



## **Telecom Regulatory Authority of India**

### **The Indian Telecom Services Performance Indicators** July - September, 2013

New Delhi, India  
11<sup>th</sup> February, 2014

Mahanagar Doorsanchar Bhawan,  
Jawahar Lal Nehru Marg, New Delhi-110002  
Tel: +91-11- 23230752, Fax: +91-11- 23236650  
Website: [www.trai.gov.in](http://www.trai.gov.in)

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# Snapshot

(Data As on 30<sup>th</sup> September, 2013)

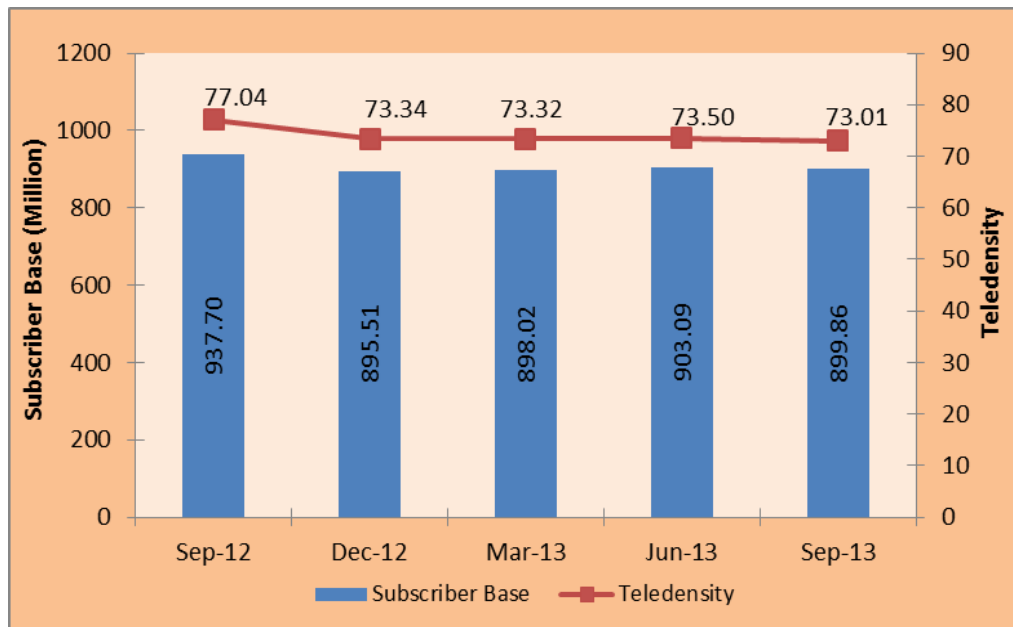
| <b>Telecom Subscribers (Wireless +Wireline)</b> |                |
|---|----------------|
| Total Subscribers                               | 899.86 Million |
| % change over the previous quarter              | -0.36%         |
| Urban Subscribers                               | 543.18 Million |
| Rural Subscribers                               | 356.68 Million |
| Market share of Private Operators               | 86.16%         |
| Market share of PSU Operators                   | 13.84%         |
| Teledensity                                     | 73.01          |
| Urban Teledensity                               | 144.02         |
| Rural Teledensity                               | 41.70          |
| <b>Wireless Subscribers</b>                     |                |
| Total Wireless Subscribers                      | 870.58 Million |
| % change over the previous quarter              | -0.32%         |
| Urban Subscribers                               | 520.21 Million |
| Rural Subscribers                               | 350.37 Million |
| GSM Subscribers                                 | 807.68 Million |
| CDMA Subscribers                                | 62.91 Million  |
| Market share of Private Operators               | 88.33%         |
| Market share of PSU Operators                   | 11.67%         |
| Teledensity                                     | 70.63          |
| Urban Teledensity                               | 137.93         |
| Rural Teledensity                               | 40.96          |
| <b>Wireline Subscribers</b>                     |                |
| Total Wireline Subscribers                      | 29.28 Million  |
| % change over the previous quarter              | -1.50%         |
| Urban Subscribers                               | 22.97 Million  |
| Rural Subscribers                               | 6.31 Million   |
| Market share of Private Operators               | 21.76%         |
| Market share of PSU Operators                   | 78.24%         |
| Teledensity                                     | 2.38           |
| Urban Teledensity                               | 6.09           |
| Rural Teledensity                               | 0.74           |
| Village Public Telephones (VPT)                 | 0.59 Million   |
| Public Call Office (PCO)                        | 1.09 Million   |

| <b>Internet / Broadband Subscribers</b>   |                  |
|---|------------------|
| Total Internet Subscribers  | 210.38 Million   |
| Narrowband subscribers (excluding subscribers who accessed internet through mobile devices) | 6.84 Million     |
| Broadband subscribers (excluding subscribers who accessed internet through Mobile devices)  | 15.35 million    |
| Subscribers who accessed internet through Mobile Devices                                    | 188.20 Million   |
| <b>Broadcasting &amp; Cable Services</b>  |                  |
| No. of private satellite TV channels registered with Ministry of I & B                      | 784              |
| Number of private FM Radio Stations   | 242              |
| DTH Subscribers registered with Pvt. SPs  | 60.71 Million    |
| <b>Telecom Financial Data (for the QE Sep-13)</b>   |                  |
| Gross Revenue(GR) during the quarter  | ₹ 57452.56 Crore |
| % change in GR over the previous quarter  | 0.33%            |
| Adjusted Gross Revenue (AGR) during the quarter   | ₹38810.56 Crore  |
| % change in AGR over the previous quarter   | 0.44%            |
| Share of Public sector undertaking's in Access AGR  | 13.10%           |
| Monthly Average Revenue Per User (ARPU) for Access Services                                 | ₹112             |
| <b>Revenue &amp; Usage Parameters (for the QE Sep-13)</b>                                   |                  |
| Monthly ARPU GSM Full Mobility Service  | ₹ 109            |
| Monthly ARPU CDMA Full Mobility Service   | ₹ 98             |
| Minutes of Usage (MOU) per subscriber per month GSM Full Mobility Service                   | 375 Minutes      |
| Minutes of Usage (MOU) per subscriber per month CDMA Full Mobility Service                  | 262 Minutes      |
| Minutes of Usage for Internet Telephony   | 297.15 Million   |

## Executive Summary

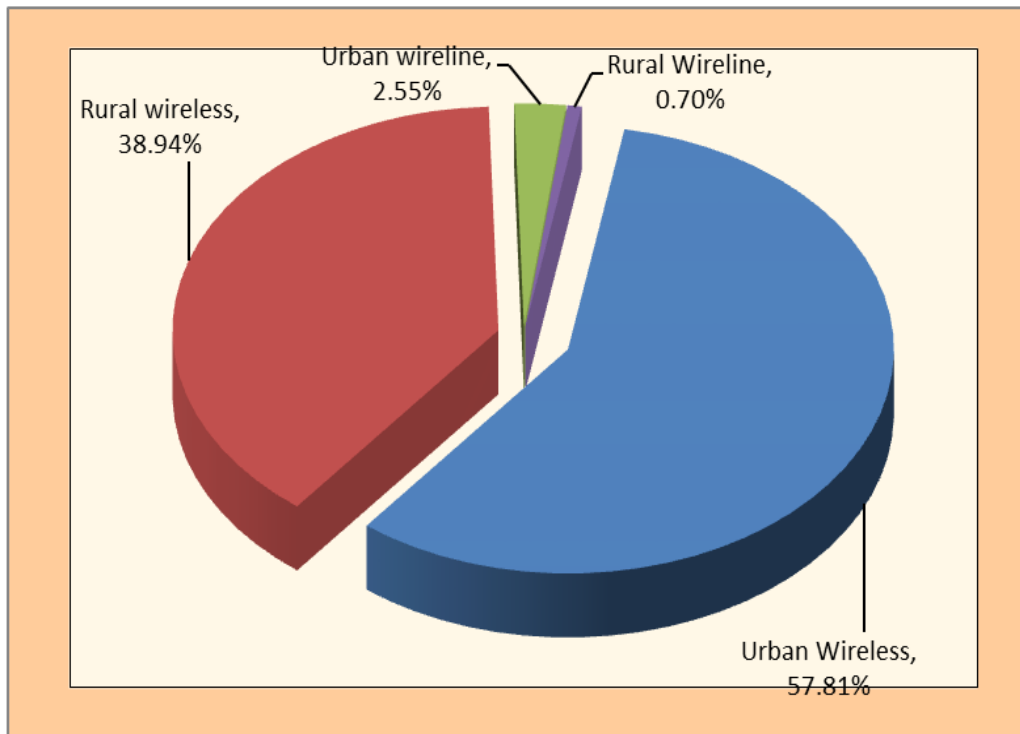
1. The number of telephone subscribers in India decreased from 903.09 million at the end of Jun-13 to 899.86 million at the end of Sep-13, registering a negative growth of 0.36% over the previous quarter. This reflects year-on-year (Y-O-Y) negative growth of 4.03% over the same quarter of last year. The overall Tele-density in India declined from 73.50 as on 30<sup>th</sup> June, 2013 to 73.01 as on 30<sup>th</sup> September, 2013.

### **Trends in Telephone subscribers and Teledensity in India**



2. Subscription in Urban Areas decreased from 545.48 million at the end of Jun-13 to 543.18 million at the end of Sep-13, and Urban Tele-density also declined from 145.35 to 144.02. Rural subscription declined from 357.61 million to 356.68 million, and Rural Tele-density also declined from 41.90 to 41.70. Share of subscription in Rural areas out of total subscription increased from 39.60% at the end of Jun-13 to 39.64% at the end of Sep-13.

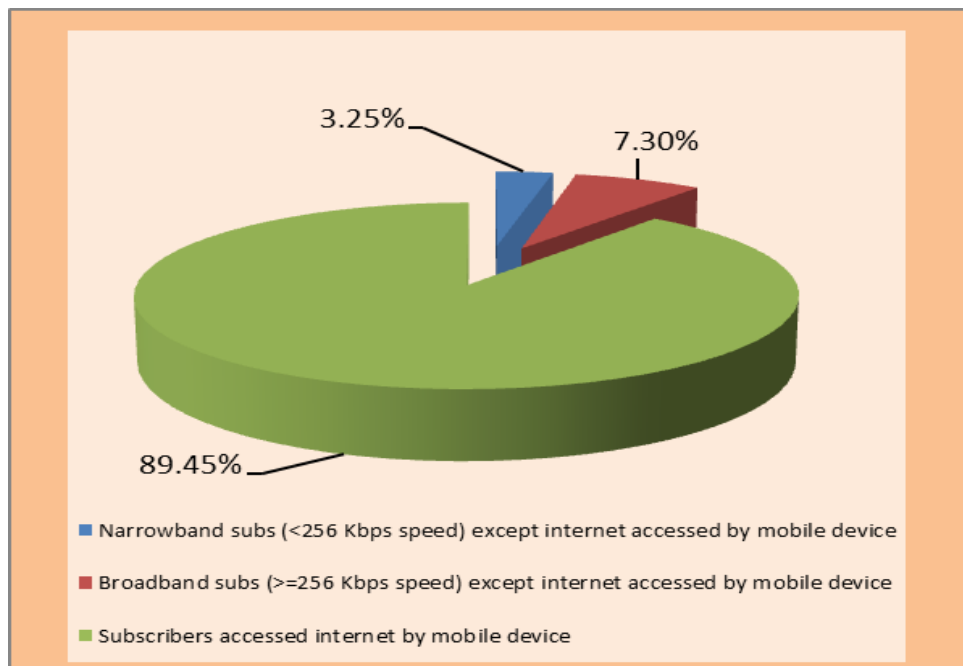
### Composition of Telephone Subscribers



3. With a net decline of 2.78 million subscribers during the quarter, total wireless(GSM+CDMA) subscriber base decreased from 873.36 million at the end of Jun-13 to 870.58 million at the end of Sep-13, registering a negative growth rate of 0.32% over the previous quarter. The year-on-year (Y-O-Y) negative growth rate of Wireless subscribers for Sep-13 is 3.97%. Wireless Tele-density declined from 71.08 at the end of Jun-13 to 70.63 at the end of Sep-13.
4. Wireline subscriber base further declined from 29.73 million at the end of Jun-13 to 29.28 million at the end of Sep-13, registering a negative growth rate of 1.50%. Wireline Tele-density also declined from 2.42 at the end of Jun-13 to 2.38 at the end of Sep-13.
5. Number of subscribers who accessed internet by mobile devices is 188.20 million during QE Sep-13.

6. Number of internet subscribers (except internet access by mobile devices) increased from 21.89 million at the end of Jun-13 to 22.19 million at the end of Sep-13, registering a quarterly growth rate of 1.38%.
7. Number of Broadband subscribers (as per pre-revised definition) increased from 15.20 million at the end of Jun-13 to 15.35 million at the end of Sep-13, registering a quarterly growth of 0.99% and Y-O-Y growth of 4.52%.
8. Number of Narrowband subscribers (except internet access by mobile devices) increased from 6.69 million at the end of Jun-13 to 6.84 million at the end of Sep-13, registering a quarterly growth of 2.25%

**Composition of internet subscription**

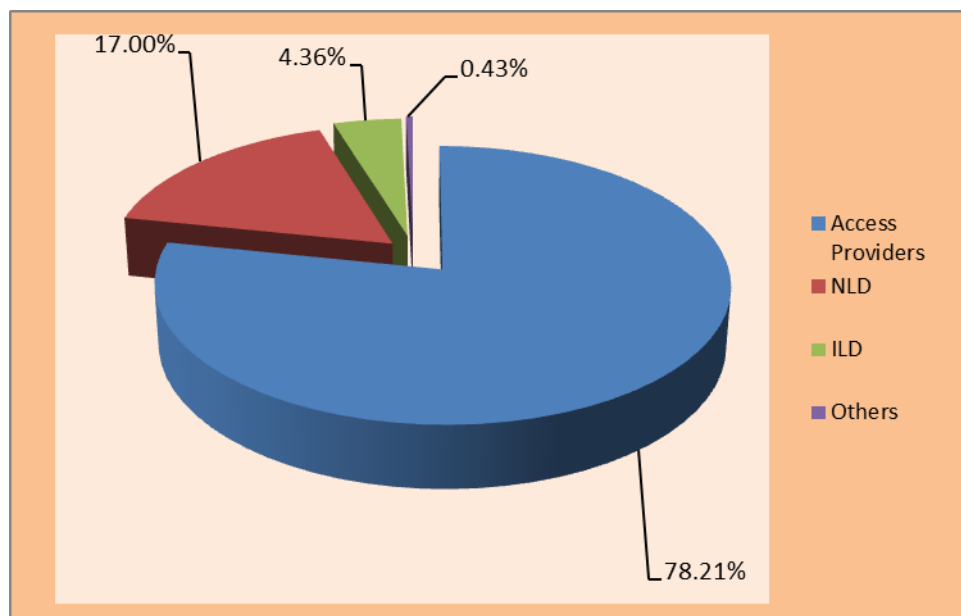




9. Monthly Average Revenue Per User (ARPU) for GSM service decreased by 2.12%, from ₹111 in QE Mar-13 to ₹109 in QE Sep-13, whereas Y-O-Y increase of 14.52%.
10. On an all India average, the overall MOU per subscriber per month for GSM service decreased by 3.23% from 388 in QE Jun-13 to 375 in QE Sep-13. Prepaid MOU per subscriber decreased from 364 to 351 and postpaid MOUs decreased from 990 to 981 in this quarter.
11. Monthly ARPU for CDMA full mobility service decreased by 0.13%, from ₹98.35 in QE Jun-13 to ₹98.22 in QE Sep-13. ARPU for CDMA has increased by 26.30% on Y-O-Y basis in this quarter.
12. The total MOU for CDMA per subscriber per month decreased by 5.74%, from 278 in QE Jun-13 to 262 QE Sep-13. The outgoing MOUs decreased from 146 to 137 and incoming MOUs decreased from 132 to 125 in this quarter.
13. Gross Revenue (GR) and Adjusted Gross Revenue (AGR) of Telecom Service Sector for the QE Sep-13 has been ₹57452.56 Crore and ₹38810.56 Crore respectively. There has been an increase of 0.33% in GR and 0.44% in AGR as compared to previous quarter. The year-on-year (Y-O-Y) growth in GR and AGR over the same quarter in last year has been 8.53% and 9.41% respectively. Pass-through charges accounted for 32.45% of the GR for the quarter ending Sep-13. The quarterly and the year-on-year (Y-O-Y) growth rates of pass-through charges for QE Sep-13 are 0.11% and 6.74% respectively.

14. The quarterly and the year-on-year (Y-O-Y) growth rates of license fee are 0.41% and 7.66% respectively for the QE Sep-13.
15. Access services contributed 78.21% of the total Adjusted Gross Revenue of telecom services. In Access services, Gross Revenue, Adjusted Gross Revenue (AGR), License Fee and Pass Through Charges decreased by 1.55%, 0.46%, 0.46% and 4.17% respectively, whereas Spectrum Usage Charge increased by 0.46% in QE Sep-13.
16. Monthly Average Revenue per User (ARPU) for Access Services based on AGR decreased from ₹113 in QE Jun-13 to ₹112 in QE Sep-13.

#### **Composition of Adjusted Gross Revenue**



17. The performance of 2G wireless service providers in terms of QoS during the quarter vis-à-vis that in previous quarter is depicted as under:

| <b>Parameters showing Improvement in QoS</b>   | <b>Parameters showing deterioration in QoS</b>   |
|--|--|
| <ul style="list-style-type: none"> <li>• BTSs Accumulated downtime (not available for service)</li> <li>• TCH Congestion</li> <li>• Worst affected cells having more than 3% TCH drop (call drop) rate</li> <li>• Connection with good voice quality</li> <li>• Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark)</li> <li>• Resolution of billing/ charging/ validity complaints.</li> <li>• Accessibility of call centre/customer care</li> <li>• %age requests for Termination/ Closure of service complied within 7 days.</li> </ul> | <ul style="list-style-type: none"> <li>• Metering and billing credibility - post paid</li> <li>• Metering and billing credibility - pre paid</li> <li>• Period of applying credit/ waiver/adjustment to customer's account from the date of resolution of complaints</li> <li>• %age of calls answered by the operators (voice to voice) within 60 sec</li> <li>• Time taken for refund of deposits after closures.</li> </ul> |

18. The performance of wireline service providers in terms of QoS during the quarter vis-à-vis that in previous quarter is depicted as under:

| <b>Parameters showing Improvement in QoS</b>  | <b>Parameters showing deterioration in QoS</b>  | <b>Parameters showing unchanged in QoS</b>   |
|---|---|--|
| <ul style="list-style-type: none"> <li>• Node-B's Accumulated downtime (not available for service) (%age).</li> </ul> | <ul style="list-style-type: none"> <li>• Worst affected Node-B's due to downtime (%age).</li> <li>• Worst affected cells having more than 3% TCH drop (call drop) and Circuit Switched Voice Drop Rate - CBBH.</li> </ul> | <ul style="list-style-type: none"> <li>• Point of Interconnection (POI) Congestion.</li> </ul> |

19. The performance of wireline service providers in terms of QoS during the quarter vis-à-vis that in previous quarter is depicted as under:

| <b>Parameters showing Improvement in QoS</b>  | <b>Parameters showing deterioration in QoS</b>  |
|---|---|
| <ul style="list-style-type: none"> <li>• % of faults repaired within 3 days (for urban area)</li> <li>• % of faults repaired within 5 days (for rural &amp; hilly areas)</li> <li>• Call Completion Rate (CCR)</li> <li>• Metering and billing credibility - post paid</li> <li>• Metering and billing credibility - pre paid</li> <li>• %age requests for Termination/ Closure of service complied within 7 days.</li> </ul> | <ul style="list-style-type: none"> <li>• Faults incidences (No. of faults/ 100 Subs./month)</li> <li>• % Fault repaired by next working day</li> <li>• Mean Time to Repair (MTTR).</li> <li>• Resolution of billing/ charging/ validity complaints</li> <li>• Accessibility of call centre/customer care</li> <li>• % of calls answered by the operators (Voice to Voice) within 60 Sec.</li> <li>• Time Taken for refund of deposits after closures</li> </ul> |

20. Total number of private satellite TV channels permitted by the Ministry of I&B, as obtained from its website, are 784. There are a total of 187 pay channels, as reported by the broadcasters/distributors for which the rates have been taken on records at the QE Sep-13.

21. Maximum number of TV channels (Pay, FTA and Local) being carried by any of the reported MSOs is 218 whereas in the conventional analogue form, maximum number of channels being carried by any of the reported MSOs is 100 channels.

22. Apart from All India Radio, Prasar Bharti a public broadcaster, there are 242 private FM Radio stations in operation at the end of Sep-13.

23. Besides the free DTH service of Doordarshan, there are 6 private DTH licensees, offering their services to the DTH subscribers. As on 30.09.2013, 60.71 million subscribers are registered with these 6 private DTH operators.

## Trends at a Glance

### A. Wireline & Wireless Services

|   | QE Sep<br>2012                           | QE Dec<br>2012 | QE Mar<br>2013 | QE Jun<br>2013 | QE Sep<br>2013 | %age<br>change<br>over Sep-<br>2012<br>(12<br>months) | %age<br>change<br>over Dec-<br>2012<br>(9<br>months) | %age<br>change<br>over Mar-<br>2013<br>(6<br>months) | %age<br>change<br>over Jun-<br>2013<br>(3<br>months) |
|---|--|----------------|----------------|----------------|----------------|---|--|--|--|
|   | <b>1) Subscriber's Base (in million)</b> |                |                |                |                |   |  |  |  |
| i) Wireline   | 31.08                                    | 30.79          | 30.21          | 29.73          | 29.28          | -5.79%  | -4.89%   | -3.08%   | -1.50%   |
| ii) Wireless  | 906.62                                   | 864.72         | 867.80         | 873.36         | 870.58         | -3.97%  | 0.68%  | 0.32%  | -0.32%   |
| <b>Total</b>  | <b>937.70</b>                            | <b>895.51</b>  | <b>898.02</b>  | <b>903.09</b>  | <b>899.86</b>  | <b>-4.03%</b>   | <b>0.49%</b>   | <b>0.21%</b>   | <b>-0.36%</b>  |
| Rural   | 342.01                                   | 338.54         | 349.22         | 357.61         | 356.68         | 4.29%   | 5.36%  | 2.14%  | -0.26%   |
| Urban   | 595.69                                   | 556.96         | 548.80         | 545.48         | 543.18         | -8.81%  | -2.47%   | -1.02%   | -0.42%   |
| <b>2) Traffic (MOU) (minutes of use/ sub/month)</b> |  |                |                |                |                |   |  |  |  |
| <b>Wireless - full mobility</b>                     |  |                |                |                |                |   |  |  |  |
| i) GSM  | 343                                      | 360            | 383            | 388            | 375            | 9.42%   | 4.21%  | -1.95%   | -3.23%   |
| ii) CDMA  | 225                                      | 230            | 275            | 278            | 262            | 16.48%  | 14.03%   | -4.57%   | -5.74%   |
| <b>3) ARPU (Rs./sub/ month)</b>                     |  |                |                |                |                |   |  |  |  |
| <b>Wireless - full mobility</b>                     |  |                |                |                |                |   |  |  |  |
| i) GSM  | 95.25                                    | 98.14          | 105.00         | 111.45         | 109.08         | 14.52%  | 11.15%   | 3.89%  | -2.12%   |
| ii) CDMA  | 77.76                                    | 79.95          | 95.25          | 98.35          | 98.22          | 26.30%  | 22.84%   | 3.12%  | -0.13%   |
| <b>4) Teledensity</b>                               |  |                |                |                |                |   |  |  |  |
| Population in million<br>(Estimated)                | 1217                                     | 1221           | 1225           | 1229           | 1233           |   |  |  |  |
| i) Wireline teledensity                             | 2.55                                     | 2.52           | 2.47           | 2.42           | 2.38           | -6.97%  | -5.77%   | -3.68%   | -1.80%   |
| ii) Wireless teledensity                            | 74.49                                    | 70.82          | 70.85          | 71.08          | 70.63          | -5.17%  | -0.26%   | -0.30%   | -0.63%   |
| <b>Total Teledensity</b>                            | <b>77.04</b>                             | <b>73.34</b>   | <b>73.32</b>   | <b>73.50</b>   | <b>73.01</b>   | <b>-5.23%</b>   | <b>-0.45%</b>  | <b>-0.42%</b>  | <b>-0.67%</b>  |
| Rural teledensity                                   | 40.36                                    | 39.85          | 41.02          | 41.90          | 41.70          | 3.32%   | 4.63%  | 1.67%  | -0.49%   |
| Urban teledensity                                   | 161.13                                   | 149.90         | 146.96         | 145.35         | 144.02         | -10.62%   | -3.92%   | -2.00%   | -0.92%   |

## B. Subscriber Base

| <b>(i) Wireline Subscribers Base (in Million)</b> |              |              |              |              |              |                           |                           |                           |                           |
|---|--------------|--------------|--------------|--------------|--------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Service Provider                                  | QE Sep 2012  | QE Dec 2012  | QE Mar 2013  | QE Jun 2013  | QE Sep 2013  | %age change over Sep-2012 | %age change over Dec-2012 | %age change over Mar-2013 | %age change over Jun-2013 |
|   |              |              |              |              |              | (12 months)               | (9 months)                | (6 months)                | (3 months)                |
| BSNL  | 21.36        | 21.04        | 20.45        | 19.89        | 19.37        | -9.34%                    | -7.95%                    | -5.27%                    | -2.62%                    |
| MTNL  | 3.45         | 3.46         | 3.46         | 3.55         | 3.54         | 2.58%                     | 2.53%                     | 2.39%                     | -0.20%                    |
| Bharti  | 3.27         | 3.28         | 3.28         | 3.28         | 3.34         | 1.93%                     | 1.82%                     | 1.67%                     | 1.70%                     |
| Reliance  | 1.26         | 1.26         | 1.24         | 1.24         | 1.24         | -1.32%                    | -1.38%                    | -0.10%                    | -0.12%                    |
| Tata  | 1.47         | 1.49         | 1.51         | 1.47         | 1.49         | 1.21%                     | 0.07%                     | -1.00%                    | 1.37%                     |
| Quadrant (HFCL)                                   | 0.19         | 0.18         | 0.19         | 0.20         | 0.20         | 7.13%                     | 10.11%                    | 7.87%                     | 3.32%                     |
| Sistema   | 0.05         | 0.05         | 0.05         | 0.05         | 0.05         | 11.20%                    | 9.38%                     | 3.58%                     | 1.35%                     |
| Vodafone  | 0.02         | 0.03         | 0.04         | 0.04         | 0.04         | 91.18%                    | 49.19%                    | 23.45%                    | 5.29%                     |
| <b>Total</b>                                      | <b>31.08</b> | <b>30.79</b> | <b>30.21</b> | <b>29.73</b> | <b>29.28</b> | <b>-5.79%</b>             | <b>-4.89%</b>             | <b>-3.08%</b>             | <b>-1.50%</b>             |

| <b>(ii) Wireless Subscriber Base (in Million)</b> |               |               |               |               |               |                           |                           |                           |                           |
|---|---------------|---------------|---------------|---------------|---------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Service Provider                                  | QE Sep 2012   | QE Dec 2012   | QE Mar 2013   | QE Jun 2013   | QE Sep 2013   | %age change over Sep-2012 | %age change over Dec-2012 | %age change over Mar-2013 | %age change over Jun-2013 |
|   |               |               |               |               |               | (12 months)               | (9 months)                | (6 months)                | (3 months)                |
| Bharti  | 185.92        | 181.91        | 188.20        | 190.91        | 193.39        | 4.02%                     | 6.31%                     | 2.76%                     | 1.30%                     |
| Vodafone  | 152.66        | 147.48        | 152.35        | 155.03        | 155.54        | 1.89%                     | 5.47%                     | 2.09%                     | 0.33%                     |
| Idea  | 115.46        | 113.95        | 121.61        | 124.97        | 127.23        | 10.19%                    | 11.66%                    | 4.62%                     | 1.81%                     |
| Reliance  | 134.85        | 118.53        | 122.97        | 125.73        | 116.26        | -13.78%                   | -1.91%                    | -5.46%                    | -7.53%                    |
| BSNL  | 99.63         | 99.92         | 101.21        | 97.99         | 97.86         | -1.78%                    | -2.07%                    | -3.31%                    | -0.14%                    |
| Tata  | 78.36         | 69.56         | 66.42         | 64.63         | 63.55         | -18.90%                   | -8.64%                    | -4.32%                    | -1.67%                    |
| Aircel/Dishnet                                    | 66.61         | 63.35         | 60.07         | 60.97         | 63.25         | -5.05%                    | -0.16%                    | 5.28%                     | 3.73%                     |
| Unitech   | 42.15         | 41.52         | 31.68         | 32.30         | 32.36         | -23.23%                   | -22.07%                   | 2.12%                     | 0.19%                     |
| Sistema   | 16.59         | 14.88         | 11.91         | 9.77          | 9.56          | -42.41%                   | -35.77%                   | -19.77%                   | -2.18%                    |
| MTNL  | 5.29          | 5.30          | 5.00          | 4.51          | 3.74          | -29.33%                   | -29.44%                   | -25.17%                   | -17.07%                   |
| Videocon  | 4.45          | 3.64          | 2.01          | 2.42          | 3.24          | -27.11%                   | -10.87%                   | 61.46%                    | 34.18%                    |
| Loop  | 3.03          | 3.00          | 3.01          | 2.72          | 2.89          | -4.68%                    | -3.63%                    | -4.04%                    | 6.26%                     |
| Quadrant  | 1.60          | 1.70          | 1.37          | 1.42          | 1.73          | 7.55%                     | 1.76%                     | 26.32%                    | 21.71%                    |
| <b>Total</b>                                      | <b>906.62</b> | <b>864.72</b> | <b>867.80</b> | <b>873.36</b> | <b>870.58</b> | <b>-3.97%</b>             | <b>0.68%</b>              | <b>0.32%</b>              | <b>-0.32%</b>             |

### C. Internet & Broadband Services

|  | QE Sep<br>2012 | QE Dec<br>2012 | QE Mar<br>2013 | QE Jun<br>2013 | QE Sep<br>2013 | %age<br>change<br>over Sep-<br>2012<br>(12<br>months) | %age<br>change<br>over Dec-<br>2012<br>(9<br>months) | %age<br>change<br>over Mar-<br>2013<br>(6<br>months) | %age<br>change<br>over Jun-<br>2013<br>(3<br>months) |
|--|----------------|----------------|----------------|----------------|----------------|---|--|--|--|
| <b>1) Subscriber's Base<br/>(in million)</b>   |                |                |                |                |                |   |  |  |  |
| <b>A. Internet Subscribers</b><br>(except internet<br>accessed by mobile<br>devices) | 21.25          | 21.57          | 21.61          | 21.89          | 22.19          | 4.42%   | 2.85%  | 2.68%  | 1.38%  |
| <b>i. Narrowband<br/>Subscribers (&lt;256 Kbps)</b>                                  | 6.56           | 6.59           | 6.56           | 6.69           | 6.84           | 4.18%   | 3.76%  | 4.29%  | 2.25%  |
| <b>ii. Broadband<br/>Subscribers(&gt;=256<br/>Kbps)</b>                              | 14.68          | 14.98          | 15.05          | 15.20          | 15.35          | 4.52%   | 2.45%  | 1.98%  | 0.99%  |
| <b>B. No. of subscribers<br/>accessed internet by<br/>mobile devices</b>             | N/A            | N/A            | 143.20         | 176.50         | 188.20         | -   | -  | 31.42%   | 6.62%  |
| <b>Total Internet<br/>Subscribers</b>  | <b>N/A</b>     | <b>N/A</b>     | <b>164.81</b>  | <b>198.39</b>  | <b>210.38</b>  | <b>-</b>  | <b>-</b>   | <b>27.65%</b>  | <b>6.05%</b>   |

### D. Telecom Financial Data

|  | QE Sep<br>2012 | QE Dec<br>2012 | QE Mar<br>2013 | QE Jun<br>2013 | QE Sep<br>2013 | %age<br>change<br>over<br>Sep-<br>2012<br>(12<br>months) | %age<br>change<br>over<br>Dec-<br>2012<br>(9<br>months) | %age<br>change<br>over<br>Mar-<br>2013<br>(6<br>months) | %age<br>change<br>over<br>Jun-<br>2013<br>(3<br>months) |
|--|----------------|----------------|----------------|----------------|----------------|--|---|---|---|
| <b>Telecom Sector</b>                          |                |                |                |                |                |  |   |   |   |
| i) Gross Revenue (Rs. in Crores)               | 52937.32       | 52858.39       | 54283.78       | 57260.98       | 57452.56       | 8.53%  | 8.69%   | 5.84%   | 0.33%   |
| ii) Adjusted Gross Revenue (Rs. in Crores)     | 35473.16       | 34527.50       | 35279.50       | 38640.30       | 38810.56       | 9.41%  | 12.40%  | 10.01%  | 0.44%   |
| <b>Access Services</b>                         |                |                |                |                |                |  |   |   |   |
| Adjusted Gross Revenue (Rs. in Crores)         | 27773.79       | 27455.16       | 27801.94       | 30492.88       | 30353.17       | 9.29%  | 10.56%  | 9.18%   | -0.46%  |
| ARPU per month (AGR/<br>Average subscribers/3) | 97.93          | 99.00          | 103.66         | 113.04         | 111.85         | 14.21%   | 12.98%  | 7.90%   | -1.05%  |

## **Introduction**

This Report presents the Key Parameters and growth trends for the Telecom Services in India for the quarter ending September, 2013. It provides a broad perspective on the Telecom Services to serve as a reference document for various stakeholders, research agencies and analysts. Chapter-1 depicts the growth pattern, in terms of Subscriber base and Tele-density of Wireline, Wireless, Internet and Value Added Services (VAS). Chapter-2 covers the key revenue and usage parameters. Chapter-3 gives the financial and accounting data. Chapter-4 covers performance of various service providers in terms of QoS. The information relating to Cable TV, DTH & Radio Broadcast services is provided in Chapter-5.

2. The Report has been prepared based on the information furnished by the Service Providers. It is also available on TRAI's website ([www.trai.gov.in](http://www.trai.gov.in)). Any suggestion pertaining to this report may please be addressed to Advisor(F&EA), TRAI; Tel. +91-11-23230752, Fax. +91-11-23236650 and e-mail: [manishsinha@trai.gov.in](mailto:manishsinha@trai.gov.in)



# **Chapter 1 :**

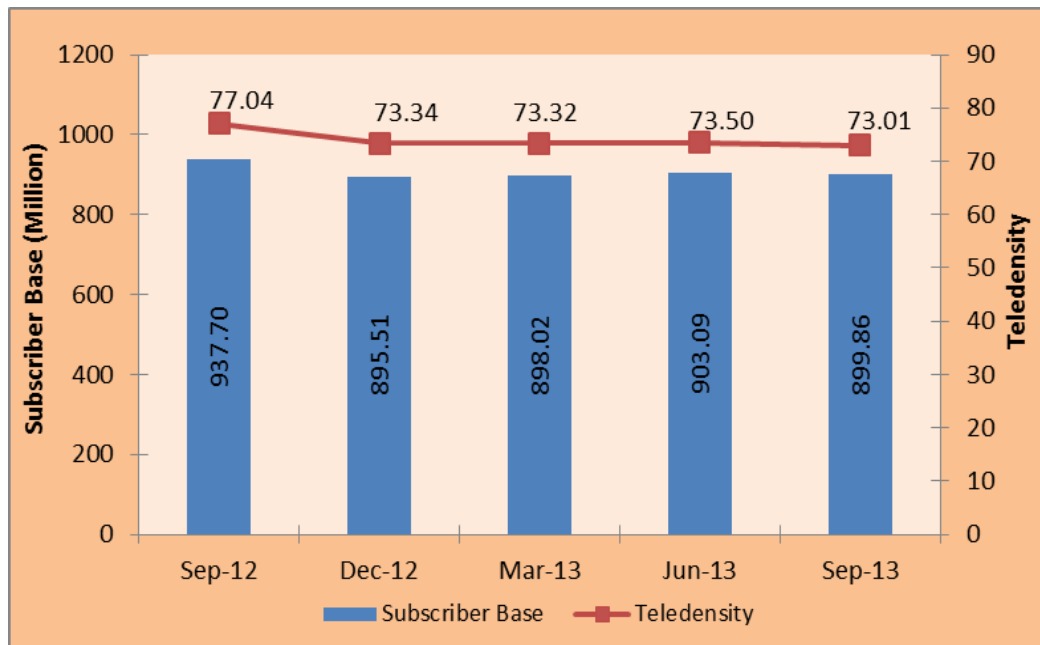
# **Subscription Data**

- 
- Teledensity is based on the population projections from census data published by the Office of Registrar General & Census Commissioner of India.

## Section A : Access Service - An Overview

- 1.1 The number of telephone subscribers in India declined from 903.09 million at the end of Jun-13 to 899.86 million at the end of Sep-13, registering a negative growth of 0.36% over the previous quarter. This reflects year-on-year (Y-O-Y) negative growth of 4.03% over the same quarter of last year. The overall Tele-density in India decreased to 73.01 at the end of Sep-13 from 73.50 at the end of the previous quarter.

**Chart 1.1: Trends in Telephone Subscribers and Tele-density in India**

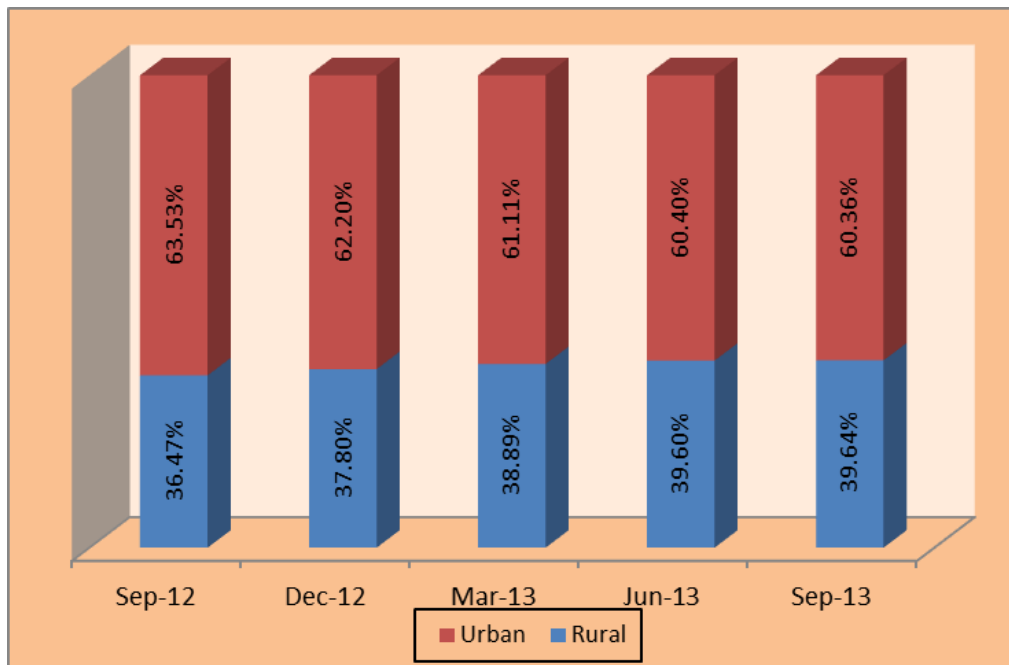


**Table 1.1: Subscriber Base & Teledensity - Rural & Urban**

| Quarter ending | Subscriber Base (million) |        | Teledensity |        |
|----------------|---------------------------|--------|-------------|--------|
|                | Rural                     | Urban  | Rural       | Urban  |
| Sep-12         | 342.01                    | 595.69 | 40.36       | 161.13 |
| Dec-12         | 338.54                    | 556.96 | 39.85       | 149.90 |
| Mar-13         | 349.22                    | 548.80 | 41.02       | 146.96 |
| Jun-13         | 357.61                    | 545.48 | 41.90       | 145.35 |
| Sep-13         | 356.68                    | 543.18 | 41.70       | 144.02 |

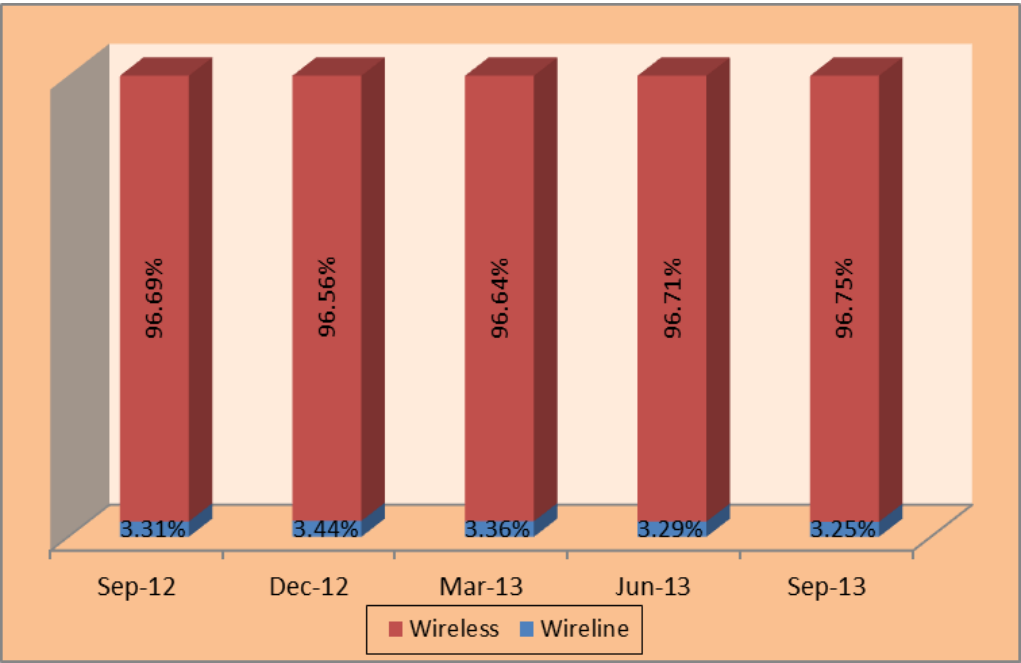
1.2 Subscription in Urban Areas decreased from 545.48 million at the end of Jun-13 to 543.18 million at the end of Sep-13 and the Urban Tele-density also declined from 145.35 to 144.02 during the quarter. Rural subscription decreased from 357.61 million to 356.68 million and the Rural Tele-density also declined from 41.90 to 41.70 during the quarter. The year-on-year (Y-O-Y) growth rate of Rural and Urban Tele-density from Sep-12 to Sep-13 is 3.32% and -10.62% respectively.

**Chart 1.2: Market Share - Rural & Urban**

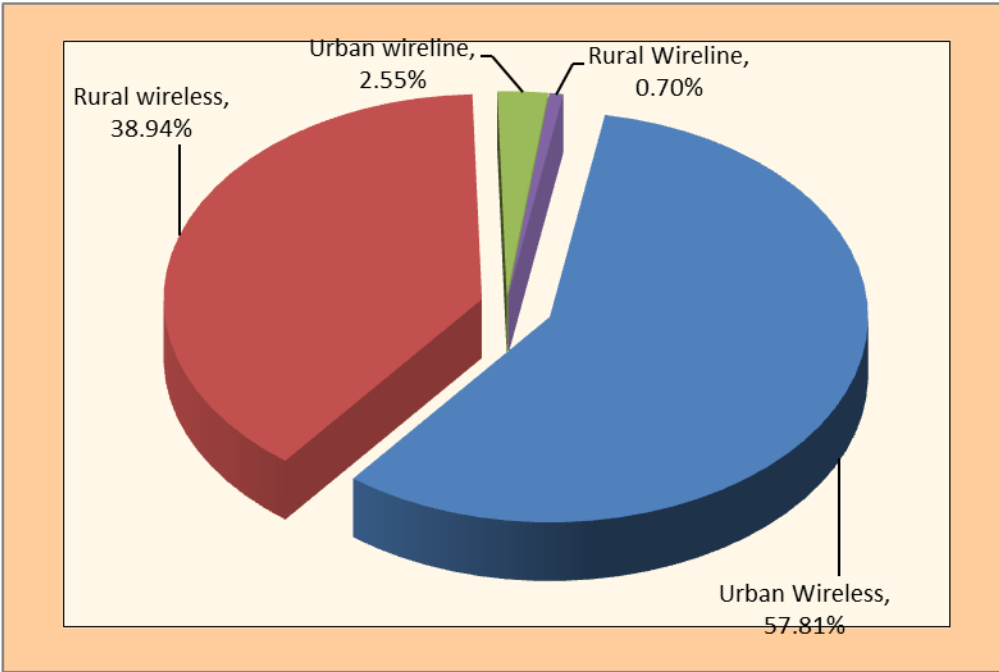


1.3 Share of rural areas in total subscription has increased from 39.60 at the end of Jun-13 to 39.64% at the end of Sep-13. The year-on-year (Y-O-Y) growth of the market share of the rural areas for Sep-13 is 8.67%.

