20.12.2007
<b>113</b>	<b>KANNUR</b>	<b>ASIANET COMMUNICATION</b>	<b>13.01.2008</b>
114	KANNUR	MALAYALLA MANORAMA	30.12.2007
115	KANNUR	THE MATHRABHUMI	30.12.2007
116	KANPUR	ADLABS FILMS	14.06.2007
117	KANPUR	E.N.I.L.	16.06.2007
<b>118</b>	<b>KANPUR</b>	<b>SOUTH ASIA</b>	<b>28.01.2008</b>
119	KARNAL	B.A.G. INFOTAINMENT	18.06.2007
120	KARNAL	SHRI PURAN MULTIMEDIA	02.04.2007
121	KHOZIKODE	KAL RADIO	07.12.2007
122	KHOZIKODE	MALAYALLA MANORAMA	29.11.2007
123	KOLHAPUR	E.N.I.L.	18.09.2007
124	KOLHAPUR	PUDHARI PUBLICATION	29.09.2007
<b>125</b>	<b>KOTA</b>	<b>ADLABS FILMS</b>	<b>21.01.2008</b>
<b>126</b>	<b>KOTA</b>	<b>RAJASTHAN PATRIKA</b>	<b>25.02.2008</b>
<b>127</b>	<b>KOTA</b>	<b>SYNERGY MEDIA</b>	<b>02.02.2008</b>
128	LUCKNOW	E.N.I.L.	13.08.2007
129	LUCKNOW	M.B.P.L.	10.12.2001
130	LUCKNOW	SOUTH ASIA	06.11.2007
131	MADURAI	E.N.I.L.	28-09.2007
132	MADURAI	KAL RADIO	05.10.2007
133	MADURAI	MALAR PUBLICATIONS	01.10.2007
134	MANGALORE	ADLABS FILMS	24.11.2007
135	MANGALORE	E.N.I.L.	24.11.2007
136	MUZAFFARPUR	B.A.G. INFOTAINMENT	01.08.2007
137	MYSORE	ADLABS FILMS	14.10.2007
138	NAGPUR	E.N.I.L.	18.10.2007
139	NAGPUR	M.B.P.L.	21.10.2007
140	NAGPUR	SYNERGY MEDIA	21.10.2007
141	NASIK	E.N.I.L.	06.07.2007
142	PANAJI	ADLABS FILMS	22.05.2007

143	PANAJI	E.N.I.L.	22.05.2007
144	PANAJI	INDIA RADIO VENTURES	25.06.2007
145	PATIALA	ADLABS FILMS	01.08.2007
146	PATIALA	B.A.G. INFOTAINMENT	18.06.2007
<b>147</b>	<b>PATIALA</b>	<b>PAN INDIA</b>	<b>26.01.2008</b>
148	PATNA	E.N.I.L.	02.04.2007
149	PONDICHERRY	ADLABS FILMS	01.12.2007
150	PONDICHERRY	KAL RADIO	20.12.2007
151	PONDICHERRY	MALAR PUBLICATIONS	22.12.2007
152	PUNE	E.N.I.L.	18.10.2002
153	RACHI	ADLABS FILMS	24.10.2007
154	RACHI	B.A.G. INFOTAINMENT	15.11.2007
155	RACHI	SHRI PURAN MULTIMEDIA	27.10.2007
<b>156</b>	<b>RAIPUR</b>	<b>E.N.I.L.</b>	<b>11.01.2008</b>
<b>157</b>	<b>RAIPUR</b>	<b>RANEKA FINCOM</b>	<b>15.01.2008</b>
<b>158</b>	<b>RAIPUR</b>	<b>SYNERGY MEDIA</b>	<b>16.01.2008</b>
<b>159</b>	<b>RAJAHMUNDRY</b>	<b>KAL RADIO</b>	<b>19.01.2008</b>
160	RAJKOT	ADLABS FILMS	13.06.2007
161	RAJKOT	E.N.I.L.	13.06.2007
<b>162</b>	<b>ROURKELA</b>	<b>ADLABS FILMS</b>	<b>06.01.2008</b>
<b>163</b>	<b>ROURKELA</b>	<b>EASTERN MEDIA</b>	<b>23.01.2008</b>
<b>164</b>	<b>SANGLI</b>	<b>M.B.P.L.</b>	<b>08.02.2008</b>
165	SHILONG	POSITIVE RADIO	16.10.2007
166	SHOLAPUR	ADLABS FILMS	08.11.2007
167	SHOLAPUR	M.B.P.L.	14.11.2007
168	SILIGURI	PCM CEMENTS	14.11.2007
169	SILIGURI	SYNTECH INFORMATICS	24.11.2007
170	SRI-NAGAR	ADLABS FILMS	10.12.2006
171	SURAT	ADLABS FILMS	29.08.2007
172	SURAT	E.N.I.L.	21.08.2007
173	SURAT	M.B.P.L.	22.08.2007
174	SURAT	SYNERGY MEDIA	27.08.2007
<b>175</b>	<b>THIRUVANANTHA PURAM</b>	<b>ADLABS FILMS</b>	<b>29.01.2008</b>
<b>176</b>	<b>THIRUVANANTHA PURAM</b>	<b>E.N.I.L.</b>	<b>29.01.2008</b>
<b>177</b>	<b>THIRUVANANTHA PURAM</b>	<b>KAL RADIO</b>	<b>06.02.2008</b>
<b>178</b>	<b>THIRUVANANTHA PURAM</b>	<b>THE MATHRABHUMI</b>	<b>29.01.2008</b>

179	THRISSUR	ASIANET COMMUNICATION	23.12.2007
180	THRISSUR	KAL RADIO	26.12.2007
181	THRISSUR	MALAYALLA MANORAMA	14.12.2007
182	THRISSUR	THE MATHRABHUMI	14.12.2007
<b>183</b>	<b>TIRUCHI</b>	<b>KAL RADIO</b>	<b>17.01.2008</b>
<b>184</b>	<b>TIRUCHI</b>	<b>MALAR PUBLICATIONS</b>	<b>14.01.2008</b>
185	TIRUNELVELI	MALAR PUBLICATIONS	13.10.2007
186	TIRUNELVELI	SUN TV	07.03.2003
187	TIRUPATI	ADLABS FILMS	01.08.2007
188	TIRUPATI	KAL RADIO	27.08.2007
189	TUTICORIN	KAL RADIO	05.10.2007
190	TUTICORIN	MALAR PUBLICATIONS	15.10.2007
191	UDAIPUR	ADLABS FILMS	03.08.2007
192	UDAIPUR	RAJASTHAN PATRIKA	27.08.2007
193	UDAIPUR	SYNERGY MEDIA	07.07.2007
194	VADODARA	ADLABS FILMS	05.06.2007
195	VADODARA	E.N.I.L.	05.06.2007
196	VADODARA	M.B.P.L.	11.06.2007
197	VARANASI	E.N.I.L.	14.07.2007
198	VARANASI	SHRI PURAN MULTIMEDIA	20.07.2007
199	VARANASI	SOUTH ASIA	29.12.2007
200	VIJAYWADA	E.N.I.L.	11.12.2007
201	VIJAYWADA	KAL RADIO	25.12.2007
202	VISHAKAPATNAM	ADLABS FILMS	27.10.2007
203	VISHAKAPATNAM	E.N.I.L.	26.10.2007
204	VISHAKAPATNAM	M.B.P.L.	29.10.2007
205	VISHAKAPATNAM	UDAYA TV	06.02.2003

**Table 6.5****Number of Applications received / Letters of Intent issued / Licenses Issued in respect of Community Radio Stations**

	<b>As on 31.13.2008</b>
<b>Total No. of Applications Received</b>	<b>319</b>
<b>No of Licenses issued</b>	<b>49</b>
<b>No of Letters of Intend Issued</b>	<b>138</b>
<b>No of Applications rejected</b>	<b>26</b>
<b>No of stations operational</b>	<b>35</b>

*Source: Ministry of Information & Broadcasting*

**Table 6.6**

**List of applicant who have been granted DTH Licenses**

- 1. Dish TV**
- 2. Tata Sky Limited**
- 3. Sun Direct TV Private Limited**
- 4. Reliance Blue Magic Limited**
- 5. Bharati Telemedia Limited**
- 6. Bharat Business Channel Limited**

**List of Wireless, Wireline & Unified Access Service Providers**

Circle	Operators		
	Wireless		Wireline
	Wireless	Unified	
Delhi	Vodafone	Reliance Infocomm	MTNL
	MTNL	Tata Teleservices	
	Idea Cellular	Bharti Airtel Ltd	
		Aircell Ltd.	
Mumbai	BPL	Reliance Infocomm	MTNL
	Vodafone	Tata Teleservices	
	MTNL	Bharti Airtel Ltd	
		Aircell Ltd.	
Chennai		Idea Cellular	
	Aircel	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	Vodafone	Bharti Airtel Ltd	
Kolkata	Vodafone	Reliance Infocomm	BSNL
	BSNL	Tata Teleservices	
	Reliable Internet Services Ltd.	Bharti Airtel Ltd	
		Dishnet Wireless Ltd.	
Maharashtra	Vodafone	Reliance Infocomm	BSNL
	Idea Cellular	Tata Teleservices	
	BSNL	Bharti Airtel Ltd	
		Aircell Ltd.	
Gujarat	Vodafone	Reliance Infocomm	BSNL
	Idea Cellular	Tata Teleservices	
	BSNL	Bharti Airtel Ltd	
		Aircell Ltd.	
Andhra Pradesh	Idea Cellular	Reliance Infocomm	BSNL
	Vodafone	Tata Teleservices	
	BSNL	Bharti Airtel Ltd.	
		Aircell Ltd.	
Karnataka	BSNL	Spice Communications	
	Vodafone	Reliance Infocomm	BSNL
		Tata Teleservices	
		Bharti Airtel Ltd.	
Tamilnadu		Aircell Ltd.	
	BPL	Reliance Infocomm	BSNL
	Aircel	Tata Teleservices	
	BSNL	Bharti Airtel Ltd	



<b>Kerala</b>	<b>Idea Communications</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>Vodafone</b>	<b>Tata Teleservices</b>	
	<b>BSNL</b>	<b>Bharti Airtel Ltd</b>	
		<b>Dishnet Wireless Ltd.</b>	
<b>Punjab</b>	<b>BSNL</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>Vodafone</b>	<b>HFCL Infocom</b>	
		<b>Tata Teleservices</b>	
		<b>Bharti Airtel Ltd.</b>	
		<b>Spice Communications</b>	
	<b>Dishnet Wireless Ltd.</b>		
<b>Haryana</b>	<b>Idea Communications</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>Vodafone</b>	<b>Tata Teleservices</b>	
	<b>BSNL</b>	<b>Bharti Airtel Ltd.</b>	
		<b>Dishnet Wireless Ltd.</b>	
<b>Uttar Pradesh(W)</b>	<b>Idea Communications</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>BSNL</b>	<b>Vodafone</b>	
		<b>Tata Teleservices</b>	
		<b>Bharti Airtel Ltd.</b>	
	<b>Dishnet Wireless Ltd.</b>		
<b>Uttar Pradesh(E)</b>	<b>Vodafone</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>BSNL</b>	<b>Tata Teleservices</b>	
	<b>IDEA Telecommunications</b>	<b>Bharti Airtel Ltd.</b>	
		<b>Dishnet Wireless Ltd.</b>	
<b>Rajasthan</b>	<b>Vodafone</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>Bharti Hexacom Ltd.</b>	<b>Tata Teleservices</b>	
	<b>BSNL</b>	<b>Shyam Telelink</b>	
	<b>IDEA Telecommunications</b>		
<b>Madhya Pradesh</b>	<b>Idea</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>BSNL</b>	<b>Tata Teleservices</b>	
	<b>Reliance Telecom</b>	<b>Bharti Airtel Ltd.</b>	
	<b>Dishnet Wireless Ltd.</b>		
<b>WB&amp;A&amp;N</b>	<b>BSNL</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>Reliance Telecom</b>	<b>Tata Teleservices</b>	
		<b>Bharti Airtel Ltd.</b>	
		<b>Huchinson Essar South Ltd.</b>	
		<b>Dishnet Wireless Ltd.</b>	
<b>Himachal Pradesh</b>	<b>BSNL</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>Reliance Telecom</b>	<b>Tata Teleservices</b>	
	<b>IDEA Telecommunications</b>		
		<b>Dishnet Wireless Ltd.</b>	

		<b>Bharti Airtel Ltd.</b>	
		<b>Essar Spacetel Pvt. Ltd.</b>	
<b>Bihar</b>	<b>BSNL</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>Reliance Telecom</b>	<b>Tata Teleservices</b>	
		<b>Bharti Airtel Ltd.</b>	
		<b>Dishnet Wireless Ltd.</b>	
		<b>Essar Spacetel Pvt. Ltd.</b>	
		<b>Aditya Birla Telecom Ltd.</b>	
<b>Orissa</b>	<b>BSNL</b>	<b>Reliance Infocomm</b>	<b>BSNL</b>
	<b>Reliance Telecom</b>	<b>Tata Teleservices</b>	
		<b>Bharti Airtel Ltd.</b>	
		<b>Dishnet Wireless Ltd.</b>	
		<b>Essar Spacetel Pvt. Ltd.</b>	
<b>Assam</b>	<b>BSNL</b>	<b>Dishnet Wireless Ltd.</b>	<b>BSNL</b>
	<b>Reliance Telecom</b>	<b>Bharti Airtel Ltd.</b>	
		<b>Essar Spacetel Pvt. Ltd.</b>	
<b>North East</b>	<b>Reliance Telecom</b>	<b>Dishnet Wireless Ltd.</b>	<b>BSNL</b>
	<b>BSNL</b>	<b>Essar Spacetel Pvt. Ltd.</b>	
	<b>Bharti Hexacom Ltd.</b>		
<b>Jammu &amp; Kashmir</b>	<b>BSNL</b>	<b>Dishnet Wireless Ltd.</b>	<b>BSNL</b>
		<b>Bharti Airtel Ltd.</b>	
		<b>Reliance Infocomm</b>	
		<b>Essar Spacetel Pvt. Ltd.</b>	

**Usage Pattern for GSM (Full Mobility)****Table a: MoU & SMS (per subscriber per month)**

Circle	Postpaid				Prepaid			
	O/G MOU	I/C MOU	Total MOU	O/G SMS	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	588	510	1098	55	198	240	438	29
Circle B	563	418	981	47	216	233	449	16
Circle C	601	464	1064	41	206	251	457	16
Metro	497	444	941	61	180	213	393	30
All India	552	463	1015	54	203	235	438	23

**BLENDDED [Postpaid + Prepaid]**

Circle	O/G MOU	I/C MOU	Total MOU	O/G SMS
Circle A	235	266	500	32
Circle B	235	243	479	18
Circle C	231	265	496	18
Metro	245	261	506	36
All India	236	257	493	26

**Table b: Composition of outgoing minutes of use**

Circle	Local (Intra-circle)	NLD (Inter-circle)	ILD
Circle A	88.02%	11.49%	0.49%
Circle B	88.73%	10.75%	0.51%
Circle C	87.54%	12.31%	0.15%
Metro	76.62%	22.59%	0.79%
All India	86.33%	13.16%	0.51%

**Table c: Composition of outgoing Local (Intra -circle) minutes of use**

Circle	To Fixed	To Mobile		
		On-net	Off-net	Total
Circle A	7%	50%	43%	93%
Circle B	7%	60%	33%	93%
Circle C	7%	68%	25%	93%
Metro	9%	47%	44%	91%
All India	7%	55%	37%	93%

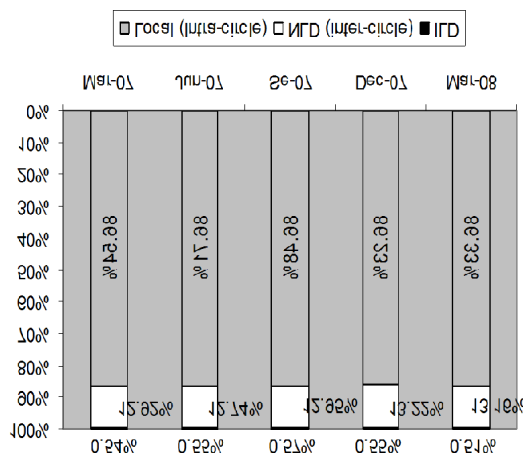
**Table d: Composition of outgoing NLD (inter -circle) minutes of use**

Circle	To Fixed	To Mobile		
		On-net	Off-net	Total
Circle A	12%	33%	56%	88%
Circle B	9%	28%	63%	91%
Circle C	11%	29%	60%	89%
Metro	11%	21%	68%	89%
All India	11%	27%	62%	89%

**Table e: Composition of Total outgoing minutes of use (excl. ILD)**

Circle	To Fixed	To Mobile		
		On-net	Off-net	Total
Circle A	7%	48%	44%	93%
Circle B	8%	56%	36%	92%
Circle C	7%	63%	30%	93%
Metro	9%	41%	49%	91%
All India	8%	52%	41%	92%

**Chart: Composition of outgoing MoUs**



**Usage Pattern – CDMA (Full Mobility)****Table a: MoU & SMS (per subscriber per month)**

Circle	Postpaid				Prepaid			
	Outgoing MOU	Incoming MOU	Total MOU	Outgoing SMS	Outgoing MOU	Incoming MOU	Total MOU	Outgoing SMS
Circle A	489	344	833	19	116	197	313	17
Circle B	534	275	809	19	163	164	327	11
Circle C	642	267	909	8	220	216	436	5
Metro	517	273	790	23	133	147	280	22
All India	517	296	813	20	145	173	318	15

Circle	Blended			
	Outgoing MOU	Incoming MOU	Total MOU	Outgoing SMS
Circle A	152	211	363	18
Circle B	189	171	360	12
Circle C	240	218	458	5
Metro	184	163	347	22
All India	180	184	364	16

**Table b: Composition of outgoing minutes of use**

Circle	Local (Intra-circle)	NLD (Inter-Circle)	ILD
Circle A	90.3%	9.5%	0.2%
Circle B	89.7%	9.8%	0.5%
Circle C	90.8%	9.1%	0.1%
Metro	81.4%	18.4%	0.2%
All India	87.6%	12.1%	0.3%

**Table c: Outgoing MoUs per subscriber per month**

<b>Circle</b>	<b>Local (Intra-circle)</b>	<b>NLD (Inter-Circle)</b>	<b>ILD</b>
<b>Circle A</b>	<b>138</b>	<b>15</b>	<b>0.4</b>
<b>Circle B</b>	<b>169</b>	<b>19</b>	<b>0.9</b>
<b>Circle C</b>	<b>218</b>	<b>22</b>	<b>0.1</b>
<b>Metro</b>	<b>149</b>	<b>34</b>	<b>0.5</b>
<b>All India</b>	<b>158</b>	<b>21.7</b>	<b>0.6</b>

**Table d: Composition of outgoing Local (Intra -circle) minutes of use based on terminating network.**

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>	<b>To Own Network (Mobile)</b>
<b>Circle A</b>	<b>8%</b>	<b>92%</b>	<b>47%</b>
<b>Circle B</b>	<b>6%</b>	<b>94%</b>	<b>67%</b>
<b>Circle C</b>	<b>4%</b>	<b>96%</b>	<b>61%</b>
<b>Metro</b>	<b>7%</b>	<b>93%</b>	<b>60%</b>
<b>All India</b>	<b>6%</b>	<b>94%</b>	<b>59%</b>

**Table e: Composition of Outgoing NLD (Inter -Circle) minutes of use based on terminating network**

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>	<b>To Own Network (Mobile)</b>
<b>Circle A</b>	<b>15%</b>	<b>85%</b>	<b>38%</b>
<b>Circle B</b>	<b>11%</b>	<b>89%</b>	<b>41%</b>
<b>Circle C</b>	<b>12%</b>	<b>88%</b>	<b>37%</b>
<b>Metro</b>	<b>10%</b>	<b>90%</b>	<b>29%</b>
<b>All India</b>	<b>11%</b>	<b>89%</b>	<b>35%</b>

**Table f: Composition of Total outgoing minutes of use (excl. ILD) based on terminating network.**

<b>Circle</b>	<b>To Fixed</b>	<b>To Mobile</b>
<b>Circle A</b>	<b>9%</b>	<b>91%</b>
<b>Circle B</b>	<b>6%</b>	<b>94%</b>
<b>Circle C</b>	<b>4%</b>	<b>96%</b>
<b>Metro</b>	<b>8%</b>	<b>92%</b>
<b>All India</b>	<b>7%</b>	<b>93%</b>

**Average Subscriber Outgo (Rental + Call Charges) Per Minute**  
**(Rs. Per Minute) for GSM (Full Mobility)**

(Rs. Per Min)

	Postpaid	Prepaid	Blended
<b>Circle A</b>	<b>0.92</b>	<b>0.94</b>	<b>0.94</b>
<b>Circle B</b>	<b>0.82</b>	<b>0.82</b>	<b>0.82</b>
<b>Circle C</b>	<b>0.91</b>	<b>1.04</b>	<b>1.02</b>
<b>Metros</b>	<b>1.06</b>	<b>1.07</b>	<b>1.06</b>
<b>All India</b>	<b>0.94</b>	<b>0.92</b>	<b>0.92</b>