**Chart 1.3: Composition of Access subscription - Wireline & Wireless**



**Chart 1.4: Composition of Telephone Subscribers at the end of the quarter**

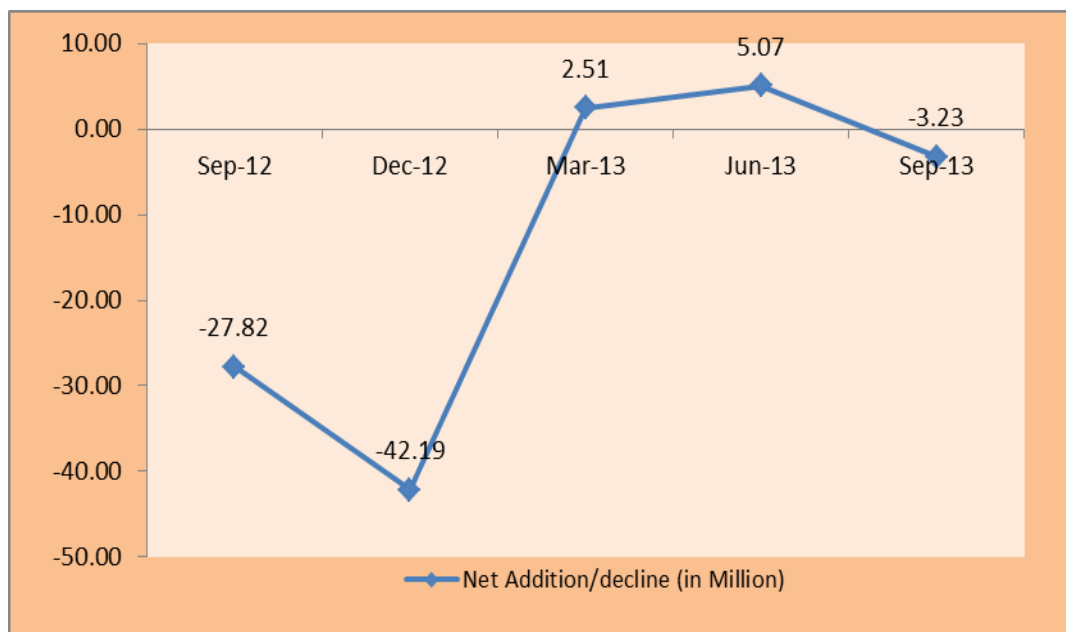


**Table 1.2: Service Area wise Access (Wireless+Wireline) Subscriber base**

| Service Area         | Subscribers (million) |               |               |                   |
|----------------------|-----------------------|---------------|---------------|-------------------|
|                      | Jun-13                | Sep-13        | Net Additions | Rate of Growth(%) |
| Andhra Pradesh       | 67.28                 | 66.85         | -0.42         | -0.63             |
| Assam                | 14.93                 | 14.86         | -0.08         | -0.52             |
| Bihar                | 60.40                 | 58.71         | -1.69         | -2.80             |
| Delhi                | 43.15                 | 44.10         | 0.95          | 2.20              |
| Gujarat              | 53.71                 | 53.86         | 0.16          | 0.29              |
| Haryana              | 20.45                 | 20.42         | -0.03         | -0.14             |
| Himachal Pradesh     | 7.28                  | 7.30          | 0.01          | 0.18              |
| Jammu & Kashmir      | 7.34                  | 7.60          | 0.25          | 3.45              |
| Karnataka            | 55.51                 | 55.80         | 0.29          | 0.52              |
| Kerala               | 34.17                 | 33.99         | -0.19         | -0.55             |
| Madhya Pradesh       | 54.34                 | 54.57         | 0.23          | 0.43              |
| Maharashtra          | 70.54                 | 71.05         | 0.51          | 0.72              |
| Mumbai               | 32.37                 | 32.36         | -0.01         | -0.04             |
| North East           | 9.37                  | 9.52          | 0.16          | 1.66              |
| Orissa               | 25.21                 | 25.50         | 0.29          | 1.14              |
| Punjab               | 31.12                 | 31.48         | 0.36          | 1.15              |
| Rajasthan            | 50.51                 | 50.70         | 0.19          | 0.37              |
| T.N. (incl. Chennai) | 75.89                 | 76.32         | 0.43          | 0.56              |
| U.P.(E)              | 76.06                 | 73.62         | -2.44         | -3.21             |
| U.P.(W)              | 48.98                 | 47.39         | -1.59         | -3.24             |
| Kolkata              | 22.67                 | 22.61         | -0.06         | -0.26             |
| West Bengal          | 41.80                 | 41.26         | -0.54         | -1.28             |
| <b>All India</b>     | <b>903.09</b>         | <b>899.86</b> | <b>-3.23</b>  | <b>-0.36</b>      |

- 1.4 During the quarter, J&K Circle has recorded the highest growth rate of 3.45%, followed by Delhi (2.20%). U.P.(West) and U.P.(East) Circles have recorded the highest decline rate of 3.24% and 3.21% respectively.

**Chart 1.5: Net Addition/decline in Telephone Subscription**



1.5 The net decline in telephone subscribers is 3.23 million in QE Sep-13 as against the net addition of 5.07 million in QE Jun-13.

**Table 1.3: Service Area wise Teledensity**

| Service Area     | As on 30 <sup>th</sup> June, 2013 |                   |                   | As on 30 <sup>th</sup> September, 2013 |                   |                   |
|------------------|-----------------------------------|-------------------|-------------------|--|-------------------|-------------------|
|                  | Rural Teledensity                 | Urban Teledensity | Total Teledensity | Rural Teledensity                      | Urban Teledensity | Total Teledensity |
| Andhra Pradesh   | 43.61                             | 166.54            | 77.80             | 43.51                                  | 164.43            | 77.15             |
| Assam            | 32.10                             | 131.61            | 47.49             | 32.36                                  | 127.30            | 47.10             |
| Bihar            | 27.87                             | 155.46            | 45.36             | 27.51                                  | 147.38            | 43.95             |
| Delhi            | -                                 | -                 | 218.86            | -                                      | -                 | 222.10            |
| Gujarat          | 53.44                             | 135.97            | 87.31             | 54.53                                  | 134.18            | 87.29             |
| Haryana          | 57.43                             | 115.03            | 77.47             | 57.07                                  | 114.32            | 77.06             |
| Himachal Pradesh | 75.50                             | 334.98            | 104.96            | 75.59                                  | 333.15            | 104.93            |
| J&K              | 38.56                             | 120.41            | 60.91             | 40.28                                  | 122.68            | 62.82             |
| Karnataka        | 43.43                             | 169.45            | 91.26             | 44.60                                  | 167.95            | 91.52             |

| Service Area        | As on 30 <sup>th</sup> June, 2013 |                   |                   | As on 30 <sup>th</sup> September, 2013 |                   |                   |
|---------------------|-----------------------------------|-------------------|-------------------|--|-------------------|-------------------|
|                     | Rural Teledensity                 | Urban Teledensity | Total Teledensity | Rural Teledensity                      | Urban Teledensity | Total Teledensity |
| Kerala              | 62.89                             | 197.39            | 97.12             | 62.88                                  | 194.79            | 96.43             |
| Madhya Pradesh      | 32.11                             | 114.88            | 54.40             | 31.87                                  | 115.52            | 54.44             |
| Maharashtra*        | 53.56                             | 124.50            | 87.15             | 53.34                                  | 124.87            | 87.29             |
| Mumbai*             |                                   |                   |                   |  |                   |                   |
| North East          | 41.30                             | 154.84            | 69.20             | 41.73                                  | 157.14            | 70.15             |
| Orissa              | 39.20                             | 163.83            | 60.64             | 39.40                                  | 165.83            | 61.21             |
| Punjab              | 67.78                             | 152.74            | 103.80            | 68.83                                  | 153.11            | 104.68            |
| Rajasthan           | 45.95                             | 153.85            | 71.87             | 45.68                                  | 154.65            | 71.88             |
| T.N. (incl Chennai) | 68.86                             | 138.34            | 108.52            | 69.45                                  | 138.33            | 108.96            |
| U.P.(E)*            | 34.29                             | 135.26            | 57.05             | 33.04                                  | 130.28            | 54.99             |
| U.P.(W)*            |                                   |                   |                   |  |                   |                   |
| Kolkata*            | 42.30                             | 138.07            | 69.66             | 41.97                                  | 136.08            | 68.87             |
| W.B.*               |                                   |                   |                   |  |                   |                   |
| <b>All India</b>    | <b>41.90</b>                      | <b>145.35</b>     | <b>73.50</b>      | <b>41.70</b>                           | <b>144.02</b>     | <b>73.01</b>      |

\* Population data/projections are available state-wise only.

Notes:

1. Teledensity figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country, published by the Office of the Registrar General & Census Commissioner, India.
2. Delhi Service area, apart from the State of Delhi, includes wireless subscribers of the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).

1.6 Himachal Pradesh has the highest Rural Teledensity of 75.59, followed by Tamil Nadu (69.45). Bihar continues to have the lowest Rural Teledensity of 27.51, followed by Madhya Pradesh (31.87).

**Table 1.4: Growth/Decline in Subscribers**

| Service Provider | Subscriber base (millions) |               |               | Rate of Growth (%) | Market Share Jun-13 (%) | Market Share Sep-13 (%) |
|------------------|----------------------------|---------------|---------------|--------------------|-------------------------|-------------------------|
|                  | Jun-13                     | Sep-13        | Net Additions |                    |                         |                         |
| Bharti           | 194.19                     | 196.73        | 2.53          | 1.30               | 21.50                   | 21.86                   |
| Vodafone         | 155.08                     | 155.59        | 0.51          | 0.33               | 17.17                   | 17.29                   |
| IDEA             | 124.97                     | 127.23        | 2.26          | 1.81               | 13.84                   | 14.14                   |
| Reliance         | 126.98                     | 117.50        | -9.47         | -7.46              | 14.06                   | 13.06                   |
| BSNL             | 117.88                     | 117.23        | -0.65         | -0.56              | 13.05                   | 13.03                   |
| Tata             | 66.10                      | 65.04         | -1.06         | -1.60              | 7.32                    | 7.23                    |
| Aircel/Dishnet   | 60.97                      | 63.25         | 2.28          | 3.73               | 6.75                    | 7.03                    |
| Unitech          | 32.30                      | 32.36         | 0.06          | 0.19               | 3.58                    | 3.60                    |
| Sistema          | 9.82                       | 9.61          | -0.21         | -2.16              | 1.09                    | 1.07                    |
| MTNL             | 8.06                       | 7.28          | -0.78         | -9.64              | 0.89                    | 0.81                    |
| Videocon         | 2.42                       | 3.24          | 0.83          | 34.18              | 0.27                    | 0.36                    |
| Loop Mobile      | 2.72                       | 2.89          | 0.17          | 6.26               | 0.30                    | 0.32                    |
| Quadrant         | 1.61                       | 1.93          | 0.31          | 19.48              | 0.18                    | 0.21                    |
| <b>Total</b>     | <b>903.09</b>              | <b>899.86</b> | <b>-3.23</b>  | <b>-0.36</b>       |                         |                         |

1.7 Bharti is the leading operator in Access segment in terms of number of subscribers. In term of net additions during the quarter, Bharti recorded the highest addition of 2.53 million, followed by Aircel (2.28 million) and Idea (2.26 million). Reliance recorded the highest net decline of 9.47 million subscribers during this quarter.



**Table 1.5: Market Share of the operators in total rural subscriber base for the quarter ending Sep-13**

| <b>Service Provider</b> | <b>No. of Total Subscribers (in millions)</b> | <b>No. of Rural Subscribers (in millions)</b> | <b>Percentage of Rural subscribers</b> | <b>Market share of Rural subscribers (%)</b> |
|-------------------------|---|---|--|--|
| Bharti                  | 196.73  | 86.81   | 44.13                                  | 24.34  |
| Vodafone                | 155.59  | 83.19   | 53.47                                  | 23.32  |
| IDEA                    | 127.23  | 69.16   | 54.36                                  | 19.39  |
| BSNL                    | 117.23  | 39.80   | 33.95                                  | 11.16  |
| Reliance                | 117.50  | 28.29   | 24.08                                  | 7.93   |
| Aircel/Dishnet          | 63.25   | 23.25   | 36.76                                  | 6.52   |
| Tata                    | 65.04   | 14.50   | 22.29                                  | 4.06   |
| Unitech                 | 32.36   | 10.24   | 31.66                                  | 2.87   |
| Sistema                 | 9.61  | 1.41  | 14.62                                  | 0.39   |
| Quadrant                | 1.93  | 0.04  | 2.05                                   | 0.01   |
| Loop Mobile             | 2.89  | -   | -                                      | -  |
| Videocon                | 3.24  | -   | -                                      | -  |
| MTNL                    | 7.28  | -   | -                                      | -  |
| <b>Total</b>            | <b>899.86</b>                                 | <b>356.68</b>                                 | <b>39.64</b>                           |  |

- 1.8 IDEA continues to be the Service provider with highest proportion of Rural subscribers (54.36), followed by Vodafone (53.47%) to their total subscribers.

## Section B : Wireless Service

**Table 1.6: List of Cellular Mobile (GSM & CDMA) Service Providers currently providing service [As on 30<sup>th</sup> September, 2013]**

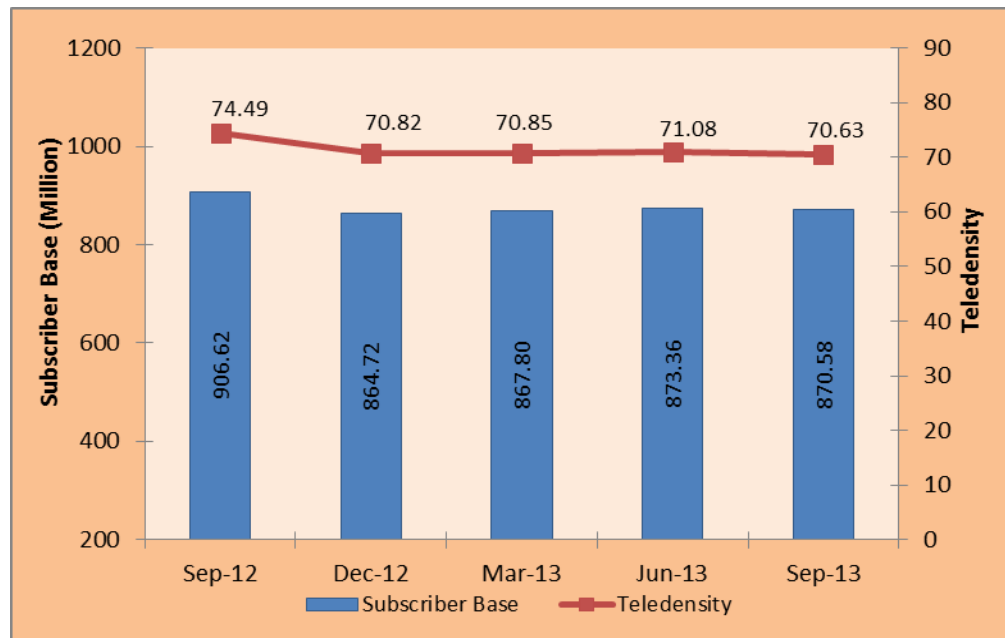
| Sl.No. | Service Provider                | Area of Operation  |
|--------|---------------------------------|--|
| 1      | Bharti                          | All India  |
| 2      | Aircel Group                    | All India  |
| 3      | Reliance Communications         | All India (except Assam & NE)  |
| 4      | Reliance Telecom                | Kolkata, MP, WB, HP, Bihar, OR, Assam & NE                                     |
| 5      | Vodafone                        | All India  |
| 6      | Tata Teleservices               | All India except Assam, NE & J&K   |
| 7      | IDEA                            | All India  |
| 8      | Sistema Shyam Telelink          | Delhi, Kolkata, Guj., KTK, T.N. incl. Chennai, Kerala, UP(W), Rajasthan & W.B. |
| 9      | BSNL                            | All India (except Delhi & Mumbai)  |
| 10     | MTNL                            | Delhi & Mumbai   |
| 11     | Loop Mobile (India) Ltd         | Mumbai   |
| 12     | Quadrant (HFCL)                 | Punjab   |
| 13     | Unitech Group                   | MH, Guj., AP, UP(W), UP(E), Bihar  |
| 14     | Videocon Telecommunications Ltd | Guj, Haryana, UP(W)*, UP(E)*, MP, Bihar*                                       |

\* M/s Videocon has no subscriber in UP(W), UP(E) and Bihar service areas as on 30.09.2013.

1.9 Complete list of licensed Cellular (GSM & CDMA) Service providers as on 30<sup>th</sup> September, 2013 is at Annexure -1.1

1.10 Total Wireless (GSM+CDMA) subscriber base decreased from 873.36 million at the end of Jun-13 to 870.58 million at the end of Sep-13, thereby showing a negative growth of 0.32%. During this quarter net decline of 2.78 million subscribers was recorded. The year-on-year (Y-O-Y), wireless subscribers shows negative growth rate of 3.97% for Sep-13. Wireless Teledensity decreased from 71.08 at the end of Jun-13 to 70.63 at the end of Sep-13.

**Chart 1.6: Wireless Subscriber Base and Teledensity**



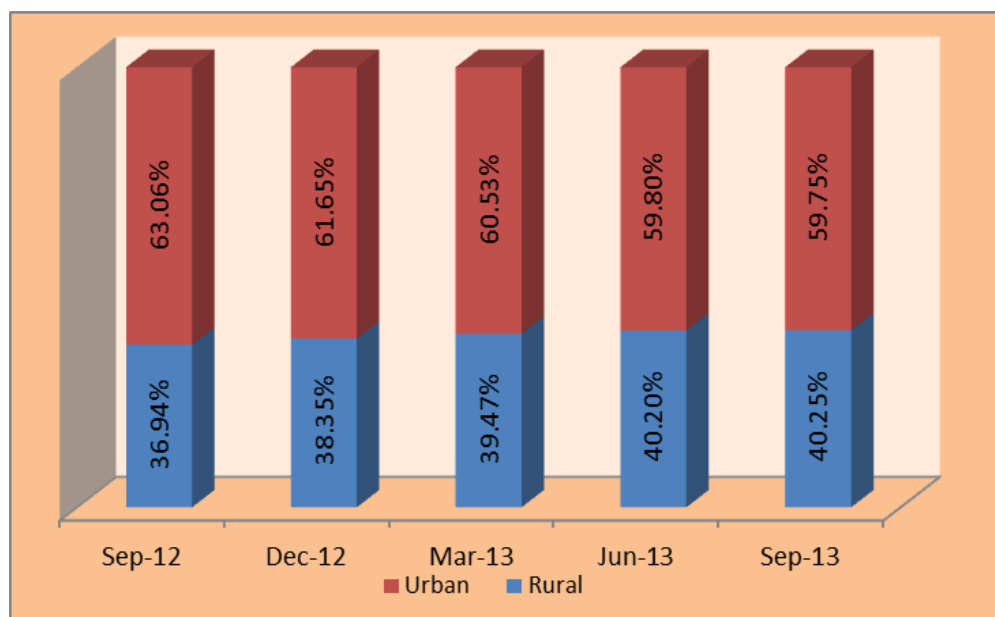
**Table 1.7: Wireless Subscriber Base & Teledensity - Rural & Urban**

| Quarter ending | Subscriber Base (million) |        | Teledensity |        |
|----------------|---------------------------|--------|-------------|--------|
|                | Rural                     | Urban  | Rural       | Urban  |
| Sep-12         | 334.92                    | 571.70 | 39.52       | 154.64 |
| Dec-12         | 331.60                    | 533.12 | 39.04       | 143.48 |
| Mar-13         | 342.50                    | 525.30 | 40.23       | 140.67 |
| Jun-13         | 351.10                    | 522.27 | 41.14       | 139.16 |
| Sep-13         | 350.37                    | 520.21 | 40.96       | 137.93 |

1.11 The Rural Wireless subscribers decreased from 351.10 million at the end of Jun-13 to 350.37 million at the end of Sep-13.

1.12 Rural subscription declined at the rate of 0.21% in QE Sep-13 as against the positive growth rate of 2.51% in QE Jun-13. Urban subscription declined at the rate of 0.39% as against negative growth rate of 0.58% in the previous quarter. The share of Rural wireless subscription increased from 40.20% to 40.25% in total wireless subscription in this quarter.

**Chart 1.7: Wireless Market Share - Rural & Urban**



**Table 1.8: Growth in Wireless Subscriber base**

| Service Provider | Subscriber Base (millions) |               |               | Rate of Growth (%) | Market Share □ Jun-13 (%) | Market Share □ Sep-13 (%) |
|------------------|----------------------------|---------------|---------------|--------------------|---------------------------|---------------------------|
|                  | Jun-13                     | Sep-13        | Net Additions |                    |                           |                           |
| Bharti           | 190.91                     | 193.39        | 2.47          | 1.30               | 21.86                     | 22.21                     |
| Vodafone         | 155.03                     | 155.54        | 0.51          | 0.33               | 17.75                     | 17.87                     |
| IDEA             | 124.97                     | 127.23        | 2.26          | 1.81               | 14.31                     | 14.61                     |
| Reliance         | 125.73                     | 116.26        | -9.47         | -7.53              | 14.40                     | 13.35                     |
| BSNL             | 97.99                      | 97.86         | -0.13         | -0.14              | 11.22                     | 11.24                     |
| Tata             | 64.63                      | 63.55         | -1.08         | -1.67              | 7.40                      | 7.30                      |
| Aircel           | 60.97                      | 63.25         | 2.28          | 3.73               | 6.98                      | 7.26                      |
| Unitech          | 32.30                      | 32.36         | 0.06          | 0.19               | 3.70                      | 3.72                      |
| Sistema          | 9.77                       | 9.56          | -0.21         | -2.18              | 1.12                      | 1.10                      |
| MTNL             | 4.51                       | 3.74          | -0.77         | -17.07             | 0.52                      | 0.43                      |
| Videocon         | 2.42                       | 3.24          | 0.83          | 34.18              | 0.28                      | 0.37                      |
| Loop             | 2.72                       | 2.89          | 0.17          | 6.26               | 0.31                      | 0.33                      |
| Quadrant         | 1.42                       | 1.73          | 0.31          | 21.71              | 0.16                      | 0.20                      |
| <b>Total</b>     | <b>873.36</b>              | <b>870.58</b> | <b>-2.78</b>  | <b>-0.32</b>       | -                         | -                         |

1.13 Bharti remains the leading operator with 193.39 million subscribers at the end of Sep-13, followed by Vodafone (155.54 million) and Idea (127.23 million). In terms of net additions during the quarter, Bharti (2.47 million) has added the highest number of subscribers, followed by Aircel (2.28 million). Reliance has the maximum net loss of 9.47 million subscribers during this quarter.

**Table 1.9: Service Area wise Wireless Subscriber base**

| Service Area         | Subscriber base (in million) |               |               |                    |
|----------------------|------------------------------|---------------|---------------|--------------------|
|                      | Jun-13                       | Sep-13        | Net Additions | Rate of change (%) |
| Andhra Pradesh       | 65.09                        | 64.72         | -0.37         | -0.57              |
| Assam                | 14.74                        | 14.66         | -0.08         | -0.52              |
| Bihar                | 60.01                        | 58.32         | -1.69         | -2.82              |
| Delhi                | 40.18                        | 41.05         | 0.87          | 2.17               |
| Gujarat              | 51.96                        | 52.14         | 0.18          | 0.35               |
| Haryana              | 19.91                        | 19.90         | -0.01         | -0.06              |
| Himachal Pradesh     | 7.01                         | 7.03          | 0.02          | 0.28               |
| Jammu & Kashmir      | 7.15                         | 7.41          | 0.26          | 3.61               |
| Karnataka            | 53.10                        | 53.43         | 0.32          | 0.61               |
| Kerala               | 31.14                        | 31.00         | -0.14         | -0.45              |
| Madhya Pradesh       | 53.22                        | 53.47         | 0.24          | 0.46               |
| Maharashtra          | 68.14                        | 68.68         | 0.54          | 0.80               |
| Mumbai               | 29.32                        | 29.30         | -0.02         | -0.08              |
| North East           | 9.20                         | 9.38          | 0.18          | 1.96               |
| Orissa               | 24.84                        | 25.14         | 0.30          | 1.19               |
| Punjab               | 29.82                        | 30.20         | 0.38          | 1.29               |
| Rajasthan            | 49.52                        | 49.73         | 0.21          | 0.42               |
| T.N. (incl. Chennai) | 72.83                        | 73.31         | 0.48          | 0.66               |
| U.P.(E)              | 75.06                        | 72.75         | -2.31         | -3.07              |
| U.P.(W)              | 48.31                        | 46.74         | -1.57         | -3.26              |
| Kolkata              | 21.55                        | 21.50         | -0.05         | -0.24              |
| West Bengal          | 41.26                        | 40.73         | -0.53         | -1.27              |
| <b>All India</b>     | <b>873.36</b>                | <b>870.58</b> | <b>-2.78</b>  | <b>-0.32</b>       |

**Table 1.10: Service Area wise Wireless Teledensity**

| Service Area         | As on 30 <sup>th</sup> June, 2013 |                   |                   | As on 30 <sup>th</sup> September, 2013 |                   |                   |
|----------------------|-----------------------------------|-------------------|-------------------|--|-------------------|-------------------|
|                      | Rural Teledensity                 | Urban Teledensity | Total Teledensity | Rural Teledensity                      | Urban Teledensity | Total Teledensity |
| Andhra Pradesh       | 42.65                             | 159.94            | 75.27             | 42.58                                  | 157.97            | 74.69             |
| Assam                | 31.95                             | 128.41            | 46.88             | 32.22                                  | 124.13            | 46.49             |
| Bihar                | 27.77                             | 153.94            | 45.06             | 27.41                                  | 145.87            | 43.66             |
| Delhi                | -                                 | -                 | 203.79            | -                                      | -                 | 206.73            |
| Gujarat              | 52.48                             | 130.43            | 84.47             | 53.61                                  | 128.72            | 84.50             |
| Haryana              | 56.52                             | 110.87            | 75.42             | 56.20                                  | 110.29            | 75.09             |
| Himachal Pradesh     | 72.20                             | 326.49            | 101.07            | 72.43                                  | 324.41            | 101.13            |
| Jammu & Kashmir      | 38.16                             | 115.58            | 59.30             | 39.90                                  | 117.97            | 61.26             |
| Karnataka            | 42.45                             | 160.63            | 87.31             | 43.65                                  | 159.27            | 87.63             |
| Kerala               | 55.26                             | 185.89            | 88.50             | 55.37                                  | 183.51            | 87.96             |
| Madhya Pradesh       | 31.90                             | 111.32            | 53.29             | 31.66                                  | 112.02            | 53.34             |
| Maharashtra*         | 52.60                             | 115.82            | 82.54             | 52.42                                  | 116.26            | 82.71             |
| Mumbai*              |                                   |                   |                   |  |                   |                   |
| North East           | 40.91                             | 150.98            | 67.96             | 41.38                                  | 153.93            | 69.10             |
| Orissa               | 38.90                             | 160.15            | 59.76             | 39.11                                  | 162.22            | 60.35             |
| Punjab               | 65.61                             | 145.44            | 99.46             | 66.72                                  | 145.98            | 100.43            |
| Rajasthan            | 45.49                             | 149.39            | 70.45             | 45.24                                  | 150.28            | 70.49             |
| T.N. (incl. Chennai) | 67.08                             | 132.01            | 104.14            | 67.69                                  | 132.15            | 104.67            |
| U.P.(E)*             | 34.09                             | 132.56            | 56.29             | 32.86                                  | 127.80            | 54.30             |
| U.P.(W)*             |                                   |                   |                   |  |                   |                   |
| Kolkata*             | 41.93                             | 132.74            | 67.87             | 41.59                                  | 130.83            | 67.10             |
| West Bengal*         |                                   |                   |                   |  |                   |                   |
| <b>All India</b>     | <b>41.14</b>                      | <b>139.16</b>     | <b>71.08</b>      | <b>40.96</b>                           | <b>137.93</b>     | <b>70.63</b>      |

\* Population data/projections are available state-wise only.

Notes:

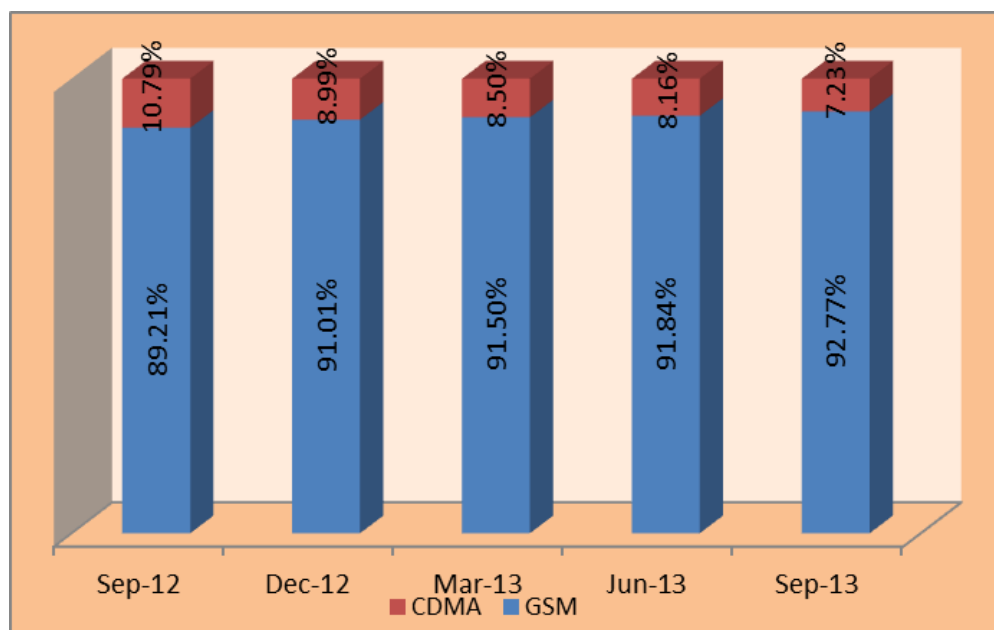
1. Teledensity figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country, published by the Office of the Registrar General & Census Commissioner, India.
2. Delhi service area, apart from the State of Delhi, includes the areas served by the local exchanges of Ghaziabad & Noida (in UP) and Gurgaon & Faridabad (in Haryana).

**Table 1.11: Rural Wireless Subscriber base and Market Share**

| Service Provider | Subscribers at the end of Sep-13 (in millions) | Rural Subscribers (in millions) |               | % of Rural subscribers in total |              | Market Share of Rural Subscribers (%) |            |
|------------------|--|---------------------------------|---------------|---------------------------------|--------------|---------------------------------------|------------|
|                  |  | Jun-13                          | Sep-13        | Jun-13                          | Sep-13       | Jun-13                                | Sep-13     |
| Bharti           | 193.39   | 85.90                           | 86.81         | 45.00                           | 44.89        | 24.47                                 | 24.78      |
| Vodafone         | 155.54   | 84.01                           | 83.19         | 54.19                           | 53.48        | 23.93                                 | 23.74      |
| IDEA             | 127.23   | 68.73                           | 69.16         | 55.00                           | 54.36        | 19.58                                 | 19.74      |
| BSNL             | 97.86  | 33.78                           | 33.55         | 34.48                           | 34.28        | 9.62                                  | 9.58       |
| Reliance         | 116.26   | 30.14                           | 28.29         | 23.97                           | 24.33        | 8.58                                  | 8.07       |
| Aircel           | 63.25  | 22.73                           | 23.25         | 37.28                           | 36.76        | 6.47                                  | 6.64       |
| Tata             | 63.55  | 14.12                           | 14.45         | 21.85                           | 22.73        | 4.02                                  | 4.12       |
| Unitech          | 32.36  | 10.22                           | 10.24         | 31.66                           | 31.66        | 2.91                                  | 2.92       |
| Sistema          | 9.56   | 1.42                            | 1.40          | 14.54                           | 14.61        | 0.40                                  | 0.40       |
| Quadrant         | 1.73   | 0.03                            | 0.04          | 2.15                            | 2.29         | 0.01                                  | 0.01       |
| MTNL             | 3.74   | 0.00                            | 0.00          | 0.00                            | 0.00         | 0.00                                  | 0.00       |
| Videocon         | 3.24   | 0.00                            | 0.00          | 0.00                            | 0.00         | 0.00                                  | 0.00       |
| Loop             | 2.89   | 0.00                            | 0.00          | 0.00                            | 0.00         | 0.00                                  | 0.00       |
| <b>Total</b>     | <b>870.58</b>                                  | <b>351.10</b>                   | <b>350.37</b> | <b>40.20</b>                    | <b>40.25</b> | <b>100</b>                            | <b>100</b> |

1.14 Detailed table on service provider wise subscriber base in each service area is at Annexure-1.2.

**Chart 1.8: Wireless Subscription: GSM vs CDMA**



1.15 At the end of Sep-13, GSM subscribers constituted 92.77% of the wireless market.

### **GSM Services**

1.16 The GSM subscribers were 807.68 million at the end of Sep-13 as against 802.12 million at the quarter ending Jun-13, showing a growth of 0.69%. Bharti with 193.39 million subscribers continues to be the largest GSM mobile operator, followed by Vodafone (155.54 million).

**Table 1.12: Group-wise Market Share (in terms of subscription) within GSM Service**

| <b>Service Provider</b> | <b>Jun-13</b>                          |                         | <b>Sep-13</b>                          |                         | <b>Net Additions (in million)</b> |
|-------------------------|--|-------------------------|--|-------------------------|-----------------------------------|
|                         | <b>No of Subscribers (in millions)</b> | <b>Market Share (%)</b> | <b>No of Subscribers (in millions)</b> | <b>Market Share (%)</b> |                                   |
| Bharti                  | 190.91                                 | 23.80                   | 193.39                                 | 23.94                   | 2.47                              |
| Vodafone                | 155.03                                 | 19.33                   | 155.54                                 | 19.26                   | 0.51                              |
| Idea                    | 124.97                                 | 15.58                   | 127.23                                 | 15.75                   | 2.26                              |
| BSNL                    | 95.41                                  | 11.90                   | 95.47                                  | 11.82                   | 0.06                              |
| Reliance                | 86.39                                  | 10.77                   | 83.85                                  | 10.38                   | -2.54                             |
| Aircel                  | 60.97                                  | 7.60                    | 63.25                                  | 7.83                    | 2.28                              |
| Tata                    | 45.26                                  | 5.64                    | 45.13                                  | 5.59                    | -0.13                             |
| Unitech                 | 32.30                                  | 4.03                    | 32.36                                  | 4.01                    | 0.06                              |
| MTNL                    | 4.34                                   | 0.54                    | 3.61                                   | 0.45                    | -0.72                             |
| Videocon                | 2.42                                   | 0.30                    | 3.24                                   | 0.40                    | 0.17                              |
| Loop                    | 2.72                                   | 0.34                    | 2.89                                   | 0.36                    | 0.83                              |
| Quadrant                | 1.40                                   | 0.17                    | 1.72                                   | 0.21                    | 0.32                              |
| <b>Total</b>            | <b>802.12</b>                          | <b>100</b>              | <b>807.68</b>                          | <b>100</b>              | <b>5.56</b>                       |

1.17 There has been a net increase of 5.56 million GSM subscribers during the quarter ending Sep-13.



## **CDMA Services**

1.18 The CDMA subscriber base further declined from 71.24 million at the end of Jun-13 to 62.91 million at the end of Sep-13, thereby showing a negative growth rate of 11.70%. Reliance with 32.42 million subscribers continues to be the largest CDMA mobile operator. In terms of net additions during the quarter, all the service providers recorded decline in subscriber base.

**Table 1.13: Market Share (in terms of subscription) within CDMA Service**

| <b>Service Provider</b> | <b>Jun-13</b>                         |                         | <b>Sep-13</b>                         |                         | <b>Net Addition/ Decline (in million)</b> |
|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---|
|                         | <b>No of Subscribers (in million)</b> | <b>Market Share (%)</b> | <b>No of Subscribers (in million)</b> | <b>Market Share (%)</b> |   |
| Reliance                | 39.34                                 | 55.22                   | 32.42                                 | 51.53                   | -6.93                                     |
| Tata                    | 19.36                                 | 27.18                   | 18.41                                 | 29.27                   | -0.95                                     |
| Sistema                 | 9.77                                  | 13.71                   | 9.56                                  | 15.19                   | -0.21                                     |
| BSNL                    | 2.58                                  | 3.62                    | 2.39                                  | 3.79                    | -0.19                                     |
| MTNL                    | 0.18                                  | 0.25                    | 0.13                                  | 0.21                    | -0.05                                     |
| Quadrant (HFCL)         | 0.02                                  | 0.02                    | 0.01                                  | 0.01                    | -0.01                                     |
| <b>Total</b>            | <b>71.24</b>                          | <b>100</b>              | <b>62.91</b>                          | <b>100</b>              | <b>-8.34</b>                              |

1.19 There has been a net decline of 8.34 million CDMA subscribers during the quarter ending Sep-13.

## Section C : Wireline Service

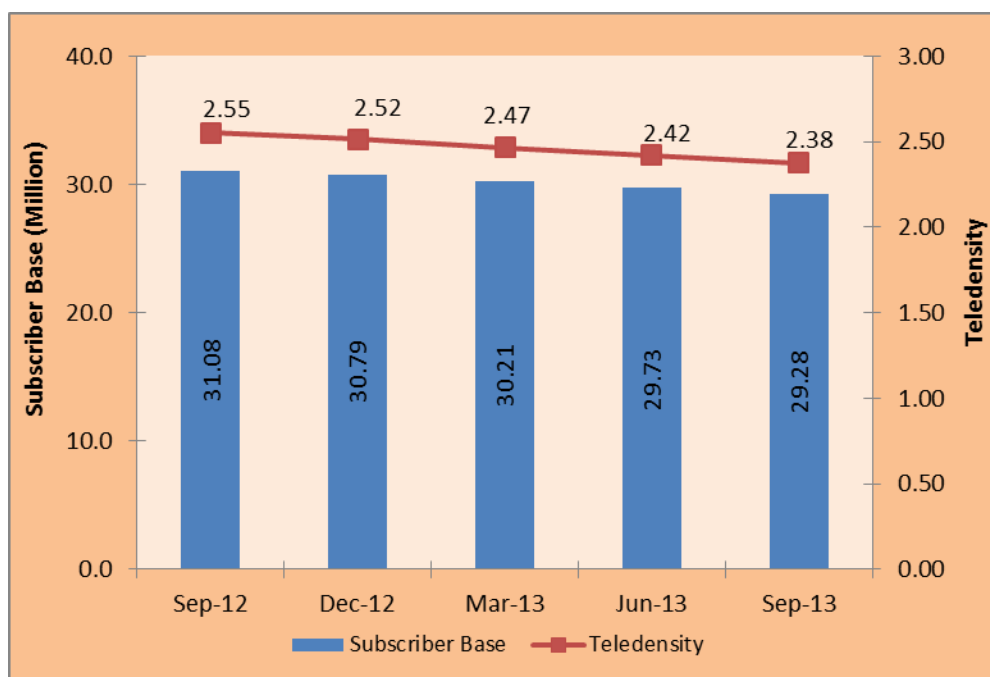
**Table 1.14 : Service Providers providing Wireline Service**

[as on 30<sup>th</sup> September, 2013]

| 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, Madhya Pradesh & Chhatisgarh, Maharashtra, Mumbai, Punjab, Tamil Nadu (incl. Chennai), Karnataka, Kerala, Kolkata, Rajasthan, UP(East) and UP(West) |
| 4       | Tata Teleservices Ltd. & Tata Teleservices (Mah) Ltd. | All India except N.E., Assam and J&K   |
| 5       | Quadrant Televentures Ltd. (HFCL)                     | Punjab   |
| 6       | Sistema Shyam Telelink Ltd.                           | Rajasthan  |
| 7       | Reliance Communications Ltd.                          | All India except Assam & North-East  |
| 8       | Vodafone  | Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Karnataka, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Orissa, Punjab, Rajasthan, Tamilnadu including Chennai, U.P.(East) & U.P.(West)       |

1.20 Total Wireline subscriber base declined from 29.73 million at the end of Jun-13 to 29.28 million at the end of Sep-13. Overall Wireline Teledensity is 2.38 at the end of this quarter. Rural subscriber base has shown decline of 3.01%, from 6.51 Million at the end of Jun-13 to 6.31 Million at the end of Sep-13. During the same period, Urban subscription recorded decline of 1.07%, from 23.22 million to 22.97 million.