\* Outgo includes both Rental and call charges

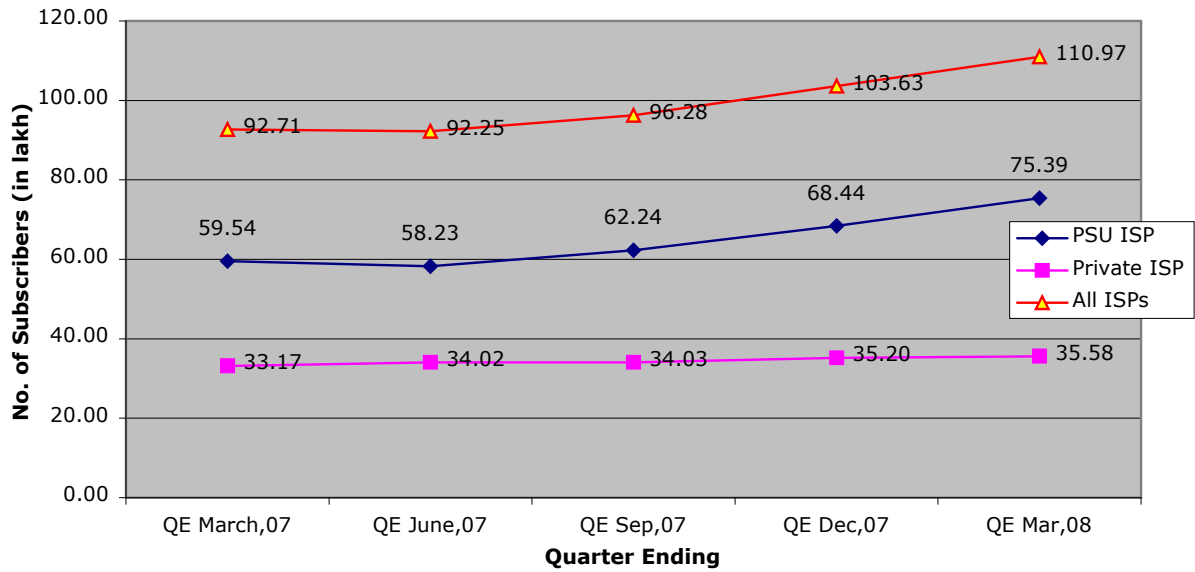


**Average Subscriber Outgo (Rental + Call Charges) Per Minute**  
**(Rs. Per Minute) for CDMA (Full Mobility)**

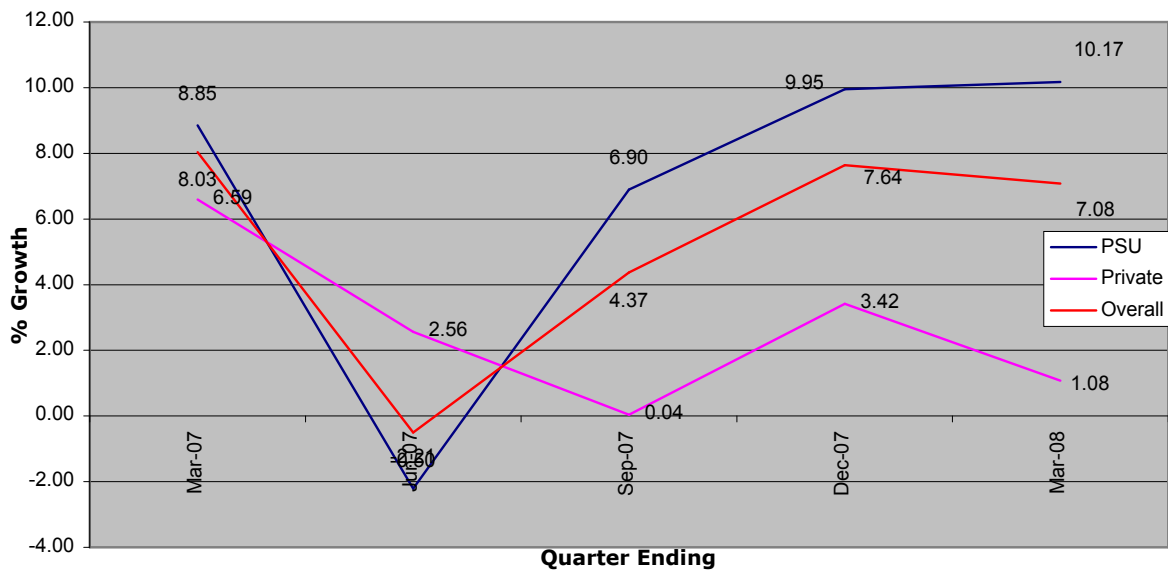
	<b>Prepaid</b>	<b>Postpaid</b>	<b>Blended</b>
<b>Category</b>	<b>Rent + call Revenue per Outgoing Minute</b>	<b>Rent + call Revenue per Outgoing Minute</b>	<b>Rent + call Revenue per Outgoing Minute</b>
<b>Category - A</b>	<b>0.78</b>	<b>0.94</b>	<b>0.83</b>
<b>Category - B</b>	<b>0.68</b>	<b>0.83</b>	<b>0.71</b>
<b>Category - C</b>	<b>0.63</b>	<b>0.82</b>	<b>0.65</b>
<b>Metro</b>	<b>0.86</b>	<b>1.04</b>	<b>0.92</b>
<b>All India</b>	<b>0.74</b>	<b>0.94</b>	<b>0.79</b>

**Growth Pattern of Internet Subscribers**

**Growth Trends-I**



**Growth Trends-II**

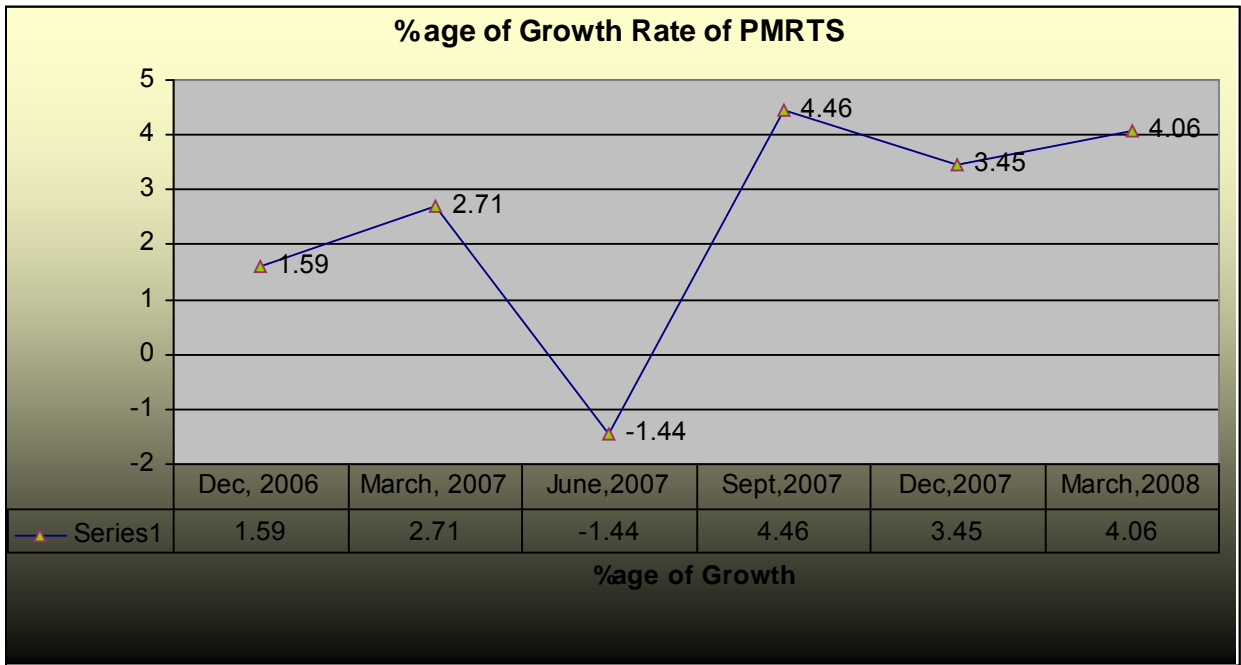


**List of Internet Service Providers (ISPs)  
reporting Internet Telephony services**

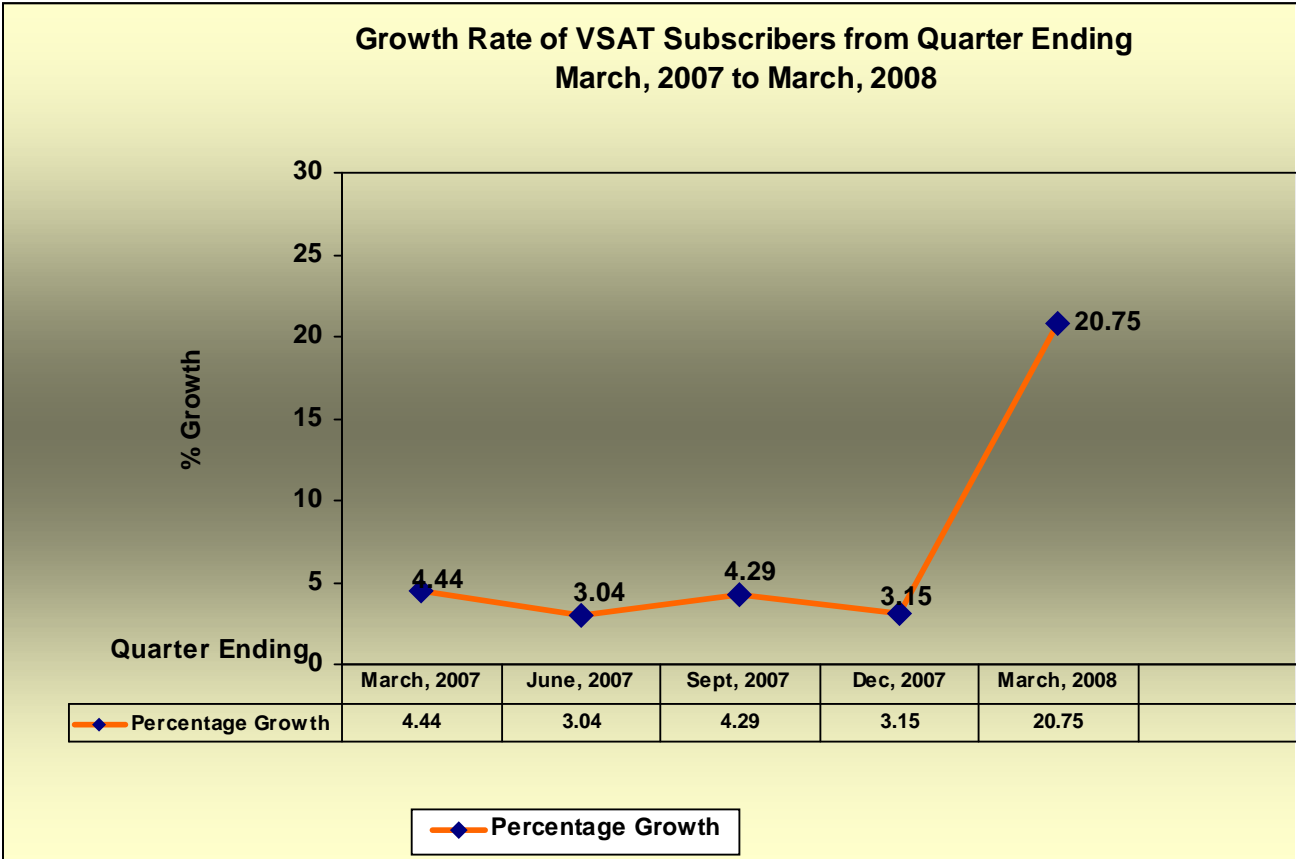
<b>S. No.</b>	<b>Name of ISP</b>
1	Apna Telelink Ltd.
2	Asianet Satellite Communications Ltd.
3	Bharti Airtel Ltd. (Bharti Televentures Ltd.)
4	Blazenet Ltd.*
5	Broadband Pacenet (I) Pvt. Ltd.
6	City Online Services Ltd.
7	CJ Online Pvt. Ltd.
8	Data Infosys Ltd.
9	DelDSL Internet Pvt. Ltd.
10	Digital2Virtual ISP Pvt. Ltd.
11	Dishnet Wireless Ltd.
12	Estel Communications Pvt. Ltd.
13	HCL Infinet Ltd.
14	In2cable (I) Ltd.
15	Mahanagar Telephone Nigam Ltd.
16	Manipal Ecommerce Ltd.
17	My Own Infotech Pvt. Ltd.*
18	Mylai Karpagambal Information Systems (P) Ltd.
19	NetMagic Solutions(P) Ltd.
20	Netlinx Ltd.
21	Opto Network Pvt. Ltd.
22	Pioneer Online Pvt. Ltd.
23	Pulse Telesystems Pvt. Ltd.
24	Sify Ltd.
25	Southern Online Bio Technologies Ltd.
26	Swastik Netvision Telecom P. Ltd.
27	Trak Online Net India Pvt.Ltd
28	Trikon Electronics Pvt. Ltd.
29	Value Healthcare Ltd.
30	Videsh Sanchar Nigam Ltd.
31	VSNL Internet Services Ltd. (Primus Telecommunications)
32	YOU Telecom India Pvt. Ltd.

\* ISP has not submitted report at the end of March 2008.

**Growth Rate of PMRTS subscribers**



**Growth Rate of VSAT Subscribers**



**Annex 5.1**

**Quality of Service (QOS) Performance for Wireline Services**

Annex - I, Page - ( )

**Performance Monitoring Report of Quality of Services for Basic (Wire-line) Services for the Quarter ending March 2008**

Sl. No	Service Area	Service Providers	New connections after registration of demand	Fault incidences per 100 sub/month)	Fault repaired by next working day	Rent Rebate (Total no. of cases)	Mean Time to Repair (MTTR)	Grade of service (calls per thousand)	Call completion rate in local network	Metering & billing credibility- % of bills disputed	Time taken for refund of deposits after closures	Shifts	Closures	Additional facility	Response Time to the Customer for Assistance						
															95% of requests			%age of calls answered (electronically)		%age of calls answered by operator (voice to voice)	
															100% in < 7days	<5	>90%	For faults pending > 3 days to >15 days	<8 hrs	a) Junction between local exchange (2/1000)	>55%
1	ANDHRA PRADESH	BSNL	89.01	3.55	91.98	NR	12.20	NR	62.94%	0.012	100.00%	79.00	91.35	84.47	100.00	100.00	89.17	92.47			
		RELIANCE	85.84	4.71	98.03	21	2.98	0.0000	NR	0.043	100.00%	95.58	98.72	98.25	100.00	100.00	95.00	98.00			
		BHARTI	98.41	4.60	89.60	215	5.66	0.0014	59.24%	0.720	100.00%	96.56	99.73	93.10	100.00	100.00	87.00	90.00			

		TATA	90.98	1.70	91.66	37	5.00	0.0010	86.81%	0.023	100.00%	91.95	100.00	96.87	100.00	100.00	91.00	95.00
2	BIHAR	BSNL	100.00	5.20	82.33	2294	9.20	NR	62.30%	0.021	100.00%	100.00	84.54	84.70	NR	NR	NR	NR
		TATA RELIANCE	100.00 93.10	Nil 0.00	Nil Nil	0 0	0.00 0.00	0.0020 0.0000	61.96% NR	0.000 0.000	Nil NR	Nil NA	Nil NA	Nil NA	100.00 100.00	100.00 100.00	96.00 95.00	97.00 98.00
3	DELHI	MTNL	99.91	6.33	93.58	16648	6.33	0.0000	49.42%	0.060	100.00%	92.05	98.80	98.50	92.63	98.33	96.67	97.83
		RELIANCE	19.35	1.22	96.57	12	3.29	0.0000	NR	0.067	100.00%	96.13	97.29	98.65	100.00	100.00	95.00	98.00
		BHARTI	99.87	4.00	94.48	1264	8.80	0.0010	60.78%	0.006	96.00%	97.54	98.33	92.89	100.00	100.00	96.03	98.70
		TATA	81.16	2.90	77.14	70	13.90	0.0000	82.85%	0.098	Nil	85.71	100.00	94.82	100.00	100.00	88.00	92.00
4	GUJARAT	BSNL	97.20	5.40	93.38	1011	7.70	NR	62.62%	0.050	100.00%	98.00	99.91	99.97	100.00	100.00	99.61	99.61
		RELIANCE	89.25	3.32	98.25	16	5.34	0.0000	NR	0.094	100.00%	98.11	95.61	95.14	100.00	100.00	95.00	98.00
		BHARTI	99.64	2.70	97.71	5	7.22	0.0003	59.40%	0.038	100.00%	97.89	100.00	98.94	100.00	100.00	92.52	95.35
		TATA	98.67	5.30	95.76	13	4.60	0.0000	85.75%	0.085	94.05%	82.59	100.00	98.41	100.00	100.00	85.00	89.00
5	CHHATTISGARH	BSNL	89.15	7.80	85.16	NR	12.10	NR	63.78%	0.017	100.00%	97.00	100.00	100.00	100.00	100.00	100.00	100.00
6	MP	BSNL	100.00	3.90	95.15	51	5.80	NR	68.52%	0.030	100.00%	100.00	100.00	100.00	90.00	95.00	99.00	99.90
		RELIANCE	89.27	1.08	98.50	6	4.79	0.0000	NR	0.069	100.00%	97.67	NA	NA	100.00	100.00	95.00	98.00
		BHARTI	94.81	5.90	97.62	869	5.90	0.0010	56.00%	0.068	99.27%	97.50	100.00	89.45	100.00	100.00	96.04	100.00
7	MAHARASHTRA	BSNL	86.51	6.60	87.73	202	9.38	NR	53.59%	0.016	100.00%	83.00	93.76	96.24	100.00	100.00	100.00	100.00
		RELIANCE	67.22	1.22	97.44	5	3.63	0.0000	NR	0.049	100.00%	100.00	97.90	97.68	100.00	100.00	95.00	98.00
		BHARTI	89.19	3.07	93.29	31	2.80	0.0012	39.73%	0.001	100.00%	94.26	100.00	96.97	100.00	100.00	92.34	95.23
		TATA	79.98	2.13	92.78	0	7.90	0.0020	57.00%	0.097	Nil	71.51	97.71	85.63	100.00	100.00	87.00	90.00
8	PUNJAB	BSNL	99.60	7.60	89.28	0	12.90	NR	66.39%	0.009	100.00%	98.00	100.00	99.76	100.00	100.00	100.00	100.00
		RELIANCE	92.78	4.45	97.72	17	3.35	0.0000	NR	0.073	100.00%	97.44	98.30	95.47	100.00	100.00	95.00	98.00

		BHARTI	99.93	3.00	95.31	47	9.10	0.0010	60.03%	0.014	100.00%	99.20	98.83	98.57	100.00	100.00	96.10	98.42
		TATA	98.65	0.50	66.67	0	22.61	0.0000	81.52%	0.328	97.71%	Nil	100.00	100.00	100.00	100.00	93.00	96.00
		HFCL	98.91	4.40	98.33	20	4.70	0.0003	55.30%	0.085	100.00%	98.90	100.00	100.00	100.00	100.00	97.00	98.00
9	RAJASTHAN	BSNL	99.83	5.70	94.23	239	7.70	NR	64.89%	0.012	100.00%	99.00	100.00	99.98	100.00	100.00	80.67	95.00
		RELIANCE	78.41	0.23	96.81	6	4.25	0.0010	NR	0.072	100.00%	100.00	99.62	100.00	100.00	100.00	95.00	98.00
		BHARTI	97.60	4.00	94.31	23	10.80	0.0013	86.00%	0.006	92.00%	86.49	98.47	98.34	100.00	100.00	96.00	98.00
		SHYAM	98.46	2.95	99.10	NA	5.03	0.0010	92.00%	0.090	100.00%	98.25	100.00	99.40	NA	NA	89.00	NA
10	TAMILNADU	BSNL	100.00	2.90	94.90	0	5.70	NR	78.76%	0.005	100.00%	100.00	100.00	100.00	98.71	98.71	99.66	99.73
		RELIANCE	100.00	1.84	88.21	4	3.89	0.0000	NR	0.038	100.00%	100.00	97.63	99.47	100.00	100.00	95.00	98.00
		BHARTI	98.42	5.50	92.21	1523	20.96	0.0016	66.21%	0.250	100.00%	86.03	99.86	92.08	100.00	100.00	95.33	97.79
		TATA	88.49	0.00	Nil	0	20.96	0.0000	85.32%	Nil	Nil	100.00	NIL	100.00	100.00	100.00	98.00	99.00
11	HARYANA	BSNL	99.92	5.10	95.74	360	7.30	NR	74.16%	0.004	100.00%	100.00	100.00	100.00	100.00	100.00	80.00	100.00
		RELIANCE	99.08	0.00	NA	0	NA	0.0000	NR	0.000	100.00%	Nil	Nil	Nil	100.00	100.00	95.00	98.00
		TATA	Nil	0.82	73.17	1	20.08	0.0000	89.82%	0.000	93.94%	Nil	Nil	83.33	100.00	100.00	92.00	96.00
		BHARTI	100.00	4.82	95.53	30	11.00	0.0010	64.10%	0.004	100.00%	98.61	98.75	96.48	100.00	100.00	96.10	98.42
12	KARNATAKA	BSNL	99.86	5.40	93.37	7429	7.30	NR	65.70%	0.026	100.00%	100.00	99.99	100.00	100.00	100.00	99.90	99.98
		RELIANCE	64.26	1.23	98.09	17	3.28	0.0020	NR	0.031	100.00%	100.00	99.05	98.80	100.00	100.00	95.00	98.00
		BHARTI	97.10	4.80	91.96	2749	7.20	0.0013	54.27%	0.140	100.00%	93.50	99.93	94.46	100.00	100.00	75.00	83.00
		TATA	74.13	0.04	90.80	1	5.20	0.0000	84.77%	0.008	Nil	73.33	100.00	100.00	100.00	100.00	89.00	93.00
13	A&N	BSNL	90.71	4.00	87.25	NR	5.40	NR	50.67%	0.000	100.00%	90.00	100.00	88.50	NR	NR	NR	NR
14	ASSAM	BSNL	88.62	7.40	72.64	NR	8.30	NR	59.18%	0.037	100.00%	100.00	93.28	92.35	99.00	100.00	94.67	97.33
15	CHENNAI	BSNL	99.53	3.20	93.90	11	8.80	NR	81.14%	0.009	100.00%	99.00	100.00	100.00	100.00	100.00	98.50	99.50
		RELIANCE	100.00	2.59	98.97	13	1.55	0.0000	NR	0.033	100.00%	100.00	94.64	95.22	100.00	100.00	95.00	98.00



		TATA	91.37	0.00	100.00	0	2.67	0.0000	87.84%	Nil	Nil	100.00	100.00	96.97	100.00	100.00	92.00	95.00
16	H P	RELIANCE	0.00	0.00	NA	0	NA	0.0001	NR	0.000	100.00%	Nil	Nil	Nil	100.00	100.00	95.00	98.00
		BSNL	100.00	8.90	89.95	1158	7.80	NR	66.72%	0.005	100.00%	99.00	93.49	97.61	NR	NR	NR	NR
17	JHARKHAND	BSNL	98.80	4.10	88.76	15	8.70	NR	52.40%	0.072	100.00%	98.00	98.89	99.46	NR	NR	NR	NR
18	J & K	BSNL	NA	9.40	73.04	NR	7.30	NR	50.34%	0.067	100.00%	Nil	99.94	94.82	NR	NR	NR	NR
19	KERALA	BSNL	98.37	6.60	87.16	1469	20.00	NR	70.18%	0.006	100.00%	92.00	99.17	99.18	100.00	100.00	81.42	100.00
		BHARTI	99.89	2.80	89.52	59	5.74	0.0006	67.93%	0.310	100.00%	93.32	99.95	81.76	100.00	100.00	100.00	100.00
		TATA	96.65	Nil	Nil	0	0.00	0.0000	83.86%	0.000	Nil	Nil	100.00	100.00	100.00	100.00	95.00	97.00
		RELIANCE	34.53	0.75	98.81	NR	3.31	0.0000	NR	0.032	100.00%	97.30	97.57	99.03	100.00	100.00	95.00	98.00
20	KOLKATA	BHARTI	99.90	3.00	96.36	37	8.70	0.0030	69.70%	0.053	100.00%	93.88	98.74	99.12	100.00	100.00	96.10	98.42
		RELIANCE	38.87	1.25	99.47	13	4.79	0.0000	NR	0.080	100.00%	98.08	97.18	97.78	100.00	100.00	95.00	98.00
		TATA	81.36	Nil	Nil	0	0.00	0.0000	81.33%	0.000	Nil	Nil	100.00	97.76	100.00	100.00	94.00	98.00
		BSNL	99.65	4.00	90.96	7844	9.80	NR	56.62%	0.084	100.00%	97.00	99.14	99.43	100.00	100.00	86.73	100.00
21	MUMBAI	TATA	84.53	2.33	96.76	0	4.99	0.0000	57.00%	0.105	100.00%	98.26	100.00	98.75	100.00	100.00	90.33	93.33
		BHARTI	92.37	1.60	95.73	199	5.74	0.0018	63.54%	0.007	100.00%	95.27	100.00	98.68	100.00	100.00	93.14	95.74
		RELIANCE	17.77	0.29	98.14	10	3.17	0.0000	NR	0.054	100.00%	96.70	97.57	95.91	100.00	100.00	95.00	98.00
		MTNL	94.46	6.79	89.95	59100	13.11	0.0000	56.58%	0.054	100.00%	83.95	96.52	95.13	100.00	100.00	84.71	87.42
22	NE-I	BSNL	82.20	4.10	91.40	2153	23.80	NR	57.42%	0.028	100.00%	90.00	96.53	94.54	100.00	100.00	88.33	96.67
23	NE-II	BSNL	100.00	5.20	92.49	196	10.20	NR	67.81%	0.046	100.00%	100.00	100.00	100.00	73.29	82.00	97.67	99.00
24	ORISSA	BSNL	96.00	4.60	94.01	3610	7.40	NR	62.75%	0.029	100.00%	89.00	94.02	99.33	100.00	100.00	100.00	100.00
		RELIANCE	0.14	0.00	NA	0	NA	0.0000	NR	0.000	100.00%	Nil	100.00	Nil	100.00	100.00	95.00	98.00
25	UP-E	BSNL	98.73	6.10	93.48	1435	6.10	NR	76.67%	0.000	100.00%	98.00	97.90	99.59	100.00	100.00	100.00	100.00
		BHARTI	99.23	7.00	91.81	104	10.30	0.0010	61.61%	0.011	93.00%	100.00	98.35	96.66	100.00	100.00	96.10	98.42
		RELIANCE	66.34	10.04	100.00	35	2.01	0.0000	NR	0.093	100.00%	100.00	97.63	99.47	100.00	100.00	95.00	98.00

26	UP-W	BSNL	92.79	7.10	91.85	572	7.30	NR	65.03%	0.032	100.00%	95.00	97.56	99.21	100.00	100.00	88.35	98.50
		BHARTI	99.83	7.00	93.64	41	11.10	0.0140	55.84%	0.015	97.00%	92.81	99.79	96.92	100.00	100.00	96.10	98.42
		RELIANCE	100.00	0.00	NA	0	NA	0.0000	NR	0.000	100.00%	Nil	Nil	Nil	100.00	100.00	95.00	98.00
27	UTTARANCHAL	BSNL	98.97	6.50	96.19	2	7.10	NR	76.67%	0.000	100.00%	94.00	98.59	98.86	NR	NR	90.33	98.00
28	WEST BENGAL	BSNL	100.00	5.90	84.97	387	9.38	NR	65.07%	0.017	100.00%	99.00	100.00	100.00	95.67	98.00	95.33	98.33
		RELIANCE	50.00	0.00	NA	0	NA	0.0000	NR	0.000	100.00%	Nil	Nil	Nil	100.00	100.00	95.00	98.00