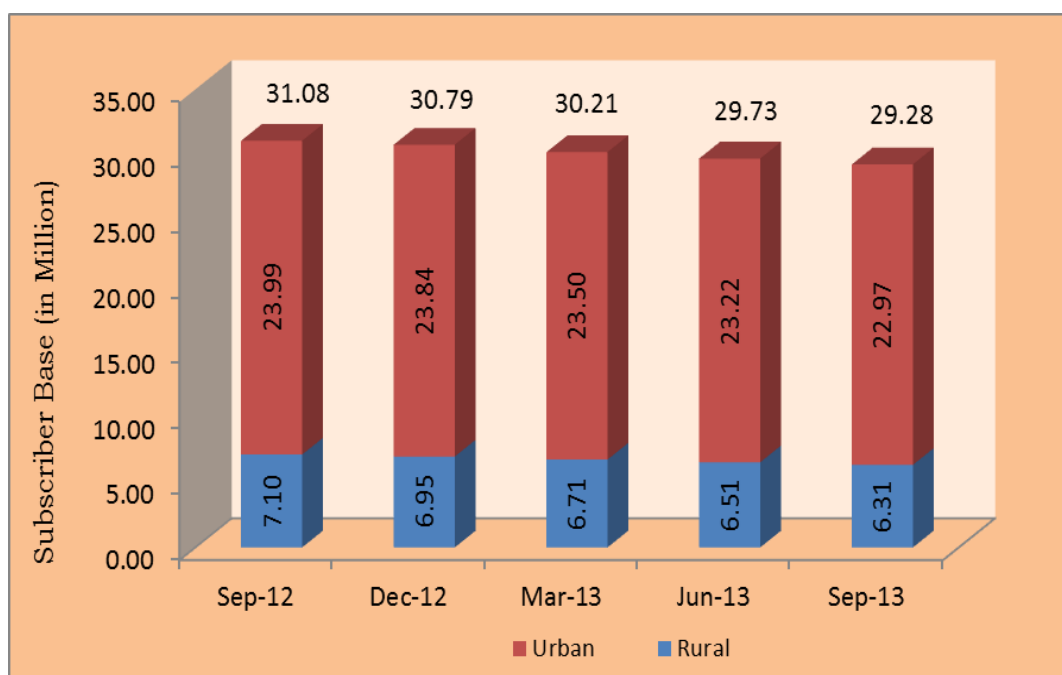
**Chart 1.9: Wireline Subscriber Base and Teledensity**



**Table 1.15: Wireline Subscriber Base & Teledensity - Rural & Urban**

| Quarter ending | Subscriber Base (million) |       | Teledensity |       |
|----------------|---------------------------|-------|-------------|-------|
|                | Rural                     | Urban | Rural       | Urban |
| Sep-12         | 7.10                      | 23.99 | 0.84        | 6.49  |
| Dec-12         | 6.95                      | 23.84 | 0.82        | 6.42  |
| Mar-13         | 6.71                      | 23.50 | 0.79        | 6.29  |
| Jun-13         | 6.51                      | 23.22 | 0.76        | 6.19  |
| Sep-13         | 6.31                      | 22.97 | 0.74        | 6.09  |

**Chart 1.10: Composition of Wireline Subscriber base - Rural & Urban**



**Table 1.16: Service Provider wise Subscriber base (Rural - Urban) & Share of Rural Subscription**

| Service Provider | Subscriber Base (million) Sep-13 |              |              | Share of Rural subscription (%) |
|------------------|----------------------------------|--------------|--------------|---------------------------------|
|                  | Rural                            | Urban        | Total        |                                 |
| BSNL             | 6.25                             | 13.12        | 19.37        | 32.28%                          |
| MTNL             | -                                | 3.54         | 3.54         | --                              |
| Bharti           | -                                | 3.34         | 3.34         | --                              |
| Reliance         | 0.002                            | 1.24         | 1.24         | 0.17%                           |
| Tata             | 0.05                             | 1.44         | 1.49         | 3.30%                           |
| Quadrant (HFCL)  | -                                | 0.20         | 0.20         | --                              |
| Sistema          | 0.01                             | 0.05         | 0.05         | 16.36%                          |
| Vodafone         | -                                | 0.04         | 0.04         | --                              |
| <b>Total</b>     | <b>6.31</b>                      | <b>22.97</b> | <b>29.28</b> | <b>21.56%</b>                   |

**Table 1.17: Service Provider wise growth in Subscriber base**

| Service Provider | Subscriber Base (million) |              |               | Rate of change (%) | Market share-Jun-13 (%) | Market share-Sep-13 (%) |
|------------------|---------------------------|--------------|---------------|--------------------|-------------------------|-------------------------|
|                  | Jun-13                    | Sep-13       | Net Addition  |                    |                         |                         |
| BSNL             | 19.89                     | 19.37        | -0.522        | -2.62              | 66.91                   | 66.14                   |
| MTNL             | 3.55                      | 3.54         | -0.007        | -0.20              | 11.94                   | 12.10                   |
| Bharti           | 3.28                      | 3.34         | 0.056         | 1.70               | 11.04                   | 11.40                   |
| Tata             | 1.47                      | 1.49         | 0.020         | 1.37               | 4.95                    | 5.09                    |
| Reliance         | 1.24                      | 1.24         | -0.001        | -0.12              | 4.18                    | 4.24                    |
| Quadrant         | 0.20                      | 0.20         | 0.007         | 3.32               | 0.66                    | 0.69                    |
| Sistema          | 0.05                      | 0.05         | 0.001         | 1.35               | 0.18                    | 0.19                    |
| Vodafone         | 0.04                      | 0.04         | 0.002         | 5.29               | 0.14                    | 0.15                    |
| <b>Total</b>     | <b>29.73</b>              | <b>29.28</b> | <b>-0.445</b> | <b>-1.50</b>       |                         |                         |

**Table 1.18: Service Area wise Wireline Subscriber base (in million)**

| Service Area         | Jun-13       | Sep-13       | Net Additions | Rate of Change (%) |
|----------------------|--------------|--------------|---------------|--------------------|
| Andhra Pradesh       | 2.19         | 2.14         | -0.050        | -2.27%             |
| Assam                | 0.19         | 0.19         | -0.001        | -0.49%             |
| Bihar                | 0.39         | 0.39         | -0.002        | -0.50%             |
| Delhi                | 2.97         | 3.05         | 0.080         | 2.68%              |
| Gujarat              | 1.75         | 1.72         | -0.024        | -1.35%             |
| Haryana              | 0.54         | 0.52         | -0.017        | -3.16%             |
| Himachal Pradesh     | 0.27         | 0.26         | -0.006        | -2.20%             |
| Jammu & Kashmir      | 0.19         | 0.19         | -0.004        | -2.11%             |
| Karnataka            | 2.41         | 2.37         | -0.034        | -1.43%             |
| Kerala               | 3.03         | 2.99         | -0.048        | -1.60%             |
| Madhya Pradesh       | 1.12         | 1.10         | -0.010        | -0.93%             |
| Maharashtra          | 2.40         | 2.36         | -0.038        | -1.60%             |
| Mumbai               | 3.05         | 3.06         | 0.011         | 0.37%              |
| North East           | 0.17         | 0.14         | -0.025        | -14.70%            |
| Orissa               | 0.37         | 0.36         | -0.008        | -2.30%             |
| Punjab               | 1.30         | 1.28         | -0.025        | -1.95%             |
| Rajasthan            | 1.00         | 0.98         | -0.019        | -1.90%             |
| T.N. (incl. Chennai) | 3.06         | 3.01         | -0.057        | -1.85%             |
| U.P.(E)              | 1.01         | 0.87         | -0.136        | -13.50%            |
| U.P.(W)              | 0.67         | 0.65         | -0.014        | -2.15%             |
| Kolkata              | 1.12         | 1.11         | -0.006        | -0.52%             |
| W.B.                 | 0.54         | 0.53         | -0.011        | -2.05%             |
| <b>All India</b>     | <b>29.73</b> | <b>29.28</b> | <b>-0.445</b> | <b>-1.50%</b>      |

1.21 Only Delhi & Mumbai Service Areas showed positive growth in wireline service during this quarter.

**Table 1.19: Service Area wise Wireline Teledensity**

| Service Area            | As on 30 <sup>th</sup> June, 2013 |                   |                   | As on 30 <sup>th</sup> September, 2013 |                   |                   |
|-------------------------|-----------------------------------|-------------------|-------------------|--|-------------------|-------------------|
|                         | Rural Teledensity                 | Urban Teledensity | Total Teledensity | Rural Teledensity                      | Urban Teledensity | Total Teledensity |
| Andhra Pradesh          | 0.96                              | 6.60              | 2.53              | 0.93                                   | 6.46              | 2.47              |
| Assam                   | 0.14                              | 3.20              | 0.61              | 0.14                                   | 3.17              | 0.61              |
| Bihar                   | 0.10                              | 1.52              | 0.29              | 0.10                                   | 1.51              | 0.29              |
| Delhi                   | -                                 | -                 | 15.08             | -                                      | -                 | 15.37             |
| Gujarat                 | 0.96                              | 5.54              | 2.84              | 0.93                                   | 5.46              | 2.79              |
| Haryana                 | 0.92                              | 4.16              | 2.04              | 0.87                                   | 4.04              | 1.97              |
| Himachal Pradesh        | 3.30                              | 8.49              | 3.89              | 3.16                                   | 8.75              | 3.80              |
| Jammu & Kashmir         | 0.40                              | 4.83              | 1.61              | 0.39                                   | 4.71              | 1.57              |
| Karnataka               | 0.98                              | 8.82              | 3.95              | 0.95                                   | 8.68              | 3.89              |
| Kerala                  | 7.64                              | 11.50             | 8.62              | 7.51                                   | 11.28             | 8.47              |
| Madhya Pradesh          | 0.22                              | 3.56              | 1.12              | 0.22                                   | 3.50              | 1.10              |
| Maharashtra*            | 0.96                              | 8.68              | 4.61              | 0.93                                   | 8.62              | 4.58              |
| Mumbai*                 |                                   |                   |                   |  |                   |                   |
| North East              | 0.39                              | 3.87              | 1.24              | 0.35                                   | 3.22              | 1.06              |
| Orissa                  | 0.30                              | 3.67              | 0.88              | 0.29                                   | 3.61              | 0.86              |
| Punjab                  | 2.17                              | 7.30              | 4.34              | 2.11                                   | 7.13              | 4.25              |
| Rajasthan               | 0.46                              | 4.45              | 1.42              | 0.44                                   | 4.37              | 1.38              |
| T.N.<br>(incl. Chennai) | 1.79                              | 6.33              | 4.38              | 1.76                                   | 6.18              | 4.29              |
| U.P.(E)*                | 0.20                              | 2.70              | 0.76              | 0.17                                   | 2.48              | 0.69              |
| U.P.(W)*                |                                   |                   |                   |  |                   |                   |
| Kolkata*                | 0.38                              | 5.33              | 1.79              | 0.38                                   | 5.25              | 1.77              |
| W.B.*                   |                                   |                   |                   |  |                   |                   |
| <b>All India</b>        | <b>0.76</b>                       | <b>6.19</b>       | <b>2.42</b>       | <b>0.74</b>                            | <b>6.09</b>       | <b>2.38</b>       |

\* Population data/projections are available state-wise only

Note:

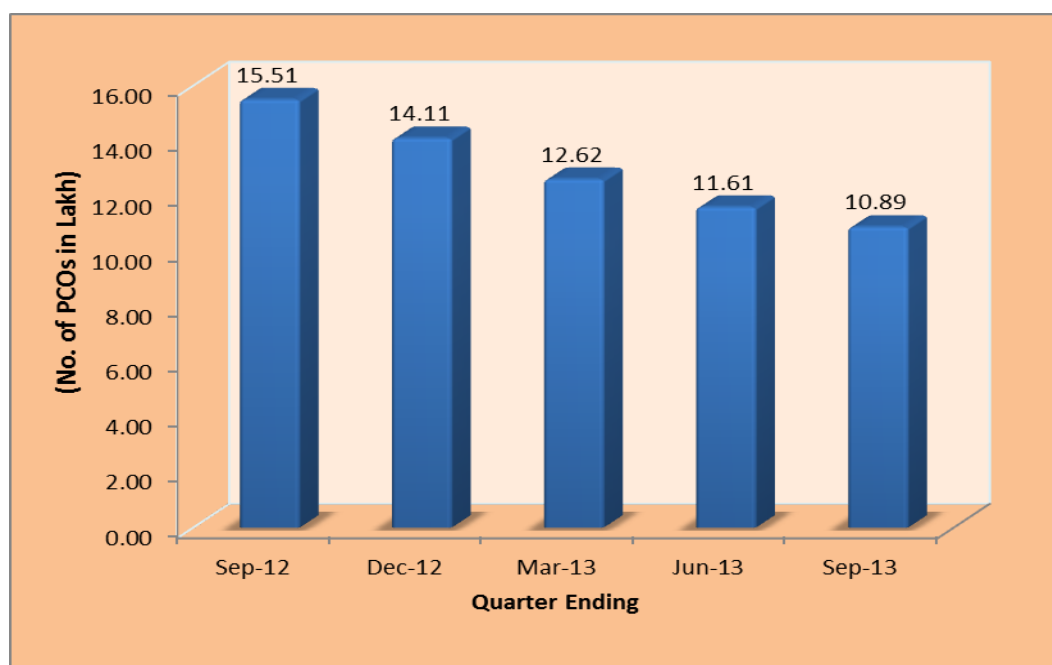
1. Teledensity figures are derived from the subscriber data provided by the operators and the population projections, for Urban and Rural areas, of the country, published by the Office of the Registrar General & Census Commissioner, India.

1.22 Detailed table on service provider wise subscriber base in each service area is at Annexure-1.3.

## Public Call Offices (PCO)

1.23 Total number of PCOs in the country at the end of Sep-13 is 10.89 lakh as compared to 11.61 lakh at the end of Jun-13, showing a decline of 0.72 lakh PCOs. Detailed table is at Annexure -1.4.

**Chart 1.11: Number of PCOs**



1.24 Number of PCOs continued to show declining trend. This quarter has recorded a decline of 6.18%. The year-on-year (Y-O-Y) decline over the same quarter of the last year is 29.76%.

**Table 1.20: Rate of change & Market share of PCOs**

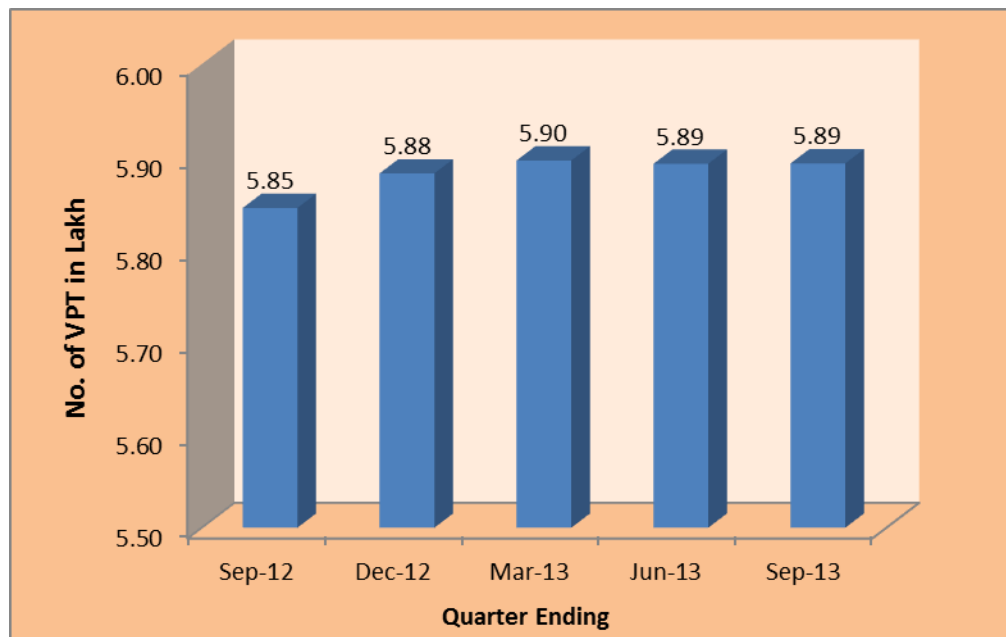
| Service Provider | Jun-13<br>(In Lakh) | Sep-13<br>(In Lakh) | Rate of<br>change (%) | % Market share<br>(Sep-13) |
|------------------|---------------------|---------------------|-----------------------|----------------------------|
| BSNL             | 7.37                | 6.95                | -5.72                 | 63.81                      |
| MTNL             | 1.49                | 1.47                | -1.14                 | 13.52                      |
| Bharti           | 0.33                | 0.34                | 2.46                  | 3.11                       |
| Quadrant         | 0.04                | 0.04                | -6.05                 | 0.33                       |
| Sistema          | 0.13                | 0.12                | -1.77                 | 1.15                       |
| Tata             | 1.20                | 1.03                | -14.18                | 9.46                       |
| Reliance         | 1.05                | 0.94                | -10.72                | 8.63                       |
| Vodafone         | -                   | -                   | -                     | -                          |
| <b>Total</b>     | <b>11.61</b>        | <b>10.89</b>        | <b>-6.18</b>          |                            |

## Village Public Telephones (VPTs)

1.25 There are 5,93,731 inhabited villages in India as per census 2001. At the end of the quarter, 99.26% of the total inhabited villages in India have been connected by VPT. The number of VPTs increased from 5,89,272 at the end of Jun-13 to 5,89,313 at the end of Sep-13.

1.26 BSNL (5,82,323) has 98.8% market share of total VPTs followed by Tata (3953) with 0.7%. Detailed table is at Annexure -1.5.

**Chart 1.12: Growth in VPTs**





## Section D: Internet Service

1.27 Total number of internet subscribers including internet access by mobile device subscribers increased from 198.39 million at the end of Jun-13 to 210.38 million at the end of Sep-13, registering a quarterly growth of 6.04%.

**Table 1.21: State wise Internet subscriber base including internet access by mobile devices**

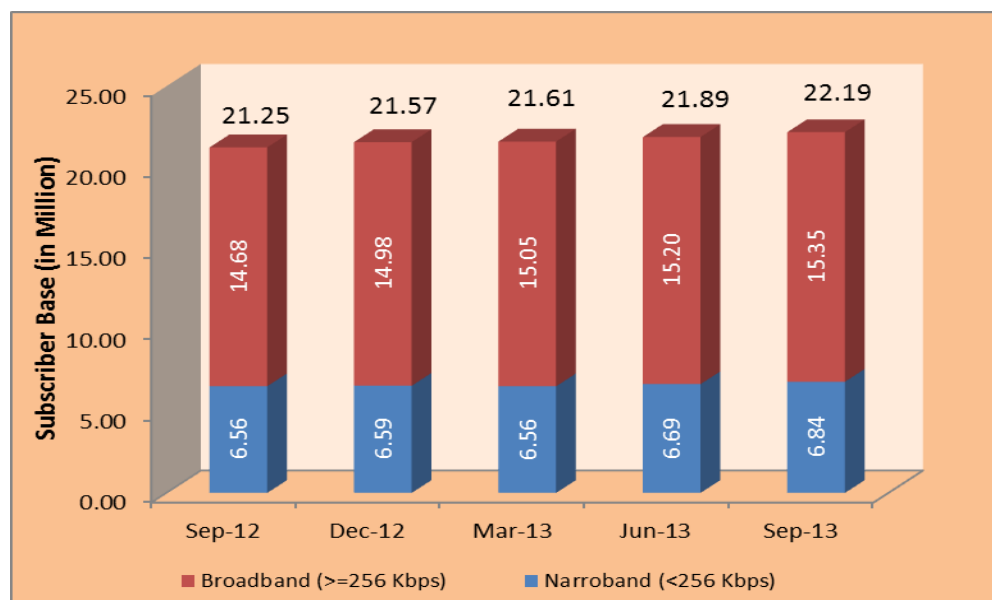
| S.No | Name of State   | Total Internet Subscriber base<br>(in million) |
|------|---|--|
| 1    | Maharashtra (including Mumbai & Goa)  | 33.53  |
| 2    | Uttar Pradesh (including Uttarakhand)   | 20.87  |
| 3    | Tamil Nadu (including Chennai & Pondicherry)  | 16.81  |
| 4    | Delhi   | 16.23  |
| 5    | Andhra Pradesh  | 15.62  |
| 6    | Gujarat   | 13.92  |
| 7    | Karnataka   | 13.46  |
| 8    | West Bengal (including Kolkata & A&N)   | 12.10  |
| 9    | Madhya Pradesh (including Chhatishgarh)   | 10.98  |
| 10   | Rajasthan   | 10.54  |
| 11   | Kerala  | 9.80   |
| 12   | Bihar (including Jharkhand)   | 9.69   |
| 13   | Punjab (including Chandigarh)   | 9.02   |
| 14   | Haryana   | 4.66   |
| 15   | Orissa  | 3.71   |
| 16   | Assam   | 3.37   |
| 17   | North East (including Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Manipur & Tripura) | 2.39   |
| 18   | J & K   | 2.12   |
| 19   | Himachal Pradesh  | 1.56   |
|      | <b>Total</b>  | <b>210.38</b>                                  |

1.28 In this section, report of statistics in respect of Internet Service is divided into two parts. **Part-I** is Internet Subscribers Statistics other than internet access by mobile devices and **Part-II** is Internet Services access by mobile devices subscribers.

## Part-I : Internet Access (except through mobile devices)

- 1.29 There are 182 service providers providing internet service (except internet access by mobile device). Out of these, 126 service providers have submitted their internet performance report for the quarter ending September, 2013. In respect of the service providers, who did not submit their report in this quarter (constitute about 1.16% market share), data from the previous available report has been retained.
- 1.30 There were 22.19 million internet subscribers excluding those subscribers accessing internet by mobile devices, at the end of Sep-13 as compared to 21.89 million at the end of Jun-13, registering a quarterly growth of 1.38%.
- 1.31 The definition of Broadband has been revised by DoT on 18<sup>th</sup> July, 2013. The service providers had been asked to make necessary modifications to their reporting systems and to furnish the data as per the revised definition from the next quarter. Therefore the data/information contained in this part of the report is as per the pre-revised definition of the broadband.

**Chart 1.13: Trends in Internet subscription**

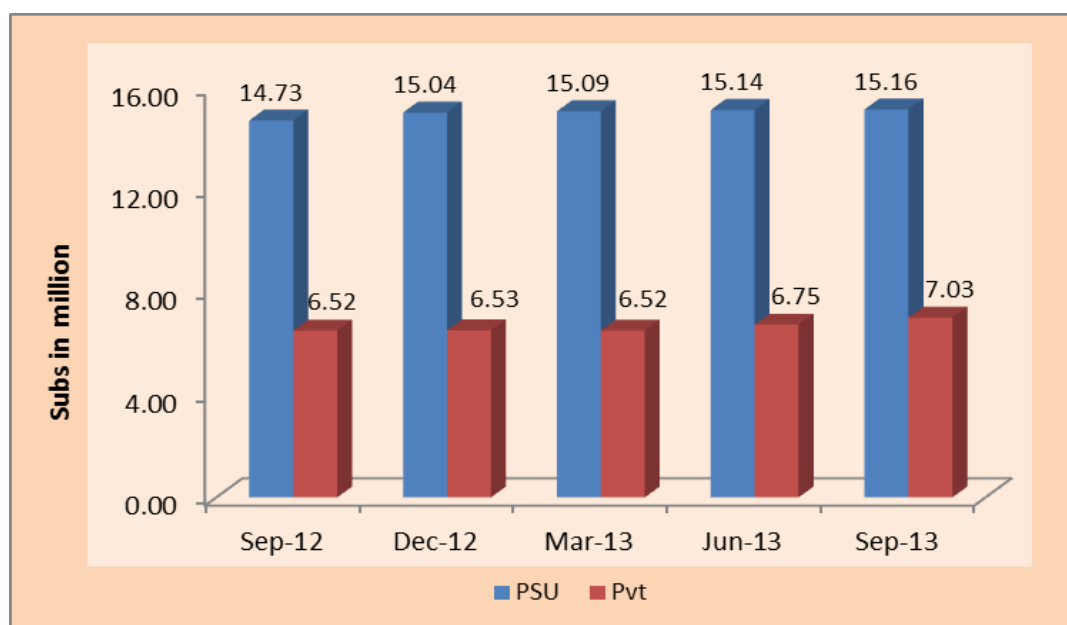


1.32 In the internet subscription (except internet access by mobile devices), share of Broadband subscription is 69.18% and share of Narrowband subscription is 30.82% at the end of Sep-13.

1.33 Number of Broadband subscribers increased from 15.20 million at the end of Jun-13 to 15.35 million at the end of Sep-13, registering a quarterly growth of 0.99% and Y-O-Y growth of 4.52%.

1.34 Number of Narrowband subscribers increased from 6.69 million at the end of Jun-13 to 6.84 million at the end of Sep-13, thereby showing a quarterly growth of 2.25%.

**Chart 1.14 : Trends in subscribers (in Million) of PSUs Vs. Pvt. Internet Service Providers (except internet access by mobile device)**



Note : PSU includes BSNL, MTNL, ERNET India, Gujarat Info Petro Ltd., West Bengal Electronics Industry Development Corp. Ltd., Power Grid Corporation of India Ltd., Software Technology Park of India and RailTel Corporation of India Ltd.

### **Internet Telephony**

1.35 As per the reports available with the TRAI, 33 ISPs are providing Internet Telephony services presently. The list is at Annexure-1.6.

## ISP Connectivity

1.36 The International Internet bandwidth owned by various SPs is reported to be 1282.21 GB during the quarter ending Sep-13 as compared to 1179 GB at the quarter ending Jun-13.

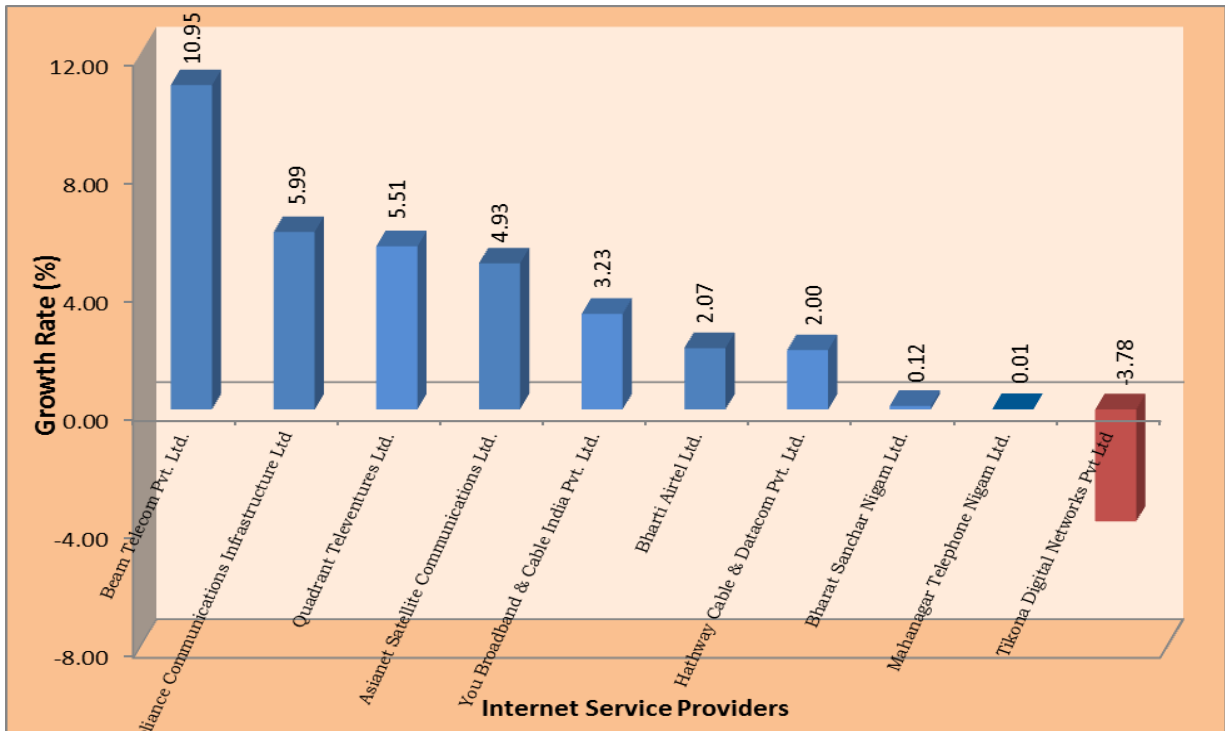
**Table 1.22 : Internet Subscriber Base & Market share of top 10 SPs  
(except internet access by mobile devices)**

| S.No | SP   | Category | Service Area       | Subs            | Share(%)     |
|------|--|----------|--------------------|-----------------|--------------|
| 1    | Bharat Sanchar Nigam Ltd.                      | A        | All India          | 13174114        | 59.38        |
| 2    | Reliance Communications Infrastructure Limited | A        | All India          | 2751700         | 12.40        |
| 3    | Mahanagar Telephone Nigam Ltd.                 | B        | Delhi & Mumbai     | 1977783         | 8.91         |
| 4    | Bharti Airtel Ltd.                             | A        | All India          | 1443175         | 6.50         |
| 5    | Hathway Cable & Datacom Pvt. Ltd.              | A        | All India          | 375820          | 1.69         |
| 6    | You Broadband & Cable India Private Limited    | A        | All India          | 372931          | 1.68         |
| 7    | Beam Telecom Pvt. Ltd.                         | B        | Andhra Pradesh     | 326417          | 1.47         |
| 8    | Tikona Digital Networks Pvt Ltd                | A        | All India          | 259008          | 1.17         |
| 9    | Quadrant Televentures Ltd. (HFCL Infotel Ltd.) | B        | Punjab             | 125945          | 0.57         |
| 10   | Asianet Satellite Communications Ltd.          | B        | Kerala/ Tamil Nadu | 119766          | 0.54         |
|      | <b>Total of Top 10 ISPs</b>                    |          |                    | <b>20926659</b> | <b>94.32</b> |
|      | <b>Others</b>                                  |          |                    | <b>1259719</b>  | <b>5.68</b>  |
|      | <b>Grand Total</b>                             |          |                    | <b>22186378</b> |              |

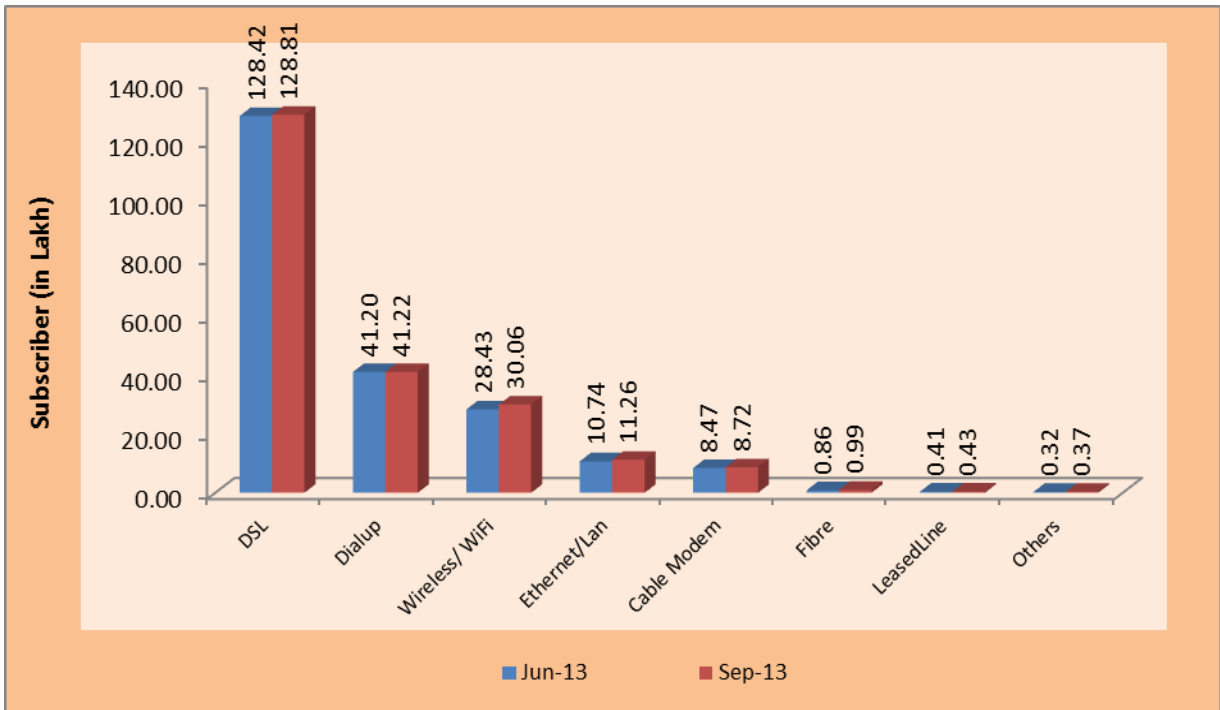
1.37 BSNL holds 59.38% of the market share with reported subscriber base of 13.17 million Internet subscribers at the end of Sep-13. Reliance is at second position (2.75 million) followed by MTNL (1.98 million). Detailed table of all the SPs is available at Annexure-1.7

1.38 Top 10 SPs together hold 94.32% of the total Internet subscriber base (excluding subscribers of internet access by mobile devices).

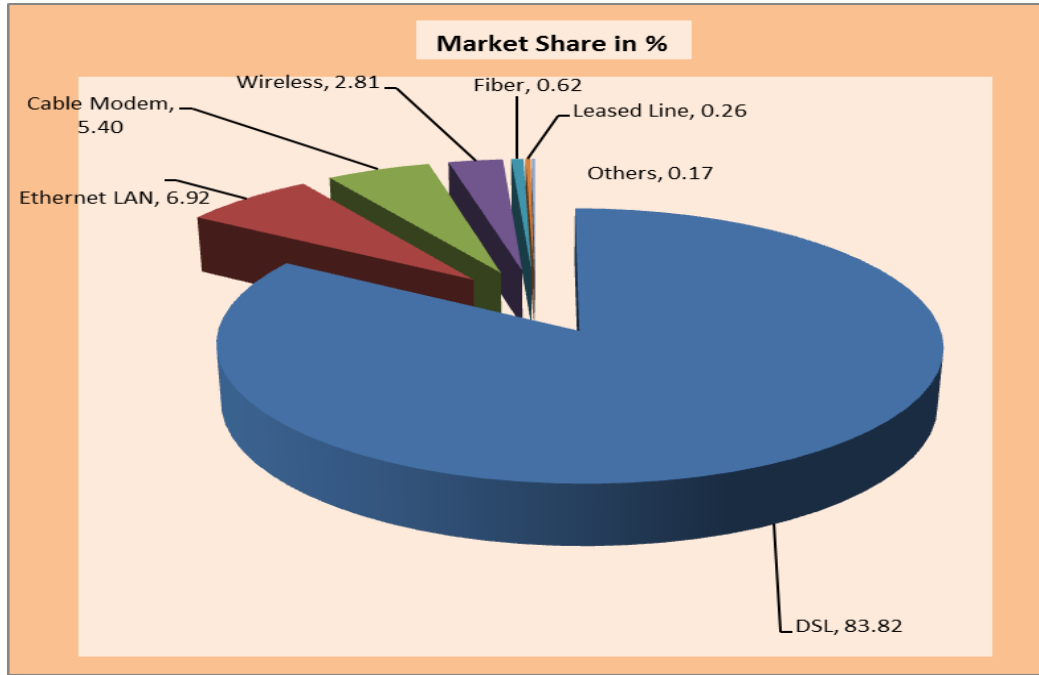
**Chart 1.15: Growth in subscriber base achieved by top ten ISPs (except internet access by mobile devices)**



**Chart 1.16: Technology trends for Internet Access including Broadband Service (except internet access by mobile devices)**

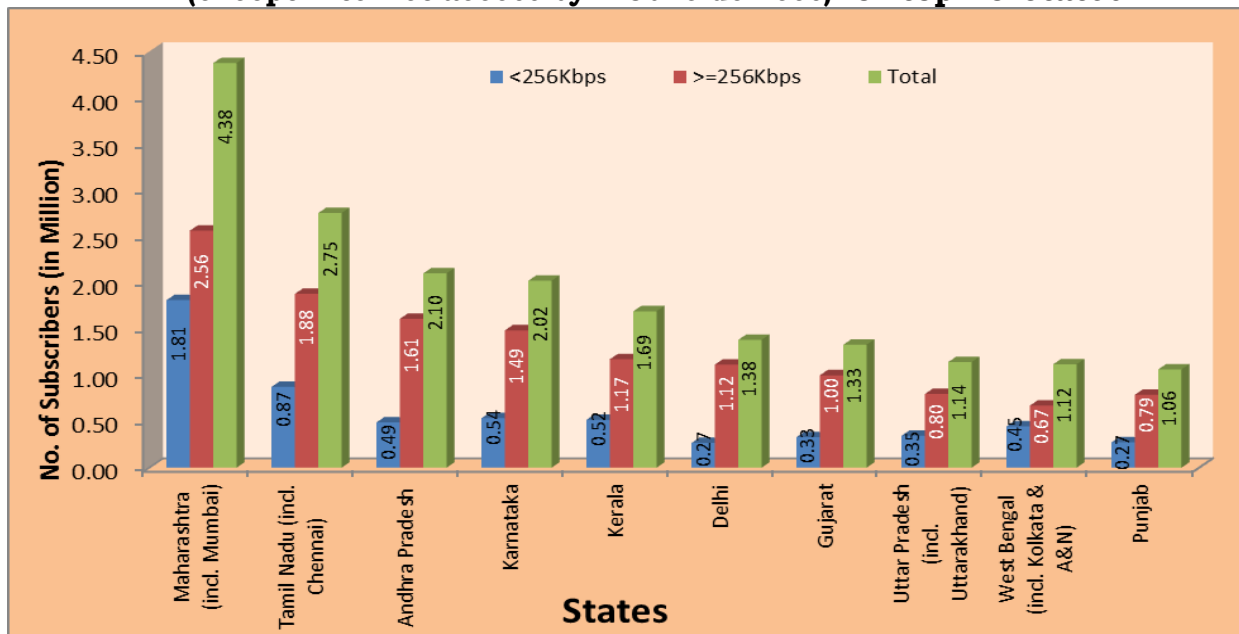


**Chart 1.17 : Composition of Broadband subscribers (except internet access by mobile devices) - Technology wise**



1.39 DSL (Digital Subscriber Line) is the most preferred technology used by the Service Providers to provide Broadband Services and it constitutes 83.82% of total broadband subscribers, followed by Ethernet LAN (6.92%) and Cable Modem (5.40%).

**Chart 1.18: Speed Category wise data on Internet/broadband subscribers (except internet access by mobile devices) for top 10 States**



1.40 Maharashtra is having largest Internet (<256 Kbps) and Broadband (>=256 Kbps) subscriber base in the country. Tamil Nadu is at second place in internet and broadband subscriber base.

### **Part-II : Internet Access through Mobile Devices**

1.41 13 service providers are providing internet services through mobile devices. Out of these 13 service providers, 12 service providers have submitted their performance monitoring report. BSNL has not provided their reports.

1.42 In the month of Sep-13, 188.20 million subscribers accessed internet through mobile devices as per the information received from 12 service providers (except BSNL).

**Table 1.213 : Service Provider wise Subscriber base and Market Share of internet access by wireless phone subscribers**

| <b>Sl. No.</b> | <b>Service Providers</b> | <b>Total No. of subscribers (in million)</b> | <b>Market Share (%)</b> |
|----------------|--------------------------|--|-------------------------|
| 1              | Bharti                   | 49643445                                     | 26.38                   |
| 2              | Vodafone                 | 42519720                                     | 22.59                   |
| 3              | Idea Cellular            | 36861833                                     | 19.59                   |
| 4              | Reliance                 | 28511893                                     | 15.15                   |
| 5              | Aircel                   | 14232919                                     | 7.56                    |
| 6              | Unitech                  | 5301837                                      | 2.82                    |
| 7              | MTNL                     | 3481816                                      | 1.85                    |
| 8              | Tata                     | 2815911                                      | 1.50                    |
| 9              | Loop                     | 2752153                                      | 1.46                    |
| 10             | Sistema Shyam (MTS)      | 1207766                                      | 0.64                    |
| 11             | Videocon                 | 573558                                       | 0.30                    |
| 12             | Quadrant Televentures    | 292380                                       | 0.16                    |
|                | <b>Total</b>             | <b>188,195,231</b>                           |                         |

**Note** : BSNL has not provided their reports.

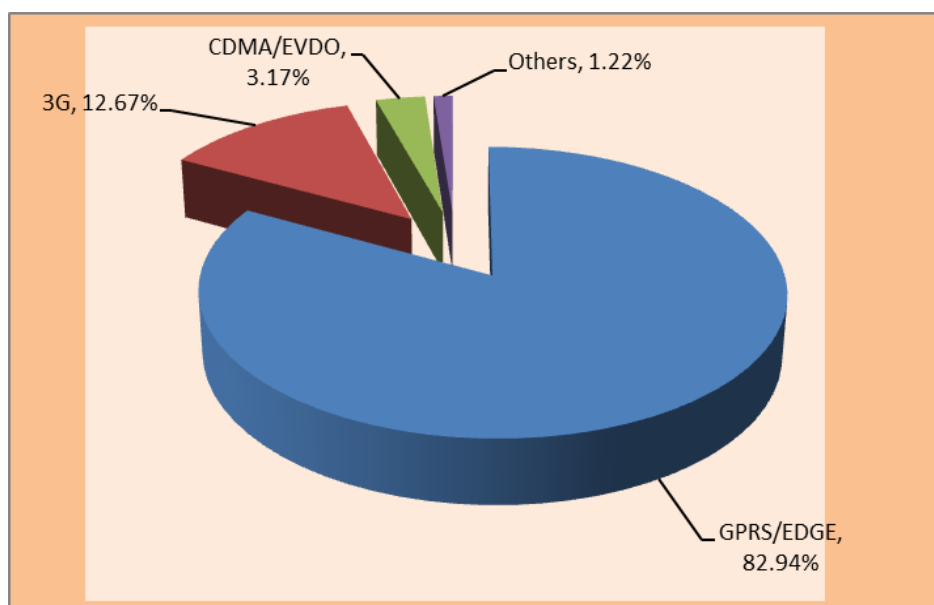
1.43 Bharti Airtel is a leading service provider with market share of 26.38%, followed by Vodafone i.e. 22.59% and Idea Cellular (19.59%) in internet access by mobile devices subscribers at the end of Sep-13.

**Table 1.24 : Service Area wise Subscriber base of internet access by mobile devices**

| S. No. | State   | Subscriber base |
|--------|---|-----------------|
| 1      | Maharashtra (including Mumbai & Goa)  | 29.14           |
| 2      | Uttar Pradesh (including Uttarakhand)   | 19.73           |
| 3      | Delhi   | 14.85           |
| 4      | Tamil Nadu (including Chennai & Pondicherry)  | 14.06           |
| 5      | Andhra Pradesh  | 13.52           |
| 6      | Gujarat   | 12.59           |
| 7      | Karnataka   | 11.44           |
| 8      | West Bengal (including Kolkata & A&N)   | 10.98           |
| 9      | Madhya Pradesh (including Chhattishgarh)  | 10.05           |
| 10     | Rajasthan   | 9.77            |
| 11     | Bihar (including Jharkhand)   | 9.41            |
| 12     | Kerala  | 8.11            |
| 13     | Punjab (including Chandigarh)   | 7.96            |
| 14     | Haryana   | 4.18            |
| 15     | Orissa  | 3.42            |
| 16     | Assam   | 3.26            |
| 17     | North East (including Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Manipur & Tripura) | 2.26            |
| 18     | J & K   | 2.02            |
| 19     | Himachal Pradesh  | 1.45            |
| 20     | <b>Total</b>  | <b>188.20</b>   |

**Note:** BSNL has not provided its report.

**Chart 1.19 : Technology Trend for internet access by mobile devices.**





## Section E : Other Value Added Services - PMRTS & VSAT

### Public Mobile Radio Trunk Services (PMRTS)

**Table 1.25 : PMRTS Subscriber base - Service Provider wise**

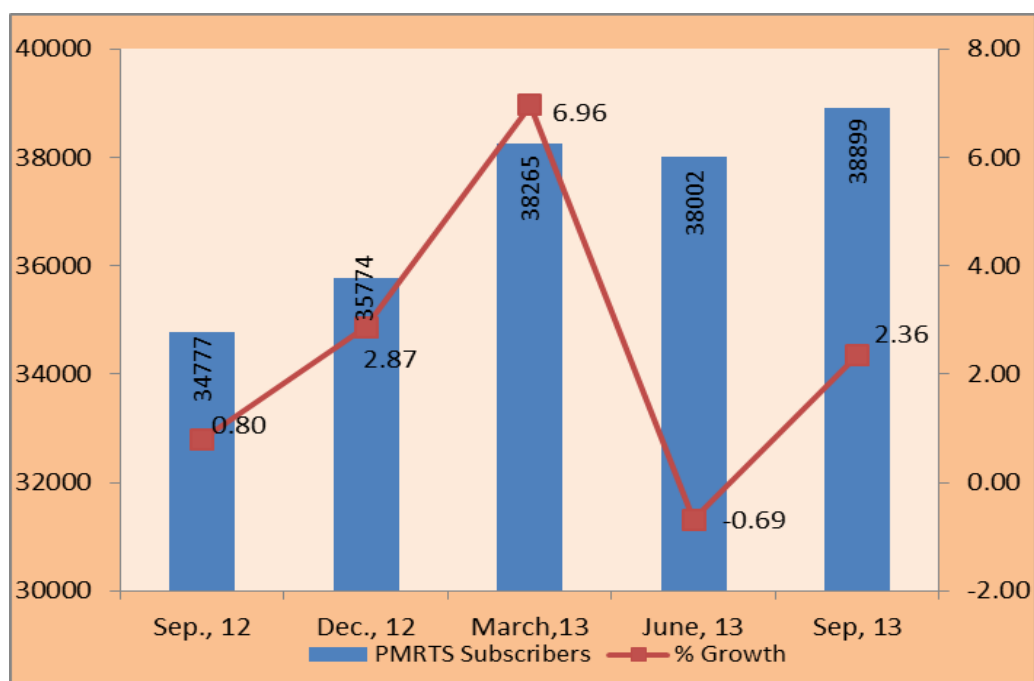
| Sr. No. | Name of the Service Provider                   | Subscriber Base as on 31.06.13 | Subscriber Base as on 30.09.13 | %age Growth in Subscribers | %age in Market Share |
|---------|--|--------------------------------|--------------------------------|----------------------------|----------------------|
| 1       | Arya Omnitalk Radio Trunking Services Pvt.Ltd. | 31006                          | 28494                          | -8.10                      | 73.25                |
| 2       | Procall Ltd.                                   | 3880                           | 5740                           | 47.94                      | 14.76                |
| 3       | Smartalk Pvt Ltd.                              | 469                            | 1014                           | 116.20                     | 2.61                 |
| 4       | QuickCall                                      | 1939                           | 2550                           | 31.51                      | 6.56                 |
| 5       | Bhilwara Telenet Services Pvt.Ltd.             | 708                            | 1101                           | 55.51                      | 2.83                 |
| 6       | India Satcom Ltd.                              | 0                              | 0                              | 0.00                       | 0.00                 |
|         | <b>Total</b>                                   | <b>38002</b>                   | <b>38899</b>                   | <b>2.36</b>                |                      |

\*M/s India Satcom Ltd. reported that their MRTS department is non-functional and they do not have any subscriber.

1.44 The subscriber base of PMRTS increased from 38,002 at the end of Jun-13 to 38,899 at the end of Sep-13 with quarterly growth rate of 2.36%.

1.45 Detailed table on Service Area wise subscriber base of PMRTS is at Annexure-1.8.

**Chart 1.20: Number of PMRTS subscribers & Rate of Growth (%)**



**Very Small Aperture Terminal (VSAT)**

**Table 1.26: VSAT Service Providers currently providing service & their subscriber base**

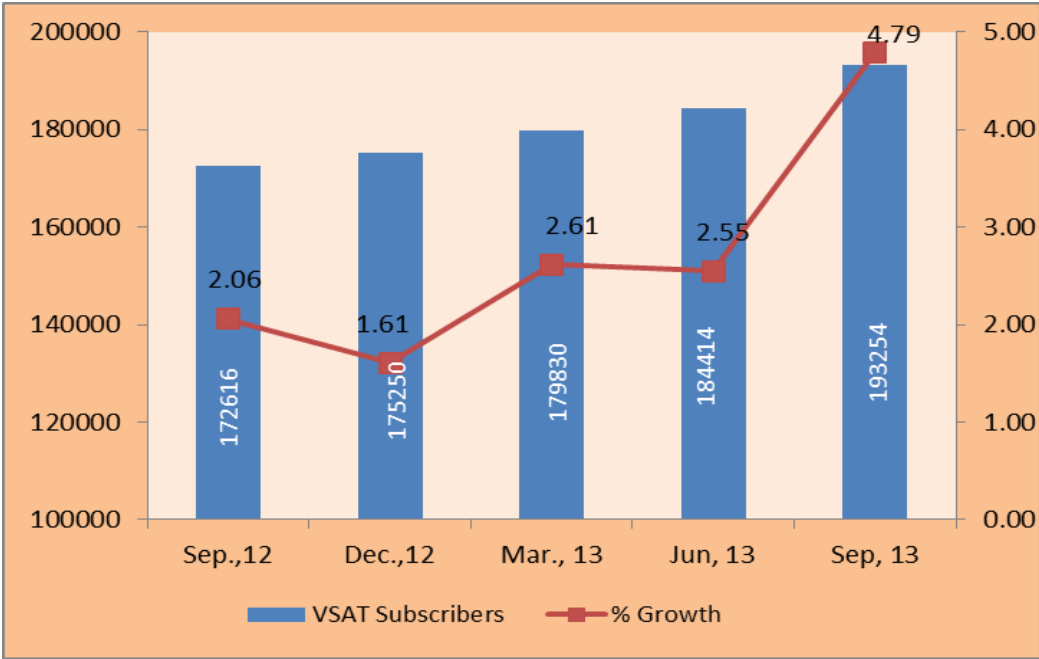
| Sr. No | Name of Service Providers  | Subscriber base at the Quarter ending |               | %age Growth | Market Share (%) |
|--------|----------------------------|---------------------------------------|---------------|-------------|------------------|
|        |                            | Jun-13                                | Sep-13        |             |                  |
| 1      | Hughes Communications Ltd. | 73045                                 | 77399         | 5.96        | 40.05            |
| 2      | Bharti Airtel Limited,     | 49088                                 | 50334         | 2.54        | 26.05            |
| 3      | Tatanet Services           | 22842                                 | 25985         | 13.76       | 13.45            |
| 4      | HCL Comnet                 | 22202                                 | 21981         | -1.00       | 11.37            |
| 5      | BSNL                       | 12660                                 | 12978         | 2.51        | 6.72             |
| 6      | Essel Shyam                | 2728                                  | 2728          | 0.00        | 1.41             |
| 7      | Infotel Satcom             | 1713                                  | 1713          | 0.00        | 0.89             |
| 8      | Bharti Broadband           | 129                                   | 129           | 0.00        | 0.07             |
| 9      | Infinium India Ltd.        | 7                                     | 7             | 0.00        | 0.00             |
|        | <b>Total</b>               | <b>184414</b>                         | <b>193254</b> | <b>4.79</b> |                  |

1.46 The total number of VSAT subscribers increased from 1,84,414 at the end of Jun-13 to 1,93,254 at the end of Sep-13. Net additions during the quarter has been 8,840 at the quarterly growth rate of 4.79%.

1.47 Hughes Communication Limited with subscriber base of 77,399 continues to be the market leader.

1.48 Tatanet Service has recorded maximum growth rate of 13.76%, whereas HCL Commet has registered 1% decline in VSAT subscribers in this quarter.

**Chart 1.21: Number of VSAT Subscribers & Rate of Growth (%)**



# **Chapter 2 :**

# **Revenue and Usage**

- 
- For all the parameters, Metros indicate data for Delhi, Mumbai & Kolkata. Data for Chennai service area has been included in Circle A, as part of TN.
  - ARPU arrived after adjusting interconnect usage charges and roaming settlement charges.
  - The data contained in the section A & B covers the licensees, who have been providing service during the entire period from 1<sup>st</sup> July, 2013 to 30<sup>th</sup> September, 2013 in the various service areas.