Operator not meeting the prescribed benchmark

NR = Data Not Reported

NA = Not Applicable

## Annex 5.2

### Quality of Service Performance for Wireless Services

Sl. No.	Name of Licensees & Service area	Parameters													
		(A) Network Performance						(B) Customer help lines				(C) Billing Complaints			
		(i)	(ii)	(iii)	(iv)		(v)	(vi)	(i)				(i)	(ii)	(iii)
		Accumulated down time of community isolation	Call Set-up Success Rate (within licensees own network)	Service Access Delay	Blocked Call Rate (Averaged over the quarter)		Call Drop Rate	%age of connections with good voice quality	Response time to the customer for assistance				Complaints per 100 bills issued	% of complaints resolved within 4 weeks	Period of all refunds/ payment due to customers from the date of resolution of complaints as in (ii) above
Benchmarks															
<24 hrs	>95%	Between 9 to 20 seconds depending upon number of paging attempts (Average of 100 calls = <15 sec)	SDCCH / Paging Channel Congestion <1%	TCH Congestion <2%	<3%	>95%	(I) %age of calls answered (electronically) within 20 seconds = 80%,	(I) %age of calls answered (electronically) within 40 seconds = 95%	(I) %age of calls answered by operator (voice to voice); within 60 seconds=80%,	(I) %age of calls answered by operator (voice to voice); within 90 seconds = 95%,	<0.1%	100%	<4 weeks		
	<b>'A' Circle</b>														
<b>I</b>	<b>Maharashtra</b>														
1	Vodafone Essar	1.16	99.92 %	13.50	0.55%	1.44%	1.19%	97.76%	95.00%	95.00%	100.00%	100.00%	0.070%	100.00%	15 days
2	IDEA Cellular	4.52	97.83 %	9.19	0.94%	1.39%	1.17%	99.10%	100.00%	100.00%	99.03%	99.32%	0.030%	100.00%	30 days
3	BSNL	0.00	98.80 %	8.80	0.70%	1.60%	2.30%	97.50%	100.00%	100.00%	80.70%	96.10%	0.032%	100.00%	30 days
4	Bharti Airtel Limited	21.25	97.49 %	11.11	0.54%	1.35%	1.27%	96.50%	100.00%	NA	94.20%	97.80%	0.070%	100.00%	30 days

5	Reliance Comm	0.21	99.40%	4.10	0.00%	0.00%	0.70%	98.50%	97.30%	97.30%	94.60%	96.70%	0.060%	100.00%	30 days
6	Tata Teleservices	12.45	97.68%	12.00	0.00%	0.63%	0.71%	96.67%	100.00%	100.00%	87.00%	90.33%	0.090%	100.00%	30 days
<b>ii</b>	<b>Gujarat</b>														
7	Vodafone Essar	18.30	98.49%	9.49	0.35%	0.64%	0.95%	95.65%	100.00%	100.00%	98.90%	99.70%	0.060%	100.00%	15 days
8	IDEA Cellular	2.10	98.74%	13.10	0.90%	0.58%	1.84%	97.23%	100.00%	100.00%	92.00%	96.00%	0.080%	100.00%	30 days
9	BSNL	0.00	99.43%	2.16	0.64%	1.63%	1.55%	95.00%	100.00%	100.00%	85.00%	95.00%	0.034%	100.00%	30 days
10	Bharti Airtel Limited	16.26	97.45%	14.53	0.80%	1.05%	0.02%	96.78%	100.00%	NA	90.10%	92.80%	0.000%	100.00%	30 days
11	Reliance Comm	0.17	99.40%	4.10	0.00%	0.00%	0.70%	98.50%	97.30%	97.30%	92.20%	95.10%	0.050%	100.00%	30 days
12	Tata Teleservices	0.49	98.84%	5.39	0.00%	0.04%	0.43%	98.62%	100.00%	100.00%	65.70%	72.00%	0.060%	100.00%	30 days
<b>iii</b>	<b>Andhra Pradesh</b>														
13	IDEA Cellular	10.00	99.33%	7.00	0.57%	1.34%	1.79%	96.33%	100.00%	100.00%	81.00%	96.00%	0.030%	100.00%	30 days
14	Bharti Airtel Limited	5.35	96.13%	2.29	1.31%	2.84%	0.97%	99.00%	100.00%	NA	95.00%	96.00%	0.010%	100.00%	30 days
15	BSNL	10.67	95.00%	7.10	0.60%	3.02%	1.69%	98.00%	99.27%	99.59%	80.00%	95.00%	0.001%	100.00%	Immediate
16	Vodafone Essar	19.60	99.87%	9.00	0.10%	0.15%	1.00%	98.00%	100.00%	100.00%	96.60%	99.30%	0.090%	100.00%	15 days
17	Reliance Comm	0.38	99.40%	4.00	0.00%	0.00%	0.70%	99.60%	97.30%	97.30%	64.50%	72.40%	0.060%	100.00%	30 days
18	Tata Teleservices	0.22	98.65%	5.52	0.00%	0.13%	0.36%	99.36%	100.00%	100.00%	73.30%	78.90%	0.030%	100.00%	30 days
<b>iv</b>	<b>Karnataka</b>														
19	Bharti Airtel Limited	17.75	97.00%	6.50	0.91%	1.61%	1.68%	95.10%	100.00%	NA	93.80%	97.60%	0.000%	100.00%	30 days
20	Spice Comm.	22.48	98.90%	8.35	0.40%	1.34%	1.21%	99.05%	100.00%	100.00%	93.80%	98.30%	0.023%	100.00%	30 days
21	BSNL	9.57	97.27%	3.52	0.89%	1.94%	1.21%	97.53%	100.00%	100.00%	90.36%	95.19%	0.050%	100.00%	NIL
22	Vodafone Essar	23.08	98.58%	10.21	0.11%	1.41%	1.22%	98.48%	100.00%	100.00%	98.90%	99.13%	0.090%	100.00%	15 days

23	Reliance Comm	0.83	99.40%	4.10	0.00%	0.00%	0.60%	99.90%	97.30%	97.30%	82.80%	87.60%	0.060%	100.00%	30 days
24	Tata Teleservices	0.37	97.90%	5.10	0.00%	0.13%	0.90%	98.66%	100.00%	100.00%	90.70%	92.30%	0.030%	100.00%	30 days
<b>v</b>	<b>Tamil Nadu</b>														
25	Vodafone Essar	21.59	99.12%	12.56	0.16%	1.84%	1.48%	99.20%	100.00%	100.00%	99.50%	100.00%	0.090%	100.00%	15 days
26	Aircel	11.38	98.54%	11.13	0.04%	1.64%	0.64%	95.66%	100.00%	100.00%	98.00%	99.00%	0.050%	100.00%	30 days
27	BSNL	0.00	96.32%	9.99	0.87%	1.91%	1.14%	96.09%	100.00%	100.00%	81.00%	95.00%	0.000%	100.00%	NIL
28	Bharti Airtel Limited	0.00	98.99%	3.22	0.61%	0.44%	0.99%	98.85%	100.00%	NA	95.90%	97.90%	0.010%	100.00%	30 days
29	Reliance Comm	0.00	99.40%	4.10	0.00%	0.00%	0.80%	98.80%	97.30%	97.30%	68.10%	73.50%	0.070%	100.00%	30 days
30	Tata Teleservices	0.27	99.76%	5.26	0.00%	0.38%	0.87%	99.63%	100.00%	100.00%	88.20%	90.60%	0.030%	100.00%	30 days
	<b>B' Circle</b>														
<b>vi</b>	<b>Kerala</b>														
31	IDEA Cellular	22.04	99.59%	12.67	0.49%	1.12%	1.02%	96.93%	97.00%	99.00%	82.00%	96.00%	0.080%	100.00%	30 days
32	Vodafone Essar	11.00	97.55%	14.01	0.67%	0.78%	1.01%	98.87%	100.00%	100.00%	97.86%	100.00%	0.030%	100.00%	15 days
33	BSNL	23.35	97.26%	4.40	0.32%	2.80%	1.30%	98.10%	100.00%	100.00%	91.89%	95.10%	0.001%	100.00%	30 days
34	Bharti Airtel Limited	9.70	99.53%	12.41	0.37%	0.18%	0.92%	95.27%	100.00%	NA	85.00%	96.00%	0.010%	100.00%	30 days
35	Tata Teleservices	0.00	99.57%	4.53	0.00%	0.00%	0.54%	98.37%	100.00%	100.00%	83.20%	88.90%	0.020%	100.00%	30 days
36	Reliance Comm	0.33	99.40%	4.10	0.00%	0.00%	0.60%	97.80%	97.30%	97.30%	95.30%	97.40%	0.090%	100.00%	30 days
<b>vii</b>	<b>Punjab</b>														
37	Spice Comm.	4.72	98.52%	9.10	0.01%	0.37%	0.75%	97.01%	100.00%	100.00%	96.00%	96.00%	0.100%	100.00%	30 days
38	HFCL - CDMA	1.12	98.95%	12.70	0.00%	0.01%	0.75%	97.41%	100.00%	100.00%	98.00%	98.00%	0.002%	NR	30 days
39	Bharti Airtel Limited	2.80	99.21%	3.00	0.23%	0.51%	1.36%	98.20%	100.00%	NA	96.30%	98.70%	0.010%	100.00%	30 days
40	Vodafone Essar	3.70	99.58%	10.00	0.09%	0.00%	1.25%	97.58%	95.50%	95.30%	99.30%	99.70%	0.020%	100.00%	15 days

41	BSNL	1.02	98.13 %	3.75	0.55%	1.80%	2.76%	97.40%	87.00%	96.30%	87.60%	96.60%	0.000%	100.00%	NIL
42	Reliance Comm	0.17	99.40 %	4.10	0.00%	0.00%	0.60%	98.50%	97.30%	97.30%	82.00%	86.70%	0.090%	100.00%	30 days
43	Tata Teleservices	0.00	98.53 %	5.00	0.00%	0.00%	0.85%	98.29%	100.00%	100.00%	82.20%	87.00%	0.060%	100.00%	30 days
<b>viii</b>	<b>Haryana</b>														
44	IDEA Cellular	18.35	99.98 %	10.26	0.30%	0.50%	1.75%	98.44%	100.00%	100.00%	97.00%	99.00%	0.050%	100.00%	30 days
45	Vodafone Essar	3.64	99.94 %	9.00	0.04%	0.81%	2.28%	95.60%	100.00%	100.00%	99.00%	99.30%	0.090%	100.00%	15 days
46	BSNL	4.43	95.30 %	4.70	0.80%	1.80%	2.80%	96.90%	100.00%	100.00%	80.00%	95.00%	0.010%	100.00%	30 days
47	Bharti Airtel Limited	1.90	99.44 %	7.20	0.52%	0.49%	0.93%	96.36%	100.00%	NA	97.20%	99.60%	0.000%	100.00%	30 days
48	Reliance Comm	0.00	99.40 %	4.00	0.00%	0.00%	0.80%	97.50%	97.30%	97.30%	89.60%	93.30%	0.060%	100.00%	30 days
49	Tata Teleservices	0.34	98.38 %	5.26	0.00%	0.05%	0.83%	98.43%	100.00%	100.00%	54.90%	59.00%	0.080%	100.00%	30 days
<b>ix</b>	<b>UP - W</b>														
50	Vodafone Essar	0.00	99.84 %	9.20	0.75%	1.85%	1.74%	95.38%	99.93%	99.93%	83.50%	85.33%	0.050%	100.00%	15 days
51	IDEA Cellular	17.53	99.70 %	0.83	1.19%	11.04%	1.05%	97.60%	100.00%	100.00%	94.00%	99.00%	0.070%	100.00%	30 days
52	BSNL	0.00	99.00 %	14.00	0.89%	1.85%	2.88%	99.00%	91.31%	96.77%	80.00%	95.00%	0.001%	100.00%	1 day
53	Bharti Airtel Limited	21.75	96.90 %	14.10	0.94%	0.71%	1.22%	96.31%	100.00%	NA	79.00%	86.00%	0.110%	100.00%	30 days
54	Reliance Comm	0.00	99.30 %	4.20	0.00%	0.00%	0.80%	98.50%	97.30%	97.30%	89.00%	92.70%	0.090%	100.00%	30 days
55	Tata Teleservices	0.35	97.54 %	5.26	0.00%	0.45%	0.93%	99.80%	100.00%	100.00%	40.20%	45.00%	0.030%	100.00%	30 days
<b>x</b>	<b>UP -E</b>														
56	Bharti Airtel Limited	21.88	96.23 %	11.60	0.93%	1.67%	1.34%	96.35%	100.00%	NA	51.00%	69.00%	0.200%	100.00%	30 days
57	Vodafone Essar	0.00	97.80 %	9.00	0.14%	1.01%	1.90%	96.89%	100.00%	100.00%	100.00%	100.00%	0.000%	100.00%	15 days
58	IDEA Cellular	18.00	99.11 %	10.00	0.20%	0.87%	1.28%	97.11%	100.00%	100.00%	98.00%	99.00%	0.090%	100.00%	30 days
59	BSNL	22.00	98.00 %	10.00	0.80%	1.80%	2.40%	98.40%	82.00%	96.00%	83.00%	96.00%	0.070%	100.00%	30 days