## Section A: GSM Service

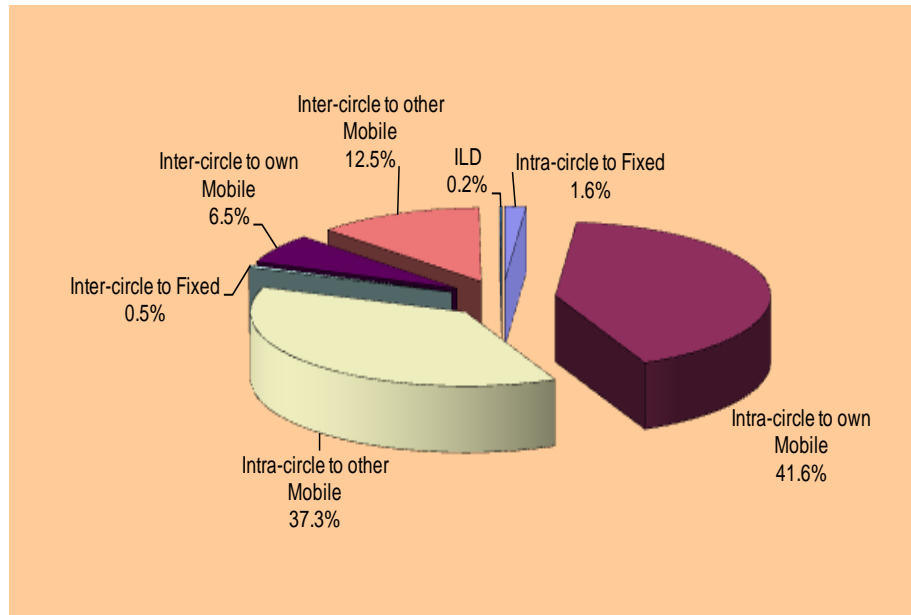
**Table 2.1: Key Indicators - GSM Service**

| Parameter                                    | Q.E.<br>Sep-13 | Q.E.<br>Jun-13 | Q.E.<br>Sep-12 | QoQ %age<br>change over<br>Jun-13 | YoY %age<br>change over<br>Sep-12 |
|--|----------------|----------------|----------------|-----------------------------------|-----------------------------------|
| Subscriber Base#<br>(million)                | 807.16         | 801.62         | 808.87         | 0.69                              | -0.21                             |
| Share of Prepaid (%)                         | 96.07          | 96.21          | 96.64          | -0.14                             | -0.59                             |
| Incoming MOU* per<br>sub. per month          | 193            | 199            | 177            | -3.10                             | 8.89                              |
| Outgoing MOU* per<br>sub. per month          | 182            | 189            | 166            | -3.38                             | 9.98                              |
| Outgoing SMS per sub.<br>per month           | 29             | 27             | 36             | 7.03                              | -18.74                            |
| Average Revenue Per<br>User (ARPU) per month | 109            | 111            | 95             | -2.12                             | 14.52                             |

# Subscriber figures are closing figures as on the last day of the respective quarters

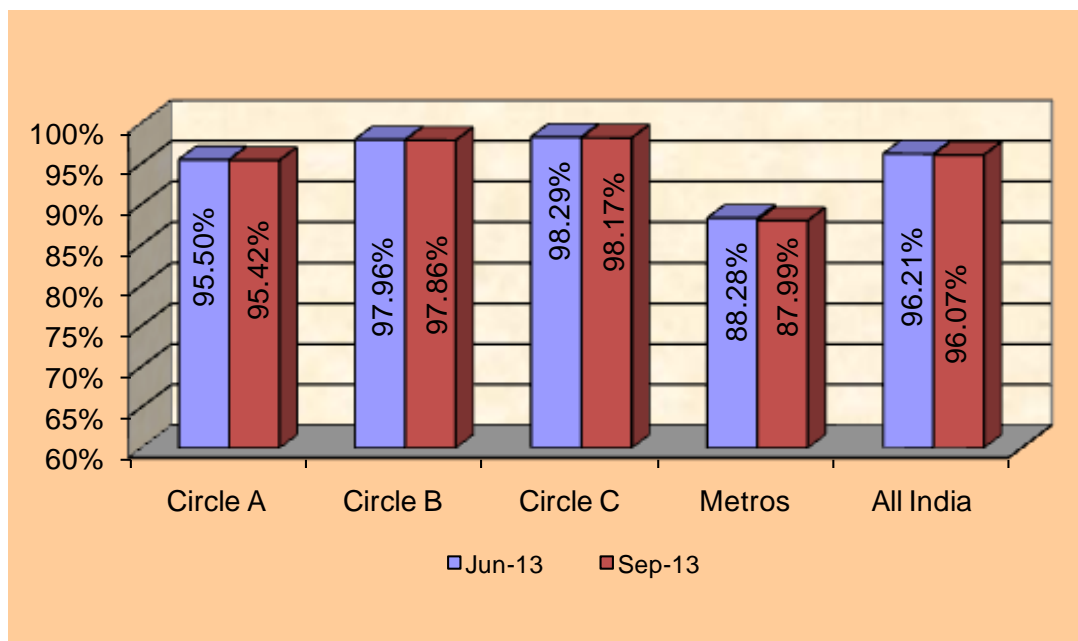
\* Minutes of Usage

**Chart 2.1: Break-up of Outgoing minutes from Home Service Area (HSA) - GSM Service**



2.1 The following chart depicts prepaid subscribers as a % of total subscribers as on the last day of the respective quarters for various categories of circles.

**Chart 2.2: Proportion of prepaid subscribers - GSM Service**



2.2 Market share of prepaid segment slightly declined from 96.21% at the end of Jun-13 to 96.07% at the end of Sep-13.

2.3 The ARPU per month (all India, blended) decreased from Rs.111 in Q.E. Jun-13 to Rs. 109 in Q.E. Sep-13. The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

**Table 2.2: Monthly ARPU - GSM Service**

| Circle Category  | ARPU per month in Q.E. September 2013 |           |            |
|------------------|---------------------------------------|-----------|------------|
|                  | Post-paid                             | Pre-paid  | Blended    |
| Circle A         | 448                                   | 99        | 115        |
| Circle B         | 438                                   | 91        | 98         |
| Circle C         | 441                                   | 95        | 101        |
| Metros           | 506                                   | 97        | 145        |
| <b>All India</b> | <b>463</b>                            | <b>95</b> | <b>109</b> |
| All private SPs  | 472                                   | 98        | 113        |
| BSNL/MTNL        | 393                                   | 71        | 83         |

2.4 The ARPU per month for pre-paid segment decreased from Rs.97 to Rs.95 and the ARPU per month for post-paid segment decreased from Rs.480 to Rs.463.

2.5 The following table presents the composition of ARPU per month in the Q.E. Sep-13.

**Table 2.3: Composition of ARPU per month - GSM Service**

| <b>S. No.</b> | <b>Item</b>  | <b>Revenue (excl. service tax) per subscriber per month (in Rs.)</b> | <b>% share of total revenue from subscribers</b> |
|---------------|--|--|--|
| 1             | Usage from Home Service Area                       |  |  |
| 1.1.          | Rental Revenue                                     | 18.70  | 15.42  |
| 1.2.          | Revenue from calls                                 | 70.97  | 58.52  |
| 1.3.          | Revenue from SMS                                   | 4.09   | 3.37   |
| 1.4.          | Revenue from data usage                            | 12.41  | 10.24  |
| 1.5.          | Revenue from other VAS                             | 6.25   | 5.16   |
| 1.6.          | Other revenue                                      | 1.85   | 1.52   |
| 2             | Usage outside Home Service Area                    |  |  |
| 2.1.          | Revenue from outroamers                            | 6.99   | 5.76   |
| 3             | <b>Total revenue from subscribers (1+2)</b>        | <b>121.26</b>  | <b>100</b>                                       |
| 4             | Net inter-operator settlement charges receivable * | -12.18   |  |
| 5             | <b>Net Revenue (ARPU) per month(3+4)</b>           | <b>109.08</b>  |  |

\* includes Interconnect Usages Charges and roaming settlement charges

2.6 From the above table, it may be seen that the net inter-operator settlement charges payable (Rs.12.18) accounts for 10.04% of the total revenue from subscribers.

2.7 On an all India average, the overall MOU per subscriber per month decreased from 388 in QE Jun-13 to 375 in QE Sep-13. The following table presents the total minutes of usage (MOU) and SMS usage (usage from, and outside, the home service area) per subscriber per month for various categories of circles.

**Table 2.4: MOU per subscriber per month - GSM Service**

| Circle category  | MOU per subscriber per month |              |            |              |              |            |              |              |            |
|------------------|------------------------------|--------------|------------|--------------|--------------|------------|--------------|--------------|------------|
|                  | Postpaid                     |              |            | Prepaid      |              |            | Blended      |              |            |
|                  | Outgoing MOU                 | Incoming MOU | Total MOU  | Outgoing MOU | Incoming MOU | Total MOU  | Outgoing MOU | Incoming MOU | Total MOU  |
| Circle A         | 587                          | 421          | 1008       | 166          | 166          | 332        | 185          | 178          | 363        |
| Circle B         | 585                          | 399          | 984        | 156          | 186          | 342        | 165          | 191          | 356        |
| Circle C         | 533                          | 429          | 962        | 178          | 227          | 406        | 185          | 231          | 415        |
| <b>Metro</b>     | 560                          | 382          | 943        | 200          | 176          | 376        | 243          | 200          | 443        |
| <b>All India</b> | <b>575</b>                   | <b>406</b>   | <b>981</b> | <b>167</b>   | <b>184</b>   | <b>351</b> | <b>182</b>   | <b>193</b>   | <b>375</b> |

Note: MOU indicate total usage i.e. usage from and outside HSA

2.8 The overall ratio of incoming MOU and outgoing MOUs remained unchanged 51:49 during the quarter ending Sep-13.

2.9 Outgoing SMS per subscriber per month increased from 27 in Q.E. Jun-13 to 29 in Q.E. Sep-13. The following table presents the outgoing SMS usage (usage from, and outside, the home service area) per subscriber per month for various categories of circles and various platforms for payment viz. post-paid and pre-paid.

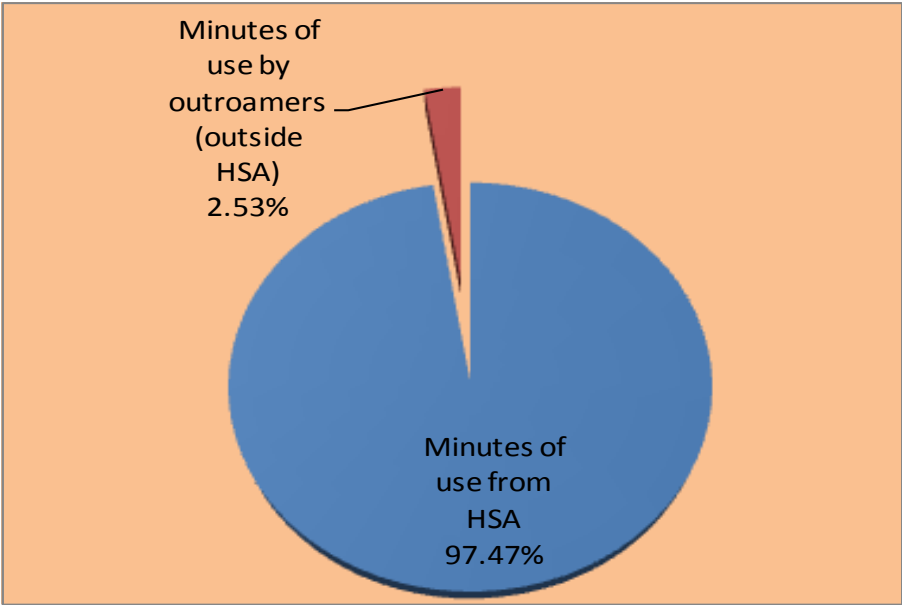
**Table 2.5: Outgoing SMS per subscriber per month - GSM Service**

| Circle category  | Outgoing SMS per subscriber month |           |           |
|------------------|-----------------------------------|-----------|-----------|
|                  | Postpaid                          | Prepaid   | Blended   |
| Circle A         | 77                                | 43        | 44        |
| Circle B         | 50                                | 18        | 18        |
| Circle C         | 40                                | 17        | 17        |
| <b>Metro</b>     | 66                                | 33        | 37        |
| <b>All India</b> | <b>65</b>                         | <b>28</b> | <b>29</b> |

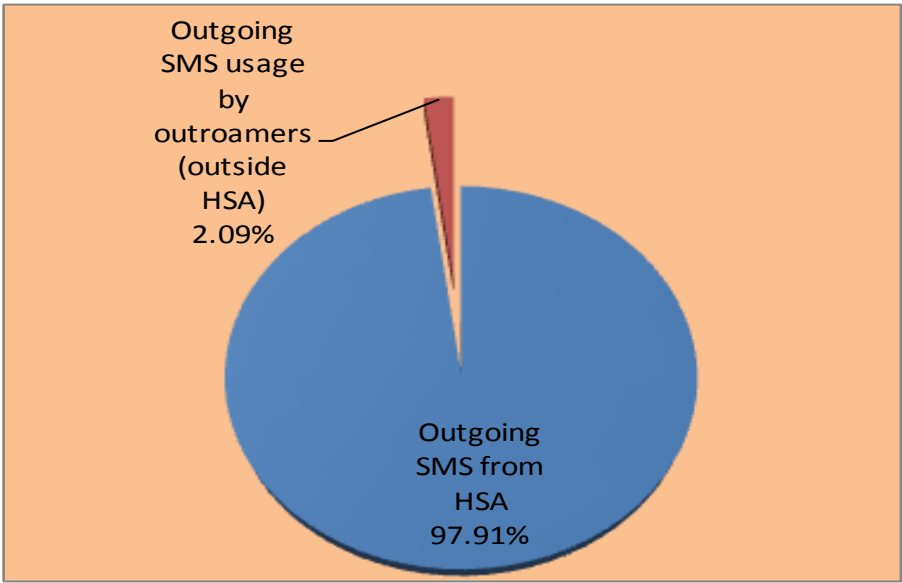
Note: SMS indicate total usage i.e. usage from and outside HSA



**Chart 2.3 : Minutes of Usage by Outroamers as a % of Total Minutes of Usage**



**Chart 2.4: Outgoing SMS Usage by Outroamers as a % of Total Outgoing SMS Usage**



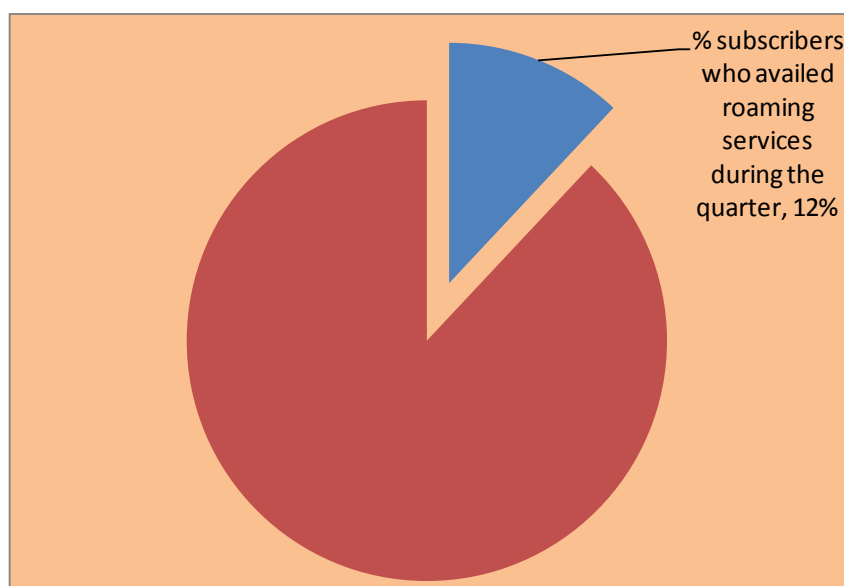
2.10 The following table presents the percentage break-up of outgoing minutes of usage from home service area between various categories of termination networks.

**Table 2.6: %Break-up of Outgoing minutes from Home Service Area (HSA)**

| <b>Circle category</b> | <b>% Intra-circle to wireline</b> | <b>% Intra-circle to own wireless</b> | <b>% Intra-circle to other wireless</b> | <b>% Inter-circle to wireline</b> | <b>% Inter-circle to own wireless</b> | <b>% Inter-circle to other wireless</b> | <b>% ILD</b> |
|------------------------|-----------------------------------|---------------------------------------|---|-----------------------------------|---------------------------------------|---|--------------|
| <b>Circle A</b>        | 1.78                              | 39.88                                 | 41.65                                   | 0.38                              | 4.66                                  | 11.49                                   | 0.16         |
| <b>Circle B</b>        | 1.23                              | 43.89                                 | 37.10                                   | 0.34                              | 7.10                                  | 10.19                                   | 0.14         |
| <b>Circle C</b>        | 1.28                              | 52.92                                 | 30.64                                   | 0.68                              | 4.98                                  | 9.44                                    | 0.06         |
| <b>Metros</b>          | 2.37                              | 26.46                                 | 32.73                                   | 0.77                              | 11.56                                 | 25.76                                   | 0.34         |
| <b>All India</b>       | <b>1.58</b>                       | <b>41.62</b>                          | <b>37.26</b>                            | <b>0.46</b>                       | <b>6.45</b>                           | <b>12.48</b>                            | <b>0.16</b>  |

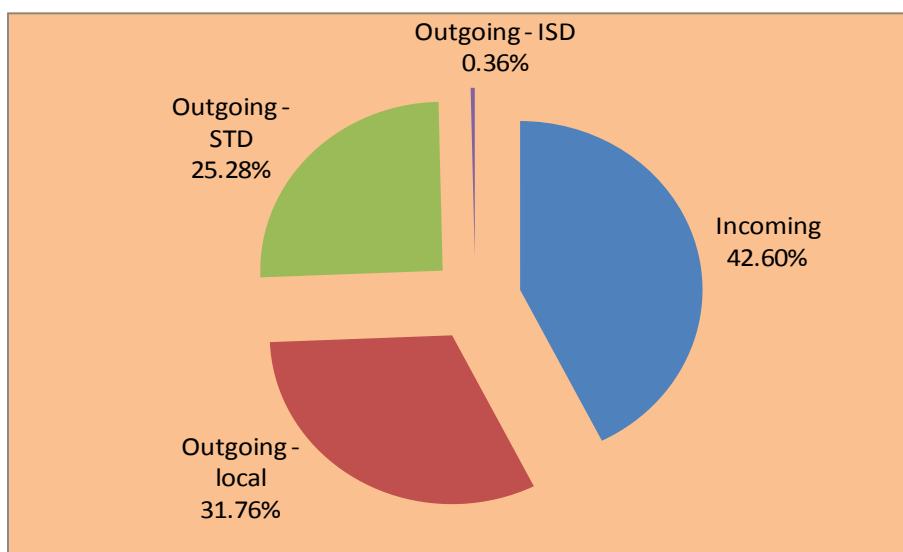
2.11 The chart given below presents the percentage of subscribers who availed roaming services (outroamers) during the quarter.

**Chart 2.5: % subscribers who availed roaming services during the quarter**



2.12 The usage pattern of outroamers i.e. usage from outside the home service area shows that incoming minutes accounts for 42.6% of the total minutes of usage by outroamers as against 41.63% in the previous quarter. The chart given below presents the break-up of minutes of usage of outroamers during the Q.E. September 2013.

**Chart 2.6: % Break-up of minutes of usage of outroamers (usage from outside the Home Service Area)**



**Average Subscriber outgo\* per Outgoing Minute for usage from Home Service Area (HSA)**

2.13 The tariff plans are of bundled nature and the trade-off is generally between monthly fixed charges and variable (call) charges. Therefore, average subscriber outgo per outgoing minute for usage from Home Service Area (HSA) as defined below would be a realistic indicator of average tariff.

$$\text{Average Subscriber Outgo per Outgoing Minute for usage from HSA} = \frac{\text{Rental revenue} + \text{revenue from outgoing calls from HSA}}{\text{No. of outgoing minutes from HSA}}$$

**Table 2.7: Average subscriber outgo per outgoing minute from HSA - GSM Service**

(₹ per minute)

| Circle Category  | Postpaid    | Prepaid     | Blended     |
|------------------|-------------|-------------|-------------|
| Circle A         | 0.57        | 0.51        | 0.52        |
| Circle B         | 0.57        | 0.48        | 0.49        |
| Circle C         | 0.66        | 0.45        | 0.46        |
| Metros           | 0.65        | 0.53        | 0.56        |
| <b>All India</b> | <b>0.60</b> | <b>0.49</b> | <b>0.51</b> |

2.14 All India average subscriber outgo per outgoing minute increased from ₹ 0.50 in QE Jun-13 to ₹ 0.51 in QE Sep-13.

**Table 2.8: Trends of Key Parameters - GSM Service**

| <b>Parameter</b>  | <b>Sep-12</b> | <b>Dec-12</b> | <b>Mar-13</b> | <b>Jun-13</b> | <b>Sep-13</b> |
|---|---------------|---------------|---------------|---------------|---------------|
| <b>1. ARPU (₹ Per month)</b>  | 95            | 98            | 105           | 111           | 109           |
| <b>2. MOU per subscriber per month</b>                              | 343           | 360           | 383           | 388           | 375           |
| <b>3. Outgoing MOU per subscriber per month</b>                     |               |               |               |               |               |
| 3.1 Local (Intra-circle)  | 133           | 142           | 150           | 154           | 145           |
| 3.2 NLD (inter-circle)  | 32            | 33            | 35            | 35            | 37            |
| 3.3 ILD   | 0.3           | 0.3           | 0.3           | 0.3           | 0.3           |
| <b>4. Outgoing SMS per subscriber per month SMS</b>                 | 36            | 39            | 30            | 27            | 29            |
| <b>5. Average subscriber Outgo per outgoing minute from HSA (₹)</b> | 0.48          | 0.47          | 0.48          | 0.50          | 0.51          |

2.15 Service Area wise statistics are available at Annexure-2.1.

## Section B: CDMA - Full Mobility Service

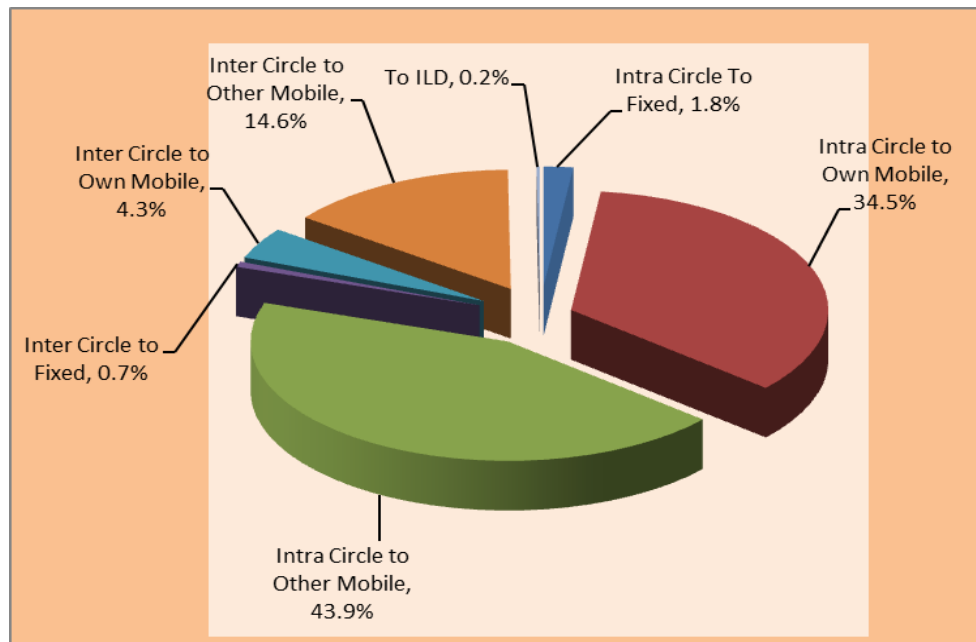
**Table 2.9: Key Indicators - CDMA Full Mobility Service**

| Parameters                       | QE<br>Sep-13 | QE<br>Jun-13 | QE<br>Sep-12 | QoQ<br>Change<br>(%) | YoY<br>Change<br>(%) |
|----------------------------------|--------------|--------------|--------------|----------------------|----------------------|
| Subscriber Base in Millions*     | 51.5         | 58.3         | 83.1         | -11.7                | -38.1                |
| Share of Prepaid (%)             | 89.8         | 90.5         | 92.5         | -0.7                 | -2.9                 |
| Incoming MOUs per subs per month | 125          | 132          | 112          | -5.0                 | 12.3                 |
| Outgoing MOUs per subs per month | 137          | 146          | 114          | -6.4                 | 20.6                 |
| Outgoing SMS per subs per month  | 16.9         | 17.1         | 25           | -1.3                 | -32.6                |
| ARPU (Rs. per month)             | 98.2         | 98.3         | 77.8         | -0.1                 | 26.3                 |

\* Subscriber figures are closing figures as on last day of the quarter.

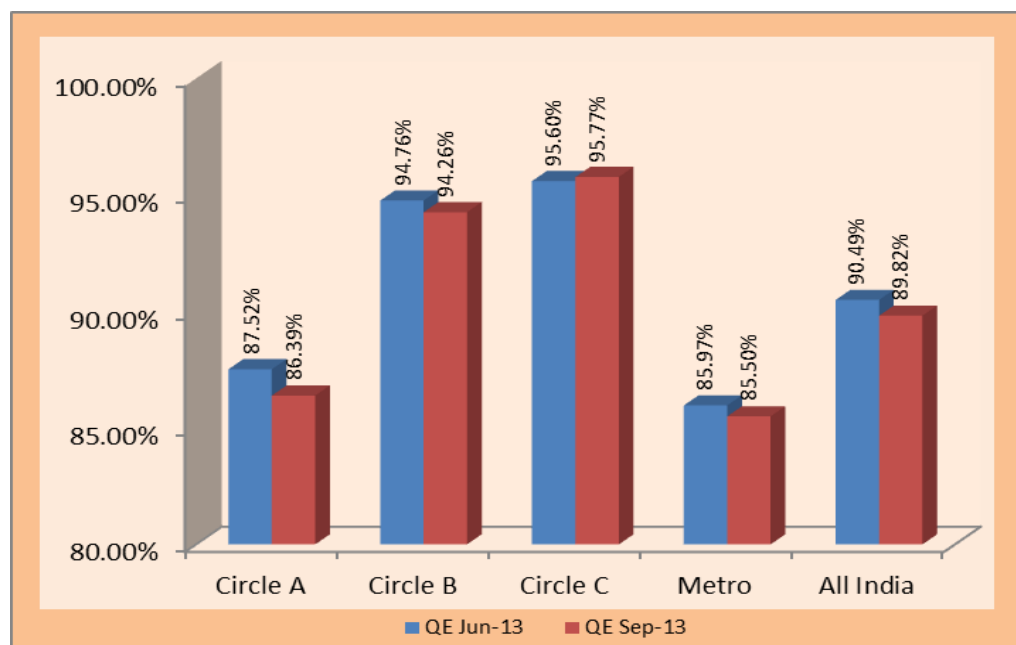
2.16 The following chart depicts % break-up of outgoing minutes from home service area (HSA).

**Chart 2.7: % Break-up of Outgoing Minutes from Home Service Area (HSA) - CDMA Full Mobility Service**



2.17 The following chart depicts prepaid subscribers as a % of total subscribers as on the last day of the respective quarters for various categories of circles.

**Chart 2.8: Proportion of prepaid subscribers - CDMA Full Mobility Service**



2.18 Market share of Prepaid segment declined from 90.49% in QE Jun-13 to 89.82% in QE Sep-13.

2.19 The following table presents the ARPU per month for various categories of circles and various platforms for payment viz. postpaid and prepaid.

**Table 2.10: Monthly ARPU - CDMA Full Mobility Service**  
(₹ per month)

| Circle category  | Postpaid   | Prepaid   | Blended ARPU |
|------------------|------------|-----------|--------------|
| Circle A         | 469        | 69        | 119          |
| Circle B         | 386        | 51        | 68           |
| Circle C         | 465        | 57        | 73           |
| Metro            | 461        | 72        | 127          |
| <b>All India</b> | <b>449</b> | <b>61</b> | <b>98</b>    |

2.20 The All India blended Average Revenue Per User (ARPU) per month has shown a decrease of 0.13% from Rs.98.35 in QE Jun-13 to Rs.98.22 in QE Sep-13.

2.21 ARPU for Prepaid service increased by 0.70% from Rs.61.06 in QE Jun-13 to Rs.61.49 in QE Sep-13. ARPU for Postpaid service has decreased by 0.89% from Rs.453.08 in QE Jun-13 to Rs.449.04 in QE Sep-13.

**Table 2.11: Composition of ARPU per month- CDMA Full Mobility Service**

| S. No.   | Item   | Revenue (excl. service tax) per subscriber per month (in Rs.) | % Share of total revenue from subscribers |
|----------|--|---|---|
| <b>1</b> | <b>Usage from Home Service Area</b>                      |   |   |
| 1.1      | Rental Revenue   | 20.20   | 18.78                                     |
| 1.2      | Revenue from Calls                                       | 44.38   | 41.24                                     |
| 1.3      | Revenue from SMS   | 1.73  | 1.60                                      |
| 1.4      | Revenue from data usage                                  | 35.14   | 32.6                                      |
| 1.5      | Revenue from other VAS                                   | 3.31  | 3.08                                      |
| 1.6      | Other Revenue  | 0.07  | 0.06                                      |
| <b>2</b> | <b>Usage outside Home Service Area</b>                   |   |   |
| 2.1      | Revenue from Outroamers                                  | 2.78  | 2.58                                      |
| <b>3</b> | <b>Total Revenue from Subscribers (1+2)</b>              | <b>107.61</b>   | <b>100</b>                                |
| <b>4</b> | <b>Net inter-operator settlement charges receivable*</b> | <b>-9.39</b>  |   |
| <b>5</b> | <b>Net Revenue (ARPU) (3+4)</b>                          | <b>98.22</b>  |   |

\* Includes Interconnect Usage Charges and roaming settlement charges

2.22 The total MOUs per subscriber per month decreased by 5.74%, from 278.32 in QE Jun-13 to 262.35 in QE Sep-13. The outgoing MOUs decreased by 6.41% and incoming MOUs decreased by 4.99%.

2.23 Prepaid and postpaid MOUs per subscriber per month decreased by 6.02% and 4.24% respectively in this quarter.

2.24 Outgoing SMS per subscriber per month declined from 17.1 in QE Jun-13 to 16.9 in QE Sep-13.

**Table 2.12 : MOU per subscriber per month – CDMA Full Mobility Service**

| <b>MOU per subscriber per month</b> |                 |              |            |                |              |            |                |              |            |
|-------------------------------------|-----------------|--------------|------------|----------------|--------------|------------|----------------|--------------|------------|
| <b>Circle category</b>              | <b>Postpaid</b> |              |            | <b>Prepaid</b> |              |            | <b>Blended</b> |              |            |
|                                     | Outgoing MOU    | Incoming MOU | Total MOU  | Outgoing MOU   | Incoming MOU | Total MOU  | Outgoing MOU   | Incoming MOU | Total MOU  |
| Circle A                            | 313             | 147          | 459        | 111            | 112          | 223        | 136            | 116          | 252        |
| Circle B                            | 407             | 196          | 603        | 112            | 121          | 233        | 127            | 125          | 253        |
| Circle C                            | 461             | 360          | 821        | 97             | 151          | 248        | 112            | 159          | 271        |
| Metro                               | 304             | 144          | 448        | 138            | 122          | 260        | 162            | 125          | 287        |
| <b>All India</b>                    | <b>334</b>      | <b>164</b>   | <b>498</b> | <b>116</b>     | <b>121</b>   | <b>238</b> | <b>137</b>     | <b>125</b>   | <b>262</b> |

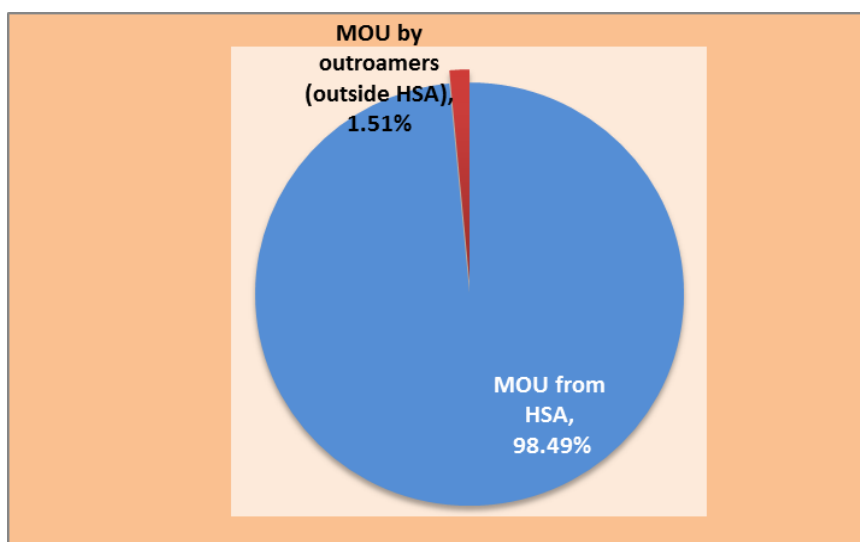
Note: MOU indicate total usage i.e. usage from and outside HSA

**Table 2.13 : Outgoing SMS per subscriber per month – CDMA Full Mobility Service**

| <b>Circle category</b> | <b>Outgoing SMS per subscriber month</b> |           |           |
|------------------------|--|-----------|-----------|
|                        | Postpaid                                 | Prepaid   | Blended   |
| Circle A               | 14                                       | 20        | 19        |
| Circle B               | 14                                       | 14        | 14        |
| Circle C               | 13                                       | 10        | 10        |
| <b>Metro</b>           | <b>17</b>                                | <b>22</b> | <b>21</b> |
| <b>All India</b>       | <b>15</b>                                | <b>17</b> | <b>17</b> |

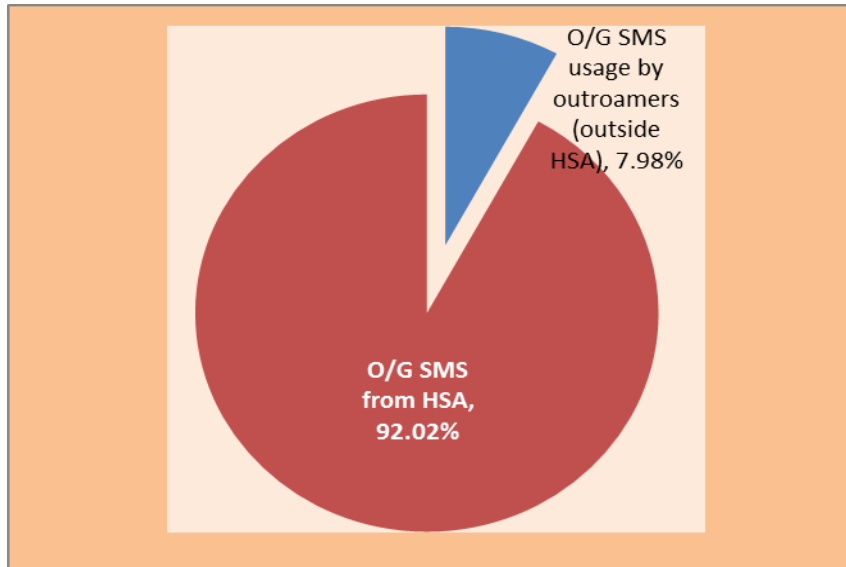
Note: SMS indicate total usage i.e. usage from and outside HSA

**Chart 2.9: Minutes of usage by outroamers as a percentage of total usage**





**Chart 2.10: Minutes of usage by outroamers as a percentage of total usage**

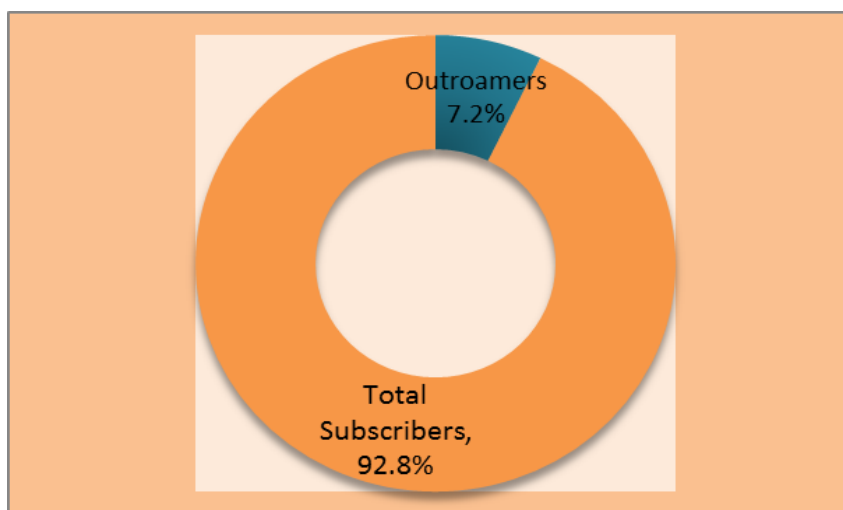


**Table 2.14: %Break-up of Outgoing minutes from Home Service Area (HSA) - CDMA Full Mobility Service**

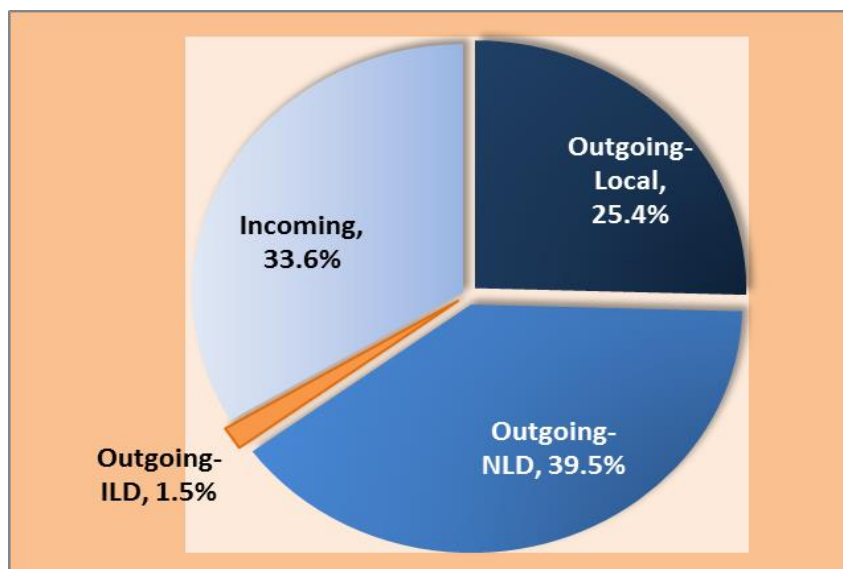
| Circle           | Intra Circle To Wireline (%) | Intra Circle to Own Wireless(%) | Intra Circle to Other Wireless(%) | Inter Circle to Wireline (%) | Inter Circle to Own Wireless(%) | Inter Circle to Other Wireless(%) | ILD (%)    |
|------------------|------------------------------|---------------------------------|-----------------------------------|------------------------------|---------------------------------|-----------------------------------|------------|
| <b>Circle A</b>  | 2.2                          | 30.5                            | 54.6                              | 0.7                          | 3.0                             | 8.6                               | 0.3        |
| <b>Circle B</b>  | 1.2                          | 40.9                            | 43.4                              | 0.7                          | 4.0                             | 9.8                               | 0.1        |
| <b>Circle C</b>  | 2.1                          | 41.5                            | 28.3                              | 1.4                          | 4.9                             | 21.7                              | 0.0        |
| <b>Metro</b>     | 2.2                          | 29.2                            | 36.9                              | 0.6                          | 5.7                             | 25.1                              | 0.2        |
| <b>All India</b> | <b>1.8</b>                   | <b>34.5</b>                     | <b>43.9</b>                       | <b>0.7</b>                   | <b>4.3</b>                      | <b>14.6</b>                       | <b>0.2</b> |

2.25 The chart given below presents the percentage of subscribers who availed roaming services (outroamers) during the quarter.

**Chart 2.11: Percentage of subscribers who availed roaming service during the quarter**



**Chart 2.12: Percentage breakup of minutes of usage of Outroamers (usage from outside the Home Service Area)**



**Table 2.15: Average subscriber outgo per outgoing minute from HSA - CDMA Full Mobility Service**

| Circle Category  | [₹ Per min] |             |             |
|------------------|-------------|-------------|-------------|
|                  | Postpaid    | Prepaid     | Blended     |
| Circle A         | 0.80        | 0.39        | 0.51        |
| Circle B         | 0.65        | 0.33        | 0.38        |
| Circle C         | 0.79        | 0.47        | 0.52        |
| Metros           | 0.87        | 0.45        | 0.56        |
| <b>All India</b> | <b>0.78</b> | <b>0.39</b> | <b>0.48</b> |

Average Subscriber Outgo per Outgoing Minute for usage from HSA  
= 
$$\frac{\text{Rental revenue} + \text{revenue from outgoing calls from HSA}}{\text{No. of outgoing minutes from HSA}}$$

**Table 2.16: Trends of Key Parameters - CDMA Full Mobility Service**

| Parameter   | Sep-12 | Dec-12 | Mar-13 | Jun-13 | Sep-13 |
|---|--------|--------|--------|--------|--------|
| <b>1. ARPU (₹ Per month)</b>  | 78     | 80     | 95     | 98     | 98     |
| <b>2. MOU per subscriber per month</b>                              | 225    | 230    | 275    | 278    | 262    |
| <b>3. Outgoing MOU per subscriber per month</b>                     |        |        |        |        |        |
| 3.1 Local (Intra-circle)  | 93     | 96     | 114    | 117    | 108    |
| 3.2 NLD (inter-circle)  | 20     | 21     | 26     | 26     | 26     |
| 3.3 ILD   | 0.16   | 0.17   | 0.23   | 0.24   | 0.24   |
| <b>4. Outgoing SMS per subscriber per month SMS</b>                 | 25     | 21     | 18     | 17     | 17     |
| <b>5. Average subscriber Outgo per outgoing minute from HSA (₹)</b> | 0.49   | 0.49   | 0.49   | 0.42   | 0.48   |

2.26 Service Area wise statistics are available at Annexure-2.2.

## Section C: Internet Service

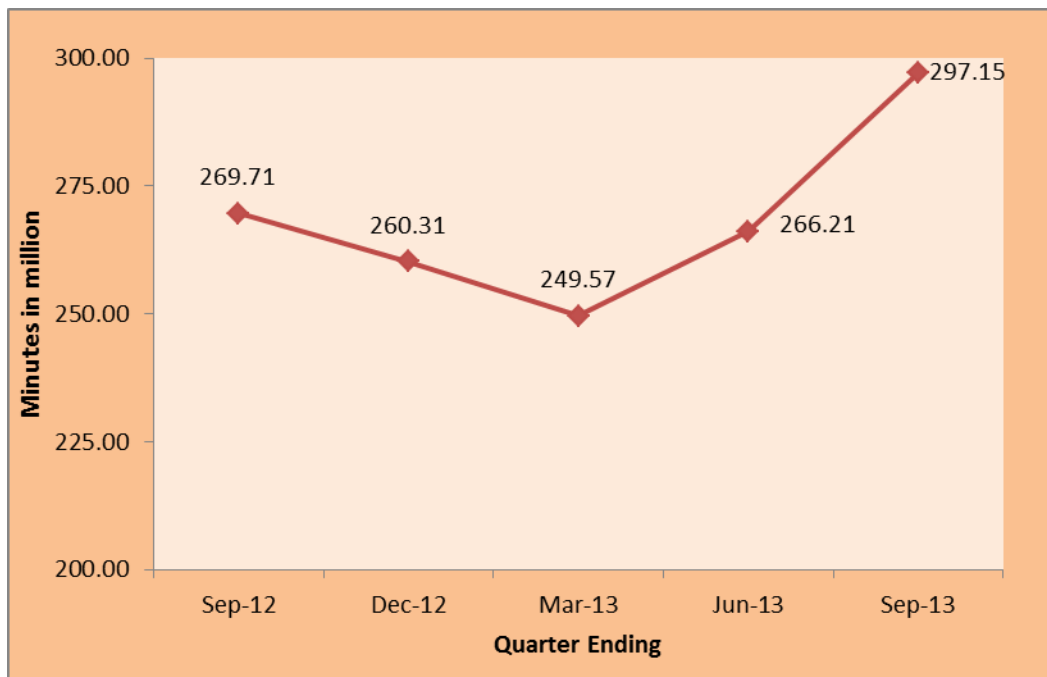
### Revenue of SPs

2.27 The Gross Revenue of the Internet Services (except internet access by mobile devices) as reported by SPs is ₹3377.78 crore for the quarter ending Sep-13 as compared to ₹3443.90 crore for the quarter ending Jun-13, showing a decrease of 1.92% over the previous quarter.

### Internet Telephony

2.28 As per report submitted to TRAI, 33 Service Providers are providing Internet Telephony service presently. Total Minutes of Usage (MOU) for Internet Telephony increased from 266.21 million in QE Jun-13 to 297.15 million in QE Sep-13 registering a quarterly growth of 11.62%.

**Chart 2.13: Trends in MOU for Internet Telephony**



# **Chapter 3 :**

## **Financial Data of Telecom Service Sector**

**Table 3.1: Gross Revenue (GR), Adjusted Gross Revenue (AGR), License Fee (LF) & Spectrum Charges**

| <b>Particulars</b>           | <b>QE Sep-12<br/>(₹ in Crore)</b> | <b>QE Jun-13<br/>(₹ in Crore)</b> | <b>QE Sep-13<br/>(₹ in Crore)</b> | <b>Q-O-Q<br/>% Change<br/>Over Jun-13</b> | <b>Y-O-Y<br/>% Change<br/>over Sep-12</b> |
|------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---|---|
| Gross Revenue (GR)           | 52937.32                          | 57260.98                          | 57452.56                          | 0.33                                      | 8.53                                      |
| Adjusted Gross Revenue (AGR) | 35473.16                          | 38640.30                          | 38810.56                          | 0.44                                      | 9.41                                      |
| Pass Through (GR-AGR)        | 17464.16                          | 18620.68                          | 18642.00                          | 0.11                                      | 6.74                                      |
| License Fee                  | 2884.16                           | 3092.14                           | 3104.95                           | 0.41                                      | 7.66                                      |
| Spectrum Charges             | 1287.21                           | 1469.67                           | 1477.17                           | 0.51                                      | 14.76                                     |

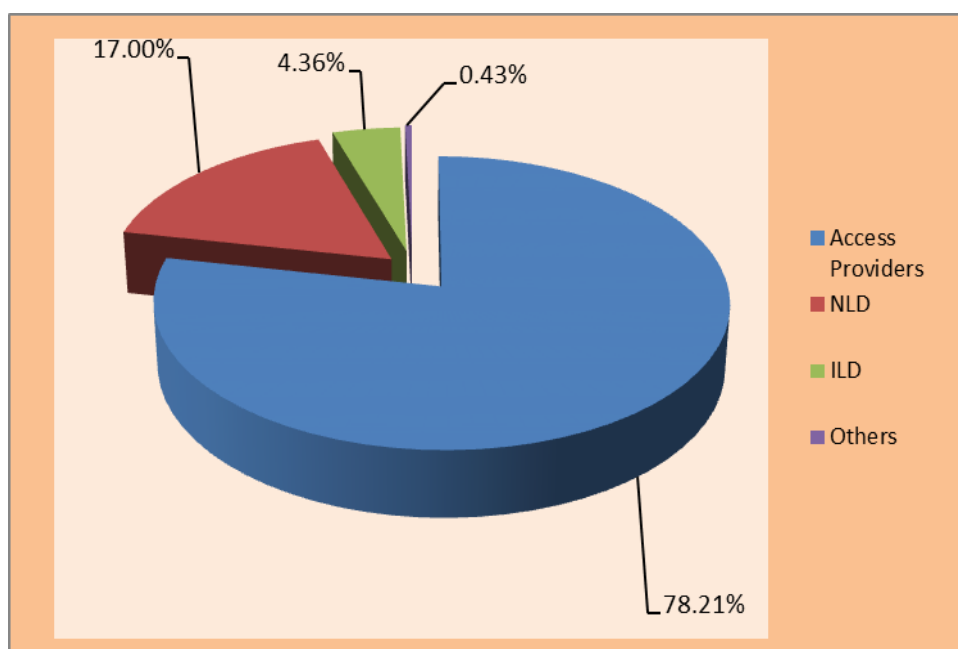
- 3.1 Gross Revenue (GR) and Adjusted Gross Revenue (AGR) increased by 0.33% and 0.44% respectively in the QE Sep-13.
- 3.2 Pass through increased by 0.11% in the QE Sep-13, and on annual basis it has increased by 6.74%.
- 3.3 Pass-through charges as % Gross Revenue: 32.45% in QE Sep-13 as against 32.52% in the previous quarter.

**Table 3.2: Service-wise Gross Revenue, Adjusted Gross Revenue, License Fee and Spectrum Charges**

(₹ in Crore)

| <b>Service</b>          | <b>GR</b>       | <b>AGR</b>      | <b>LF</b>      | <b>Spectrum Charges</b> |
|-------------------------|-----------------|-----------------|----------------|-------------------------|
| <b>Access Providers</b> | 42539.61        | 30353.17        | 2428.23        | 1474                    |
| <b>NLD</b>              | 8688.69         | 6597.45         | 527.79         | -                       |
| <b>ILD</b>              | 3791.02         | 1691.8          | 135.34         | -                       |
| <b>Others</b>           | 2433.24         | 168.15          | 13.58          | 3.17                    |
| <b>Total</b>            | <b>57452.56</b> | <b>38810.56</b> | <b>3104.95</b> | <b>1477.17</b>          |

**Chart 3.1: Composition of Adjusted Gross Revenue**



- 3.4 Access services contributed 78.21% to the total Adjusted Gross Revenue (AGR) of telecom services. In Access services, Gross Revenue, AGR, License Fee and Pass Through Charges decreased by 1.55%, 0.46%, 0.46% and 4.17% respectively whereas Spectrum Usage charge increased by 0.46% in QE Sep-13.
- 3.5 Public Sector Undertakings' share in the Access AGR of telecom services is 13.10% in the QE Sep-13.
- 3.6 Monthly ARPU based on AGR for Access services is ₹112 for the Q.E. Sep-13. Chart below shows the trend in ARPU.

**Chart 3.2: Trend in ARPU per month for Access Services**



**Table 3.3: Access Services - Service Provider wise Adjusted Gross Revenue**

(₹ in Crore)

| Service                     | QE Sep-13       | QE Jun-13       | % Change     |
|-----------------------------|-----------------|-----------------|--------------|
| <b>Bharti</b>               | 8655.57         | 8814.94         | -1.81        |
| <b>Vodafone</b>             | 6452.15         | 6614.25         | -2.45        |
| <b>Idea</b>                 | 4633.65         | 4747.39         | -2.40        |
| <b>BSNL</b>                 | 3228.61         | 3278.73         | -1.53        |
| <b>Tata</b>                 | 2188.95         | 2081.97         | 5.14         |
| <b>Reliance</b>             | 2068.55         | 2076.43         | -0.38        |
| <b>Aircel</b>               | 1551.97         | 1497.85         | 3.61         |
| <b>MTNL</b>                 | 746.38          | 632.69          | 17.97        |
| <b>Unitech</b>              | 480.27          | 457.38          | 5.00         |
| <b>Sistema Shyam</b>        | 200.63          | 219.82          | -8.73        |
| <b>Loop</b>                 | 113.06          | *               | -            |
| <b>Quadrant</b>             | 33.39           | 39.82           | -16.15       |
| <b>Videocon</b>             | *               | 31.60           | -            |
| <b>Grand Total (Access)</b> | <b>30353.17</b> | <b>30492.87</b> | <b>-0.46</b> |

\*Data not received.



**Table 3.4: Category-wise share in Access Services Adjusted Gross Revenue (AGR)**

| <b>Category</b> | <b>Access AGR for<br/>QE Sep-13<br/>(₹ in Crore)</b> | <b>%age share of<br/>AGR</b> |
|-----------------|--|------------------------------|
| Metro           | 4929.90  | 16.24                        |
| A               | 11531.48   | 37.99                        |
| B               | 10259.67   | 33.80                        |
| C               | 3632.11  | 11.97                        |
| <b>Total</b>    | <b>30353.17</b>                                      | <b>100.00</b>                |

**Notes :**

1. *Source: Figures are un-audited and as submitted by the Operators.*
2. *The figures have been regrouped wherever considered necessary for analysis purpose.*
3. *The Spectrum usage charges (mostly) are now reported on “Payment for the current Quarter” basis. However, some operators are reporting on payment basis or on estimate basis on projected AGR for next quarter.*
4. *Metro area includes Delhi, Mumbai and Kolkata only. Chennai is clubbed with Tamilnadu.*

# **Chapter 4 : Quality of Service (QoS)**

## Section A: Quality of Service Performance of Wireless Service Providers

### Part-I : 2G Wireless Services

**Table 4.1: QoS Summary - 2G Wireless Service**

| Sl. No.   | Parameters   | Benchmark | No. of CMTS Licensees not Meeting the Benchmarks |                |                                |                |
|-----------|--|-----------|--|----------------|--------------------------------|----------------|
|           |  |           | Quarter Ending June, 2013                        |                | Quarter Ending September, 2013 |                |
|           |  |           | Out Of 187 (Nos.)                                | Out of 187 (%) | Out Of 183 (Nos.)              | Out of 183 (%) |
| <b>I.</b> | <b>Network Related Parameters</b>  |           |  |                |                                |                |
| <b>1</b>  | <b>Network Availability</b>  |           |  |                |                                |                |
| (i)       | BTSs Accumulated downtime (not available for service)  | ≤ 2%      | 2  | 1.07%          | 1                              | 0.55%          |
| (ii)      | Worst affected BTSs due to downtime  | ≤ 2%      | 8  | 3.67%          | 7                              | 3.83%          |
| <b>2</b>  | <b>Connection Establishment (Accessibility)</b>  |           |  |                |                                |                |
| (i)       | Call Set-up Success Rate (within licensee's own network)   | ≥ 95%     | 0  | 0              | 0                              | 0              |
| (ii)      | SDCCH/ Paging Chl. Congestion  | ≤ 1%      | 0  | 0              | 0                              | 0              |
| (iii)     | TCH Congestion   | ≤ 2%      | 0  | 0              | 0                              | 0              |
| <b>3</b>  | <b>Connection Maintenance (Retain ability)</b>   |           |  |                |                                |                |
| (i)       | Call Drop Rate   | ≤ 2%      | 1  | 0.46%          | 0                              | 0              |
| (ii)      | Worst affected cells having more than 3% TCH drop (call drop) rate   | ≤ 3%      | 4  | 1.83%          | 5                              | 2.73%          |
| (iii)     | Connection with good voice quality   | ≥ 95%     | 0  | 0              | 2                              | 1.09%          |
| <b>4</b>  | <b>Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter)</b> | ≤ 0.5%    | 2  | 0.92%          | 1                              | 0.55%          |

| S. No.     | Parameters   | Benchmark                                | No. of CMTS Licensees not Meeting the Benchmarks |                |                                 |                |
|------------|--|--|--|----------------|---------------------------------|----------------|
|            |  |  | Quarter Ending, June, 2013                       |                | Quarter Ending, September, 2013 |                |
|            |  |  | Out Of 187 (Nos.)                                | Out Of 187 (%) | Out Of 183 (Nos.)               | Out Of 183 (%) |
| <b>II.</b> | <b>Customer Service Quality Parameters</b>   |  |  |                |                                 |                |
| <b>5</b>   | <b>Metering and Billing</b>  |  |  |                |                                 |                |
| (i)        | Metering and billing credibility - post paid   | ≤ 0.1%                                   | 13   | 5.96%          | 6                               | 3.28%          |
| (ii)       | Metering and billing credibility - pre paid  | ≤ 0.1%                                   | 9  | 4.13%          | 4                               | 2.19%          |
| (iii)      | Resolution of billing/charging/validity complaints   | 100% within 4 weeks                      | 6  | 2.75%          | 2                               | 1.09%          |
| (iv)       | Period of applying credit/waiver/ adjustment to customer's account from the date of resolution of complaints | within 1 week of resolution of complaint | 3  | 1.38%          | 3                               | 1.64%          |
| <b>6</b>   | <b>Response time to the customer for assistance</b>  |  |  |                |                                 |                |
| (i)        | Accessibility of call centre/ customer care  | ≥ 95%                                    | 6  | 2.75%          | 4                               | 2.19%          |
| (ii)       | %age of calls answered by the operators (voice to voice) within 60 seconds                                   | ≥ 90%                                    | 63   | 28.90%         | 60                              | 32.79%         |
| <b>7</b>   | <b>Termination / closure of service</b>  |  |  |                |                                 |                |
| (i)        | %age requests for Termination / Closure of service complied within 7 days                                    | 100% within 7 days                       | 6  | 2.75%          | 7                               | 3.83%          |
| (ii)       | Time taken for refund of deposits after closures   | 100% within 60 days                      | 7  | 3.21%          | 3                               | 1.64%          |

- 4.1 The performance has improved in this quarter as compared to the previous quarter in respect of the following parameters :-
- a. BTSs Accumulated downtime (not available for service)
  - b. Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark)
  - c. Metering and billing credibility - post paid
  - d. Metering and billing credibility - pre paid
  - e. Resolution of billing/ charging/ validity complaints.
  - f. Accessibility of call centre/ customer care
  - g. Time taken for refund of deposits after closures.
- 4.2 The performance has deteriorated in this quarter as compared to the previous quarter in respect of the following parameters:-
- a. Worst affected BTSs due to downtime
  - b. Worst affected cells having more than 3% TCH drop (call drop) rate
  - c. Connection with good voice quality
  - d. Period of applying credit/waiver/adjustment to customer's account from the date of resolution of complaints
  - e. %age of calls answered by the operators (voice to voice) within 60 sec
  - f. %age requests for Termination / Closure of service complied within 7 days.

**Table 4.2: Parameter wise Analysis of Non-compliance of QoS Benchmarks for 2G Wireless Service Providers**

| Parameter  | Benchmark                                | Service Provider | Service Area | Performance |
|--|--|------------------|--------------|-------------|
| <b>BTSs Accumulated downtime (not available for service) (%age)</b>  | ≤ 2%                                     | Idea             | MP           | 4.43        |
| <b>Worst affected BTSs due to downtime (%age)</b>  | ≤ 2%                                     | Aircel           | ASM          | 4.80        |
|  |  |                  | BH           | 2.72        |
|  |  |                  | CHN          | 3.04        |
|  |  |                  | DLI          | 3.07        |
|  |  |                  | NE           | 5.09        |
|  |  | BSNL             | NE           | 4.05        |
|  |  | Idea             | MP           | 10.32       |
| <b>Worst affected cells having more than 3% TCH drop</b>   | ≤ 3%                                     | Aircel           | ASM          | 4.98        |
|  |  |                  | DLI          | 3.56        |
|  |  |                  | HR           | 5.95        |
|  |  |                  | MP           | 4.95        |
|  |  |                  | NE           | 4.59        |
| <b>Connection with good voice quality</b>  | ≥ 95%                                    | Aircel           | ASM          | 94.82       |
|  |  |                  | NE           | 94.99       |
| <b>Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark)</b>                             | ≤ 0.5%                                   | Aircel           | KOL          | 1           |
| <b>Metering and billing credibility - post paid</b>  | ≤ 0.1%                                   | Aircel           | KOL          | 0.23        |
|  |  | Idea             | RJ           | 0.12        |
|  |  | Vodafone         | KOL          | 0.20        |
|  |  |                  | OR           | 0.22        |
|  |  |                  | PB           | 0.12        |
|  |  |                  | WB           | 0.12        |
| <b>Metering and billing credibility - pre paid</b>   | ≤ 0.1%                                   | Aircel           | NE           | 0.12        |
|  |  | BSNL             | WB           | 0.71        |
|  |  | Vodafone         | AP           | 0.21        |
|  |  |                  | KTK          | 0.22        |
| <b>Resolution of billing/charging/validity complaints</b>  | 100% within 4 weeks                      | Airtel           | CHN          | 99.89       |
|  |  | BSNL             | MH           | NR          |
| <b>Period of applying credit/ waiver/ adjustment to customer's account from the date of resolution of complaints</b> | within 1 week of resolution of complaint | BSNL             | MH           | NR          |
|  |  | Idea             | AP           | 99.52       |
|  |  |                  | KTK          | 98.84       |

|   |       |              |       |       |
|---|-------|--------------|-------|-------|
| <b>Accessibility of call centre/<br/>customer care</b>  | ≥ 95% | BSNL         | ASM   | 91.00 |
|   |       |              | NE    | 80.00 |
|   |       |              | GUJ   | NR    |
|   |       |              | MH    | NR    |
| <b>Percentage of calls answered by the<br/>operators (voice to voice) within 60<br/>seconds</b> | ≥ 90% | Aircel       | AP    | 83.62 |
|   |       |              | ASM   | 81.40 |
|   |       |              | DLI   | 83.50 |
|   |       |              | HP    | 68.14 |
|   |       |              | MH    | 60.71 |
|   |       |              | MBI   | 81.04 |
|   |       |              | NE    | 88.93 |
|   |       |              | RAJ   | 79.85 |
|   |       | TN           | 89.62 |       |
|   |       | MTNL<br>CDMA | MUM   | 59.40 |
|   |       | BSNL         | AP    | 51.00 |
|   |       |              | ASM   | 78.50 |
|   |       |              | KOL   | 62.00 |
|   |       |              | NE    | 71.55 |
|   |       |              | MH    | NR    |
|   |       |              | GUJ   | NR    |
|   |       |              | UPE   | NR    |
|   |       |              | WB    | 85.00 |
|   |       | MTS          | DL    | 71.79 |
|   |       |              | RJ    | 66.60 |
|   |       | RCOM<br>CDMA | AP    | 84.56 |
|   |       |              | BH    | 87.96 |
|   |       |              | CHN   | 82.94 |
|   |       |              | DLI   | 84.43 |
|   |       |              | HP    | 80.53 |
|   |       |              | HR    | 51.40 |
|   |       |              | KOL   | 88.34 |
|   |       |              | KR    | 81.72 |
|   |       |              | KTK   | 75.86 |
|   |       |              | MH    | 60.29 |
|   |       |              | MP    | 88.94 |
|   |       |              | MBI   | 80.67 |
|   |       | RCOM<br>CDMA | PB    | 81.25 |
|   |       |              | TN    | 82.94 |
|   |       |              | UPE   | 86.69 |
|   |       |              | WB    | 88.34 |
|   |       | RCOM<br>GSM  | AP    | 78.90 |
|   |       |              | DLI   | 58.36 |
|   |       |              | GUJ   | 64.31 |
|   |       |              | HR    | 83.55 |

|   |                     |          |       |          |
|---|---------------------|----------|-------|----------|
| <b>Percentage of calls answered by the operators (voice to voice) within 60 seconds</b> | ≥ 90%               |          | KR    | 68.10    |
|   |                     |          | KTK   | 67.77    |
|   |                     |          | MH    | 51.24    |
|   |                     |          | MBI   | 78.48    |
|   |                     |          | PB    | 75.89    |
|   |                     |          | RAJ   | 80.71    |
|   |                     |          | TN    | 74.57    |
|   |                     |          | UPE   | 89.57    |
|   |                     | UPW      | 85.20 |          |
|   |                     | RTL      | ASM   | 84.39    |
|   |                     |          | BH    | 85.07    |
|   |                     |          | HP    | 71.84    |
|   |                     |          | MP    | 78.37    |
|   |                     |          | NE    | 81.33    |
|   |                     |          | OR    | 85.77    |
|   |                     |          |       | TATA GSM |
| GUJ   | 87.00               |          |       |          |
| PN  | 88.00               |          |       |          |
| TN  | 82.00               |          |       |          |
|   |                     | Uninor   | AP    | 83.09    |
|   |                     |          |       |          |
| <b>%age requests for Termination / Closure of service</b>                               | 100% within 7 days  | Aircel   | AP    | 99.38    |
|   |                     |          | DLI   | 99.93    |
|   |                     |          | UPE   | 98.32    |
|   |                     | BSNL     | WB    | 80.56    |
|   |                     | TATA GSM | KR    | NR       |
|   |                     | Vodafone | MH    | 99.40    |
|   |                     |          | UPW   | 99.93    |
| <b>Time taken for refund of deposits after closures</b>                                 | 100% within 60 days | Aircel   | DLI   | 46.00    |
|   |                     |          | KOL   | 99.70    |
|   |                     | Idea     | MH    | 84.34    |

4.3 The detailed table on Service Provider wise performance of QoS parameters for Wireless 2G Services is available at Annexure-4.1.



## Part-II : 3G Wireless Services

4.4 The summary of performance of 3G service providers (excluding BSNL) who have not met the benchmarks in this quarter is given in below table.

**Table 4.3: QoS Summary - 3G Wireless Service**

| S. No | Parameters                                      |  | Bench mark | No. of CMTS Licensees not Meeting the Benchmarks |                  |                                |                  |
|-------|---|--|------------|--|------------------|--------------------------------|------------------|
|       |   |  |            | Quarter Ending, June 2013                        |                  | Quarter Ending, September 2013 |                  |
|       |   |  |            | Out Of 72 (Nos.)                                 | Out of 72 (in %) | Out Of 72 (Nos.)               | Out of 72 (in %) |
| 1     | <b>Network Availability</b>                     | Node-B's Accumulated downtime (not available for service) (%age)   | ≤ 2%       | 1  | 1.39%            | 0                              | 0                |
|       |   | Worst affected Node-B's due to downtime (%age)   | ≤ 2%       | 1  | 1.39%            | 3                              | 4.17%            |
| 2     | <b>Connection Establishment (Accessibility)</b> | Call Set-up Success Rate (within licensee's own network)   | ≥ 95%      | 0  | 0                | 0                              | 0                |
|       |   | SDCCH/Paging Channel and RRC Congestion (%age)   | ≤ 1%       | 0  | 0                | 0                              | 0                |
|       |   | TCH and Circuit Switched RAB Congestion (%age)   | ≤ 2%       | 0  | 0                | 0                              | 0                |
| 3     | <b>Connection Maintenance (Retainability)</b>   | Call Drop and Circuit Switched Voice Drop Rate: (%age)   | ≤ 2%       | 0  | 0                | 0                              | 0                |
|       |   | Worst affected cells having more than 3% TCH drop (call drop) and Circuit Switched Voice Drop Rate:-CBBH | ≤ 3%       | 7  | 9.72%            | 9                              | 12.50%           |
|       |   | Connections with good voice quality and Circuit Switch Voice Quality (CSV quality)                       | ≥ 95%      | 0  | 0                | 0                              | 0                |
| 4     | <b>Point of Interconnection</b>                 | Point of Interconnection (POI) Congestion  | ≤ 0.5%     | 1  | 1.39%            | 1                              | 1.39%            |

- 4.5 The performance has improved in this quarter as compared to the previous quarter in respect of the following parameters :-
- a. Node-B's Accumulated downtime (not available for service) (%age)
- 4.6 The performance has deteriorated in this quarter as compared to the previous quarter in respect of the following parameters:-
- a. Worst affected Node-B's due to downtime (%age)
  - b. Worst affected cells having more than 3% TCH drop (call drop) and Circuit Switched Voice Drop Rate:-CBBH
- 4.7 The performance has remain unchanged in this quarter as compared to the previous quarter in respect of the following parameters:-
- a. Point of Interconnection (POI) Congestion

**Table 4.4: Parameter wise Analysis of Non-compliance of QoS Benchmarks for 3G Wireless Service Providers**

| Parameter   | Service Provider | Benchmark     | Service Area | Performance |
|---|------------------|---------------|--------------|-------------|
| <b>Worst affected Node-B's due to downtime (%age)</b>   | <b>Aircel</b>    | <b>≤ 2%</b>   | BH           | 3.30        |
|   |                  |               | CHN          | 4.39        |
|   |                  |               | WB           | 2.54        |
| <b>Worst affected cells having more than 3% TCH drop (call drop) and Circuit Switched Voice Drop Rate:-CBBH</b> | <b>Aircel</b>    | <b>≤ 3%</b>   | ASM          | 4.35        |
|   |                  |               | BH           | 16.32       |
|   |                  |               | CHN          | 6.38        |
|   |                  |               | NE           | 7.42        |
|   |                  |               | OR           | 13.26       |
|   |                  |               | PB           | 20.99       |
|   |                  |               | TN           | 7.07        |
|   |                  |               | UPE          | 4.65        |
|   |                  |               | WB           | 8.61        |
| <b>Point of Interconnection (POI) Congestion</b>  | <b>Aircel</b>    | <b>≤ 0.5%</b> | KOL          | 1           |

- 4.8 The details table on Service Area wise performance of QoS parameters for 3G Wireless Services is available at Annexure-4.2.

## Section B: Quality of Service Performance of Wireline Service Providers

**Table 4.5: QoS Summary - Wireline Service**

| S. No. | Parameters   | Benchmark                                | No. of license operators not meeting the benchmarks |                    |                    |                    |
|--------|--|--|---|--------------------|--------------------|--------------------|
|        |  |  | June, 2013  |                    | September, 2013    |                    |
|        |  |  | Out of 111 In Nos.                                  | Out of 111 In %age | Out of 111 In Nos. | Out of 111 In %age |
| (i)    | Fault incidences per 100 subs/month  | ≤ 5                                      | 12  | 10.81%             | 11                 | 9.91%              |
| (ii) a | % Fault repaired by next working day   | ≥ 90%                                    | 15  | 13.51%             | 13                 | 11.71%             |
| (ii) b | % Fault repaired within 3 days (for urban areas)   | 100%                                     | 20  | 18.02%             | 20                 | 18.02%             |
| (ii) c | % Fault repaired within 5 days (for rural & hilly areas)   | 100%                                     | 15  | 13.51%             | 14                 | 12.61%             |
| (iii)  | MTTR   | <8Hrs                                    | 10  | 9.01%              | 12                 | 10.81%             |
| (iv) a | Call Completion Rate (in local network)  | ≥ 55%                                    | 0   | 0.00%              | 0                  | 0.00%              |
| (iv) b | Answer to Seizure Ratio (ASR)  | ≥ 75 %                                   | 0   | 0.00%              | 0                  | 0.00%              |
| (v)    | Point of Interconnection (POI) Congestion (No. of POIs not meeting benchmark)                                | ≤ 0.5%                                   | 0   | 0.00%              | 0                  | 0.00%              |
| (vi)   | Metering & billing credibility □ Post-paid   | ≤ 0.1%                                   | 2   | 1.80%              | 1                  | 0.90%              |
| (vii)  | Metering & billing credibility □ Pre-paid  | ≤ 0.1%                                   | 0   | 0.00%              | 0                  | 0.00%              |
| (viii) | Resolution of billing/charging/Credit & validity complaints  | 100% within 4 weeks                      | 2   | 1.80%              | 1                  | 0.90%              |
| (ix)   | Period of applying credit/waiver/ adjustment to customer's account from the date of resolution of complaints | Within 1 week of resolution of complaint | 0   | 0.00%              | 0                  | 0.00%              |
| (x)    | Response time to the customer for assistance   | -  | -   | -                  | -                  | -                  |
| (x) a  | Accessibility of call centre/customer care   | ≥ 95%                                    | 6   | 5.41%              | 1                  | 0.90%              |
| (x) b  | %age of calls answered by the operators (voice to voice) within 60 seconds                                   | ≥ 90%                                    | 24  | 21.62%             | 18                 | 16.22%             |

| S. No. | Parameters                                       | Benchmark           | No of license operators not meeting the benchmarks |                    |                    |                    |
|--------|--|---------------------|--|--------------------|--------------------|--------------------|
|        |  |                     | June, 2013   |                    | September, 2013    |                    |
|        |  |                     | Out of 111 In Nos.                                 | Out of 111 In %age | Out of 111 In Nos. | Out of 111 In %age |
| (xi)   | Termination / closure of service                 | 100% within 7 days  | 9  | 8.11%              | 5                  | 4.50%              |
| (xii)  | Time taken for refund of deposits after closures | 100% within 60 days | 1  | 0.90%              | 0                  | 0.00%              |

NOTE : (1) As per “The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009 “, the service providers who cannot measure and report Call Completion Rate (CCR) due to constraint in network architecture may opt to measure and report their performance on Answer to Seizure Ratio (ASR). M/s RCOM have reported the ASR for 20 licensed service areas. Therefore, 90 Licensees for CCR and 21 Licensees for ASR have been taken into account for the analysis of these parameters.

(2) Most of the SPs have not reported for the parameter “Metering and billing credibility - pre paid” because most of the service providers are not providing pre-paid service in Basic (Wireline) service.

4.9 The performance has improved in this quarter as compared to the previous quarter in respect of the following parameters:-

- a. Faults incidences ( No. of faults/100 Subs./month)
- b. % Fault repaired by next working day
- c. % of faults repaired within 5 days (for rural & hilly areas)
- d. Metering and billing credibility - post paid ( $\leq 0.1\%$ )
- e. Resolution of billing/ charging/ validity complaints
- f. Accessibility of call centre/ customer care
- g. % of calls answered by the operators (Voice to Voice) within 60 Sec
- h. %age requests for Termination / Closure of service complied within 7 days
- i. Time Taken for refund of deposits after closures

4.10 The performance has deteriorated in this quarter as compared to the previous quarter in respect of the following parameters:-

- a. Mean Time to Repair (MTTR)

**Table 4.6: Parameter wise Analysis of Non-compliance of QoS Benchmarks for Wireline Service Providers**

| Parameters and Benchmark   | Service Providers | Service Area | Parameters not met |
|--|-------------------|--------------|--------------------|
| <b>Faults incidences ( No. of faults/100 Subs./month)<br/>Benchmark( ≤5 )</b>        | BSNL              | AP           | 5.50               |
|  |                   | CH           | 9.25               |
|  |                   | J&K          | 7.23               |
|  |                   | KOL          | 14.74              |
|  |                   | KTK          | 6.35               |
|  |                   | KR           | 8.48               |
|  |                   | MH           | 8.81               |
|  |                   | Uttaranchal  | 6.06               |
|  | WB                | 6.36         |                    |
|  | MTNL              | DEL          | 9.74               |
| MUM  |                   | 7.78         |                    |
| <b>% of faults repaired by next working day<br/>Benchmark( ≥ 90% )</b>               | BSNL              | A & N        | 85.54%             |
|  |                   | AP           | 77.68%             |
|  |                   | CH           | 70.29%             |
|  |                   | J&K          | 66.08%             |
|  |                   | KOL          | 31.39%             |
|  |                   | KTK          | 75.49%             |
|  |                   | KR           | 54.38%             |
|  |                   | MH           | 36.31%             |
|  |                   | TN           | 72.57%             |
|  | WB                | 86.67%       |                    |
|  | MTNL              | DEL          | 84.06%             |
| MUM  |                   | 87.06%       |                    |
| Quadrant   | PB                | 75.00%       |                    |
| <b>% of faults repaired within 3 days<br/>Benchmark (For urban areas:<br/>100% )</b> | BSNL              | A & N        | 94.31%             |
|  |                   | AP           | 88.71%             |
|  |                   | CH           | 82.12%             |
|  |                   | Chhattisgarh | 99.10%             |
|  |                   | HP           | 98.84%             |
|  |                   | J&K          | 82.27%             |

| Parameters and Benchmark   | Service Providers | Service Area | Parameters not met |
|--|-------------------|--------------|--------------------|
|  |                   | KOL          | 47.95%             |
|  |                   | KTK          | 85.66%             |
|  |                   | KR           | 77.82%             |
|  |                   | MH           | 63.96%             |
|  |                   | NE-I         | 99.61%             |
|  |                   | NE-II        | 97.08%             |
| <b>% of faults repaired within 3 days<br/>Benchmark (For urban areas:<br/>100% )</b>               | BSNL              | OR           | 99.19%             |
|  |                   | TN           | 84.01%             |
|  |                   | Uttaranchal  | 98.66%             |
|  | MTNL              | WB           | 90.28%             |
|  |                   | Delhi        | 94.17%             |
|  | Quadrant          | MUM          | 93.91%             |
| Sistema  |                   | PB           | 96.00%             |
| <b>% of faults repaired within 5 days<br/>Benchmark (For rural and hilly<br/>areas:<br/>100% )</b> | BSNL              | RJ           | 99.80%             |
|  |                   | A & N        | 97.72%             |
|  |                   | AP           | 99.33%             |
|  |                   | CH           | 95.01%             |
|  |                   | HP           | 99.69%             |
|  |                   | J&K          | 92.44%             |
|  |                   | KTK          | 94.82%             |
|  |                   | KR           | 85.79%             |
|  |                   | MH           | 82.99%             |
|  |                   | NE-I         | 99.79%             |
|  |                   | NE-II        | 99.89%             |
|  |                   | OR           | 99.19%             |
|  |                   | TN           | 94.69%             |
|  |                   | Uttaranchal  | 99.87%             |
| WB   | 95.06%            |              |                    |
| <b>Mean Time to Repair (MTTR)<br/>Benchmark (≤ 8 Hrs )</b>   | BSNL              | A & N        | 10.67              |
|  |                   | CH           | 54.43              |
|  |                   | KOL          | 42.62              |
|  |                   | KTK          | 46.69              |
|  |                   | KR           | 72.84              |
|  |                   | MH           | 22.43              |
|  |                   | NE-II        | 37.25              |
|  |                   | OR           | 15.64              |
|  |                   | TN           | 22.74              |
|  |                   | WB           | 12.99              |
|  | MTNL              | MUM          | 8.51               |
| Sistema  | PB                | 15.16        |                    |

| <b>Parameters and Benchmark</b>   | <b>Service Providers</b> | <b>Service Area</b> | <b>Parameters not met</b> |
|---|--------------------------|---------------------|---------------------------|
| <b>Metering and Billing credibility - post paid (0.1%)</b>  | BSNL                     | ASM                 | 0.13%                     |
| <b>Resolution of Billing/ charging/validity complaints Benchmark (100% within 4 weeks)</b>                | MTNL                     | DEL                 | 96.37%                    |
| <b>Accessibility of call centre/ customer care Benchmark( ≥ 95%) Benchmark( ≥ 95%)</b>                    |                          | WB                  | 32.86%                    |
| <b>Percentage of calls answered by the operators (voice to voice) within 60 seconds (Benchmark ≥ 90%)</b> | BSNL                     | A & N               | 89.00%                    |
|   |                          | AP                  | 78.00%                    |
|   |                          | CH                  | 71.67%                    |
|   |                          | Chhattisgarh        | 42.67%                    |
|   |                          | GJ                  | 72.33%                    |
|   |                          | HR                  | 36.67%                    |
|   |                          | HP                  | 87.00%                    |
|   |                          | J&K                 | 62.67%                    |
|   |                          | KOL                 | 84.00%                    |
|   |                          | KTK                 | 61.67%                    |
|   |                          | MP                  | 88.00%                    |
|   |                          | MH                  | 56.67%                    |
|   |                          | PB                  | 48.67%                    |
|   |                          | RJ                  | 12.67%                    |
|   |                          | TN                  | 73.00%                    |
|   |                          | Uttaranchal         | 62.33%                    |
|   |                          | UPW                 | 18.67%                    |
| WB  | 16.67%                   |                     |                           |
| <b>%age requests for Termination / Closure of service complied within 7 days Benchmark (100%)</b>         | BSNL                     | KOL                 | 38.55%                    |
|   |                          | MH                  | 93.74%                    |
|   |                          | WB                  | 97.89%                    |
|   | MTNL                     | DEL                 | 95.01%                    |
|   |                          | MUM                 | 95.83%                    |

4.11 Detailed table containing QoS parameters for all the Wireline Service Providers is given in Annexure-4.3.

## Section C : Quality of Service Performance of Broadband Service

4.12 Out of 158 Broadband Service providers, 38 Service Providers are having subscriber base >10,000 and these 35 Service providers share the 99.01% of total subscriber base. This report covers performance of 31 broadband Service Providers vis-à-vis the QoS benchmarks prescribed by TRAI, as the remaining 7 service providers viz. Sify Ltd, Zylog Systems Ltd, Chandranet Pvt Ltd, Honesty Net, Home Systems, Ankhnet Informations and Smartlink Broadband Services have not submitted their report for the QE September, 2013.

**Table 4.7 : Summary of Performance of Broadband Service Providers against identified parameters**

| S. No.   | Parameters   | Benchmark                  | No. of Licensees not Meeting the Benchmarks |                   |                                 |                   |
|----------|--|----------------------------|---|-------------------|---------------------------------|-------------------|
|          |  |                            | Quarter Ending, June, 2013                  |                   | Quarter Ending, September, 2013 |                   |
|          |  |                            | Out of 114 (in Nos.)                        | Out of 114 (in %) | Out of 108 (in Nos.)            | Out of 108 (in %) |
| <b>1</b> | <b>Service Provisioning/ Activation Time</b>   | 100% in =< 15 working days |   |                   |                                 |                   |
| 1.2      | %age of connections provided within 15 days of registration of demand  | 100%                       | 16  | <b>14.0%</b>      | 20                              | <b>18.51%</b>     |
| <b>2</b> | <b>Faults Repair/ Restoration Time</b>   |                            |   |                   |                                 |                   |
| 2.2      | % of faults repaired by next working day   | >90%                       | 20  | <b>17.54%</b>     | 23                              | <b>21.29%</b>     |
| 2.3      | % of faults repaired within 3 working day  | =>99%                      | 22  | <b>19.29%</b>     | 27                              | <b>25.00%</b>     |
| 2.4      | No. of customers to whom rent rebate is given in minimum monthly charges or equivalent usage allowance for delay in fault repair |                            |   |                   |                                 |                   |
| <b>3</b> | <b>Billing Performance</b>   |                            |   |                   |                                 |                   |
| 3.3      | %age of bills disputed   | <2%                        | 0   | <b>0</b>          | 0                               | <b>0</b>          |
| 3.4      | %age of complaints resolved within 4 weeks   | 100% within 4 weeks        | 4   | <b>3.50%</b>      | 2                               | <b>1.85%</b>      |
| 3.5      | %age of cases to whom refund of deposits is made within 60 days of closures  | 100% within 60 days        | 10  | <b>8.77%</b>      | 10                              | <b>9.25%</b>      |



| S. No.   | Parameters  | Benchmark | No. of Licensees not Meeting the Benchmarks |                   |                                 |                   |
|----------|---|-----------|---|-------------------|---------------------------------|-------------------|
|          |   |           | Quarter Ending, June, 2013                  |                   | Quarter Ending, September, 2013 |                   |
|          |   |           | Out of 114 (in Nos.)                        | Out of 114 (in %) | Out of 108 (in Nos.)            | Out of 108 (in %) |
| <b>4</b> | <b>Response Time to the Customer for assistance</b>   |           |   |                   |                                 |                   |
| 4.2      | %age of calls answered by operator (Voice to voice) within 60 sec   | >60%      | 19  | <b>16.66%</b>     | 16                              | <b>14.81%</b>     |
| 4.3      | %age of calls answered by operator (Voice to voice) within 90 sec   | >80%      | 22  | <b>19.29%</b>     | 21                              | <b>19.44%</b>     |
| <b>5</b> | <b>Bandwidth utilisation/ throughput</b>  |           |   |                   |                                 |                   |
| 5.2      | No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)                           |           | 4   | <b>3.50%</b>      | 1                               | <b>0.92%</b>      |
| 5.4      | No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH) |           | 25  | <b>21.92%</b>     | 3                               | <b>2.77%</b>      |
| 5.7      | % International bandwidth utilization during peak hours (TCBH) (Enclose MRTG)                                   |           | 2   | <b>1.75%</b>      | 1                               | <b>0.92%</b>      |
| 5.8      | Broadband Connection Speed available (download) from ISP node to user   | >80%      | 1   | <b>0.87%</b>      | 1                               | <b>0.92%</b>      |
| <b>6</b> | <b>Service Availability/ Uptime (for all users) in %age</b>   | >98%      |   |                   |                                 |                   |
| 6.3      | Service availability/uptime (for all users) in %age   | >98%      | 3   | <b>2.63%</b>      | 2                               | <b>1.85%</b>      |
| <b>7</b> | <b>Packet loss (for wired broadband access) in %</b>  | <1%       |   |                   |                                 |                   |
| 8        | <b>Network latency (for wired broadband access)</b>   |           |   |                   |                                 |                   |
| 8.1      | User reference point at POP/ISP Gateway node to IGSP/NIXI   | <120 ms   | 0   | <b>0</b>          | 0                               | <b>0</b>          |
| 8.2      | User reference point at ISP Gateway node to International nearest NAP port abroad (terrestrial)                 | <350 ms   | 0   | <b>0</b>          | 0                               | <b>0</b>          |
| 8.3      | User reference point at ISP Gateway node to International nearest NAP port abroad (satellite)                   | <800 ms   | 0   | <b>0</b>          | 0                               | <b>0</b>          |

**Table 4.8: Parameter-wise Analysis of non-compliance of QoS benchmarks for Broadband Service Providers**

| Sl. No. | Parameters  | Benchmarks                 | Name of Service Provider not Meeting the Benchmark  |
|---------|---|----------------------------|---|
| 1       | <p><b>Service Provisioning/ Activation Time</b></p> <ul style="list-style-type: none"> <li>• %age of connections provided within 15 days of registration of demand</li> </ul> | 100% in =< 15 working days | <p><b>BSNL</b>- Assam(89.40%), Chennai(88.00%), Kerala(84.00%), MH (99.30%), Orissa(99.60%), TN(99.00%), WB(88.10%), A&amp;N(96.90%)</p> <p><b>MTNL</b> – Delhi(88.35%),Mumbai(83.80%)</p> <p><b>Quadrant Televentures</b> – Punjab(99.80%)</p> <p><b>Tikona Digital</b> – All India (99.91%)</p> <p><b>You Broadband</b> - All India (93.00%), MH(89.00%), Guj(86.90%), KTK(90.58%), TN(85.00%), HR(98.00%), AP(96.00%)</p> <p><b>Atria Convergence</b> –All India (95.00%)</p>  |
| 2       | <b>Faults Repair /Restoration Time</b>  |                            |   |
|         | % of faults repaired by next working day  | >90%                       | <p><b>BSNL</b>- Andhra Pradesh(81.70%), Assam(78.50%), Jharkhand(80.10%), Chennai(62.90%), HP(88.40%), J&amp;K(76.30%), Kerala(56.80%), MH(86.90%), Orissa(85.70%), TN(77.50%), WB(72.80%), A&amp;N(82.70%)</p> <p><b>MTNL</b> – Delhi (81.01%), Mumbai(81.28%)</p> <p><b>Hathway</b>- Guj(88.00%), Punjab(79.00%)</p> <p><b>Beam Cables</b>- Hyd(73.00%)</p> <p><b>You Broadband</b> - All India (85.00%), Guj(84.00%), KTK(77.00%), TN(85.00%), AP(79.00%)</p> <p><b>Atria Convergence</b>- All India(70.00%)</p>   |
|         | % of faults repaired within 3 working day   | = >99%                     | <p><b>BSNL</b>- Andhra Pradesh(92.40%), Assam(92.60%), Jharkhand(84.10%), Chennai(90.30%), HP(94.30%), J&amp;K(91.40%), Kerala(73.20%), MH(97.90%), Orissa(98.90%), TN(90.20%), WB(92.80%), A&amp;N(96.70%)</p> <p><b>MTNL</b> – Delhi(94.05%),Mumbai(90.26%)</p> <p><b>Hathway</b>- MH(98.23%), Punjab(87.00%)</p> <p><b>Beam Cables</b>- Hyd (97.66%)</p> <p><b>Tata Communications</b> - Kerala &amp; Lakshwdeep(98.00%), MH&amp;Goa(95.00%), Mumbai (97.00%)</p> <p><b>You Broadband</b> - All India (96.00%), MH(98.00%), Guj(96.00%), KTK(92.00%), TN(96.00%), AP(94.00%)</p> <p><b>Atria Convergence</b>- All India (91.00%)</p> |

| Sl. No.  | Parameters  | Benchmarks          | Name of Service Provider not Meeting the Benchmark   |
|----------|---|---------------------|--|
| <b>3</b> | <b>Billing Performance</b>  |                     |  |
|          | %age of billing complaints resolved within 4 weeks                          | 100% within 4 weeks | <b>BSNL -</b> KTK(99.90%), Orissa (99.79%)   |
|          | %age of cases to whom refund of deposits is made within 60 days of closures | 100% within 60 days | <b>BSNL -</b> J&K(99.33%), KTK(99.80%)<br>Orissa (99.95%)<br><b>You Broadband -</b> All India (57.00%),<br>MH(53.00%), Guj(56.00%), KTK(79.00%),<br>TN(71.00%), HR(47.00%), AP(58.00%)   |
| <b>4</b> | <b>Response Time to the Customer for assistance</b>                         |                     |  |
|          | %age of calls answered by operator (Voice to voice) within 60 sec           | Benchmark >60%      | <b>BSNL-</b> AP(52.64%), Assam(5.75%),<br>Chennai(29.62%), Guj(38.03%), HR(17.16%),<br>KTK(3.07%), Kol(58.00%), MH(2.92%),<br>Chhatisgarh(15.97%), Pun(46.67%),<br>Raj(1.55%), UP(W)(12.17%)<br><b>You Broadband -</b> All India (51.00%),<br>MH(18.00%), Guj(19.00%), AP(20.00%)  |
|          | %age of calls answered by operator (Voice to voice) within 90 sec           | Benchmark >80%      | <b>BSNL -</b> AP(57.82%), Assam(5.95%),<br>Chennai(34.65%), Guj(41.72%), HR(23.26%),<br>J&K(73.67%), KTK(4.26%), Kol(72.00%),<br>MH(4.20%), MP(75.43%),<br>Chhatisgarh(13.42%), Pun(49.00%),<br>Raj(2.07%), TN(67.79%),<br>UP(W)(15.69%)<br><br><b>MTNL -</b> Mumbai (69.87%)<br><b>You Broadband -</b> All India (55.00%),<br>MH(21.00%), Guj(23.00%), KTK(76.00%),<br>AP(23.00%) |

| <b>Sl. No.</b> | <b>Parameters</b>   | <b>Benchmarks</b> | <b>Name of Service Provider not Meeting the Benchmark</b>   |
|----------------|---|-------------------|---|
| <b>5</b>       | <b>Bandwidth utilisation/throughput</b>   |                   |   |
|                | No. of Intra network links having Bandwidth utilisation >90% during peak hours (TCBH)                           | Benchmark 0       | <b><u>Rajesh Multichannel Pvt Ltd</u></b> - Mumbai (2 Links)  |
|                | No. of Upstream links for International connectivity having bandwidth utilisation >90% during peak hours (TCBH) | Benchmark 0       | <b><u>BSNL</u></b> - All Service areas (19 Links)<br><b><u>MTNL- Delhi</u></b> (1 link)<br><b><u>Broadband Pacenet</u></b> - All India (2 Links)                                  |
|                | %age of International Bandwidth utilization during peak hours (TCBH) (Enclose MRTG)                             | Benchmark <90%    | <b><u>Atria Convergence</u></b> – All India (92.00%)  |
|                | Broadband Connection Speed available(download) from ISP node to user  | Benchmark > 80%   | <b><u>BSNL</u></b> - A&N (60.00%)   |
|                | Service availability/uptime (for all users) in %age   | Benchmark >98%    | <b><u>Indusland Media &amp; Communications Ltd</u></b> - All India (96.00%)<br><b><u>Tata Communications</u></b> – Kerala & Lakshwdeep(96.79%), MP& CG(97.59%), MH & Goa (95.03%) |
| <b>6.</b>      | <b>Packet Loss</b>  |                   |   |
|                | Packet loss (for wired broadband access ) in %age   | Benchmark <1%     | <b><u>BSNL</u></b> – All Service areas (2.90%)  |

4.13 Detailed table containing QoS parameters for all the Broadband Service Providers is given in Annexure-4.4.

# **Chapter 5 : Performance of Cable TV, DTH and Radio Broadcasting Services**

**Table 5.1: Key Parameters - Broadcasting & Cable Services**

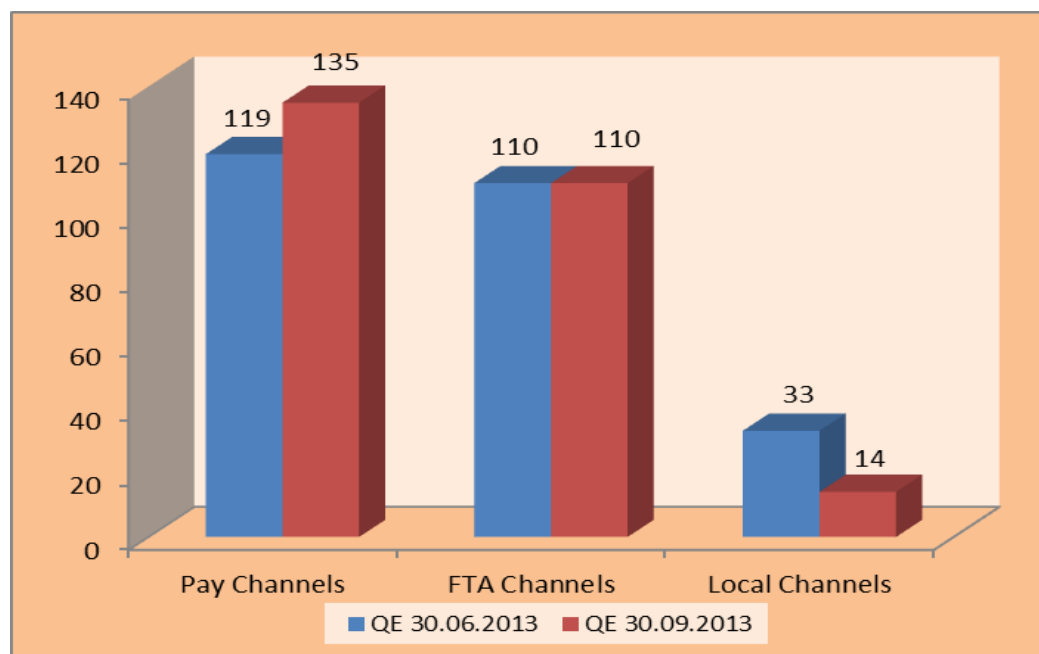
| <b>S.No</b> | <b>Parameter</b>   | <b>QE<br/>Jun-13</b> | <b>QE<br/>Sep-13</b> |
|-------------|--|----------------------|----------------------|
| 1           | Number of private satellite TV channels registered with Ministry of I&B                            | 795                  | 784                  |
| 2           | Maximum number of Pay TV Channels carried by certain cable operator in non-CAS areas               | 119                  | 135                  |
| 3           | Maximum number of Free-to-Air (FTA) TV Channels carried by certain cable operator in non-CAS areas | 110                  | 110                  |
| 4           | Private FM Radio stations in operation   | 242                  | 242                  |
| 5           | Private DTH Operators  | 6                    | 6                    |
| 6           | Licensees of community radio stations  | 192                  | 196                  |
| 7           | Operational community radio station  | 150                  | 156                  |

### **Cable TV Services**

5.1 Chart 5.1 depicts the maximum number of Free-to-Air (FTA) channels, Pay channels and local channels being carried by the Multi System Operators (MSOs) in their network across the country. This 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.