			%												
60	Reliance Comm	0.18	99.30 %	4.00	0.00%	0.00%	0.70%	99.80%	97.30%	97.30%	90.80%	93.50%	0.090%	100.00%	30 days
61	Tata Teleservices	0.30	98.28 %	5.49	0.00%	0.02%	0.70%	98.80%	100.00%	100.00%	52.30%	57.10%	0.040%	100.00%	30 days
<b>xi</b>	<b>Rajasthan</b>														
62	Vodafone Essar	19.44	96.82 %	9.65	0.64%	0.69%	1.07%	95.71%	99.20%	99.30%	98.40%	99.00%	0.090%	100.00%	15 days
63	BSNL	22.28	97.49 %	6.57	0.31%	1.36%	2.49%	96.70%	98.73%	99.20%	79.00%	93.00%	0.070%	100.00%	30 days
64	IDEA Cellular	22.50	98.82 %	5.23	0.68%	0.70%	1.96%	98.81%	NA	NA	96.70%	98.40%	0.080%	100.00%	30 days
65	Bharti Airtel Limited	14.54	97.54 %	9.64	4.14%	5.11%	1.18%	97.17%	100.00%	NA	53.00%	62.00%	0.000%	100.00%	30 days
66	Reliance Comm	0.23	99.40 %	4.10	0.00%	0.00%	0.80%	99.30%	97.30%	97.30%	94.10%	96.60%	0.070%	100.00%	30 days
67	Tata Teleservices	0.37	97.57 %	5.49	0.00%	0.62%	0.97%	98.48%	100.00%	100.00%	71.60%	78.50%	0.050%	100.00%	30 days
68	Shyam Telelink Ltd	7.56	98.67 %	6.00	0.50%	0.44%	0.52%	98.00%	NA	NA	89.00%	NA	0.090%	100.00%	30 days
<b>xii</b>	<b>Madhya Pradesh</b>														
69	IDEA Cellular	22.58	96.82 %	0.91	1.20%	8.33%	1.69%	96.86%	100.00%	100.00%	71.00%	86.00%	0.000%	100.00%	30 days
70	Reliance Telecom	23.31	100.00 %	7.46	0.39%	1.63%	1.30%	95.98%	100.00%	100.00%	91.00%	100.00%	0.010%	100.00%	1 day
71	BSNL	3.87	96.89 %	9.67	0.49%	1.48%	2.39%	97.17%	100.00%	100.00%	80.70%	96.10%	0.002%	100.00%	21 days
72	Bharti Airtel Limited	21.33	97.97 %	9.94	0.40%	0.99%	1.03%	98.70%	100.00%	NA	84.00%	86.00%	0.010%	100.00%	30 days
73	Reliance Comm	0.98	99.40 %	4.10	0.00%	0.00%	0.90%	98.80%	97.30%	97.30%	92.30%	95.40%	0.050%	100.00%	30 days
74	Tata Teleservices	0.37	98.09 %	4.86	0.00%	0.00%	0.78%	98.44%	100.00%	100.00%	66.10%	72.80%	0.040%	100.00%	30 days
<b>xiii</b>	<b>West Bengal</b>														
75	Bharti Airtel Limited	0.00	93.80 %	5.54	2.66%	2.19%	1.32%	95.61%	100.00%	NA	96.00%	97.00%	0.010%	100.00%	30 days
76	Reliance Telecom	13.20	99.00 %	7.90	0.34%	1.18%	1.36%	96.51%	100.00%	NA	96.00%	NIL	0.000%	100.00%	Immediate

77	BSNL	0.00	98.00%	9.80	0.67%	1.50%	2.35%	97.80%	88.00%	97.00%	89.00%	97.00%	0.040%	100.00%	13 days
78	Tata Teleservices	0.44	97.76%	4.59	0.00%	0.04%	0.87%	98.50%	100.00%	100.00%	81.60%	86.10%	0.030%	100.00%	30 days
79	Reliance Comm	0.70	99.30%	4.10	0.00%	0.00%	1.10%	97.10%	97.30%	97.30%	97.50%	98.40%	0.030%	100.00%	30 days
80	Vodafone Essar	0.00	99.95%	14.30	0.40%	1.24%	1.72%	97.70%	100.00%	100.00%	98.50%	99.10%	0.090%	100.00%	15 days
81	Dishnet	0.00	98.73%	8.00	0.97%	0.97%	0.86%	99.38%	100.00%	100.00%	67.00%	67.00%	0.100%	100.00%	30 days
	<b>C' Circle</b>														
<b>xiv</b>	<b>Himachal Pradesh</b>														
82	Bharti Airtel Limited	7.73	98.50%	7.35	0.53%	0.73%	1.31%	95.00%	100.00%	NA	85.30%	93.70%	0.000%	100.00%	30 days
83	IDEA Cellular	0.00	99.42%	11.63	0.12%	0.51%	1.81%	98.35%	NA	NA	85.00%	90.00%	0.000%	100.00%	30 days
84	Reliance Telecom	23.38	99.00%	6.47	0.29%	1.98%	1.52%	96.65%	100.00%	NA	78.00%	100.00%	0.000%	NA	NA
85	BSNL	0.00	96.30%	5.20	0.80%	1.90%	2.60%	96.10%	95.00%	96.00%	81.70%	96.70%	0.000%	100.00%	30 days
86	Reliance Comm	0.33	99.40%	4.20	0.00%	0.00%	0.70%	98.50%	97.30%	97.30%	82.00%	86.70%	0.030%	100.00%	30 days
87	Tata Teleservices	0.30	98.77%	5.39	0.00%	0.14%	0.55%	98.49%	100.00%	100.00%	80.60%	83.30%	0.040%	100.00%	30 days
88	Dishnet	0.00	98.72%	8.00	0.99%	1.00%	0.69%	99.20%	100.00%	100.00%	100.00%	100.00%	NIL	NIL	NIL
<b>xv</b>	<b>Bihar</b>														
89	Reliance Telecom	12.46	97.00%	9.57	0.92%	1.55%	1.68%	95.74%	NR*	NR*	NR	96.00%	0.000%	100.00%	NIL
90	BSNL	22.00	98.00%	12.00	0.40%	0.90%	1.20%	98.60%	88.00%	98.00%	86.00%	96.00%	0.030%	99.78%	30 days
91	Reliance Comm	0.49	99.30%	4.10	0.00%	0.00%	0.80%	97.30%	97.30%	97.30%	96.20%	97.10%	0.080%	100.00%	30 days
92	Bharti Airtel Limited	0.00	97.02%	9.60	6.25%	4.98%	2.39%	96.54%	100.00%	NA	91.10%	94.90%	0.120%	100.00%	30 days
93	Tata Teleservices	0.50	97.53%	5.54	0.00%	0.16%	0.86%	97.79%	100.00%	100.00%	82.30%	85.90%	0.020%	100.00%	30 days
94	Dishnet	0.00	97.12%	8.00	0.87%	0.86%	0.87%	99.17%	100.00%	100.00%	56.31%	56.31%	NIL	NIL	NIL



<b>xvi</b>	<b>Orissa</b>														
95	Reliance Telecom	22.16	99.17 %	6.98	0.61%	1.96%	1.38%	97.01%	NA	NA	95.67%	100.00%	0.000%	100.00%	NA
96	BSNL	8.00	98.00 %	11.00	0.97%	1.96%	2.09%	98.00%	95.00%	97.00%	96.00%	98.00%	0.030%	100.00%	NIL
97	Bharti Airtel Limited	0.00	98.01 %	8.10	0.86%	1.67%	1.63%	99.04%	100.00%	NA	89.00%	92.10%	0.000%	100.00%	30 days
98	Reliance Comm	0.85	99.40 %	4.10	0.00%	0.00%	0.80%	98.60%	97.30%	97.30%	92.30%	95.40%	0.060%	100.00%	30 days
99	Tata Teleservices	0.36	98.40 %	5.10	0.00%	0.17%	0.91%	98.81%	100.00%	100.00%	84.90%	87.90%	0.010%	100.00%	30 days
100	Dishnet	0.00	98.50 %	8.00	0.98%	0.92%	0.77%	99.33%	100.00%	100.00%	91.09%	91.09%	0.040%	100.00%	30 days
<b>xvii</b>	<b>Assam</b>														
101	Bharti Airtel Limited	3.75	96.01 %	9.00	0.32%	1.06%	1.30%	96.56%	100.00%	NA	79.00%	84.00%	0.200%	100.00%	30 days
102	BSNL	3.45	97.00 %	12.00	0.60%	1.70%	2.80%	97.00%	98.00%	99.00%	86.00%	96.00%	0.060%	100.00%	30 days
103	Reliance Telecom	19.32	96.00 %	7.53	1.64%	4.96%	1.97%	95.30%	NA	NA	88.92%	95.26%	0.070%	100.00%	NA
104	Dishnet	0.00	98.51 %	8.00	0.93%	0.83%	0.86%	99.20%	100.00%	100.00%	71.73%	71.73%	0.000%	100.00%	30 days
<b>xviii</b>	<b>J &amp; K</b>														
105	BSNL	0.00	98.00 %	12.00	0.90%	1.90%	1.90%	99.90%	82.00%	97.00%	81.00%	96.00%	0.090%	100.00%	21 days
106	Bharti Airtel Limited	10.04	98.52 %	4.60	0.43%	0.67%	1.40%	95.93%	97.00%	98.00%	96.00%	98.00%	0.020%	100.00%	30 days
107	Dishnet	0.00	97.71 %	8.00	0.94%	0.96%	0.61%	99.20%	100.00%	100.00%	93.94%	93.94%	0.000%	100.00%	30 days
<b>xix</b>	<b>NE</b>														
108	BSNL	0.46	97.97 %	12.33	0.91%	1.24%	2.07%	95.66%	96.33%	96.33%	94.66%	96.33%	0.060%	100.00%	30 days
109	Bharti Airtel Limited	6.28	97.16 %	9.00	1.50%	2.18%	2.30%	95.05%	100.00%	NA	86.00%	89.00%	0.130%	100.00%	30 days
110	Reliance Telecom	17.12	97.70 %	7.54	1.47%	4.76%	1.73%	97.60%	NA	NA	82.00%	100.00%	0.070%	100.00%	NA
111	Dishnet	0.00	98.48 %	8.00	0.69%	0.82%	0.78%	99.27%	100.00%	100.00%	100.00%	100.00%	0.000%	100.00%	30 days
	<b>METRO</b>														