5.2 The maximum number of Free-to-Air (FTA) and Pay Channels reportedly being carried in the cable networks in non-CAS areas are 110 and 135 respectively in the QE Sep-13. However, these numbers relate to different networks and hence cannot be added for arriving at the total number of channels being carried in network.

**Chart 5.1: Maximum number of TV Channels being carried by certain Cable operators in their networks**



5.3 Maximum number of TV channels (Pay, FTA and Local) being carried by any of the reported MSOs is 218 whereas in conventional analogue form, the maximum number of channels being carried any by the reported MSOs is 100 channels.

5.4 The digitization of cable TV sector is in progress in a phase manner in the country. The first phase for migration to Digital Addressable Cable TV System was 31.10.2012 and second phase was 31.03.2013. The final schedule notified by the Government for migration to Digital Addressable Cable TV System is given in Table-5.2.

**Table 5.2 : Migration to Digital Addressable Cable TV Systems**

| Phase     | Areas  | Sunset date for Analog Cable TV |
|-----------|--|---------------------------------|
| Phase I   | Four Metros of Delhi, Mumbai, Kolkata, Chennai             | <b>31.10.2012</b>               |
| Phase II  | Cities with a population more than one million (38 cities) | <b>31.03.2013</b>               |
| Phase III | All Urban areas (Municipal Corporation/ Municipalities)    | <b>30.09.2014</b>               |
| Phase IV  | Rest of India  | <b>31.12.2014</b>               |

### **Satellite TV Channels**

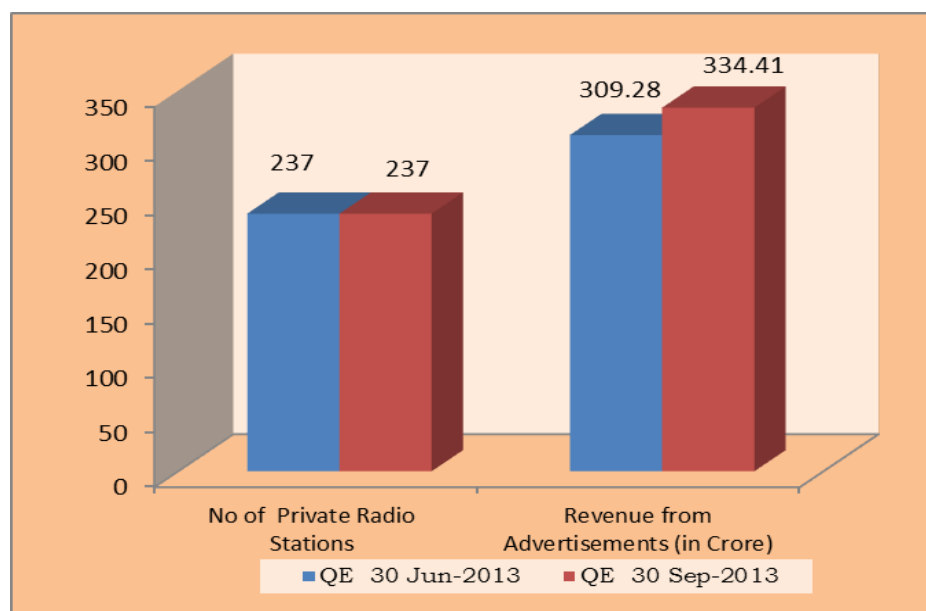
- 5.5 The total number of private satellite TV channels permitted by the Ministry of Information & Broadcasting, as obtained from its website, is 784 at the QE Sep-13.
- 5.6 There are a total of 187 pay channels as reported by broadcasters / distributors for which rates have been taken on records. The list of broadcasters/ distributors of pay TV channels along with the reported rates of pay channels for Non-CAS areas is at Annexure-5.1.

### **FM Radio Services**

- 5.7 Apart from All India Radio of Prasar Bharti - a public broadcaster, there are 242 FM Radio stations in operation at the end of Sep-13. The list of 242 private FM Radio stations is at Annexure-5.2.
- 5.8 The total Advertisement Revenue during the quarter ending Jun-13 in respect of 237 private FM Radio stations was ₹309.28 crore and for quarter ending Sep-13 in respect of 237 private FM Radio stations, the total Advertisement Revenue was ₹334.41 crore. The reports prepared on the basis of reports submitted by the FM Radio service providers to TRAI. However, the details do not pertain to the same set of service providers.



**Chart 5.2 : Comparative position of Revenue from FM Radio Stations as reported to TRAI**



### Community Radio

5.9 At the quarter ending Jun-13, out of 192 licensees of community radio stations, 150 stations were in operation. During the QE Sep-13, 04(four) licenses were issued. At the end of Sep-13, out of 196 licensees, 156 Community Radio Stations are in operation, as per the information received from Ministry of Information & Broadcasting.

**Table 5.3 : Status of applications for community radio station licenses received from Ministry of Information and Broadcasting**

|                                    | <b>As on 30.09.2013</b> |
|------------------------------------|-------------------------|
| Total No. of Applications Received | 1286                    |
| No. of Licenses issued             | 196                     |
| No. of Letters of Intent Issued    | 440                     |
| No. of Applications rejected       | 500                     |
| No. of stations operational        | 156                     |

**Source:** Ministry of Information & Broadcasting

### **DTH Services**

5.10 Besides the free DTH service of Doordarshan- a public broadcaster, there are 6 private DTH licensees, offering their services to the DTH subscribers. As on 30.09.2013, their reported registered and active subscriber base is 60.71 million 34.26 million respectively. The list of DTH licensees is at Annexure-5.3.

### **Teleport Service**

5.11 As per the information available on the website of the Ministry of Information and Broadcasting, there are 90 numbers of permitted Teleports as on 20.03.2013. A list of the permitted Teleports is at Annexure-5.4.

# **Annexures**

### Annexure 1.1: Licensed Cellular (GSM & CDMA) Service Providers

| Sl. No | Service Provider                  | Area for which licensed with No.                                  | UASL/UL(AS)   | CMTS   |
|--------|-----------------------------------|---|---|--|
| 1      | Bharti                            | All India (22)  | All India except NE   | North East   |
| 2      | Aircel Group                      | All India (23)  | All India except Chennai & TN                                 | Chennai & Tamil Nadu   |
| 3      | Reliance Communications           | All India (except Assam & NE) (20)                                | All   |  |
| 4      | Reliance Telecom                  | Kolkata, MP, WB, HP, Bihar, OR, Assam & NE (8)                    | All   |  |
| 5      | Vodafone                          | All India (23)  | All   |  |
| 6      | Tata Teleservices                 | All India except Assam, NE & J&K (19)                             | All   |  |
| 7      | IDEA                              | All India except KTK & Punjab (20)                                | Mumbai, TN incl. Chennai, Kol, WB, Bihar, OR, Assam, NE & J&K | Delhi, MH, Guj., AP, Kerala, Haryana, UP-W, UP-E, Raj., MP, HP |
| 8      | Shyam Telelink                    | Delhi, Kol, Guj, KTK, TN incl. Chennai, Kerala, UP-W, Raj, WB (9) | All   |  |
| 9      | BSNL                              | All India (except Delhi & Mumbai) 20                              |   | All  |
| 10     | MTNL                              | Delhi, Mumbai (2)   |   | All  |
| 11     | Loop Telecom Private Ltd          | Mumbai (1)  |   | Mumbai   |
| 12     | Unitech Group                     | MH, Guj, AP, UP-W, UP-E, Bihar (6)                                | All   |  |
| 13     | Videocon Telecommunications. Ltd. | Guj, Har, UP-W, UP-E, MP, Bihar (6)                               | All   |  |
| 14     | Spice Communications              | KTK, Punjab (2)   | All   |  |
| 15     | Quadrant                          | Punjab (1)  | Punjab  |  |

Source: DoT and Service providers  
UASLs/UL( AS) 145  
CMTSs 37  
Total 182

## Annexure 1.2: Wireless Subscriber Base

| Service Area               | Vodafone (GSM)     |                    | Bharti (GSM)       |                    | Idea (GSM)         |                    | Aircel/Dishnet (GSM) |                   | Reliance (GSM)    |                   | Reliance (CDMA)   |                   |
|----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                            | Jun-13             | Sep-13             | Jun-13             | Sep-13             | Jun-13             | Sep-13             | Jun-13               | Sep-13            | Jun-13            | Sep-13            | Jun-13            | Sep-13            |
| Andhra Pradesh             | 5,872,710          | 5,863,892          | 18,521,564         | 18,902,208         | 11,569,388         | 11,981,302         | 1,798,359            | 1,858,428         | 3,700,237         | 3,302,018         | 3,307,703         | 2,536,067         |
| Assam                      | 2,506,043          | 2,556,126          | 4,101,733          | 4,196,065          | 440,032            | 476,682            | 3,547,608            | 3,588,972         | 2,921,103         | 2,596,140         | -                 |                   |
| Bihar                      | 6,910,292          | 6,747,640          | 20,275,101         | 20,518,049         | 6,275,862          | 6,164,066          | 4,711,600            | 4,677,210         | 6,980,085         | 6,123,656         | 3,016,011         | 2,694,819         |
| Delhi                      | 8,561,135          | 8,845,576          | 9,407,812          | 9,725,980          | 4,944,716          | 5,251,411          | 2,956,149            | 3,133,898         | 4,367,837         | 4,557,804         | 3,426,675         | 3,228,548         |
| Gujarat                    | 16,285,515         | 16,518,850         | 7,057,857          | 7,117,258          | 8,466,824          | 8,690,983          | 35,773               | 35,773            | 5,183,277         | 5,128,669         | 2,010,632         | 1,568,723         |
| Haryana                    | 4,697,629          | 4,681,275          | 2,314,192          | 2,337,348          | 3,846,587          | 3,882,250          | 11,092               | 11,092            | 1,830,190         | 1,614,441         | 610,355           | 517,621           |
| Himachal Pradesh           | 523,069            | 534,203            | 2,035,958          | 2,090,603          | 492,266            | 513,452            | 682,129              | 742,881           | 1,360,711         | 1,267,067         | 207,443           | 198,739           |
| Jammu & Kashmir            | 660,662            | 687,681            | 2,473,706          | 2,532,977          | 249,095            | 267,487            | 1,922,242            | 2,014,339         | 645,870           | 672,572           | 49                | 54                |
| Karnataka                  | 6,780,471          | 6,920,902          | 16,355,229         | 16,564,821         | 6,342,955          | 6,586,224          | 1,918,124            | 2,201,043         | 4,276,035         | 4,441,790         | 2,541,496         | 1,838,724         |
| Kerala                     | 6,385,292          | 6,489,482          | 3,547,360          | 3,599,838          | 8,161,641          | 8,466,741          | 29,883               | 4,883             | 1,102,725         | 1,130,014         | 1,874,574         | 1,201,330         |
| Madhya Pradesh             | 4,230,893          | 4,256,579          | 10,232,522         | 10,209,163         | 16,070,788         | 16,295,647         | 22,694               | 22,694            | 9,946,637         | 9,908,435         | 2,863,803         | 2,569,387         |
| Maharashtra                | 13,644,766         | 14,076,683         | 10,033,460         | 10,226,355         | 16,786,007         | 17,421,267         | 1,246,495            | 1,312,246         | 5,642,039         | 5,157,213         | 2,465,662         | 2,032,701         |
| Mumbai                     | 6,567,520          | 6,831,544          | 3,868,834          | 4,107,494          | 3,099,398          | 3,237,854          | 1,560,725            | 1,704,239         | 2,745,736         | 2,805,549         | 3,328,246         | 3,120,434         |
| North East                 | 1,064,436          | 1,045,692          | 2,808,177          | 2,852,276          | 315,123            | 328,482            | 2,308,267            | 2,352,414         | 934,206           | 992,057           | -                 |                   |
| Orissa                     | 3,163,939          | 3,168,882          | 7,159,241          | 7,289,389          | 1,067,884          | 1,063,004          | 2,883,004            | 2,908,410         | 3,530,446         | 3,754,694         | 478,228           | 379,860           |
| Punjab                     | 4,483,340          | 4,503,245          | 7,034,838          | 7,107,014          | 5,842,432          | 5,845,234          | 943,240              | 1,002,025         | 2,760,838         | 2,689,306         | 479,722           | 381,418           |
| Rajasthan                  | 9,198,787          | 9,270,335          | 14,720,751         | 14,836,741         | 5,558,442          | 5,660,460          | 3,360,486            | 3,566,660         | 4,692,083         | 4,806,161         | 1,201,240         | 1,091,245         |
| Tamil Nadu (incl. Chennai) | 12,431,155         | 12,665,721         | 13,653,229         | 13,929,539         | 2,352,639          | 2,486,098          | 21,586,984           | 21,968,800        | 4,262,414         | 4,106,932         | 2,550,281         | 2,157,626         |
| UP(E)                      | 15,290,748         | 14,400,071         | 15,578,792         | 15,433,113         | 7,930,109          | 7,594,778          | 4,219,738            | 4,767,195         | 5,789,052         | 5,537,833         | 4,178,908         | 2,998,214         |
| UP(W)                      | 9,604,292          | 9,261,589          | 6,621,579          | 6,484,305          | 10,972,813         | 11,014,960         | 109,150              | 109,150           | 4,474,719         | 4,274,851         | 2,364,997         | 1,653,053         |
| Kolkata                    | 4,334,706          | 4,365,823          | 3,692,150          | 3,751,235          | 1,371,401          | 1,316,958          | 1,939,653            | 2,179,944         | 2,992,884         | 2,761,261         | 1,305,011         | 1,201,709         |
| West Bengal                | 11,836,468         | 11,851,390         | 9,418,336          | 9,575,630          | 2,811,705          | 2,682,852          | 3,176,579            | 3,082,883         | 6,252,512         | 6,218,327         | 1,129,977         | 1,044,939         |
| <b>Total</b>               | <b>155,033,868</b> | <b>155,543,181</b> | <b>190,912,421</b> | <b>193,387,401</b> | <b>124,968,107</b> | <b>127,228,192</b> | <b>60,969,974</b>    | <b>63,245,179</b> | <b>86,391,636</b> | <b>83,846,790</b> | <b>39,341,013</b> | <b>32,415,211</b> |

**Annexure 1.2 (contd.)**

| Service Area               | Tata (GSM)        |                   | Tata (CDMA)       |                   | BSNL (GSM)        |                   | BSNL (CDMA)      |                  | MTNL (GSM)       |                  | MTNL (CDMA)    |                |
|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|----------------|----------------|
|                            | Jun-13            | Sep-13            | Jun-13            | Sep-13            | Jun-13            | Sep-13            | Jun-13           | Sep-13           | Jun-13           | Sep-13           | Jun-13         | Sep-13         |
| Andhra Pradesh             | 4,644,411         | 4,723,236         | 1,773,231         | 1,699,113         | 9,362,687         | 9,349,505         | 87,786           | 87,158           | -                | -                | -              | -              |
| Assam                      | -                 | -                 | -                 | -                 | 1,131,452         | 1,153,377         | 92,361           | 95,649           | -                | -                | -              | -              |
| Bihar                      | 2,224,573         | 2,033,802         | 1,280,241         | 1,238,615         | 3,607,702         | 3,510,198         | 213,878          | 214,798          | -                | -                | -              | -              |
| Delhi                      | -                 | -                 | 3,032,124         | 2,869,124         | -                 | -                 | -                | -                | 2,518,770        | 2,519,080        | 82,874         | 37,612         |
| Gujarat                    | 2,052,280         | 2,092,574         | 569,066           | 535,624           | 4,197,018         | 4,218,468         | 115,359          | 109,037          | -                | -                | -              | -              |
| Haryana                    | 1,830,508         | 1,824,233         | 837,962           | 817,589           | 3,063,076         | 3,065,505         | 19,446           | 18,550           | -                | -                | -              | -              |
| Himachal Pradesh           | 81,681            | 69,671            | 85,249            | 79,785            | 1,487,825         | 1,481,202         | 55,806           | 53,943           | -                | -                | -              | -              |
| Jammu & Kashmir            | -                 | -                 | -                 | -                 | 1,131,018         | 1,166,603         | 67,095           | 65,798           | -                | -                | -              | -              |
| Karnataka                  | 5,101,035         | 5,157,911         | 715,276           | 689,734           | 6,933,599         | 6,955,768         | 154,283          | 145,763          | -                | -                | -              | -              |
| Kerala                     | 1,431,282         | 1,398,752         | 274,236           | 255,706           | 7,604,817         | 7,756,318         | 277,872          | 260,649          | -                | -                | -              | -              |
| Madhya Pradesh             | 3,199,201         | 3,218,368         | 732,300           | 711,197           | 4,852,356         | 4,953,138         | 207,293          | 196,441          | -                | -                | -              | -              |
| Maharashtra                | 3,380,565         | 3,446,184         | 2,800,231         | 2,627,930         | 6,454,945         | 6,477,014         | 143,676          | 135,438          | -                | -                | -              | -              |
| Mumbai                     | 2,098,095         | 2,138,244         | 1,428,240         | 1,282,546         | -                 | -                 | -                | -                | 1,816,276        | 1,091,980        | 93,073         | 92,434         |
| North East                 | -                 | -                 | -                 | -                 | 1,619,133         | 1,657,849         | 150,329          | 151,150          | -                | -                | -              | -              |
| Orissa                     | 1,755,574         | 1,774,216         | 280,609           | 268,993           | 4,456,782         | 4,467,195         | 64,785           | 61,835           | -                | -                | -              | -              |
| Punjab                     | 1,535,387         | 1,554,875         | 914,706           | 894,229           | 4,364,839         | 4,460,100         | 38,592           | 35,907           | -                | -                | -              | -              |
| Rajasthan                  | 1,209,840         | 978,466           | 1,451,769         | 1,445,410         | 5,785,794         | 5,720,320         | 175,212          | 171,097          | -                | -                | -              | -              |
| Tamil Nadu (incl. Chennai) | 4,764,997         | 4,910,490         | 465,424           | 393,235           | 9,485,081         | 9,502,797         | 112,338          | 102,651          | -                | -                | -              | -              |
| UP(E)                      | 3,490,478         | 3,570,283         | 709,398           | 701,993           | 10,008,618        | 9,910,844         | 419,011          | 294,068          | -                | -                | -              | -              |
| UP(W)                      | 2,672,943         | 2,700,299         | 1,098,100         | 1,048,448         | 4,663,137         | 4,514,419         | 91,293           | 90,971           | -                | -                | -              | -              |
| Kolkata                    | 2,166,875         | 2,227,895         | 673,266           | 646,206           | 2,272,562         | 2,259,186         | 22,784           | 22,543           | -                | -                | -              | -              |
| West Bengal                | 1,623,196         | 1,314,911         | 241,666           | 207,051           | 2,930,108         | 2,893,021         | 68,972           | 71,908           | -                | -                | -              | -              |
| <b>Total</b>               | <b>45,262,921</b> | <b>45,134,410</b> | <b>19,363,094</b> | <b>18,412,528</b> | <b>95,412,549</b> | <b>95,472,827</b> | <b>2,578,171</b> | <b>2,385,354</b> | <b>4,335,046</b> | <b>3,611,060</b> | <b>175,947</b> | <b>130,046</b> |

### Annexure 1.2 (contd.)

| Service Area               | Sistema (CDMA)   |                  | Quadrant (HFCL) (GSM) |                  | Quadrant (HFCL) (CDMA) |              | Loop (GSM)       |                  | Unitech (GSM)     |                   | Videocon (GSM)   |                  | Total              |                    |
|----------------------------|------------------|------------------|-----------------------|------------------|------------------------|--------------|------------------|------------------|-------------------|-------------------|------------------|------------------|--------------------|--------------------|
|                            | Jun-13           | Sep-13           | Jun-13                | Sep-13           | Jun-13                 | Sep-13       | Jun-13           | Sep-13           | Jun-13            | Sep-13            | Jun-13           | Sep-13           | Jun-13             | Sep-13             |
| Andhra Pradesh             | -                |                  | -                     | -                | -                      | -            | -                | -                | 4,450,683         | 4,414,731         | -                | -                | 65,088,759         | 64,717,658         |
| Assam                      | -                |                  | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 14,740,332         | 14,663,011         |
| Bihar                      | -                |                  | -                     | -                | -                      | -            | -                | -                | 4,517,009         | 4,398,886         | -                | -                | 60,012,354         | 58,321,739         |
| Delhi                      | 881,544          | 882,224          | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 40,179,636         | 41,051,257         |
| Gujarat                    | 200,654          | 175,572          | -                     | -                | -                      | -            | -                | -                | 5,084,389         | 4,960,851         | 702,642          | 988,327          | 51,961,286         | 52,140,709         |
| Haryana                    | -                |                  | -                     | -                | -                      | -            | -                | -                | -                 | -                 | 852,520          | 1,131,142        | 19,913,557         | 19,901,046         |
| Himachal Pradesh           | -                |                  | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 7,012,137          | 7,031,546          |
| Jammu & Kashmir            | -                |                  | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 7,149,737          | 7,407,511          |
| Karnataka                  | 1,983,518        | 1,924,172        | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 53,102,021         | 53,426,852         |
| Kerala                     | 450,599          | 436,353          | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 31,140,281         | 31,000,066         |
| Madhya Pradesh             | -                |                  | -                     | -                | -                      | -            | -                | -                | -                 | -                 | 862,831          | 1,125,094        | 53,221,318         | 53,466,143         |
| Maharashtra                | -                |                  | -                     | -                | -                      | -            | -                | -                | 5,541,113         | 5,770,597         | -                | -                | 68,138,959         | 68,683,628         |
| Mumbai                     | -                |                  | -                     | -                | -                      | -            | 2,716,568        | 2,886,719        | -                 | -                 | -                | -                | 29,322,711         | 29,299,037         |
| North East                 | -                |                  | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 9,199,671          | 9,379,920          |
| Orissa                     | -                |                  | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 24,840,492         | 25,136,478         |
| Punjab                     | -                |                  | 1,401,781             | 1,718,915        | 16,246                 | 6,920        | -                | -                | -                 | -                 | -                | -                | 29,815,961         | 30,199,188         |
| Rajasthan                  | 2,163,347        | 2,178,127        | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 49,517,751         | 49,725,022         |
| Tamil Nadu (incl. Chennai) | 1,161,453        | 1,085,246        | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 72,825,995         | 73,309,135         |
| UP(E)                      | -                |                  | -                     | -                | -                      | -            | -                | -                | 7,440,256         | 7,541,316         | -                | -                | 75,055,108         | 72,749,708         |
| UP(W)                      | 379,458          | 318,743          | -                     | -                | -                      | -            | -                | -                | 5,262,422         | 5,269,519         | -                | -                | 48,314,903         | 46,740,307         |
| Kolkata                    | 778,263          | 764,521          | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 21,549,555         | 21,497,281         |
| West Bengal                | 1,770,490        | 1,791,852        | -                     | -                | -                      | -            | -                | -                | -                 | -                 | -                | -                | 41,260,009         | 40,734,764         |
| <b>Total</b>               | <b>9,769,326</b> | <b>9,556,810</b> | <b>1,401,781</b>      | <b>1,718,915</b> | <b>16,246</b>          | <b>6,920</b> | <b>2,716,568</b> | <b>2,886,719</b> | <b>32,295,872</b> | <b>32,355,900</b> | <b>2,417,993</b> | <b>3,244,563</b> | <b>873,362,533</b> | <b>870,582,006</b> |

### Annexure 1.3: Wireline Subscriber Base

| Service Area               | Bharti           |                  | Reliance         |                  | Quadrant (HFCL) |                | Sistema       |               | Tata             |                  |
|----------------------------|------------------|------------------|------------------|------------------|-----------------|----------------|---------------|---------------|------------------|------------------|
|                            | Jun-13           | Sep-13           | Jun-13           | Sep-13           | Jun-13          | Sep-13         | Jun-13        | Sep-13        | Jun-13           | Sep-13           |
| Andhra Pradesh             | 126,070          | 125,802          | 89,120           | 88,593           | -               | -              | -             | -             | 164,413          | 165,416          |
| Assam                      |                  |                  |                  |                  | -               | -              | -             | -             |                  | -                |
| Bihar                      |                  |                  | 5,492            | 5,592            | -               | -              | -             | -             | 10,662           | 10,692           |
| Delhi                      | 1,085,845        | 1,162,863        | 183,362          | 183,570          | -               | -              | -             | -             | 91,516           | 93,159           |
| Gujarat                    | 55,573           | 55,994           | 98,027           | 96,795           | -               | -              | -             | -             | 71,490           | 72,875           |
| Haryana                    | 23,989           | 20,742           | 5,370            | 5,440            | -               | -              | -             | -             | 25,095           | 26,489           |
| Himachal Pradesh           |                  |                  | 4,578            | 4,733            | -               | -              | -             | -             | 2,425            | 2,446            |
| Jammu & Kashmir            |                  |                  |                  | -                | -               | -              | -             | -             |                  | -                |
| Karnataka                  | 493,328          | 487,776          | 114,433          | 115,937          | -               | -              | -             | -             | 144,208          | 149,472          |
| Kerala                     | 56,059           | 49,218           | 53,565           | 52,885           | -               | -              | -             | -             | 11,513           | 11,420           |
| Madhya Pradesh             | 242,513          | 231,995          | 26,291           | 25,563           | -               | -              | -             | -             | 16,225           | 17,100           |
| Maharashtra                | 70,533           | 68,774           | 100,107          | 99,408           | -               | -              | -             | -             | 242,966          | 247,964          |
| Mumbai                     | 332,811          | 350,592          | 232,478          | 233,286          | -               | -              | -             | -             | 524,879          | 523,465          |
| North East                 |                  |                  |                  |                  | -               | -              | -             | -             |                  |                  |
| Orissa                     |                  |                  | 3,622            | 3,676            | -               | -              | -             | -             | 6,458            | 6,738            |
| Punjab                     | 106,221          | 97,111           | 25,069           | 24,577           | 195,889         | 202,402        | -             | -             | 16,793           | 17,087           |
| Rajasthan                  | 39,477           | 36,466           | 24,361           | 24,193           | -               | -              | 53,628        | 54,351        | 7,003            | 7,935            |
| Tamil Nadu (incl. Chennai) | 480,261          | 471,287          | 147,459          | 147,040          | -               | -              | -             | -             | 73,229           | 74,523           |
| U.P.(E)                    | 50,714           | 51,230           | 40,362           | 40,525           | -               | -              | -             | -             | 13,548           | 14,000           |
| U.P.(W)                    | 24,378           | 21,128           | 5,874            | 5,998            | -               | -              | -             | -             | 8,095            | 8,464            |
| Kolkata                    | 94,240           | 106,901          | 81,165           | 81,377           | -               | -              | -             | -             | 36,533           | 37,917           |
| West Bengal                |                  |                  | 2,099            | 2,153            | -               | -              | -             | -             | 3,762            | 3,755            |
| <b>Total</b>               | <b>3,282,012</b> | <b>3,337,879</b> | <b>1,242,834</b> | <b>1,241,341</b> | <b>195,889</b>  | <b>202,402</b> | <b>53,628</b> | <b>54,351</b> | <b>1,470,813</b> | <b>1,490,917</b> |



**Annexure 1.3 (contd.)**

| Service Area               | MTNL             |                  | BSNL              |                   | Vodafone      |               | Total             |                   |
|----------------------------|------------------|------------------|-------------------|-------------------|---------------|---------------|-------------------|-------------------|
|                            | Jun-13           | Sep-13           | Jun-13            | Sep-13            | Jun-13        | Sep-13        | Jun-13            | Sep-13            |
| Andhra Pradesh             | -                | -                | 1,800,852         | 1,751,010         | 5,850         | 5,940         | 2,186,305         | 2,136,761         |
| Assam                      | -                | -                | 192,684           | 191,564           | 660           | 840           | 193,344           | 192,404           |
| Bihar                      | -                | -                | 374,935           | 372,808           | 210           | 270           | 391,299           | 389,362           |
| Delhi                      | 1,599,376        | 1,598,794        |                   |                   | 13,050        | 14,490        | 2,973,149         | 3,052,876         |
| Gujarat                    | -                | -                | 1,520,502         | 1,496,328         | 540           | 630           | 1,746,132         | 1,722,622         |
| Haryana                    | -                | -                | 485,272           | 470,023           |               |               | 539,726           | 522,694           |
| Himachal Pradesh           | -                | -                | 262,945           | 256,824           |               |               | 269,948           | 264,003           |
| Jammu & Kashmir            | -                | -                | 193,864           | 189,774           |               |               | 193,864           | 189,774           |
| Karnataka                  | -                | -                | 1,649,152         | 1,613,635         | 4,290         | 4,260         | 2,405,411         | 2,371,080         |
| Kerala                     | -                | -                | 2,912,288         | 2,871,487         |               |               | 3,033,425         | 2,985,010         |
| Madhya Pradesh             | -                | -                | 830,182           | 830,208           | 150           | 120           | 1,115,361         | 1,104,986         |
| Maharashtra                | -                | -                | 1,983,732         | 1,942,678         | 3,000         | 3,210         | 2,400,338         | 2,362,034         |
| Mumbai                     | 1,950,514        | 1,944,053        |                   |                   | 7,740         | 8,190         | 3,048,422         | 3,059,586         |
| North East                 | -                | -                | 168,172           | 143,447           |               |               | 168,172           | 143,447           |
| Orissa                     | -                | -                | 357,007           | 348,150           | 300           | 360           | 367,387           | 358,924           |
| Punjab                     | -                | -                | 957,611           | 935,140           | 390           | 270           | 1,301,973         | 1,276,587         |
| Rajasthan                  | -                | -                | 870,498           | 852,978           | 360           | 510           | 995,327           | 976,433           |
| Tamil Nadu (incl. Chennai) | -                | -                | 2,358,845         | 2,310,589         | 3,180         | 3,000         | 3,062,974         | 3,006,439         |
| U.P.(E)                    | -                | -                | 904,190           | 766,715           | 480           | 540           | 1,009,294         | 873,010           |
| U.P.(W)                    | -                | -                | 628,187           | 616,600           | 240           | 270           | 666,774           | 652,460           |
| Kolkata                    | -                | -                | 906,311           | 886,504           | 1,560         | 1,320         | 1,119,809         | 1,114,019         |
| West Bengal                | -                | -                | 533,067           | 521,979           |               |               | 538,928           | 527,887           |
| <b>Total</b>               | <b>3,549,890</b> | <b>3,542,847</b> | <b>19,890,296</b> | <b>19,368,441</b> | <b>42,000</b> | <b>44,220</b> | <b>29,727,362</b> | <b>29,282,398</b> |

### Annexure 1.4: Service Area and Operator wise details of PCOs

| S.No. | Name of the Circle/Service Area        | Service Provider | 30 <sup>th</sup> June 2013 | 30 <sup>th</sup> September 2013 | Net PCO added/ decreased during the Q.E. September' 13 | Percentage Growth/ Decline for the Q.E. 30.09.2013 |
|-------|--|------------------|----------------------------|---------------------------------|--|--|
| 1     | Andaman & Nicobar                      | BSNL             | 230                        | 227                             | -3   | -1.30%   |
| 2     | Andhra Pradesh                         | BSNL             | 78,778                     | 71,954                          | -6,824   | -8.66%   |
|       |  | Bharti           | 345                        | 345                             | 0  | 0.00%  |
|       |  | TATA             | 12,251                     | 10,694                          | -1,557   | -12.71%  |
|       |  | Reliance         | 31,981                     | 28,002                          | -3,979   | -12.44%  |
| 3     | Assam                                  | BSNL             | 11,695                     | 11,694                          | -1   | -0.01%   |
|       |  | TATA             | -                          | -                               | 0  | -  |
| 4     | Bihar(including Jharkhand)             | BSNL             | 8,769                      | 8,700                           | -69  | -0.79%   |
|       |  | Reliance         | 1,433                      | 1,249                           | -184   | -12.84%  |
|       |  | TATA             | 697                        | 555                             | -142   | -20.37%  |
| 5     | Delhi                                  | Bharti           | 2,212                      | 2,321                           | 109  | 4.93%  |
|       |  | MTNL             | 59,331                     | 58,929                          | -402   | -0.68%   |
|       |  | Reliance         | 1,286                      | 1,072                           | -214   | -16.64%  |
|       |  | TATA             | 6,080                      | 5,402                           | -678   | -11.15%  |
| 6     | Gujarat                                | BSNL             | 36,826                     | 35,278                          | -1,548   | -4.20%   |
|       |  | Bharti           | 24                         | 24                              | 0  | 0.00%  |
|       |  | Reliance         | 4,363                      | 3,719                           | -644   | -14.76%  |
|       |  | TATA             | 8,842                      | 7,580                           | -1,262   | -14.27%  |
| 7     | Haryana                                | BSNL             | 9,061                      | 8,634                           | -427   | -4.71%   |
|       |  | Bharti           | 278                        | 281                             | 3  | 1.08%  |
|       |  | Reliance         | 201                        | 182                             | -19  | -9.45%   |
|       |  | TATA             | 300                        | 246                             | -54  | -18.00%  |
| 8     | Himachal Pradesh                       | BSNL             | 6,113                      | 5,851                           | -262   | -4.29%   |
|       |  | Reliance         | 905                        | 892                             | -13  | -1.44%   |
|       |  | TATA             | 143                        | 116                             | -27  | -18.88%  |
| 9     | Jammu & Kashmir                        | BSNL             | 8,675                      | 7,138                           | -1,537   | -17.72%  |
|       |  | TATA             | -                          | -                               | 0  | -  |
| 10    | Karnataka                              | BSNL             | 109,217                    | 103,822                         | -5,395   | -4.94%   |
|       |  | Bharti           | 8,883                      | 9,080                           | 197  | 2.22%  |
|       |  | Reliance         | 11,401                     | 10,252                          | -1,149   | -10.08%  |
|       |  | TATA             | 10,341                     | 8,642                           | -1,699   | -16.43%  |
| 11    | Kerala                                 | BSNL             | 44,622                     | 40,231                          | -4,391   | -9.84%   |
|       |  | Bharti           | 877                        | 883                             | 6  | 0.68%  |
|       |  | Reliance         | 2,507                      | 2,144                           | -363   | -14.48%  |
|       |  | TATA             | 614                        | 461                             | -153   | -24.92%  |
| 12    | Madhya Pradesh (Including Chattisgarh) | BSNL             | 32,362                     | 31,682                          | -680   | -2.10%   |
|       |  | Bharti           | 5,301                      | 5,405                           | 104  | 1.96%  |
|       |  | Reliance         | 3,117                      | 2,879                           | -238   | -7.64%   |
|       |  | TATA             | 3,507                      | 3,010                           | -497   | -14.17%  |
| 13    | Maharashtra (including Mumbai)         | BSNL & MTNL      | 195,527                    | 189,329                         | -6,198   | -3.17%   |
|       |  | Bharti           | 59                         | 123                             | 64   | 108.47%  |
|       |  | Reliance         | 21,233                     | 19,527                          | -1,706   | -8.03%   |
|       |  | TATA             | 54,399                     | 48,296                          | -6,103   | -11.22%  |
|       | Mumbai                                 | Bharti           | 52                         | 52                              | 0  | 0.00%  |
|       |  | MTNL             | 89,559                     | 88,269                          | -1,290   | -1.44%   |
|       |  | Reliance         | 10,321                     | 10,017                          | -304   | -2.95%   |
|       |  | TATA             | 11,945                     | 10,122                          | -1,823   | -15.26%  |
|       | Maharashtra excluding Mumbai           | BSNL             | 105,968                    | 101,060                         | -4,908   | -4.63%   |
|       |  | Bharti           | 7                          | 71                              | 64   | 914.29%  |
|       |  | Reliance         | 10,912                     | 9,510                           | -1,402   | -12.85%  |
|       |  | Tata             | 42,454                     | 38,174                          | -4,280   | -10.08%  |

**Annexure 1.4 (Contd.)**

| S.No.        | Name of the Circle/Service Area             | Service Provider | 30 <sup>th</sup> June 2013 | 30 <sup>th</sup> September 2013 | Net PCO added/ decreased during the Q.E. September' 13 | Percentage Growth/ Decline for the Q.E. 30.09.2013 |
|--------------|---|------------------|----------------------------|---------------------------------|--|--|
| 14           | North East                                  | BSNL             | 8,567                      | 8,532                           | -35  | -0.41%   |
|              |   | TATA             | -                          | -                               | 0  | -  |
| 15           | Orissa                                      | BSNL             | 9,941                      | 9,279                           | -662   | -6.66%   |
|              |   | Reliance         | 370                        | 321                             | -49  | -13.24%  |
|              |   | TATA             | 718                        | 572                             | -146   | -20.33%  |
| 16           | Punjab                                      | BSNL             | 12,400                     | 11,272                          | -1,128   | -9.10%   |
|              |   | Bharti           | 233                        | 246                             | 13   | 5.58%  |
|              |   | Quadrant (HFCL)  | 3,784                      | 3,555                           | -229   | -6.05%   |
|              |   | Reliance         | 1,360                      | 1,238                           | -122   | -8.97%   |
|              |   | TATA             | 2,156                      | 1,954                           | -202   | -9.37%   |
| 17           | Rajasthan                                   | BSNL             | 20,782                     | 19,741                          | -1,041   | -5.01%   |
|              |   | Bharti           | 255                        | 261                             | 6  | 2.35%  |
|              |   | Sistema Shyam    | 12,718                     | 12,493                          | -225   | -1.77%   |
|              |   | Reliance         | 2,313                      | 2,059                           | -254   | -10.98%  |
|              |   | TATA             | 1,276                      | 1,041                           | -235   | -18.42%  |
| 18           | Tamil Nadu (including Chennai)              | BSNL             | 116,248                    | 111,613                         | -4,635   | -3.99%   |
|              |   | Bharti           | 13,952                     | 14,246                          | 294  | 2.11%  |
|              |   | Reliance         | 16,592                     | 14,993                          | -1,599   | -9.64%   |
|              |   | TATA             | 10,528                     | 7,455                           | -3,073   | -29.19%  |
|              | Chennai                                     | BSNL             | 17,079                     | 16,263                          | -816   | -4.78%   |
|              |   | Reliance         | 4,349                      | 4,081                           | -268   | -6.16%   |
|              | Tamil nadu (excluding Chennai)              | BSNL             | 99,169                     | 95,350                          | -3,819   | -3.85%   |
|              |   | Bharti           | 13,952                     | 14,246                          | 294  | 2.11%  |
|              |   | Reliance         | 12,243                     | 10,912                          | -1,331   | -10.87%  |
|              |   | TATA             | 10,528                     | 7,455                           | -3,073   | -29.19%  |
| 19           | Uttar Pradesh (East)                        | BSNL             | 59,781                     | 54,054                          | -5,727   | -9.58%   |
|              |   | Bharti           | 312                        | 318                             | 6  | 1.92%  |
|              |   | Reliance         | 1,571                      | 1,377                           | -194   | -12.35%  |
|              |   | TATA             | 1,138                      | 989                             | -149   | -13.09%  |
| 20           | Uttar Pradesh (West) (including Uttranchal) | BSNL             | 20,192                     | 17,859                          | -2,333   | -11.55%  |
|              |   | Bharti           | 258                        | 268                             | 10   | 3.88%  |
|              |   | Reliance         | 1,166                      | 1,000                           | -166   | -14.24%  |
|              |   | TATA             | 1,651                      | 1,422                           | -229   | -13.87%  |
| 21           | West Bengal (including Kolkata)             | BSNL             | 36,833                     | 36,305                          | -528   | -1.43%   |
|              |   | Bharti           | 91                         | 93                              | 2  | 2.20%  |
|              |   | Reliance         | 3,483                      | 3,092                           | -391   | -11.23%  |
|              |   | TATA             | 5,399                      | 4,589                           | -810   | -15.00%  |
|              | Kolkata                                     | BSNL             | 9,566                      | 9,135                           | -431   | -4.51%   |
|              |   | Bharti           | 91                         | 93                              | 2  | 2.20%  |
|              |   | Reliance         | 1,640                      | 1,452                           | -188   | -11.46%  |
|              |   | TATA             | 3,596                      | 3,201                           | -395   | -10.98%  |
|              | West Bengal (excluding Kolkata)             | BSNL             | 27,267                     | 27,170                          | -97  | -0.36%   |
|              |   | Reliance         | 1,843                      | 1,640                           | -203   | -11.01%  |
|              |   | TATA             | 1,803                      | 1,388                           | -415   | -23.02%  |
| <b>TOTAL</b> |   |                  | <b>1,160,854</b>           | <b>1,089,088</b>                | <b>-71,766</b>   | <b>-6.18%</b>                                      |

### Annexure 1.5: Service Area & Operator wise details of Village Public Telephones

| S. No.                       | Name of the Circle/Service Area        | Service Provider | 30 <sup>th</sup> June 2013     | 30 <sup>th</sup> September 2013 | Net VPT added/ decreased during the Q.E. September'13 | Percentage Growth/ Decline for the Q.E. 30.09.2013 |
|------------------------------|--|------------------|--------------------------------|---------------------------------|---|--|
| 1                            | Andaman & Nicobar                      | BSNL             | 352                            | 352                             | 0   | 0.00%  |
| 2                            | Andhra Pradesh                         | BSNL             | 25105                          | 25107                           | 2   | 0.01%  |
|                              |  | Bharti           | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 1358                           | 1358                            | 0   | 0.00%  |
|                              |  | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | Vodafone         | 0                              | 0                               | 0   | -  |
| 3                            | Assam                                  | BSNL             | 24688                          | 24688                           | 0   | 0.00%  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | Vodafone         | 0                              | 0                               | 0   | -  |
| 4                            | Bihar(including Jharkhand)             | BSNL             | 67748                          | 67748                           | 0   | 0.00%  |
|                              |  | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | Vodafone         | 0                              | 0                               | 0   | -  |
| 5                            | Delhi                                  | Bharti           | 0                              | 0                               | 0   | -  |
|                              |  | MTNL             | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | Vodafone         | 0                              | 0                               | 0   | -  |
| 6                            | Gujarat                                | BSNL             | 18051                          | 18051                           | 0   | 0.00%  |
|                              |  | Bharti           | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | Vodafone         | 0                              | 0                               | 0   | -  |
| 7                            | Haryana                                | BSNL             | 6678                           | 6678                            | 0   | 0.00%  |
|                              |  | Bharti           | 0                              | 0                               | 0   | -  |
|                              |  | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | BSNL             | 17408                          | 17408                           | 0   | 0.00%  |
| 8                            | Himachal Pradesh                       | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | BSNL             | 6384                           | 6384                            | 0   | 0.00%  |
| 9                            | Jammu & Kashmir                        | BSNL             | 27449                          | 27449                           | 0   | 0.00%  |
| 10                           | Karnataka                              | Bharti           | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | Vodafone         | 0                              | 0                               | 0   | -  |
|                              |  | BSNL             | 1372                           | 1372                            | 0   | 0.00%  |
| 11                           | Kerala                                 | Bharti           | 0                              | 0                               | 0   | -  |
|                              |  | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | BSNL             | 70330                          | 70309                           | -21   | -0.03%   |
| 12                           | Madhya Pradesh (Including Chattisgarh) | Bharti           | 0                              | 0                               | 0   | -  |
|                              |  | Reliance         | 0                              | 0                               | 0   | -  |
|                              |  | Vodafone         | 0                              | 0                               | 0   | -  |
|                              |  | TATA             | 0                              | 0                               | 0   | -  |
|                              |  | 13               | Maharashtra (including Mumbai) | BSNL& MTNL                      | 40654   | 40654  |
| Bharti                       | 0                                      |                  |                                | 0                               | 0   | -  |
| TATA                         | 2595                                   |                  |                                | 2595                            | 0   | 0.00%  |
| Reliance                     | 0                                      |                  |                                | 0                               | 0   | -  |
| Vodafone                     | 0                                      |                  |                                | 0                               | 0   | -  |
| Mumbai                       | MTNL                                   |                  | 0                              | 0                               | 0   | -  |
|                              | Bharti                                 |                  | 0                              | 0                               | 0   | -  |
|                              | Reliance                               |                  | 0                              | 0                               | 0   | -  |
|                              | TATA                                   |                  | 0                              | 0                               | 0   | -  |
|                              | Vodafone                               |                  | 0                              | 0                               | 0   | -  |
| Maharashtra Excluding Mumbai | BSNL                                   |                  | 40654                          | 40654                           | 0   | 0.00%  |
|                              | Bharti                                 |                  | 0                              | 0                               | 0   | -  |
|                              | Reliance                               |                  | 0                              | 0                               | 0   | -  |
|                              | TATA                                   | 2595             | 2595                           | 0                               | 0.00%   |  |
|                              | Vodafone                               | 0                | 0                              | 0                               | -   |  |

**Annexure 1.5 (contd.)**

| S. No.       | Name of the Circle/Service Area | Service Provider        | 30 <sup>th</sup> June 2013 | 30 <sup>th</sup> September 2013 | Net VPT added/ decreased during the Q.E. September'13 | Percentage Growth/ Decline for the Q.E. 30.09.2013 |
|--------------|---------------------------------|-------------------------|----------------------------|---------------------------------|---|--|
| 14           | North East                      | BSNL                    | 13017                      | 13017                           | 0   | 0.00%  |
| 15           | Orissa                          | BSNL                    | 45215                      | 45215                           | 0   | 0.00%  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
|              |                                 | Vodafone                | 0                          | 0                               | 0   | -  |
| 16           | Punjab                          | BSNL                    | 12065                      | 12065                           | 0   | 0.00%  |
|              |                                 | Quadrant Televentures L | 27                         | 27                              | 0   | 0.00%  |
|              |                                 | Bharti                  | 0                          | 0                               | 0   | -  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
|              |                                 | Vodafone                | 0                          | 0                               | 0   | -  |
| 17           | Rajasthan                       | BSNL                    | 39568                      | 39568                           | 0   | 0.00%  |
|              |                                 | Bharti                  | 0                          | 0                               | 0   | -  |
|              |                                 | Sistema Shyam           | 3010                       | 3010                            | 0   | 0.00%  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
| 18           | Tamil Nadu (including Chennai)  | BSNL                    | 15492                      | 15492                           | 0   | 0.00%  |
|              |                                 | Bharti                  | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
|              |                                 | Vodafone                | 0                          | 0                               | 0   | -  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              | Chennai                         | BSNL                    | 1655                       | 1655                            | 0   | 0.00%  |
|              |                                 | Vodafone                | 0                          | 0                               | 0   | -  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              | Tamil Nadu (excluding Chennai)  | BSNL                    | 13837                      | 13837                           | 0   | 0.00%  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
| Reliance     |                                 | 0                       | 0                          | 0                               | -   |  |
| Bharti       |                                 | 0                       | 0                          | 0                               | -   |  |
| 19           | U P (East)                      | BSNL                    | 74145                      | 74145                           | 0   | 0.00%  |
|              |                                 | Bharti                  | 0                          | 0                               | 0   | -  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
| 20           | UP (West) (incl. Uttaranchal)   | BSNL                    | 39038                      | 39071                           | 33  | 0.08%  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              |                                 | Bharti                  | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
| 21           | West Bengal (including Kolkata) | BSNL                    | 37523                      | 37550                           | 27  | 0.07%  |
|              |                                 | Bharti                  | 0                          | 0                               | 0   | -  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
|              | Kolkata                         | BSNL                    | 613                        | 613                             | 0   | 0.00%  |
|              |                                 | Bharti                  | 0                          | 0                               | 0   | -  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
|              | West Bengal (excluding Kolkata) | BSNL                    | 36910                      | 36937                           | 27  | 0.07%  |
|              |                                 | Reliance                | 0                          | 0                               | 0   | -  |
|              |                                 | TATA                    | 0                          | 0                               | 0   | -  |
| <b>Total</b> |                                 |                         | <b>589,272</b>             | <b>589,313</b>                  | <b>41</b>   | <b>0.01%</b>                                       |

**Annexure 1.6: List of Internet Service Providers Providing Internet Telephony Service**

| <b>S.No</b> | <b>Name of the Service Providers</b>  |
|-------------|---|
| 1           | Alliance Broadband Services Pvt. Ltd.                                       |
| 2           | Apna Telelink Ltd.  |
| 3           | Asianet Satellite Communications Ltd.                                       |
| 4           | Bharat Sanchar Nigam Ltd.   |
| 5           | Blazenet Ltd.   |
| 6           | City Online Services Ltd  |
| 7           | Citycom Networks Pvt. Ltd.  |
| 8           | Cordia LT Communications Pvt Ltd  |
| 9           | Data Infosys Ltd.   |
| 10          | delDSL Internet Pvt Ltd   |
| 11          | Digital2Virtual ISP Pvt. Ltd.   |
| 12          | Dishnet Wireless Ltd  |
| 13          | Indusind Media & Communications Limited (In2cable (I) Ltd.)                 |
| 14          | Karuturi Telecom Private Limited (Estel Communications Pvt. Ltd).           |
| 15          | Manipal Ecommerce Ltd.  |
| 16          | My Own Infotech Pvt. Ltd  |
| 17          | Novanet Ltd.  |
| 18          | Oistel Telecom Pvt. Ltd.  |
| 19          | Opto Network Pvt. Ltd.  |
| 20          | Ortel Communication Ltd.  |
| 21          | Pipetel Communications Pvt. Ltd.  |
| 22          | Pulse Telesystems Pvt. Ltd.   |
| 23          | QBC Infotech Pvt. Ltd.  |
| 24          | Sify Technologies Ltd.  |
| 25          | Swiftmail Communications Ltd.   |
| 26          | Tata Communications Limited   |
| 27          | Tata Teleservices Limited   |
| 28          | Tata Teleservices(Maharashtra) Ltd.   |
| 29          | Trikon Electronics Pvt. Ltd.  |
| 30          | Tulip Telecom Limited (Tulip IT Services Ltd.)                              |
| 31          | VIVA Communications Pvt Ltd (Mylai Karpagambal Information Systems (P) Ltd) |
| 32          | World Phone Internet Services Pvt Ltd                                       |
| 33          | You Broadband & Cable India Private Limited                                 |

**Annexure 1.7 : Internet Service Provider(ISP) wise Internet Subscriber base  
(except subscribers accessing internet by mobile devices)**

| S. No | Name of Service Provider                                    | Jun-13  | Sep-13                                   |   |   |
|-------|---|---|--|---|---|
|       |   | Total Internet Subscribers (Including Broadband & Narrowband) | Narrowband Subscribers (<256 Kbps speed) | Broadband Subscribers (>256 Kbps speed) | Total Internet Subscribers (Including Broadband & Narrowband) |
| 1     | Bharat Sanchar Nigam Ltd.                                   | 13158831  | 3195332                                  | 9978782                                 | 13174114  |
| 2     | Reliance Communications Infrastructure Limited              | 2596164   | 2574636                                  | 177064                                  | 2751700   |
| 3     | Mahanagar Telephone Nigam Ltd.                              | 1977627   | 879502                                   | 1098281                                 | 1977783   |
| 4     | Bharti Airtel Ltd.  | 1413929   | 875                                      | 1442300                                 | 1443175   |
| 5     | Hathway Cable&Datacom Pvt Ltd                               | 368435  | 3  | 375817                                  | 375820  |
| 6     | You Broadband & Cable India Private Limited                 | 361252  | 44902                                    | 328029                                  | 372931  |
| 7     | Beam Telecom Pvt. Ltd.                                      | 294211  | 0  | 326417                                  | 326417  |
| 8     | Tikona Digital Networks Pvt Ltd                             | 269196  | 0  | 259008                                  | 259008  |
| 9     | Quadrant Televentures Ltd.(HFCL Infotel Ltd.)               | 119367  | 3632                                     | 122313                                  | 125945  |
| 10    | Asianet Satellite Communications Ltd.                       | 114137  | 0  | 119766                                  | 119766  |
| 11    | Tata Communications Limited                                 | 115545  | 33082                                    | 78098                                   | 111180  |
| 12    | Syscon Infoway Pvt Ltd *                                    | 93172   | 15994                                    | 77178                                   | 93172   |
| 13    | Tata Teleservices(Maharashtra) Ltd.                         | 85996   | 0  | 88000                                   | 88000   |
| 14    | D-Vois Broadband Private Ltd                                | 57768   | 0  | 71811                                   | 71811   |
| 15    | Atria Convergence Technologies Pvt. Ltd.                    | 47781   | 0  | 58019                                   | 58019   |
| 16    | Gujarat Telelink Pvt Ltd                                    | 51202   | 21092                                    | 36083                                   | 57175   |
| 17    | Five Network Solution(India) Ltd.                           | 55831   | 0  | 56856                                   | 56856   |
| 18    | Ortel Communication Ltd.                                    | 51296   | 0  | 52663                                   | 52663   |
| 19    | Broadband Pacenet (I) Pvt. Ltd.                             | 41726   | 0  | 43191                                   | 43191   |
| 20    | Alliance Broadband Services Pvt. Ltd.                       | 38859   | 0  | 40425                                   | 40425   |
| 21    | Citycom Networks Pvt. Ltd.                                  | 33756   | 226                                      | 39345                                   | 39571   |
| 22    | Zylog Systems(India) Ltd.) *                                | 37880   | 7997                                     | 29883                                   | 37880   |
| 23    | Ankhnet Informations Pvt.Ltd *                              | 31819   | 0  | 31819                                   | 31819   |
| 24    | Meghbela Cable & Broadband Servies (P) Ltd                  | 27650   | 10460                                    | 21167                                   | 31627   |
| 25    | Tata Teleservices Limited                                   | 25789   | 0  | 28793                                   | 28793   |
| 26    | Chandra Net Pvt. Limited                                    | 28570   | 105                                      | 28073                                   | 28178   |
| 27    | Indusind Media & Communications Limited (In2cable (I) Ltd.) | 28284   | 396                                      | 27711                                   | 28107   |
| 28    | Honesty Net Solutions(I) Pvt Ltd *                          | 25539   | 7875                                     | 19010                                   | 26885   |

**Annexure 1.7 (contd.)**

| S. No | Name of Service Provider  | Jun-13  | Sep-13                                   |   |   |
|-------|---|---|--|---|---|
|       |   | Total Internet Subscribers (Including Broadband & Narrowband) | Narrowband Subscribers (<256 Kbps speed) | Broadband Subscribers (>256 Kbps speed) | Total Internet Subscribers (Including Broadband & Narrowband) |
| 29    | Noida Software Technology Park Ltd  | 16955   | 0  | 22324                                   | 22324   |
| 30    | Shyam Internet Services Ltd   | 20353   | 15118                                    | 4142                                    | 19260   |
| 31    | Home Systems Pvt. Ltd.  | 16825   | 0  | 18505                                   | 18505   |
| 32    | Wish Net Pvt. Ltd.  | 31913   | 0  | 16506                                   | 16506   |
| 33    | Rajesh Multi Channel Pvt. Ltd.  | 15914   | 0  | 16277                                   | 16277   |
| 34    | Digital Network associates PvtLtd   | 12644   | 0  | 15962                                   | 15962   |
| 35    | Southern Online Bio-Technologies Ltd.                                       | 13273   | 3265                                     | 10993                                   | 14258   |
| 36    | Sify Technologies Ltd.  | 32258   | 8565                                     | 5644                                    | 14209   |
| 37    | R.K. Infratel Limited *   | 11466   | 335                                      | 12428                                   | 12763   |
| 38    | Vasai Cable Pvt. Ltd.   | 12162   | 0  | 12667                                   | 12667   |
| 39    | SmartLink Broadband Services *  | 0   | 0  | 10036                                   | 10036   |
| 40    | IOL Netcom Limited *  | 9973  | 0  | 9973                                    | 9973  |
| 41    | Nivyah Infrastructure & Telecom Services Ltd. (Softeng Computers Pvt. Ltd.) | 9489  | 0  | 8027                                    | 8027  |
| 42    | Blazenet Ltd.   | 6634  | 3884                                     | 2941                                    | 6825  |
| 43    | RailTel Corporation of India Ltd.   | 245   | 0  | 6780                                    | 6780  |
| 44    | City Online Services Ltd *  | 6439  | 0  | 6439                                    | 6439  |
| 45    | Swiftmail Communications Ltd.   | 6287  | 871                                      | 5561                                    | 6432  |
| 46    | Apna Telelink Ltd.  | 5248  | 0  | 6240                                    | 6240  |
| 47    | DEN Networks Ltd  | 5020  | 327                                      | 5052                                    | 5379  |
| 48    | Nettlinx Ltd.   | 4906  | 0  | 5263                                    | 5263  |
| 49    | Spacenet Internet Services PvtLtd   | 4167  | 0  | 4072                                    | 4072  |
| 50    | Quest Consultancy Pvt. Ltd.   | 3627  | 0  | 3900                                    | 3900  |
| 51    | Nextra Teleservices Pvt. Ltd.   | 2239  | 0  | 3823                                    | 3823  |
| 52    | Narmada Cyberzone Pvt Ltd   | 3554  | 1850                                     | 1887                                    | 3737  |
| 53    | Hathway Bhawani Cabletel & Datacom Pvt. Ltd.                                | 3526  | 45                                       | 3470                                    | 3515  |
| 54    | HCL Comnet Systems& Services Ltd  | 3421  | 9  | 3411                                    | 3420  |
| 55    | Descon Ltd *  | 3329  | 0  | 3329                                    | 3329  |
| 56    | Dishnet Wireless Ltd  | 3109  | 3  | 3234                                    | 3237  |
| 57    | F/X Wireless Technology Services Pvt. Ltd. *                                | 3098  | 8  | 3101                                    | 3109  |
| 58    | CJ Online Pvt. Ltd.   | 2496  | 131                                      | 2843                                    | 2974  |
| 59    | Geocity Network Solutions Pvt. Ltd.   | 3069  | 0  | 2956                                    | 2956  |
| 60    | Rajesh Patel Net Services Pvt. Ltd.   | 2611  | 0  | 2935                                    | 2935  |
| 61    | Bhupati Hotels Pvt. Ltd *   | 2807  | 0  | 2807                                    | 2807  |
| 62    | Kaizen Infonet Pvt Ltd  | 2545  | 197                                      | 2551                                    | 2748  |



**Annexure 1.7 (contd.)**

| S. No | Name of Service Provider                               | Jun-13  | Sep-13                                   |  |   |
|-------|--|---|--|--|---|
|       |  | Total Internet Subscribers (Including Broadband & Narrowband) | Narrowband Subscribers (<256 Kbps speed) | Broadband Subscribers (> 256 Kbps speed) | Total Internet Subscribers (Including Broadband & Narrowband) |
| 64    | Symbois Creations Pvt. Ltd.*                           | 2648  | 0  | 2503                                     | 2503  |
| 65    | Intermedia Cable Communication Pvt Ltd                 | 2120  | 300                                      | 2100                                     | 2400  |
| 66    | Siliguri Internet & Cable TV Pvt Ltd.                  | 2233  | 0  | 2246                                     | 2246  |
| 67    | CJM Consultancy Services Pvt. Ltd.                     | 1995  | 0  | 2229                                     | 2229  |
| 68    | Idea Cellular Limited                                  | 849   | 0  | 2227                                     | 2227  |
| 69    | Shri Omkar Infocom Pvt. Ltd.                           | 2111  | 0  | 2195                                     | 2195  |
| 70    | IKF Technologies Ltd *                                 | 2143  | 1181                                     | 962                                      | 2143  |
| 71    | Kappa Internet Services Pvt Ltd.                       | 3090  | 0  | 2063                                     | 2063  |
| 72    | Yashash Cable Network Pvt Ltd *                        | 1996  | 0  | 2016                                     | 2016  |
| 73    | North East Dataa Network Pvt Ltd.                      | 1845  | 0  | 2010                                     | 2010  |
| 74    | Value Healthcare Ltd. *                                | 1941  | 0  | 1941                                     | 1941  |
| 75    | Sanchar Telenetwork Pvt Ltd *                          | 1705  | 0  | 1705                                     | 1705  |
| 76    | Tikona Infinet Ltd.(HCL Infinet Ltd.)                  | 1695  | 789                                      | 909                                      | 1698  |
| 77    | Hughes Communications India Ltd.                       | 1433  | 0  | 1683                                     | 1683  |
| 78    | Wan and Lan Internet Pvt. Ltd.                         | 1602  | 0  | 1582                                     | 1582  |
| 79    | Capture Network Systems Pvt. Ltd.                      | 1546  | 0  | 1575                                     | 1575  |
| 80    | Digital2Virtual ISP Pvt. Ltd. *                        | 1518  | 255                                      | 1263                                     | 1518  |
| 81    | Vodafone Spacetel Ltd *                                | 1131  | 0  | 1453                                     | 1453  |
| 82    | Touch Net India Pvt. Ltd.                              | 1291  | 14                                       | 1284                                     | 1298  |
| 83    | Star Broadband Services (I) Pvt                        | 1274  | 0  | 1295                                     | 1295  |
| 84    | Speed Online.net Pvt. Ltd.                             | 1140  | 57                                       | 1155                                     | 1212  |
| 85    | Cordia LT Communications Pvt Ltd*                      | 983   | 0  | 983                                      | 983   |
| 86    | Readylink Internet Services Pvt Ltd                    | 923   | 535                                      | 426                                      | 961   |
| 87    | Data Infosys Ltd.                                      | 1042  | 203                                      | 593                                      | 796   |
| 88    | United Telecoms Ltd.                                   | 593   | 0  | 767                                      | 767   |
| 89    | Pipetel Communications Pvt. Ltd.*                      | 636   | 4  | 632                                      | 636   |
| 90    | deIDSL Internet Pvt Ltd                                | 533   | 5  | 527                                      | 532   |
| 91    | Software Technology Park of India(STPI) *              | 448   | 0  | 448                                      | 448   |
| 92    | Rajdhani Telecom Pvt. Ltd. *                           | 442   | 0  | 428                                      | 428   |
| 93    | ERNET India  | 419   | 151                                      | 264                                      | 415   |
| 94    | Sikka Broadband(P) Ltd.(Gomti Cable Network Pvt. Ltd.) | 350   | 39                                       | 335                                      | 374   |
| 95    | S.S.Netcom Pvt Ltd *                                   | 367   | 41                                       | 330                                      | 371   |
| 96    | Pacific Internet India Pvt. Ltd. *                     | 327   | 327                                      | 0  | 327   |
| 97    | Nihar Internet Services (P) Ltd *                      | 296   | 82                                       | 214                                      | 296   |

**Annexure 1.7 (contd.)**

| S. No | Name of Service Provider   | Jun-13  | Sep-13                                   |  |   |
|-------|--|---|--|--|---|
|       |  | Total Internet Subscribers (Including Broadband & Narrowband) | Narrowband Subscribers (<256 Kbps speed) | Broadband Subscribers (> 256 Kbps speed) | Total Internet Subscribers (Including Broadband & Narrowband) |
| 99    | World Phone Internet Services Pvt Ltd  | 242   | 0  | 272                                      | 272   |
| 100   | Rida Communication Pvt. Ltd. *   | 248   | 248                                      | 0  | 248   |
| 101   | Microsense Pvt. Ltd.   | 189   | 0  | 208                                      | 208   |
| 102   | Bhiwani Communications Pvt. Ltd.   | 186   | 187                                      | 17                                       | 204   |
| 103   | Vainavi Industries Ltd. *  | 200   | 0  | 200                                      | 200   |
| 104   | Rainbow Communications (India) Pvt Ltd *   | 197   | 0  | 197                                      | 197   |
| 105   | QBC Infotech Pvt. Ltd.   | 163   | 0  | 187                                      | 187   |
| 106   | Infonet Comm Services Enterprises Private Limited (earlier Mynet Services India Pvt. Ltd.) * | 179   | 0  | 184                                      | 184   |
| 107   | Tatanet Services Ltd   | 229   | 0  | 161                                      | 161   |
| 108   | Sanyog Networks Pvt Ltd *  | 154   | 154                                      | 2  | 156   |
| 109   | Amber Online Services Ltd.   | 152   | 0  | 152                                      | 152   |
| 110   | Conjoinix Technologies Pvt Ltd *   | 139   | 0  | 149                                      | 149   |
| 111   | Multinet (Udaipur) Pvt. Ltd.   | 419   | 0  | 149                                      | 149   |
| 112   | Sab Infotech (Sab Industries)  | 197   | 18                                       | 121                                      | 139   |
| 113   | Aeroway Networks Pvt Ltd.  | 65  | 0  | 125                                      | 125   |
| 114   | Trans Virtual Pvt. Ltd. *  | 116   | 0  | 116                                      | 116   |
| 115   | Karuturi Telecom Private Limited (Estel Communications Pvt. Ltd).                            | 137   | 0  | 86                                       | 86  |
| 116   | Tarang Communications Pvt. Ltd. *  | 82  | 0  | 82                                       | 82  |
| 117   | Shri Vinayagaa Internet Pvt Ltd  | 65  | 51                                       | 23                                       | 74  |
| 118   | Khetan Cable Network (P) Ltd   | 58  | 0  | 73                                       | 73  |
| 119   | Micky Online Pvt Ltd *   | 70  | 70                                       | 0  | 70  |
| 120   | Eronet Broadband Service India Pvt. Ltd. *   | 69  | 0  | 69                                       | 69  |
| 121   | Pulse Telesystems Pvt. Ltd.  | 52  | 0  | 68                                       | 68  |
| 122   | iCAN Solutions Private Limited *   | 63  | 0  | 63                                       | 63  |
| 123   | NetMagic Solutions(P) Ltd.   | 64  | 0  | 63                                       | 63  |
| 124   | Limras Eronet Broadband Service Pvt Ltd *  | 58  | 0  | 58                                       | 58  |
| 125   | Verizon Communications India Pvt. Ltd. (Worldcom Communications ).                           | 104   | 0  | 58                                       | 58  |
| 126   | RS Broadband Service India PvtLtd*   | 56  | 0  | 56                                       | 56  |
| 127   | Harisree CableNet Pvt. Ltd.  | 55  | 0  | 55                                       | 55  |
| 128   | Oasis Cable Pvt Ltd. *   | 54  | 15                                       | 39                                       | 54  |
| 129   | Nelco Ltd.   | 43  | 0  | 53                                       | 53  |
| 130   | Wire and Wireless India Ltd. *   | 44  | 0  | 44                                       | 44  |

**Annexure 1.7 (contd.)**

| S. No | Name of Service Provider   | Jun-13  | Sep-13                                   |  |   |
|-------|--|---|--|--|---|
|       |  | Total Internet Subscribers (Including Broadband & Narrowband) | Narrowband Subscribers (<256 Kbps speed) | Broadband Subscribers (> 256 Kbps speed) | Total Internet Subscribers (Including Broadband & Narrowband) |
| 132   | Konark Infocomm Pvt Ltd *  | 42  | 0  | 42                                       | 42  |
| 133   | Adya Tech One Services Pvt Ltd   | 33  | 0  | 38                                       | 38  |
| 134   | Kelnet Communication Services Pvt. Ltd   | 35  | 0  | 38                                       | 38  |
| 135   | AT&T Global Network Services India Private Limited   | 36  | 0  | 37                                       | 37  |
| 136   | Dream Plus Multi Services Pvt. Ltd *   | 9   | 0  | 37                                       | 37  |
| 137   | Dreamzcraft Info Solutions Pvt Ltd *   | 36  | 10                                       | 27                                       | 37  |
| 138   | Guj Info Petro Ltd. (GIPL) *   | 58  | 0  | 37                                       | 37  |
| 139   | Power Grid Corporation of India Ltd.   | 27  | 0  | 33                                       | 33  |
| 140   | Novanet Ltd.   | 36  | 0  | 29                                       | 29  |
| 141   | West Bengal Electronics Industry Development Corp. Ltd.  | 27  | 0  | 28                                       | 28  |
| 142   | Reach Network India Pvt. Ltd.  | 28  | 2  | 25                                       | 27  |
| 143   | STN Communication & Advertising Pvt Ltd.   | 41  | 0  | 25                                       | 25  |
| 144   | ISP Services (India) Pvt. Ltd. *   | 24  | 0  | 24                                       | 24  |
| 145   | Tulip Telecom Limited (Tulip IT Services Ltd.) *   | 19  | 3  | 21                                       | 24  |
| 146   | Chemical And Metallurgical Design Co. Ltd  | 18  | 0  | 19                                       | 19  |
| 147   | Financial Technologies Communications Ltd.   | 16  | 0  | 16                                       | 16  |
| 148   | Vcare Call Centres India Pvt. Ltd.   | 14  | 0  | 14                                       | 14  |
| 149   | Nextgen Communications Ltd(RPG Infotech Ltd).  | 10  | 0  | 10                                       | 10  |
| 150   | VIVA Communications Pvt Ltd (Mylai Karpagambal Information Systems (P) Ltd)                        | 4   | 0  | 9  | 9   |
| 151   | ABT Ltd.   | 5   | 0  | 5  | 5   |
| 152   | Vishwashakti Technologies Pvt Ltd *  | 5   | 0  | 5  | 5   |
| 153   | Opto Network Pvt. Ltd.   | 4   | 0  | 4  | 4   |
| 154   | Godrej Infotech Ltd.   | 4   | 1  | 2  | 3   |
| 155   | Centre for Development of Advanced Computing, C-DAC  | 2   | 0  | 2  | 2   |
| 156   | Compucom (I) Pvt. Ltd.   | 2   | 2  | 0  | 2   |
| 157   | Devas Multimedia Pvt.Ltd.  | 2   | 0  | 2  | 2   |
| 158   | Orange Business Services India Network Pvt. Ltd.( Earlier Equant Network Services India Pvt. Ltd.) | 2   | 0  | 2  | 2   |

**Annexure 1.7 (contd.)**

| S. No | Name of Service Provider                                | Jun-13  | Sep-13                                   |  |   |
|-------|---|---|--|--|---|
|       |   | Total Internet Subscribers (Including Broadband & Narrowband) | Narrowband Subscribers (<256 Kbps speed) | Broadband Subscribers (> 256 Kbps speed) | Total Internet Subscribers (Including Broadband & Narrowband) |
| 159   | L&T Finance Ltd.(L&T Netcom Ltd.)                       | 1   | 0  | 1  | 1   |
| 160   | Maple PC & Peripherals Pvt Ltd                          | 2   | 0  | 1  | 1   |
| 162   | Virgo Global Media Ltd (Online Media Solutions Ltd).*   | 1   | 0  | 1  | 1   |
| 163   | Advanced Financial Services Pvt Ltd *                   | 0   | 0  | 0  | 0   |
| 164   | Astro Network India Pvt. Ltd.                           | 3   | 0  | 0  | 0   |
| 165   | Broadlane Networks Pvt. Ltd. *                          | 0   | 0  | 0  | 0   |
| 166   | Gujarat Narmada Valley Fertilizer Co. Ltd. (GNFC) *     | 0   | 0  | 0  | 0   |
| 167   | Karuturi Global Ltd. *                                  | 0   | 0  | 0  | 0   |
| 168   | Kerala State Electronics Development Corp Ltd.(Keltron) | 0   | 0  | 0  | 0   |
| 169   | Madura Cable Net Pvt. Ltd. *                            | 0   | 0  | 0  | 0   |
| 170   | Manipal Ecommerce Ltd. *                                | 0   | 0  | 0  | 0   |
| 171   | My Own Infotech Pvt. Ltd *                              | 0   | 0  | 0  | 0   |
| 172   | Oistel Telecom Pvt. Ltd.                                | 0   | 0  | 0  | 0   |
| 173   | Pan India Network Infravest Pvt. Ltd.                   | 0   | 0  | 0  | 0   |
| 174   | Quick Online Pvt. Ltd. *                                | 0   | 0  | 0  | 0   |
| 175   | Reliance Wimax Limited (Gateway Systems (I) Ltd)        | 0   | 0  | 0  | 0   |
| 176   | Sisam Technologies Pvt. Ltd. *                          | 0   | 0  | 0  | 0   |
| 177   | Spectrum Softech Solutions Pvt. Ltd.                    | 1   | 0  | 0  | 0   |
| 178   | Swastik Netvision Telecom P.Ltd *                       | 0   | 0  | 0  | 0   |
| 179   | Tata Internet Services Ltd.                             | 0   | 0  | 0  | 0   |
| 180   | Trak Online Net India Pvt.Ltd *                         | 0   | 0  | 0  | 0   |
| 181   | Trikon Electronics Pvt. Ltd.                            | 0   | 0  | 0  | 0   |
| 182   | Urban Communications Infrastructure Pvt. Ltd.           | 0   | 0  | 0  | 0   |
|       | <b>Total</b>  | <b>21885357</b>   | <b>6837883</b>                           | <b>15348495</b>                          | <b>22186378</b>   |
|       | <b>Total (in Million)</b>                               | <b>21.89</b>  | <b>6.84</b>                              | <b>15.35</b>                             | <b>22.19</b>  |

Note: \* Service Providers, who have not submitted their report for the quarter ending September, 2013, data from the previous report has been retained.

**Annexure 1.8: Service Area wise PMRTS subscriber Base**

| SNo. | Operative Area                                 | Service Providers                                 | Subscriber Base |              |
|------|--|---|-----------------|--------------|
|      |  |   | 30.6.2013       | 30.9.2013    |
| 1    | Delhi(Faridabad/<br>Gurgaon)                   | Arya Omnitalk Radio<br>Trunking Servives Pvt.Ltd. | 4198            | 2652         |
|      |  | Procall(Delhi)                                    | 2104            | 3910         |
|      |  | Procall (Faridabad)                               | 452             | 452          |
|      |  | Procall (Gurgaon)                                 | 820             | 871          |
|      |  | <b>Total</b>                                      | <b>7574</b>     | <b>7885</b>  |
| 2    | Mumbai(Navi<br>Mumbai/Vashi)                   | Arya Omnitalk Radio<br>Trunking Services Pvt.Ltd. | 5734            | 5234         |
|      |  | Smartalk (Mumbai)                                 | 217             | 446          |
|      |  | Smartalk (Vashi)                                  | 65              | 65           |
|      |  | Bhilwara Telenet(Mumbai)                          | 708             | 1101         |
|      |  | <b>Total</b>                                      | <b>6724</b>     | <b>6846</b>  |
| 3    | Kolkata  | Arya Omnitalk Radio<br>Trunking Services Pvt.Ltd. | 1811            | 1845         |
|      |  | <b>Total</b>                                      | <b>1811</b>     | <b>1845</b>  |
| 4    | TN(Chennai)                                    | Arya Omnitalk Radio<br>Trunking Services Pvt.Ltd. | 4796            | 4828         |
|      |  | Quick Calls                                       | 127             | 259          |
|      |  | <b>Total</b>                                      | <b>4923</b>     | <b>5087</b>  |
| 5    | Karnataka<br>(Bangalore)                       | Arya Omnitalk Radio<br>Trunking Services Pvt.Ltd. | 5400            | 5122         |
|      |  | Quick Calls                                       | 148             | 507          |
|      |  | India Satcom                                      | 0               | 0            |
|      |  | <b>Total</b>                                      | <b>5548</b>     | <b>5629</b>  |
| 6    | Andhra Pradesh<br>(Vishakhapatnam)             | Arya Omnitalk Radio<br>Trunking Services Pvt.Ltd. | 2832            | 2838         |
|      |  | Quick Calls                                       | 1664            | 1784         |
|      |  | <b>Total</b>                                      | <b>4496</b>     | <b>4622</b>  |
| 7    | Madhya Pradesh<br>( Indore)                    | Arya Omnitalk Radio<br>Trunking Services Pvt.Ltd. | 776             | 732          |
|      |  | <b>Total</b>                                      | <b>776</b>      | <b>732</b>   |
| 8    | Rajasthan (Jaipur)                             | Procall   | 504             | 507          |
|      |  | <b>Total</b>                                      | <b>504</b>      | <b>507</b>   |
| 9    | Gujrat(Ahmedabad<br>/Surat/Baroda/<br>Bharuch) | Arya Omnitalk Radio<br>Trunking Services Pvt.Ltd. | 3955            | 4038         |
|      |  | <b>Total</b>                                      | <b>3955</b>     | <b>4038</b>  |
| 10   | Maharashtra<br>(Pune)                          | Smartalk  | 187             | 503          |
|      |  | Arya Omnitalk Radio<br>Trunking Services Pvt.Ltd. | 1504            | 1205         |
|      |  | <b>Total</b>                                      | <b>1691</b>     | <b>1708</b>  |
|      |  | <b>Grand Total</b>                                | <b>38002</b>    | <b>38899</b> |

## Annexure 2.1: GSM Service - Service Area wise Statistics for QE Sep-13

### Category: Circle A

| Service Area       | % of prepaid in total subscribers | ARPU (Rs. per month) | Total usage ( from & outside HSA) per subscriber per month |              |              |           |
|--------------------|-----------------------------------|----------------------|--|--------------|--------------|-----------|
|                    |                                   |                      | Outgoing SMS   | Outgoing MOU | Incoming MOU | Total MOU |
| AP                 | 96.50                             | 121                  | 31   | 191          | 192          | 383       |
| Gujarat            | 95.07                             | 98                   | 24   | 181          | 158          | 339       |
| Karnataka          | 95.07                             | 122                  | 52   | 201          | 186          | 387       |
| MH                 | 95.16                             | 111                  | 45   | 172          | 160          | 333       |
| TN (incl. Chennai) | 95.24                             | 119                  | 64   | 182          | 191          | 372       |

### Category: Circle B

| Service Area | % of prepaid in total subscribers | ARPU (Rs. per month) | Total usage ( from & outside HSA) per subscriber per month |              |              |           |
|--------------|-----------------------------------|----------------------|--|--------------|--------------|-----------|
|              |                                   |                      | Outgoing SMS   | Outgoing MOU | Incoming MOU | Total MOU |
| Haryana      | 97.12                             | 96                   | 20   | 188          | 178          | 366       |
| Kerala       | 96.57                             | 155                  | 24   | 198          | 231          | 429       |
| MP           | 98.03                             | 90                   | 19   | 149          | 151          | 301       |
| Punjab       | 94.23                             | 115                  | 40   | 200          | 196          | 397       |
| Rajasthan    | 98.14                             | 100                  | 13   | 156          | 174          | 330       |
| UP(E)        | 98.83                             | 90                   | 12   | 156          | 220          | 376       |
| UP(W)        | 98.21                             | 89                   | 19   | 165          | 183          | 349       |
| WB           | 99.23                             | 80                   | 13   | 151          | 188          | 338       |

### Category: Circle C

| Service Area | % of prepaid in total subscribers | ARPU (Rs. per month) | Total usage ( from & outside HSA) per subscriber per month |              |              |           |
|--------------|-----------------------------------|----------------------|--|--------------|--------------|-----------|
|              |                                   |                      | Outgoing SMS   | Outgoing MOU | Incoming MOU | Total MOU |
| Assam        | 96.01                             | 122                  | 34   | 211          | 227          | 438       |
| Bihar        | 99.43                             | 90                   | 8  | 157          | 240          | 396       |
| HP           | 98.17                             | 101                  | 22   | 202          | 211          | 413       |
| J&K          | 92.04                             | 173                  | 1  | 324          | 292          | 616       |
| NE           | 97.13                             | 126                  | 70   | 204          | 197          | 401       |
| Orissa       | 98.90                             | 85                   | 12   | 178          | 213          | 391       |

### Category: Metro

| Service Area | % of prepaid in total subscribers | ARPU (Rs. per month) | Total usage ( from & outside HSA) per subscriber per month |              |              |           |
|--------------|-----------------------------------|----------------------|--|--------------|--------------|-----------|
|              |                                   |                      | Outgoing SMS   | Outgoing MOU | Incoming MOU | Total MOU |
| Kolkata      | 93.54                             | 103                  | 29   | 206          | 210          | 416       |
| Delhi        | 87.25                             | 160                  | 36   | 240          | 196          | 436       |
| Mumbai       | 84.77                             | 158                  | 44   | 275          | 198          | 473       |

**Annexure 2.2: CDMA Full Mobility Service - Service Area wise Statistics for  
QE Sep-13**

**Category A**

| Service Area       | % of Prepaid in total subscribers | ARPU (Rs. per month) | Total usage ( from & outside HSA) per subscriber per month |              |              |           |
|--------------------|-----------------------------------|----------------------|--|--------------|--------------|-----------|
|                    |                                   |                      | Outgoing SMS   | Outgoing MOU | Incoming MOU | Total MOU |
| MH                 | 89%                               | 122                  | 22   | 143          | 123          | 267       |
| Gujarat            | 83%                               | 107                  | 34   | 125          | 96           | 221       |
| TN (incl. Chennai) | 82%                               | 137                  | 17   | 147          | 102          | 249       |
| Karnataka          | 88%                               | 111                  | 10   | 125          | 116          | 241       |
| AP                 | 87%                               | 116                  | 21   | 139          | 131          | 269       |

**Category B**

| Service Area | % of Prepaid in total subscribers | ARPU (Rs. per month) | Total usage ( from & outside HSA) per subscriber per month |              |              |           |
|--------------|-----------------------------------|----------------------|--|--------------|--------------|-----------|
|              |                                   |                      | Outgoing SMS   | Outgoing MOU | Incoming MOU | Total MOU |
| WB           | 99%                               | 59                   | 6  | 142          | 162          | 304       |
| Rajasthan    | 95%                               | 70                   | 13   | 192          | 158          | 350       |
| UP(E)        | 96%                               | 57                   | 16   | 85           | 98           | 183       |
| MP           | 95%                               | 67                   | 14   | 110          | 130          | 240       |
| Kerala       | 87%                               | 86                   | 10   | 97           | 76           | 173       |
| UP(W)        | 95%                               | 63                   | 18   | 96           | 112          | 208       |
| Haryana      | 91%                               | 76                   | 18   | 159          | 130          | 290       |
| Punjab       | 80%                               | 123                  | 17   | 168          | 104          | 272       |

**Category C**

| Service Area | % of Prepaid in total subscribers | ARPU (Rs. per month) | Total usage ( from & outside HSA) per subscriber per month |              |              |           |
|--------------|-----------------------------------|----------------------|--|--------------|--------------|-----------|
|              |                                   |                      | Outgoing SMS   | Outgoing MOU | Incoming MOU | Total MOU |
| Orissa       | 92%                               | 80                   | 9  | 118          | 152          | 270       |
| Bihar        | 97%                               | 70                   | 10   | 110          | 162          | 272       |
| HP           | 87%                               | 118                  | 8  | 129          | 116          | 245       |
| J&K          | 63%                               | 108                  | 22   | 123          | 107          | 230       |
| North East   | NA                                |                      |  |              |              |           |
| Assam        | NA                                |                      |  |              |              |           |

**Category Metro**

| Service Area | % of Prepaid in total subscribers | ARPU (Rs. per month) | Total usage ( from & outside HSA) per subscriber per month |              |              |           |
|--------------|-----------------------------------|----------------------|--|--------------|--------------|-----------|
|              |                                   |                      | Outgoing SMS   | Outgoing MOU | Incoming MOU | Total MOU |
| Kolkata      | 90%                               | 96                   | 9  | 150          | 154          | 305       |
| Delhi        | 86%                               | 129                  | 22   | 188          | 132          | 304       |
| Mumbai       | 81%                               | 141                  | 26   | 127          | 98           | 213       |

## Annexure 4.1: Performance of QoS Parameters for Cellular Mobile 2G Service

| Performance Monitoring Report on Quality of Service of Cellular Mobile Service Providers for quarter ending, September , 2013 |                          |   |  |  |                                   |                    |  |  |                                    |   |  |   |  |  |  |  |  |  |  |
|---|--------------------------|---|--|--|-----------------------------------|--------------------|--|--|------------------------------------|---|--|---|--|--|--|--|--|--|--|
| Name of Service Area  | Name of Service Provider | Network Related Parameters                                |  |  |                                   |                    |  |  |                                    |   | Customer Service Quality Parameters          |   |  |  |  |  |  |  |  |
|   |                          | Network Availability                                      |  | Connection Establishment (Accessibility)                 |                                   |                    | Connection Maintenance (Retainability) |  |                                    | POI   | Metering and Billing                         |   |  |  | Response time to the customer for assistance |  | Termination / closure of service                   |  |  |
|   |                          | BTS: Accumulated downtime (not available for service) (%) | Worst affected BTS due to downtime (%) | Call Set-up Success Rate (within licensee's own network) | SDCCH/ Paging Chl. Congestion (%) | TCH Congestion (%) | Call Drop Rate (%)                     | Worst affected cells having more than 3% TCH drop (call drop) rate (%) | Connection with good voice quality | Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) (Averaged over a period of quarter) | Metering and billing credibility - post paid | Metering and billing credibility - pre paid | Resolution of billing/charging/validity complaints | Period of applying credit/waiver/ adjustment to customer's account from the date of resolution of complaints | Accessibility of call centre/customer care   | Percentage of calls answered by the operators (voice to voice) within 60 seconds | %age requests for Termination / Closure of service | Time taken for refund of deposits after closures |  |
| ≤ 2%  | ≤ 2%                     | ≥ 95%   | ≤ 1%                                   | ≤ 2%   | ≤ 2%                              | ≤ 3%               | ≥ 95%                                  | ≤ 0.5%   | ≤ 0.1%                             | ≤ 0.1%  | 100% within 4 weeks                          | within 1 week of resolution of complaint    | ≥ 95%  | ≥ 90%  | 100% within 7 days                           | 100% within 60 days  |  |  |  |
| AP  | Aircel                   | 0.05  | 0.00                                   | 98.84  | 0.06                              | 0.29               | 1.00                                   | 1.97   | 97.56                              | 0   | 0.00   | 0.00  | 100.00   | 100.00   | 100.00                                       | 83.62  | 99.38  | 100.00   |  |
|   | Airtel                   | 0.01  | 0.00                                   | 99.45  | 0.06                              | 0.06               | 0.44                                   | 0.61   | 99.05                              | 0   | 0.02   | 0.00  | 100.00   | 100.00   | 100.00                                       | 94.00  | 100.00   | 100.00   |  |
|   | BSNL                     | 1.67  | 1.90                                   | 98.00  | 0.47                              | 1.83               | 0.80                                   | 2.23   | 96.67                              | 0   | 0.00   | 0.00  | 100.00   | 100.00   | 96.00  | 51.00  | 100.00   | 100.00   |  |
|   | Idea                     | 0.02  | 0.00                                   | 99.97  | 0.56                              | 0.44               | 0.80                                   | 2.41   | 96                                 | 0   | 0.07   | 0.00  | 100.00   | 99.52  | 99.55  | 94.22  | 100.00   | 100.00   |  |
|   | RCOM CDMA                | 0.13  | 0.20                                   | 99.09  | 0.00                              | 0.02               | 0.05                                   | 0.18   | 99.69                              | 0   | 0.09   | 0.04  | 100.00   | 100.00   | 98.67  | 84.56  | 100.00   | 100.00   |  |
|   | RCOM GSM                 | 0.18  | 0.63                                   | 99.71  | 0.03                              | 0.05               | 0.38                                   | 0.16   | 98.86                              | 0   | 0.09   | 0.10  | 100.00   | 100.00   | 98.71  | 78.90  | 100.00   | 100.00   |  |
|   | TATA CDMA                | 0.03  | 0.00                                   | 99.28  | 0.00                              | 0.02               | 0.33                                   | 0.68   | 98.75                              | 0   | 0.00   | 0.00  | 100.00   | 100.00   | 99.31  | 94.00  | 100.00   | 100.00   |  |
|   | TATA GSM                 | 0.07  | 0.27                                   | 98.50  | 0.04                              | 0.31               | 0.72                                   | 2.55   | 98.08                              | 0   | 0.00   | 0.00  | 100.00   | 100.00   | 99.48  | 84.00  | 100.00   | 100.00   |  |
|   | Uninor                   | 0.13  | 0.93                                   | 98.94  | 0.15                              | 0.17               | 1.35                                   | 1.61   | 97.85                              | 0   | NA   | 0.00  | 100.00   | NA   | 96.30  | 83.09  | NA   | NA   |  |
| Vodafone  | 0.05                     | 0.26  | 99.73                                  | 0.06   | 0.27                              | 0.58               | 2.28                                   | 98.81  | 0                                  | 0.09  | 0.21   | 100.00                                      | 100.00   | 100.00   | 97.51  | 100.00   | 100.00   |  |  |
| ASM   | Aircel                   | 0.64  | 4.80                                   | 96.03  | 0.67                              | 1.57               | 1.03                                   | 4.98   | 94.82                              | 0   | 0.05   | 0.06  | 100.00   | 100.00   | 100.00                                       | 81.40  | 100.00   | 100.00   |  |
|   | Airtel                   | 0.17  | 0.28                                   | 98.73  | 0.14                              | 0.61               | 1.14                                   | 1.12   | 98.56                              | 0   | 0.00   | 0.01  | 100.00   | 100.00   | 100.00                                       | 94.00  | 100.00   | 100.00   |  |
|   | BSNL                     | 1.93  | 1.87                                   | 97.00  | 0.80                              | 1.70               | 1.80                                   | 3.00   | 96.30                              | 0   | 0.00   | 0.00  | 100.00   | 100.00   | 91.00  | 78.50  | 100.00   | 100.00   |  |
|   | Idea                     | 1.10  | 0.71                                   | 98.83  | 0.04                              | 0.75               | 1.26                                   | 2.29   | 96                                 | 0   | 0.00   | 0.00  | 100.00   | 100.00   | 97.42  | 97.94  | 100.00   | 100.00   |  |
|   | RTL                      | 0.40  | 1.76                                   | 98.56  | 0.03                              | 0.13               | 0.63                                   | 0.24   | 98.37                              | 0   | 0.10   | 0.10  | 100.00   | 100.00   | 98.98  | 84.39  | 100.00   | 100.00   |  |
|   | Vodafone                 | 1.50  | 1.94                                   | 99.23  | 0.26                              | 0.77               | 0.78                                   | 2.77   | 98                                 | 0   | 0.08   | 0.04  | 100.00   | 100.00   | 99.91  | 97.05  | 100.00   | 100.00   |  |
| BH  | Aircel                   | 1.17  | 2.72                                   | 96.20  | 0.40                              | 0.99               | 0.47                                   | 2.76   | 95.06                              | 0   | 0.01   | 0.02  | 100.00   | 100.00   | 100.00                                       | 94.66  | 100.00   | 100.00   |  |
|   | Airtel                   | 0.11  | 0.33                                   | 99.00  | 0.13                              | 0.19               | 0.51                                   | 1.28   | 99.28                              | 0   | 0.01   | 0.01  | 100.00   | 100.00   | 100.00                                       | 95.00  | 100.00   | 100.00   |  |
|   | BSNL                     | 1.55  | 1.92                                   | 97.00  | 0.45                              | 1.07               | 1.63                                   | 2.47   | 95.77                              | 0   | 0.00   | 0.05  | 100.00   | 100.00   | 98.00  | 98.50  | 100.00   | 100.00   |  |
|   | Idea                     | 0.85  | 1.72                                   | 97.73  | 0.50                              | 1.24               | 1.42                                   | 2.75   | 97                                 | 0   | 0.01   | 0.00  | 100.00   | 100.00   | 99.59  | 99.88  | 100.00   | 100.00   |  |
|   | RCOM CDMA                | 0.35  | 1.32                                   | 97.93  | 0.00                              | 0.01               | 0.09                                   | 0.40   | 99.80                              | 0   | 0.10   | 0.10  | 100.00   | 100.00   | 99.00  | 87.96  | 100.00   | 100.00   |  |
|   | RTL                      | 0.10  | 0.49                                   | 96.64  | 0.08                              | 0.06               | 0.47                                   | 0.30   | 97.86                              | 0   | 0.09   | 0.10  | 100.00   | 100.00   | 98.48  | 85.07  | 100.00   | 100.00   |  |
|   | TATA CDMA                | 0.08  | 0.05                                   | 98.72  | 0.00                              | 0.06               | 0.50                                   | 2.66   | 99.05                              | 0   | 0.00   | 0.00  | 100.00   | 100.00   | 98.75  | 97.00  | 100.00   | 100.00   |  |
|   | TATA GSM                 | 0.01  | 0.04                                   | 98.98  | 0.11                              | 0.08               | 0.53                                   | 0.60   | 97.99                              | 0   | 0.00   | 0.00  | 100.00   | 100.00   | 96.11  | 96.00  | 100.00   | 100.00   |  |
|   | Uninor                   | 0.18  | 0.29                                   | 97.03  | 0.40                              | 1.81               | 1.25                                   | 1.68   | 95.61                              | 0   | NA   | 0.00  | 100.00   | NA   | 96.73  | 95.00  | NA   | NA   |  |
| Vodafone  | 0.62                     | 1.80  | 99.39                                  | 0.19   | 0.61                              | 0.85               | 2.43                                   | 97.51  | 0                                  | 0.03  | 0.06   | 100.00                                      | 100.00   | 100.00   | 98.55  | 100.00   | 100.00   |  |  |
| CHN   | Aircel                   | 0.54  | 3.04                                   | 98.13  | 0.20                              | 0.91               | 0.58                                   | 0.77   | 98.16                              | 0   | 0.01   | 0.00  | 100.00   | 100.00   | 100.00                                       | 91.86  | 100.00   | 100.00   |  |
|   | Airtel                   | 0.02  | 0.00                                   | 99.92  | 0.02                              | 0.01               | 0.15                                   | 0.10   | 99.74                              | 0   | 0.02   | 0.01  | 99.89  | 100.00   | 100.00                                       | 93.00  | 100.00   | 100.00   |  |
|   | BSNL                     | 0.33  | 1.37                                   | 100.00   | 0.30                              | 0.50               | 0.80                                   | 1.30   | 99.57                              | 0   | 0.10   | 0.10  | 100.00   | 100.00   | 100.00                                       | 99.50  | 100.00   | 100.00   |  |
|   | Idea                     | 0.01  | 0.00                                   | 99.51  | 0.08                              | 0.13               | 0.71                                   | 0.50   | 96.86                              | 0   | Incl. In TN                                  |   |  |  |  |  |  |  |  |
|   | RCOM CDMA                | incl. In TN   |  |  |                                   |                    |  |  |                                    |   | 0.10   | 0.02  | 100.00   | 100.00   | 98.87  | 82.94  | 100.00   | 100.00   |  |
|   | RCOM GSM                 | incl. In TN   |  |  |                                   |                    |  |  |                                    |   | incl. In TN                                  |   |  |  |  |  |  |  |  |
|   | TATA CDMA                | 0.03  | 0.00                                   | 99.27  | 0.00                              | 0.03               | 0.21                                   | 0.74   | 98.81                              | 0   | incl. In TN                                  |   |  |  |  |  |  |  |  |
|   | TATA GSM                 | 0.05  | 0.02                                   | 98.18  | 0.03                              | 0.03               | 0.92                                   | 0.87   | 98.35                              | 0   | incl. In TN                                  |   |  |  |  |  |  |  |  |
| Vodafone  | 0.02                     | 0.05  | 99.48                                  | 0.07   | 0.52                              | 0.54               | 0.85                                   | 98.69  | 0                                  | 0.05  | 0.03   | 100.00                                      | 100.00   | 100.00   | 96.41  | 100.00   | 100.00   |  |  |