<b>xx</b>	<b>Delhi</b>															
112	Bharti Airtel Limited	0.00	98.90 %	13.10	0.22%	0.19%	0.99%	96.00%	100.00%	NA	94.80%	98.20%	0.040%	100.00%	30 days	
113	Vodafone Essar	0.00	98.87 %	6.97	0.18%	0.09%	0.71%	97.51%	98.50%	98.50%	96.00%	98.10%	0.010%	100.00%	15 days	
114	MTNL - GSM (i)	0.00	83.99 %	9.31	0.20%	4.45%	1.33%	NR	99.00%	100.00%	25.00%	41.00%	0.180%	100.00%	30 days	
114	MTNL - CDMA (ii)	0.00	97.89 %	NR	NR	0.14%	1.36%	96.93%	NR*	NR*	99.36%	99.52%	0.090%	100.00%	NR	
115	IDEA Cellular	0.00	98.94 %	9.00	0.32%	0.88%	0.70%	98.46%	100.00%	100.00%	91.00%	98.00%	0.050%	100.00%	30 days	
116	Tata Teleservices	0.00	98.50 %	5.04	0.00%	0.55%	0.65%	98.67%	100.00%	100.00%	42.10%	47.20%	0.040%	100.00%	30 days	
117	Reliance Comm	0.00	99.40 %	4.20	0.00%	0.00%	0.50%	99.00%	97.30%	97.30%	97.10%	98.10%	0.080%	100.00%	30 days	
<b>xxi</b>	<b>Mumbai</b>															
118	BPL Mobile	3.00	99.41 %	11.13	0.64%	0.65%	1.56%	97.35%	86.78%	NA	85.16%	98.62%	0.060%	100.00%	30 days	
119	Vodafone Essar	0.00	96.70 %	10.00	0.73%	1.42%	1.79%	95.50%	99.06%	99.83%	87.00%	95.10%	0.000%	100.00%	15 days	
120	MTNL - GSM (i)	0.00	96.60 %	9.28	0.62%	1.58%	1.66%	96.39%	86.00%	98.00%	88.00%	96.00%	0.039%	100.00%	30 days	
120	MTNL - CDMA (ii)	0.00	96.39 %	2.59	0.95%	0.11%	1.26%	97.60%	NR*	NR*	NR*	NR*	NR	NR	NR	
121	Bharti Airtel Limited	0.00	95.32 %	3.40	0.35%	0.67%	1.08%	99.46%	100.00%	NA	90.60%	93.80%	0.070%	100.00%	30 days	
122	Reliance Comm	0.00	99.40 %	4.00	0.00%	0.00%	0.60%	99.20%	97.30%	97.30%	94.90%	97.20%	0.070%	100.00%	30 days	
123	Tata Teleservices	0.00	98.28 %	12.00	0.00%	0.57%	0.48%	97.58%	100.00%	100.00%	90.33%	93.33%	0.060%	100.00%	30 days	
<b>xxii</b>	<b>Chennai</b>															
124	Aircel Cellular Ltd	0.00	97.55 %	13.90	0.08%	1.59%	0.49%	95.40%	NR*	NR*	93.00%	100.00%	0.100%	100.00%	30 days	
125	Vodafone Essar	0.00	99.75 %	11.10	0.04%	0.64%	0.64%	99.80%	100.00%	100.00%	96.83%	97.30%	0.020%	100.00%	15 days	
126	BSNL	0.00	99.00 %	10.00	0.20%	1.00%	1.00%	100.00%	99.00%	99.00%	91.00%	94.00%	0.000%	100.00%	30 days	
127	Reliance Comm	0.00	99.40 %	4.00	0.00%	0.00%	0.70%	99.50%	97.30%	97.30%	73.00%	77.90%	0.090%	100.00%	30 days	
128	Tata Teleservices	0.00	99.91 %	5.49	0.00%	0.00%	0.30%	99.37%	100.00%	100.00%	87.50%	90.30%	0.040%	100.00%	30 days	

	Bharti Airtel Limited *														
<b>xxiii</b>	<b>Kolkata</b>														
129	Bharti Airtel Limited	0.00	97.55 %	6.62	0.47%	0.24%	1.05%	95.76%	100.00%	NA	96.00%	97.00%	0.010%	100.00%	30 days
130	Vodafone Essar	0.00	99.98 %	14.50	0.38%	0.81%	0.82%	97.08%	100.00%	100.00%	95.70%	97.80%	0.000%	100.00%	30 days
131	BSNL	0.00	98.13 %	9.10	0.65%	1.28%	0.99%	99.02%	96.17%	98.50%	82.00%	94.00%	0.050%	100.00%	30 days
132	Reliance Telecom (Reliable Internet. Ser.**)	0.00	99.00 %	8.13	0.01%	0.24%	1.20%	97.73%	100.00%	100.00%	88.55%	NR	0.000%	NA	40 days
133	Tata Teleservices	0.00	99.01 %	5.11	0.00%	0.90%	0.68%	98.37%	100.00%	100.00%	81.70%	86.70%	0.020%	100.00%	30 days
134	Reliance Comm	0.00	99.40 %	4.10	0.00%	0.00%	0.60%	98.80%	97.30%	97.30%	97.50%	98.40%	0.090%	100.00%	30 days
Service Providers not meeting the benchmarks NR=Data Not Reported NA = Not Applicable, * The License of M/s Bharti Airtel Chennai has been merged with Tamilnadu Circle.															

\*\* The License of M/s Reliable Internet Service has been merged with Reliance Telecom Ltd. Kolkata

NR\* IVR service not provided by Aircel Cellular Ltd., MTNL (Mumbai) & Reliance Telecom

NR\*\* Shyam has reported in their report for B (i)a & b, (ii) b as NA as they do not have a system to measure the % of calls answered by operator (voice to voice) within 60 sec.

**Annex 5.3**

**Quality of Service Performance for ISPs**

Performance of Internet Service Providers on Quality of Service Parameters									
Sr. No.	Name of the Service Provider	Dial-up access							Mean time to Restore of faults resulting as per subscriber complaints
		Service Activation time	Service Accessibility					GOS on the link connecting to PSTN node to ISP	
			Time to Access	Probability of accessing the ISP node (%)			ISP node unavailability in a month		
				1st Attempt	2nd Attempt	3rd Attempt			
		6 hrs	30 Sec	80.00 %	90.00%	99.00%	30 Min	1 in 100	3 days
1	BHARAT SANCHAR NIGAM LTD.	0-4 hrs	15-30 Sec	90.00%	95.00%	100.00%	Nil	0.01	4 hrs
2	MAHANAGAR TELEPHONE NIGAM LTD, Delhi	Online	30 Sec	99.72%	99.99%	--	Nil	0.01	5 Min
	MAHANAGAR TELEPHONE NIGAM LTD, Mumbai	Immediate	26 Sec	100.00%	--	--	Nil	0.005	15 Min
3	BHARTI AIRTEL LTD.	Online	30-35 Sec	99.80%	100.00%	100.00%	Nil	<0.01	5.44 hrs
4	RELIANCE COMM. INFRASTRUCTURE LTD	Online	<25 Sec	98.00%	100.00%	--	Nil	NA	<8 hrs
5	SIFY LTD.	3 Min	30 Sec	90.00%	95.00%	99.00%	20 Min	0.005	4 hrs
6	Tata Communications Ltd.(VSNL)	2-4 hrs	30 Sec	>80.00%	>90.00%	>99.00%	DNF	Not provided by BSO	3 days
7	DATA INFOSYS LTD.	2-3 Min	20-25 Sec	95.00%	97.00%	99.00%	30 Min	0.01	15 Min
8	YOU TELECOM INDIA PVT. LTD.	2 Min	20 Sec	98.00%	99.00%	100.00%	Nil	Not provided by M/s BSNL	23 hrs
9	ASIANET SATELITE COMMUNICATIONS	Immediate	10 Sec	98.00%	99.00%	100.00%	<30 Min	0.002	15 hrs 30 min
10	HFCL INFOTEL LTD	NA	30 Sec	98.00%	99.00%	100.00%	NA	Not reported	10 hrs
11	HCL INFINET LTD.	3 Min	8-24 Sec	99.50%	99.40%	99.20%	22 Min	0.01	17-19 hrs
12	SHYAM INTERNET SERVICES LTD.	5 Min	20 Sec	98.50%	99.50%	99.99%	15 Min	1	3 hrs
13	TATA TELESERVICES (MH) / HUGHES TELECOM	---	25 Sec	99.00%	Nil	Nil	---	0.001	1 hrs
14	BROADBAND PACENET	DNF	DNF	97%	98%	100%	NA	NA	2 hrs

\* NA = Service Providers have not provided the data

DNF= Data not provided by the service providers as per format

**Annex 5.4**

**Quality of Service Performance for Broadband Service Providers**

Sl. No.	Service Operators	Service Provisioning	Faults Repair		Billing Performance			Response Time to the Customer for assistance		Bandwidth utilisation/throughput					Packet Loss	Network latency (for wired broadband access)																					
		%age of connections provided within 15 days of registration of demand	% of faults repaired by next working day (>90%)	% of faults repaired within 3 working day	Rent Rebate	%age of bills disputed	%age of billing complaints resolved within 4 weeks	%age of cases to whom refund of deposits is made within 60 days of closures	%age of calls answered by operator (Voice to voice) within 60 sec	%age of calls answered by operator (Voice to voice) within 90 sec	No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)	No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH)	% International bandwidth utilization during peak hours (TCBH) (Enclosure MRTG) <90%	Broadband Connection Speed available (download) from ISP node to user	Service availability /uptime (for all users) in %age	Packet loss (for wired broadband and access) in %age	User reference point at POP/ISP Gateway node to IGSP/NIX I	User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)	User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)																		
																				1.2	2.2	2.3	2.4	3.3	3.4	3.5	4.2	4.3	5.2	5.4	5.7	5.8	6.3	7.0	8.1	8.2	8.3
																				100%	>90%	>99%	in nos.	<2%	100%	100% within 60 days	>60%	>80%	0	0	<90%	>80%	>98%	<1%	<120 ms	<350 ms	<800 ms
1	BSNL																																				
1.1	Andhra Pradesh	100.00%	96.50%	99.80%	NR	0.00%	95.15%	99.80%	84.70%	97.00%	NR	NR	NR	97.00%	NR	NR	NR	NR	NR																		
1.2	Assam	100.00%	83.00%	97.80%	17.00	0.66%	100.00%	100.00%	84.00%	100.00%	NR	NR	NR	100.00%	NR	NR	NR	NR	NR																		
1.3	Bihar	98.00%	93.00%	98.00%	NR	0.22%	96.00%	100.00%	94.00%	97.00%	NR	NR	NR	87.00%	NR	NR	NR	NR	NR																		
1.4	Chhattisgarh	97.00%	98.00%	100.00%	NR	0.00%	NA	NA	81.00%	92.00%	NR	NR	NR	85.00%	NR	NR	NR	NR	NR																		
1.5	Chennai	100.00%	89.00%	100.00%	NR	0.02%	100.00%	100.00%	99.00%	99.00%	NR	NR	NR	84.00%	NR	NR	NR	NR	NR																		
1.6	Gujrat	100.00%	90.00%	99.00%	58	0.07%	100.00%	100.00%	80.00%	95.00%	NR	NR	NR	93.17%	NR	NR	NR	NR	NR																		

1.7	Haryana	97.00%	97.00%	100.00%	1	0.25%	100.00%	100.00%	93.00%	97.00%	NR	NR	NR	88.50%	NR	NR	NR	NR	NR
1.8	Himachal Pradesh	98.00%	97.00%	100.00%	0	0.02%	67.00%	100.00%	89.00%	97.00%	NR	NR	NR	86.00%	NR	NR	NR	NR	NR
1.9	Jammu & Kashmir	98.00%	95.00%	100.00%	0	0.11%	100.00%	100.00%	72.00%	97.00%	NR	NR	NR	85.00%	NR	NR	NR	NR	NR
1.10	Jharkhand	99.00%	92.00%	98.00%	0	0.09%	99.68%	100.00%	86.00%	94.00%	NR	NR	NR	83.00%	NR	NR	NR	NR	NR
1.11	Karnataka	64.00%	89.00%	97.00%	324	0.22%	88.00%	100.00%	45.00%	66.00%	NR	NR	NR	83.33	NR	NR	NR	NR	NR
1.12	Kerala	81.00%	96.00%	100.00%	0	0.35%	100.00%	100.00%	86.00%	95.00%	NR	NR	NR	86.00%	NR	NR	NR	NR	NR
1.13	Kolkata	94.00%	85.00%	94.00%	0	1.24%	98.00%	100.00%	81.00%	95.00%	NR	NR	NR	84.00%	NR	NR	NR	NR	NR
1.14	Maharashtra	78.23%	84.00%	93.00%	47	0.30%	94.00%	97.00%	88.00%	96.00%	NR	NR	NR	90.00%	NR	NR	NR	NR	NR
1.15	Madhya Pradesh	100.00%	91.00%	100.00%	1	0.33%	100.00%	100.00%	78.00%	97.00%	NR	NR	NR	84.00%	NR	NR	NR	NR	NR
1.16	North East I	98.24%	90.00%	100.00%	0	0.00%	NR	NR	84.00%	100.00%	NR	NR	NR	87.00%	NR	NR	NR	NR	NR
1.17	North East II	90.00%	83.00%	99.00%	0	0.00%	100.00%	100.00%	69.00%	86.00%	NR	NR	NR	80.00%	NR	NR	NR	NR	NR
1.18	Orissa	90.00%	95.00%	99.00%	4	0.16%	93.00%	83.00%	NR	NR	NR	NR	NR	84.00%	NR	NR	NR	NR	NR
1.19	Punjab	100.00%	95.00%	100.00%	0	0.03%	100.00%	100.00%	81.00%	90.00%	NR	NR	NR	85.00%	NR	NR	NR	NR	NR
1.20	Rajasthan	100.00%	78.00%	95.00%	0	0.02%	92.00%	100.00%	88.00%	94.00%	NR	NR	NR	80.00%	NR	NR	NR	NR	NR
1.21	Tamil Nadu	85.00%	93.00%	100.00%	0	0.18%	98.00%	100.00%	88.00%	90.00%	NR	NR	NR	86.36%	NR	NR	NR	NR	NR
1.22	UP- East	100.00%	98.80%	100.00%	0	0.06%	100.00%	100.00%	100.00%	NR	NR	NR	NR	100.00%	NR	NR	NR	NR	NR
1.23	UP-West	95.00%	90.00%	100.00%	0	0.04%	100.00%	100.00%	80.00%	95.00%	NR	NR	NR	98.33%	NR	NR	NR	NR	NR
1.24	Uttaranchal	77.00%	95.00%	100.00%	6	0.00%	100.00%	100.00%	85.00%	92.00%	NR	NR	NR	90.00%	NR	NR	NR	NR	NR
1.25	West Bengal	76.00%	74.00%	100.00%	0	0.00%	NR	NR	70.00%	100.00%	NR	NR	NR	85.00%	NR	NR	NR	NR	NR
1.26	A&N	97.00%	97.00%	100.00%	0	0.00%	100.00%	NR	90.00%	100.00%	NR	NR	NR	83.00%	NR	NR	NR	NR	NR
2	MTNL																		
2.1	Delhi	73.94%	81.10%	95.77%	1596	0.08%	100.00%	98.84%	98.05%	98.27%	0	DNF	87.40%	95.00%	99.90%	DNF	DNF	DNF	NA
2.2	Mumbai	47.80%	79.09%	94.58%	0	0.024%	100.00%	NA	68.80%	72.98%	0	4	84.36%	80.00%	98.00%	1.00%	70	300	NA
3	Bharti Airtel Ltd.																		
3.1	Andhra Pradesh	99.04%	70.51%	89.52%	NA	NA	NA	NA	84.00%	87.00%	4	0	71.00%	95.00%	100.00%	0.00%	31	244	NA

3.2	Delhi	100.00%	97.00%	99.00%	3151	0.02%	100.00%	93.00%	84.53%	89.95%	5	1	85.00%	100.00%	100.00%	0.00%	20.4	61	NA
3.3	Gujarat	100.00%	96.70%	99.70%	7	0.04%	100.00%	100.00%	92.00%	95.00%	0	0	76.29%	100.00%	99.97%	0.00%	111	323	NA
3.4	Haryana	100.00%	99.00%	99.00%	11	0.01%	100.00%	100.00%	85.71%	91.19%	0	0	70.00%	100.00%	100.00%	NR	40	81	NA
3.5	Karnataka	98.00%	75.19%	87.73%	NA	NA	NA	NA	67.00%	76.00%	4	0	80.05%	0.94%	100.00%	0.00%	36	266	NA
3.6	Kerala	100.00%	93.99%	99.09%	NA	NA	NA	NA	93.00%	96.00%	0	NA	NA	94.00%	100.00%	0.00%	54	293.5	NA
3.7	Kolkata	100.00%	98.60%	99.50%	45	0.00%	100.00%	100.00%	85.71%	91.19%	0	0	65.92%	100.00%	99.99%	NR	78.00	133.00	NA
3.8	Madhya Pradesh & CG	98.90%	93.40%	98.30%	869	0.07%	100.00%	100.00%	95.10%	100.00%	0	1	90.00%	99.00%	99.96%	0.00%	39	297	NA
3.9	Maharashtra	98.00%	92.20%	98.70%	21	0.00%	100.00%	100.00%	92.30%	94.80%	0	0	84.57%	100.00%	99.85%	0.00%	91	317	NA
3.10	Mumbai	96.40%	95.60%	99.00%	54	0.01%	100.00%	100.00%	92.10%	94.70%	0	0	85.25%	100.00%	99.93%	0.00%	78	301.0	NA
3.11	Punjab	100.00%	99.00%	100.00%	50	0.03%	100.00%	100.00%	85.71%	91.19%	0	0	83.00%	100.00%	99.70%	0.00%	28	65	NA
3.12	Rajasthan	100.00%	98.70%	100.00%	37	0.01%	100.00%	100.00%	85.71%	91.19%	0	0	64.00%	100.00%	100.00%	0.00%	49	110	NA
3.13	Tamilnadu	94.90%	94.30%	96.68%	NA	NA	NA	NA	84.00%	92.00%	1	0	80.00%	89.00%	100.00%	0.00%	36.6	239	NA
3.14	UP - East	100.00%	96.00%	99.00%	559	0.01%	100.00%	100.00%	85.71%	91.19%	0	1	60.00%	100.00%	100.00%	0.00%	47	84	NA
3.15	UP - West	100.00%	98.60%	99.50%	33	0.00%	100.00%	100.00%	85.71%	91.19%	0	0	79.00%	100.00%	99.96%	0.00%	28	78	NA
4	Tata Communications																		
4.1	Central Region	99.00%	87.00%	94.00%	46014	1.59%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	99.62%	0.00%	80	180	NA
4.2	East	100.00%	91.00%	97.00%		1.11%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	98.33%	0.00%	80	180	NA
4.3	North	100.00%	86.00%	94.00%		2.09%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	97.95%	0.00%	80	180	NA
4.4	South 1	99.00%	89.00%	97.00%		1.42%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	99.36%	0.00%	80	180	NA
4.5	South 2	100.00%	97.00%	99.00%		0.98%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	99.54%	0.00%	80	180	NA
4.6	South 3	88.00%	82.00%	93.00%		2.04%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	98.79%	0.00%	80	180	NA
4.7	South 4	100.00%	98.00%	100.00%		0.79%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	99.68%	0.00%	80	180	NA

4.8	West 1	100.00%	87.00%	95.00%		2.78%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	96.83%	0.00%	80	180	NA
4.9	West 2	100.00%	92.00%	98.00%		1.72%	100.00%	100.00%	93.86%	97.75%	0	0	70.05%	80.00%	99.08%	0.00%	80	180	NA
5	Hathway																		
5.1	Andhra Pradesh	100.00%	95.78%	99.28%	42	1.84%	100.00%	100.00%	85.00%	90.00%	0	1	87.50%	85.00%	98.00%	1.00%	80	350	NA
5.2	Chennai	100.00%	91.57%	98.13%	87	1.91%	100.00%	100.00%	85.00%	90.00%	0	1	87.50%	85.00%	99.29%	1.00%	80	350	NA
5.3	Delhi	100.00%	90.00%	99.00%	68	1.93%	100.00%	100.00%	85.00%	90.00%	0	1	87.50%	85.00%	100.00%	1.00%	100	320	NA
5.4	Gujarat	94.94%	89.33%	97.33%	0	0.00%	0.00%	0.00%	70.00%	85.00%	0	NA	NA	85.00%	98.95%	1.00%	100	350	NA
5.5	Haryana	100.00%	90.00%	99.00%	0	0.00%	0.00%	100.00%	85.00%	90.00%	0	NA	NA	85.00%	99.61%	1.00%	100	320	NA
5.6	Karnataka	100.00%	91.43%	99.28%	137	0.63%	100.00%	100.00%	98.00%	99.00%	0	1.00%	87.50%	85.00%	98.00%	1.00%	80	350	NA
5.7	Maharashtra	92.00%	88.33%	96.67%	848	1.64%	99.17%	100.00%	70.00%	85.00%	0	1.00%	87.50%	85.00%	100.00%	1.00%	80	350	NA
5.8	Punjab	100.00%	90.00%	99.00%	0	1.10%	100.00%	100.00%	85.00%	90.00%	0	NA	85.00%	NR	99.97%	1.00%	100	320	NA
5.9	Tamilnadu	100.00%	97.60%	98.87%	4	0.59%	100.00%	100.00%	85.00%	90.00%	0	NA	NA	85.00%	99.67%	1.00%	100	320	NA
5.10	Uttar Pradesh	100.00%	90.00%	99.00%	0	1.64%	100.00%	100.00%	85.00%	90.00%	0	NA	NA	85.00%	99.27%	1.00%	100	320	NA
6	YOU Telecom India Pvt. Ltd.																		
	All India	100.00%	97.68%	99.54%	63	0.32%	100.00%	91.38%	87.00%	90.00%	NR	NR	78.10%	90.00%	98.46%	1.00%	40	300	NA
6.1	Andhra Pradesh	100.00%	99.72%	99.90%	2	0.21%	100.00%	79.36%	88.00%	90.00%	NR	NR	75.00%	90.00%	98.10%	1.00%	40	300	NA
6.2	Gujarat	100.00%	95.13%	99.00%	53	0.25%	100.00%	99.45%	89.00%	91.00%	NR	NR	78.65%	90.00%	98.40%	1.00%	40	300	NA
6.3	Haryana	100.00%	100.00%	100.00%	0	0.35%	100.00%	93.75%	88.00%	90.00%	NR	NR	72.72%	90.00%	99.60%	1.00%	40	300	NA
6.4	Karnataka	100.00%	99.81%	100.00%	0	0.21%	100.00%	98.85%	92.00%	92.00%	NR	NR	78.57%	90.00%	98.30%	1.00%	40	300	NA
6.5	Maharashtra	100.00%	98.66%	99.82%	8	0.44%	100.00%	99.12%	86.00%	90.00%	NR	NR	79.00%	90.00%	98.60%	1.00%	40	300	NA
6.6	Tamilnadu	100.00%	100.00%	100.00%	0	0.37%	100.00%	85.71%	89.00%	91.00%	NR	NR	77.77%	90.00%	98.50%	1.00%	40	300	NA
7	SIFY																		
	All India	100.00%	91.00%	98.00%	150	0.00%	0.00%	0.00%	100.00	100.00%	2.00	Nil	85.00%	95.00%	100.0	1.00%	45	300	NA



									%						0%				
8	Reliance																		
	All India	58.00%	96.00%	99.00%	87	0.29%	100.00%	100.00%	87.33%	91.30%	0	0	53.00%	90.00%	99.50%	0.50%	DNF	DNF	DNF
9	Asianet																		
	Kerala	100.00%	90.90%	99.23%	NR	1.00%	100.00%	100.00%	NR	NR	nil	0	88.00%	90.00%	99.00%	1.00%	50	280	600
10	HFCL Infotel Lt.d																		
	Punjab	100.00%	99.50%	100.00%	1	0.38%	97.00%	100.00%	88.00%	93.00%	Nil	Nil	87.14%	100.00%	99.95%	0.00%	35	270	NA
11	Ortel																		
	Orissa	100.00%	90.30%	100.00%	0	0.16%	100.00%	100.00%	97.50%	98.00%	0	0	64.75%	DNF	99.80%	1.00%	38	150	NA
12	Tata Teleservices (Maharashtra) Ltd.																		
	Maharashtra & Goa	99.79%	92.31%	100.00%	NA	0.37%	100.00%	100.00%	65.21%	84.94%	0	0	90.00%	97.00%	99.00%	0.75%	30	200	NA
13	Alliance Broadband Services Pvt. Ltd.																		
	Kolkatta	100.00%	98.58%	100.00%	4	0.03%	100.00%	NA	77.33%	93.33%	7	2	93.00%	DNF	99.00%	1.00%	NA	NA	NA
	Service Providers not meeting the Benchmark	DNF= Data not as per Format				NR= Data not reported by the Service Provider							NA = Not Applicable						