### Annexure 4.1 (Contd.)

|          |           |      |       |       |      |      |      |       |        |      |      |        |        |        |        |        |        |        |
|----------|-----------|------|-------|-------|------|------|------|-------|--------|------|------|--------|--------|--------|--------|--------|--------|--------|
| DL       | Aircel    | 0.44 | 3.07  | 96.57 | 0.30 | 0.80 | 1.24 | 3.56  | 97.22  | 0    | 0.02 | 0.01   | 100.00 | 100.00 | 100.00 | 83.50  | 99.93  | 46.00  |
|          | Airtel    | 0.02 | 0.00  | 99.85 | 0.04 | 0.06 | 0.64 | 0.85  | 99.12  | 0    | 0.03 | 0.04   | 100.00 | 100.00 | 100.00 | 93.00  | 100.00 | 100.00 |
|          | Idea      | 0.01 | 0.00  | 99.97 | 0.49 | 0.84 | 0.68 | 1.70  | 98.26  | 0    | 0.06 | 0.02   | 100.00 | 100.00 | 99.50  | 92.84  | 100.00 | 100.00 |
|          | MTNL CDMA | 1.67 | 1.05  | 98.55 | 0.31 | 0.30 | 1.63 | 1.05  | 99.00  | 0    | 0.02 | 0.00   | 100.00 | 100.00 | 95.40  | 95.40  | 100.00 | 100.00 |
|          | MTNL GSM  | 0.32 | 1.43  | 96.70 | 0.32 | 1.77 | 1.72 | 2.67  | 97.44  | 0    | 0.04 | 0.01   | 100.00 | 100.00 | 96.82  | 97.82  | 100.00 | 100.00 |
|          | MTS       | 0.08 | 0.15  | 99.41 | 0.00 | 1.34 | 0.73 | 1.94  | 99.96  | 0    | 0.07 | 0.06   | 100.00 | 100.00 | 99.34  | 71.79  | 100.00 | 100.00 |
|          | RCOM CDMA | 0.11 | 0.00  | 98.11 | 0.00 | 0.02 | 0.56 | 0.42  | 99.79  | 0    | 0.10 | 0.08   | 100.00 | 100.00 | 98.48  | 84.43  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.24 | 0.23  | 99.40 | 0.05 | 0.07 | 0.49 | 0.22  | 98.76  | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 98.82  | 58.36  | 100.00 | 100.00 |
|          | TATA CDMA | 0.02 | 0.00  | 99.08 | 0.00 | 0.05 | 0.73 | 0.75  | 97.69  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.27  | 93.00  | 100.00 | 100.00 |
| Vodafone | 0.03      | 0.00 | 99.26 | 0.13  | 0.40 | 0.95 | 1.88 | 97.35 | 0      | 0.07 | 0.06 | 100.00 | 100.00 | 100.00 | 99.10  | 100.00 | 100.00 |        |
| GJ       | Aircel    | 0.09 | 0.07  | 99.39 | 0.05 | 0.01 | 0.55 | 2.79  | 98.53  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 95.75  | 100.00 | 100.00 |
|          | Airtel    | 0.08 | 0.20  | 99.61 | 0.06 | 0.38 | 0.82 | 0.42  | 97.27  | 0    | 0.01 | 0.00   | 100.00 | 100.00 | 100.00 | 92.00  | 100.00 | 100.00 |
|          | BSNL      | 1.70 | 1.90  | 99.00 | 0.17 | 1.43 | 1.63 | 1.50  | 100.00 | 0    | 0.03 | 0.00   | 100.00 | 100.00 | NR     | NR     | 100.00 | 100.00 |
|          | Idea      | 0.10 | 0.19  | 99.30 | 0.35 | 0.32 | 1.13 | 1.43  | 95.43  | 0    | 0.06 | 0.02   | 100.00 | 100.00 | 97.95  | 99.43  | 100.00 | 100.00 |
|          | MTS       | 0.04 | 0.00  | 99.65 | 0.00 | 0.01 | 0.37 | 2.35  | 98.80  | 0    | 0.03 | 0.00   | 100.00 | 100.00 | 95.00  | 98.46  | 100.00 | 100.00 |
|          | RCOM CDMA | 0.18 | 0.24  | 99.23 | 0.00 | 0.00 | 0.03 | 0.13  | 99.86  | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 98.75  | 95.32  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.16 | 0.16  | 99.52 | 0.01 | 0.12 | 0.43 | 0.12  | 98.61  | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 98.90  | 64.31  | 100.00 | 100.00 |
|          | TATA CDMA | 0.00 | 0.00  | 98.30 | 0.00 | 0.40 | 1.07 | 1.34  | 99.72  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 96.04  | 92.00  | 100.00 | 100.00 |
|          | TATA GSM  | 0.00 | 0.00  | 98.32 | 0.02 | 0.01 | 0.90 | 2.37  | 98.38  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 98.97  | 87.00  | 100.00 | 100.00 |
| Uninor   | 0.12      | 0.62 | 97.30 | 0.14  | 0.63 | 1.55 | 1.22 | 98.13 | 0      | NA   | 0.04 | 100.00 | NA     | 96.56  | 95.22  | NA     | NA     |        |
| Videocon | 0.09      | 0.11 | 99.19 | 0.03  | 0.07 | 0.50 | 0.98 | 98.90 | 0      | NA   | 0.03 | 100.00 | 100.00 | 99.25  | 92.41  | NA     | NA     |        |
| Vodafone | 0.06      | 0.23 | 99.74 | 0.06  | 0.26 | 0.80 | 0.61 | 97.36 | 0      | 0.06 | 0.01 | 100.00 | 100.00 | 100.00 | 96.89  | 100.00 | 100.00 |        |
| HP       | Aircel    | 0.43 | 1.82  | 98.34 | 0.04 | 0.49 | 0.75 | 2.18  | 95.06  | 0    | 0.01 | 0.00   | 100.00 | 100.00 | 100.00 | 68.14  | 100.00 | 100.00 |
|          | Airtel    | 0.01 | 0.00  | 99.16 | 0.10 | 0.13 | 0.80 | 2.43  | 98.34  | 0    | 0.02 | 0.01   | 100.00 | 100.00 | 99.00  | 94.00  | 100.00 | 100.00 |
|          | BSNL      | 1.87 | 1.90  | 96.00 | 0.87 | 1.83 | 1.87 | 2.93  | 96.23  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 96.90  | 100.00 | 100.00 |
|          | Idea      | 0.27 | 0.00  | 98.67 | 0.10 | 0.73 | 1.11 | 2.57  | 95.27  | 0    | 0.00 | 0.02   | 100.00 | 100.00 | 98.41  | 98.58  | 100.00 | 100.00 |
|          | RCOM CDMA | 0.14 | 0.00  | 99.14 | 0.00 | 0.01 | 0.06 | 0.42  | 99.77  | 0    | 0.09 | 0.05   | 100.00 | 100.00 | 98.22  | 80.53  | 100.00 | 100.00 |
|          | RTL       | 0.21 | 0.59  | 98.85 | 0.05 | 0.11 | 0.53 | 0.12  | 98.52  | 0    | 0.07 | 0.10   | 100.00 | 100.00 | 98.98  | 71.84  | 100.00 | 100.00 |
|          | TATA CDMA | 0.01 | 0.00  | 98.36 | 0.00 | 0.21 | 0.24 | 0.00  | 97.31  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 96.30  | 96.00  | 100.00 | 100.00 |
|          | TATA GSM  | 0.00 | 0.00  | 97.21 | 0.00 | 1.59 | 1.98 | 0.00  | 97.42  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.31  | 95.00  | 100.00 | 100.00 |
|          | Vodafone  | 0.04 | 0.00  | 97.58 | 0.04 | 0.25 | 0.75 | 2.08  | 97.69  | 0    | 0.02 | 0.00   | 100.00 | 100.00 | 100.00 | 99.90  | 100.00 | 100.00 |
| HR       | Aircel    | 0.45 | 1.19  | 96.62 | 0.09 | 0.03 | 1.72 | 5.95  | 98.79  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 93.34  | 100.00 | 100.00 |
|          | Airtel    | 0.08 | 0.06  | 99.10 | 0.27 | 0.18 | 0.37 | 1.22  | 99.07  | 0    | 0.05 | 0.03   | 100.00 | 100.00 | 100.00 | 93.00  | 100.00 | 100.00 |
|          | BSNL      | 1.63 | 1.47  | 97.67 | 0.20 | 0.67 | 1.30 | 2.17  | 97.33  | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 100.00 | 91.00  | 100.00 | 100.00 |
|          | Idea      | 0.01 | 0.00  | 99.97 | 0.44 | 0.31 | 0.74 | 2.64  | 97.89  | 0    | 0.09 | 0.07   | 100.00 | 100.00 | 100.00 | 95.41  | 100.00 | 100.00 |
|          | RCOM CDMA | 0.12 | 0.04  | 98.97 | 0.00 | 0.02 | 0.02 | 0.27  | 99.74  | 0    | 0.09 | 0.04   | 100.00 | 100.00 | 98.54  | 51.40  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.11 | 0.06  | 99.35 | 0.02 | 0.07 | 0.45 | 0.16  | 98.77  | 0    | 0.08 | 0.10   | 100.00 | 100.00 | 98.89  | 83.55  | 100.00 | 100.00 |
|          | TATA CDMA | 0.05 | 0.07  | 97.40 | 0.00 | 1.01 | 0.47 | 1.12  | 99.15  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 96.65  | 97.00  | 100.00 | 100.00 |
|          | TATA GSM  | 0.06 | 0.23  | 97.95 | 0.13 | 0.97 | 0.65 | 0.64  | 97.68  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.27  | 90.00  | 100.00 | 100.00 |
|          | Videocon  | 0.22 | 0.51  | 98.20 | 0.22 | 0.17 | 0.72 | 1.67  | 98.22  | 0    | NA   | 0.01   | 100.00 | 100.00 | 95.81  | 91.85  | NA     | NA     |
| Vodafone | 0.07      | 0.33 | 99.75 | 0.10  | 0.25 | 0.80 | 0.63 | 97.59 | 0      | 0.02 | 0.00 | 100.00 | 100.00 | 100.00 | 98.59  | 100.00 | 100.00 |        |
| J&K      | Aircel    | 0.46 | 1.96  | 95.22 | 0.48 | 1.94 | 0.72 | 2.95  | 95.13  | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 94.49  | 100.00 | 100.00 |
|          | Airtel    | 0.08 | 0.13  | 98.61 | 0.23 | 0.22 | 0.72 | 1.12  | 98.35  | 0    | 0.02 | 0.02   | 100.00 | 100.00 | 100.00 | 91.00  | 100.00 | 100.00 |
|          | BSNL      | 1.77 | 1.87  | 98.33 | 0.50 | 1.10 | 1.07 | 2.77  | 98.00  | 0    | 0.10 | 0.00   | 100.00 | 100.00 | 100.00 | 91.00  | 100.00 | 100.00 |
|          | Idea      | 0.39 | 1.75  | 99.49 | 0.06 | 0.17 | 1.16 | 2.94  | 95.47  | 0    | 0.00 | 0.04   | 100.00 | 100.00 | 95.89  | 95.86  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.18 | 0.67  | 99.58 | 0.01 | 0.07 | 0.47 | 0.27  | 98.49  | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 98.92  | 91.64  | 100.00 | 100.00 |
|          | Vodafone  | 0.07 | 0.49  | 98.36 | 0.02 | 0.37 | 0.64 | 2.66  | 98.26  | 0    | 0.06 | 0.02   | 100.00 | 100.00 | 100.00 | 98.99  | 100.00 | 100.00 |

### Annexure 4.1 (Contd.)

|          |           |      |       |       |      |      |      |       |       |      |      |        |        |        |        |       |        |        |        |
|----------|-----------|------|-------|-------|------|------|------|-------|-------|------|------|--------|--------|--------|--------|-------|--------|--------|--------|
| KOL      | Aircel    | 0.45 | 1.94  | 97.04 | 0.43 | 0.46 | 0.90 | 1.68  | 97.20 | 1    | 0.23 | 0.00   | 100.00 | 100.00 | 100.00 | 96.01 | 100.00 | 99.70  |        |
|          | Airtel    | 0.05 | 0.06  | 99.71 | 0.03 | 0.06 | 0.70 | 0.16  | 99.02 | 0    | 0.02 | 0.01   | 100.00 | 100.00 | 100.00 | 97.00 | 100.00 | 100.00 |        |
|          | BSNL      | 1.37 | 1.90  | 99.00 | 0.60 | 0.80 | 0.90 | 2.63  | 99.73 | 0    | 0.00 | 0.10   | 100.00 | 100.00 | 100.00 | 96.00 | 62.00  | 100.00 | 100.00 |
|          | Idea      | 0.37 | 0.64  | 99.31 | 0.06 | 0.23 | 0.38 | 0.22  | 97.79 | 0    | 0.07 | 0.02   | 100.00 | 100.00 | 100.00 | 99.42 | 99.76  | 100.00 | 100.00 |
|          | MTS       | 0.14 | 0.00  | 99.70 | 0.00 | 0.02 | 0.55 | 0.75  | 99.77 | 0    | 0.09 | 0.03   | 100.00 | 100.00 | 100.00 | 90.75 | 100.00 | NA     |        |
|          | RCOM CDMA | 0.09 | 0.14  | 99.18 | 0.00 | 0.01 | 0.06 | 0.76  | 99.74 | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 100.00 | 99.26 | 88.34  | 100.00 | 100.00 |
|          | RTL       | 0.09 | 0.20  | 99.46 | 0.03 | 0.02 | 0.41 | 0.13  | 98.57 | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 100.00 | 98.90 | 90.70  | 100.00 | 100.00 |
|          | TATA CDMA | 0.04 | 0.00  | 99.09 | 0.00 | 0.03 | 0.84 | 0.39  | 98.25 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 98.71 | 96.00  | 100.00 | 100.00 |
| TATA GSM | 0.02      | 0.00 | 98.61 | 0.03  | 0.12 | 0.88 | 1.30 | 97.95 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 100.00 | 99.36  | 90.00 | 100.00 | 100.00 |        |
| Vodafone | 0.05      | 0.10 | 99.58 | 0.04  | 0.42 | 0.85 | 1.71 | 97.71 | 0     | 0.20 | 0.04 | 100.00 | 100.00 | 100.00 | 100.00 | 97.89 | 100.00 | 100.00 |        |
| KR       | Aircel    | 0.15 | 0.00  | 99.73 | 0.00 | 0.02 | 1.02 | 2.83  | 97.68 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 95.96 | 100.00 | 100.00 |        |
|          | Airtel    | 0.02 | 0.03  | 99.83 | 0.04 | 0.06 | 0.23 | 0.62  | 99.66 | 0    | 0.02 | 0.05   | 100.00 | 100.00 | 100.00 | 92.00 | 100.00 | 100.00 |        |
|          | BSNL      | 0.57 | 0.57  | 98.00 | 0.30 | 1.77 | 0.63 | 2.03  | 99.90 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 90.00 | 100.00 | 100.00 |        |
|          | Idea      | 0.27 | 0.68  | 99.98 | 0.18 | 0.72 | 0.59 | 1.71  | 95.19 | 0    | 0.10 | 0.07   | 100.00 | 100.00 | 100.00 | 99.38 | 97.17  | 100.00 | 100.00 |
|          | MTS       | 0.03 | 0.00  | 99.55 | 0.00 | 0.02 | 0.59 | 2.80  | 98.84 | 0    | 0.00 | 0.03   | 100.00 | 100.00 | 100.00 | 99.60 | 90.39  | NA     | NA     |
|          | RCOM CDMA | 0.04 | 0.03  | 99.37 | 0.00 | 0.00 | 0.00 | 0.32  | 99.74 | 0    | 0.08 | 0.02   | 100.00 | 100.00 | 100.00 | 99.11 | 81.72  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.04 | 0.03  | 99.76 | 0.02 | 0.02 | 0.12 | 0.19  | 99.31 | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 100.00 | 98.68 | 68.10  | 100.00 | 100.00 |
|          | TATA CDMA | 0.01 | 0.00  | 98.95 | 0.00 | 0.04 | 0.68 | 1.84  | 99.13 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 99.36 | 95.00  | 100.00 | 100.00 |
| TATA GSM | 0.01      | 0.00 | 99.00 | 0.01  | 0.02 | 0.61 | 0.75 | 98.25 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 100.00 | 99.38  | 93.00 | NR     | 100.00 |        |
| Vodafone | 0.03      | 0.03 | 99.37 | 0.09  | 0.63 | 0.71 | 0.71 | 96.89 | 0     | 0.09 | 0.01 | 100.00 | 100.00 | 100.00 | 100.00 | 94.82 | 100.00 | 100.00 |        |
| KTK      | Aircel    | 0.07 | 0.00  | 99.03 | 0.05 | 0.12 | 1.12 | 2.82  | 97.27 | 0    | 0.01 | 0.00   | 100.00 | 100.00 | 100.00 | 91.14 | 100.00 | 100.00 |        |
|          | Airtel    | 0.34 | 1.48  | 99.32 | 0.18 | 0.14 | 0.30 | 0.49  | 99.09 | 0    | 0.04 | 0.02   | 100.00 | 100.00 | 100.00 | 97.00 | 100.00 | 100.00 |        |
|          | BSNL      | 1.37 | 1.90  | 97.67 | 0.17 | 0.67 | 1.20 | 1.87  | 96.47 | 0    | 0.00 | 0.10   | 100.00 | 100.00 | 100.00 | 99.00 | 93.00  | 100.00 | 100.00 |
|          | Idea      | 0.11 | 0.32  | 97.76 | 0.15 | 0.62 | 0.91 | 2.30  | 97.07 | 0    | 0.08 | 0.02   | 100.00 | 98.84  | 99.38  | 98.90 | 100.00 | 100.00 |        |
|          | MTS       | 0.06 | 0.00  | 99.17 | 0.00 | 0.27 | 0.32 | 0.04  | 98.26 | 0    | 0.09 | 0.01   | 100.00 | 100.00 | 100.00 | 95.49 | 92.26  | 100.00 | 100.00 |
|          | RCOM CDMA | 0.28 | 0.72  | 98.97 | 0.00 | 0.00 | 0.01 | 0.28  | 99.77 | 0    | 0.10 | 0.03   | 100.00 | 100.00 | 100.00 | 98.66 | 75.86  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.31 | 0.95  | 99.57 | 0.02 | 0.04 | 0.41 | 0.14  | 98.85 | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 100.00 | 98.43 | 67.77  | 100.00 | 100.00 |
|          | TATA CDMA | 0.03 | 0.00  | 99.15 | 0.00 | 0.00 | 0.26 | 0.09  | 98.24 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 99.49 | 95.00  | 100.00 | 100.00 |
| TATA GSM | 0.07      | 0.06 | 98.67 | 0.02  | 0.12 | 0.71 | 2.58 | 98.24 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 100.00 | 99.49  | 90.00 | 100.00 | 100.00 |        |
| Vodafone | 0.32      | 2.00 | 99.78 | 0.09  | 0.22 | 0.75 | 2.96 | 98.71 | 0     | 0.08 | 0.22 | 100.00 | 100.00 | 100.00 | 100.00 | 94.14 | 100.00 | 100.00 |        |
| MH       | Aircel    | 0.09 | 0.33  | 99.66 | 0.02 | 0.02 | 0.70 | 2.37  | 97.53 | 0    | 0.00 | 0.01   | 100.00 | 100.00 | 100.00 | 60.71 | 100.00 | 100.00 |        |
|          | Airtel    | 0.02 | 0.02  | 99.84 | 0.05 | 0.05 | 0.63 | 0.44  | 99.08 | 0    | 0.02 | 0.01   | 100.00 | 100.00 | 100.00 | 92.00 | 100.00 | 100.00 |        |
|          | BSNL      | 1.93 | 1.87  | 95.67 | 0.70 | 1.93 | 1.90 | 2.80  | 95.53 | 0    | 0.00 | 0.00   | NR     | NR     | NR     | NR    | NR     | 100.00 | 100.00 |
|          | Idea      | 0.26 | 1.83  | 98.62 | 0.55 | 0.71 | 1.21 | 2.60  | 96.97 | 0    | 0.06 | 0.00   | 100.00 | 100.00 | 100.00 | 99.03 | 98.24  | 100.00 | 84.34  |
|          | RCOM CDMA | 0.29 | 0.27  | 98.08 | 0.00 | 0.03 | 0.31 | 0.43  | 99.64 | 0    | 0.10 | 0.04   | 100.00 | 100.00 | 100.00 | 98.99 | 60.29  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.34 | 0.92  | 99.21 | 0.05 | 0.12 | 0.49 | 0.15  | 98.53 | 0    | 0.09 | 0.09   | 100.00 | 100.00 | 100.00 | 98.88 | 51.24  | 100.00 | 100.00 |
|          | TATA CDMA | 0.03 | 0.00  | 97.93 | 0.00 | 0.92 | 1.17 | 2.90  | 96.51 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 98.21 | 94.00  | 100.00 | 100.00 |
|          | TATA GSM  | 0.01 | 0.01  | 99.37 | 0.08 | 0.11 | 0.79 | 2.70  | 97.53 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 99.15 | 92.00  | 100.00 | 100.00 |
| Uninor   | 0.23      | 1.31 | 97.80 | 0.40  | 1.16 | 1.32 | 1.55 | 97.86 | 0     | NA   | 0.02 | 100.00 | NA     | 96.94  | 96.44  | NA    | NA     |        |        |
| Vodafone | 0.19      | 0.89 | 99.40 | 0.22  | 0.60 | 0.81 | 2.82 | 97.27 | 0     | 0.04 | 0.03 | 100.00 | 100.00 | 100.00 | 99.90  | 96.32 | 99.40  | 100.00 |        |
| MP       | Aircel    | 0.50 | 1.56  | 98.94 | 0.14 | 0.00 | 0.79 | 4.95  | 98.91 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 96.89 | 100.00 | 100.00 |        |
|          | Airtel    | 0.20 | 0.58  | 99.34 | 0.08 | 0.19 | 1.23 | 1.63  | 96.41 | 0    | 0.02 | 0.00   | 100.00 | 100.00 | 100.00 | 95.00 | 100.00 | 100.00 |        |
|          | BSNL      | 1.62 | 1.95  | 95.67 | 0.55 | 1.70 | 1.72 | 2.67  | 98.32 | 0    | 0.05 | 0.05   | 100.00 | 100.00 | 100.00 | 99.00 | 95.00  | 100.00 | 100.00 |
|          | Idea      | 4.43 | 10.32 | 98.90 | 0.26 | 0.59 | 0.64 | 2.09  | 98.94 | 0    | 0.09 | 0.02   | 100.00 | 100.00 | 100.00 | 99.61 | 97.28  | 100.00 | 100.00 |
|          | RCOM CDMA | 0.40 | 0.69  | 99.01 | 0.00 | 0.01 | 0.08 | 0.41  | 99.77 | 0    | 0.10 | 0.07   | 100.00 | 100.00 | 100.00 | 98.52 | 88.94  | 100.00 | 100.00 |
|          | RTL       | 0.21 | 0.55  | 98.91 | 0.04 | 0.17 | 0.53 | 0.20  | 98.22 | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 100.00 | 98.98 | 78.37  | 100.00 | 100.00 |
|          | TATA CDMA | 0.05 | 0.00  | 98.52 | 0.00 | 0.13 | 1.06 | 1.67  | 98.84 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 98.53 | 97.00  | 100.00 | 100.00 |
|          | TATA GSM  | 0.00 | 0.00  | 98.53 | 0.04 | 0.09 | 0.80 | 2.62  | 98.27 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 99.36 | 95.00  | 100.00 | 100.00 |
| Videocon | 0.32      | 1.43 | 98.31 | 0.12  | 0.37 | 0.72 | 0.77 | 98.46 | 0     | NA   | 0.01 | 100.00 | 100.00 | 100.00 | 96.04  | 91.18 | NA     | NA     |        |
| Vodafone | 0.07      | 0.07 | 99.56 | 0.14  | 0.44 | 0.84 | 1.98 | 98.83 | 0     | 0.09 | 0.05 | 100.00 | 100.00 | 100.00 | 100.00 | 95.81 | 100.00 | 100.00 |        |

### Annexure 4.1 (Contd.)

|          |             |      |       |       |      |      |      |       |       |      |      |        |        |        |        |        |        |        |
|----------|-------------|------|-------|-------|------|------|------|-------|-------|------|------|--------|--------|--------|--------|--------|--------|--------|
| MBI      | Aircel      | 0.06 | 0.07  | 97.90 | 0.14 | 0.21 | 0.95 | 1.83  | 97.82 | 0    | 0.00 | 0.01   | 100.00 | 100.00 | 100.00 | 81.04  | 100.00 | 100.00 |
|          | Airtel      | 0.00 | 0.00  | 99.99 | 0.00 | 0.00 | 0.31 | 0.00  | 99.97 | 0    | 0.02 | 0.01   | 100.00 | 100.00 | 100.00 | 92.00  | 100.00 | 100.00 |
|          | Idea        | 0.09 | 0.26  | 98.82 | 0.32 | 1.07 | 1.87 | 2.83  | 98.63 | 0    | 0.07 | 0.01   | 100.00 | 100.00 | 99.93  | 95.33  | 100.00 | 100.00 |
|          | Loop Mobile | 0.01 | 0.00  | 99.17 | 0.03 | 0.03 | 0.62 | 0.81  | 97.86 | 0    | 0.01 | 0.01   | 100.00 | 100.00 | 99.41  | 98.93  | 100.00 | 100.00 |
|          | MTNL CDMA   | 0.03 | 0.54  | 98.32 | 0.74 | 0.01 | 1.27 | 1.28  | 97.50 | 0    | 0.01 | 0.01   | 100.00 | 100.00 | 98.10  | 59.40  | 100.00 | 100.00 |
|          | MTNL GSM    | 0.74 | 1.47  | 97.76 | 0.17 | 0.04 | 1.32 | 2.03  | 96.74 | 0    | 0.08 | 0.01   | 100.00 | 100.00 | 95.79  | 95.52  | 100.00 | 100.00 |
|          | RCOM CDMA   | 0.19 | 0.30  | 98.91 | 0.00 | 0.01 | 0.43 | 0.20  | 99.75 | 0    | 0.10 | 0.04   | 100.00 | 100.00 | 99.22  | 80.67  | 100.00 | 100.00 |
|          | RCOM GSM    | 0.19 | 0.36  | 99.66 | 0.03 | 0.06 | 0.42 | 0.08  | 99.11 | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 99.09  | 78.48  | 100.00 | 100.00 |
|          | TATA CDMA   | 0.03 | 0.24  | 98.92 | 0.00 | 0.03 | 0.94 | 1.01  | 97.98 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.57  | 90.00  | 100.00 | 100.00 |
| TATA GSM | 0.02        | 0.00 | 99.51 | 0.06  | 0.15 | 0.91 | 1.86 | 97.70 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 99.48  | 91.00  | 100.00 | 100.00 |        |
| Vodafone | 0.00        | 0.00 | 99.34 | 0.06  | 0.66 | 0.97 | 2.84 | 97.13 | 0     | 0.07 | 0.02 | 100.00 | 100.00 | 99.85  | 94.37  | 100.00 | 100.00 |        |
| NE       | Aircel      | 0.60 | 5.09  | 95.81 | 0.78 | 1.78 | 0.88 | 4.59  | 94.99 | 0    | 0.02 | 0.12   | 100.00 | 100.00 | 100.00 | 88.93  | 100.00 | 100.00 |
|          | Airtel      | 0.34 | 0.75  | 98.23 | 0.22 | 0.42 | 1.13 | 1.03  | 98.82 | 0    | 0.01 | 0.02   | 100.00 | 100.00 | 100.00 | 94.00  | 100.00 | 100.00 |
|          | BSNL        | 1.48 | 4.05  | 96.83 | 1.00 | 1.95 | 1.68 | 2.83  | 96.55 | 0    | 0.05 | 0.05   | 100.00 | 100.00 | 80.00  | 71.55  | 100.00 | 100.00 |
|          | Idea        | 1.82 | 1.59  | 96.65 | 0.33 | 1.13 | 1.15 | 2.62  | 95.26 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 97.91  | 98.07  | 100.00 | 100.00 |
|          | RTL         | 0.34 | 1.75  | 98.40 | 0.03 | 0.38 | 0.61 | 0.46  | 98.43 | 0    | 0.07 | 0.09   | 100.00 | 100.00 | 98.55  | 81.33  | 100.00 | 100.00 |
| Vodafone | 1.84        | 1.86 | 99.19 | 0.34  | 0.81 | 1.08 | 2.81 | 97.58 | 0     | 0.03 | 0.03 | 100.00 | 100.00 | 99.99  | 96.09  | 100.00 | 100.00 |        |
| OR       | Aircel      | 0.08 | 0.46  | 97.72 | 0.35 | 0.65 | 0.99 | 2.91  | 95.28 | 0    | 0.01 | 0.00   | 100.00 | 100.00 | 100.00 | 94.79  | 100.00 | 100.00 |
|          | Airtel      | 0.21 | 1.38  | 99.03 | 0.24 | 0.44 | 0.86 | 0.71  | 97.80 | 0    | 0.00 | 0.01   | 100.00 | 100.00 | 100.00 | 97.00  | 100.00 | 100.00 |
|          | BSNL        | 0.80 | 0.33  | 98.00 | 0.90 | 1.77 | 1.90 | 2.90  | 98.00 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 98.00  | 91.40  | 100.00 | 100.00 |
|          | Idea        | 0.18 | 0.58  | 99.68 | 0.14 | 0.06 | 0.44 | 1.31  | 96.74 | 0    | 0.01 | 0.00   | 100.00 | 100.00 | 98.61  | 99.88  | 100.00 | 100.00 |
|          | RCOM CDMA   | 0.26 | 0.18  | 99.39 | 0.00 | 0.00 | 0.06 | 0.79  | 99.75 | 0    | 0.09 | 0.07   | 100.00 | 100.00 | 98.51  | 94.83  | 100.00 | 100.00 |
|          | RTL         | 0.05 | 0.05  | 98.42 | 0.09 | 0.48 | 0.54 | 0.36  | 98.28 | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 98.89  | 85.77  | 100.00 | 100.00 |
|          | TATA CDMA   | 0.04 | 0.00  | 98.62 | 0.00 | 0.01 | 0.63 | 1.20  | 98.83 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.90  | 97.00  | 100.00 | 100.00 |
|          | TATA GSM    | 0.06 | 0.19  | 99.27 | 0.03 | 0.16 | 0.46 | 0.32  | 97.92 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 96.14  | 95.00  | 100.00 | 100.00 |
| Vodafone | 0.10        | 0.22 | 99.28 | 0.14  | 0.72 | 0.86 | 2.17 | 98.37 | 0     | 0.22 | 0.09 | 100.00 | 100.00 | 99.99  | 97.49  | 100.00 | 100.00 |        |
| PB       | Aircel      | 0.18 | 1.00  | 97.34 | 0.19 | 0.70 | 1.04 | 2.61  | 97.47 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 90.81  | 100.00 | 100.00 |
|          | Airtel      | 0.08 | 0.07  | 99.16 | 0.15 | 0.18 | 0.53 | 1.07  | 98.32 | 0    | 0.04 | 0.01   | 100.00 | 100.00 | 100.00 | 93.00  | 100.00 | 100.00 |
|          | BSNL        | 0.30 | 1.47  | 97.67 | 1.00 | 1.57 | 2.00 | 2.93  | 95.53 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 91.00  | 100.00 | 100.00 |
|          | Idea        | 0.09 | 0.08  | 98.19 | 0.15 | 0.32 | 0.75 | 1.19  | 96.94 | 0    | 0.04 | 0.01   | 100.00 | 100.00 | 99.93  | 98.05  | 100.00 | 100.00 |
|          | QTL CDMA    | 0.53 | 0.00  | 98.25 | 0.69 | 1.06 | 1.39 | 0.58  | 97.58 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 94.00  | 100.00 | 100.00 |
|          | QTL GSM     | 0.11 | 0.10  | 97.70 | 0.25 | 0.29 | 1.11 | 1.77  | 97.75 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 96.46  | 91.22  | NA     | NA     |
|          | RCOM CDMA   | 0.11 | 0.04  | 99.03 | 0.00 | 0.00 | 0.00 | 0.35  | 99.69 | 0    | 0.09 | 0.04   | 100.00 | 100.00 | 98.63  | 81.25  | 100.00 | 100.00 |
|          | RCOM GSM    | 0.09 | 0.02  | 99.51 | 0.01 | 0.05 | 0.41 | 0.15  | 98.92 | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 98.96  | 75.89  | 100.00 | 100.00 |
|          | TATA CDMA   | 0.03 | 0.00  | 98.78 | 0.00 | 0.15 | 0.75 | 0.46  | 98.28 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 96.91  | 94.00  | 100.00 | 100.00 |
| TATA GSM | 0.09        | 0.04 | 99.10 | 0.02  | 0.05 | 0.64 | 1.58 | 97.43 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 99.20  | 88.00  | 100.00 | 100.00 |        |
| Vodafone | 0.07        | 0.28 | 99.79 | 0.04  | 0.21 | 0.70 | 1.68 | 98.00 | 0     | 0.12 | 0.00 | 100.00 | 100.00 | 100.00 | 99.48  | 100.00 | 100.00 |        |
| RAJ      | Aircel      | 0.08 | 0.45  | 95.94 | 0.20 | 0.78 | 1.00 | 1.62  | 97.06 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 79.85  | 100.00 | 100.00 |
|          | Airtel      | 0.12 | 0.25  | 98.76 | 0.26 | 0.42 | 0.99 | 1.92  | 98.84 | 0    | 0.01 | 0.01   | 100.00 | 100.00 | 100.00 | 93.00  | 100.00 | 100.00 |
|          | BSNL        | 1.93 | 1.93  | 99.00 | 0.37 | 1.30 | 1.77 | 2.93  | 98.33 | 0    | 0.00 | 0.10   | 100.00 | 100.00 | 99.00  | 93.00  | 100.00 | 100.00 |
|          | Idea        | 0.15 | 0.14  | 98.59 | 0.49 | 0.71 | 1.57 | 2.71  | 95.25 | 0    | 0.12 | 0.03   | 100.00 | 100.00 | 99.38  | 98.69  | 100.00 | 100.00 |
|          | MTS         | 0.11 | 0.00  | 98.86 | 0.00 | 0.36 | 0.74 | 1.32  | 98.74 | 0    | 0.08 | 0.06   | 100.00 | 100.00 | 99.60  | 66.60  | 100.00 | 100.00 |
|          | RCOM CDMA   | 0.35 | 0.84  | 99.06 | 0.00 | 0.00 | 0.05 | 0.41  | 99.71 | 0    | 0.10 | 0.05   | 100.00 | 100.00 | 98.79  | 92.57  | 100.00 | 100.00 |
|          | RCOM GSM    | 0.25 | 0.61  | 99.60 | 0.04 | 0.07 | 0.37 | 0.18  | 98.71 | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 99.00  | 80.71  | 100.00 | 100.00 |
|          | TATA CDMA   | 0.07 | 0.00  | 98.37 | 0.00 | 0.54 | 0.84 | 2.88  | 99.68 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 98.56  | 93.00  | 100.00 | 100.00 |
| TATA GSM | 0.04        | 0.00 | 98.53 | 0.03  | 0.04 | 0.73 | 1.41 | 98.57 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 99.31  | 90.00  | 100.00 | 100.00 |        |
| Vodafone | 0.41        | 1.77 | 99.80 | 0.14  | 0.20 | 0.91 | 0.80 | 96.95 | 0     | 0.09 | 0.05 | 100.00 | 100.00 | 100.00 | 98.41  | 100.00 | 100.00 |        |

### Annexure 4.1 (Contd.)

|          |           |      |       |       |      |      |      |       |       |      |      |        |        |        |        |        |        |        |
|----------|-----------|------|-------|-------|------|------|------|-------|-------|------|------|--------|--------|--------|--------|--------|--------|--------|
| TN       | Airtel    | 0.30 | 0.94  | 97.65 | 0.51 | 0.74 | 0.52 | 1.28  | 95.06 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 89.62  | 100.00 | 100.00 |
|          | Airtel    | 0.01 | 0.01  | 99.81 | 0.07 | 0.04 | 0.18 | 0.16  | 99.68 | 0    | 0.02 | 0.00   | 100.00 | 100.00 | 100.00 | 93.00  | 100.00 | 100.00 |
|          | BSNL      | 0.47 | 1.57  | 98.33 | 0.10 | 0.20 | 0.57 | 1.47  | 99.00 | 0    | 0.10 | 0.00   | 100.00 | 100.00 | 100.00 | 98.00  | 100.00 | 100.00 |
|          | Idea      | 0.02 | 0.00  | 99.64 | 0.06 | 0.11 | 0.50 | 0.46  | 97.08 | 0    | 0.05 | 0.04   | 100.00 | 100.00 | 99.47  | 99.55  | 100.00 | 100.00 |
|          | MTS       | 0.05 | 0.00  | 99.39 | 0.00 | 0.07 | 0.44 | 0.07  | 98.25 | 0    | 0.00 | 0.01   | 100.00 | 100.00 | 99.90  | 90.48  | NA     | NA     |
|          | RCOM CDMA | 0.22 | 0.21  | 99.26 | 0.00 | 0.00 | 0.01 | 0.19  | 99.77 | 0    | 0.10 | 0.02   | 100.00 | 100.00 | 97.20  | 82.94  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.21 | 0.17  | 99.71 | 0.03 | 0.05 | 0.37 | 0.06  | 99.02 | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 98.56  | 74.57  | 100.00 | 100.00 |
|          | TATA CDMA | 0.02 | 0.00  | 99.02 | 0.00 | 0.03 | 0.72 | 2.24  | 99.28 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.37  | 94.00  | 100.00 | 100.00 |
| TATA GSM | 0.05      | 0.05 | 98.82 | 0.02  | 0.02 | 0.53 | 0.63 | 98.55 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 99.35  | 82.00  | 100.00 | 100.00 |        |
| Vodafone | 0.05      | 0.30 | 99.71 | 0.11  | 0.29 | 0.69 | 1.06 | 97.77 | 0     | 0.05 | 0.01 | 100.00 | 100.00 | 100.00 | 90.55  | 100.00 | 100.00 |        |
| UPE      | Airtel    | 0.33 | 1.70  | 95.93 | 0.85 | 0.49 | 0.59 | 1.21  | 95.93 | 0    | 0.07 | 0.05   | 100.00 | 100.00 | 100.00 | 90.38  | 98.32  | 100.00 |
|          | Airtel    | 1.02 | 1.00  | 99.47 | 0.07 | 0.32 | 0.86 | 2.75  | 98.63 | 0    | 0.01 | 0.02   | 100.00 | 100.00 | 100.00 | 96.00  | 100.00 | 100.00 |
|          | BSNL      | 1.07 | 1.57  | 97.00 | 0.70 | 1.57 | 1.47 | 2.60  | 97.17 | 0    | 0.07 | 0.06   | 100.00 | 100.00 | 96.00  | NR     | 100.00 | 100.00 |
|          | Idea      | 0.18 | 0.83  | 98.61 | 0.71 | 1.58 | 1.23 | 2.89  | 96.28 | 0    | 0.08 | 0.01   | 100.00 | 100.00 | 99.86  | 98.97  | 100.00 | 100.00 |
|          | RCOM CDMA | 0.39 | 1.10  | 97.52 | 0.00 | 0.03 | 0.07 | 0.40  | 99.72 | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 97.25  | 86.69  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.30 | 0.82  | 99.28 | 0.05 | 0.07 | 0.42 | 0.19  | 98.67 | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 98.76  | 89.57  | 100.00 | 100.00 |
|          | TATA CDMA | 0.05 | 0.00  | 98.75 | 0.00 | 0.09 | 0.46 | 2.98  | 98.65 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.42  | 96.00  | 100.00 | 100.00 |
|          | TATA GSM  | 0.01 | 0.00  | 97.37 | 0.15 | 1.22 | 0.93 | 2.04  | 97.39 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.33  | 92.00  | 100.00 | 100.00 |
| Uninor   | 0.38      | 1.13 | 95.53 | 0.77  | 1.92 | 1.69 | 2.49 | 95.47 | 0     | NA   | 0.01 | 100.00 | NA     | 96.26  | 97.40  | NA     | NA     |        |
| Vodafone | 0.77      | 1.87 | 99.50 | 0.21  | 0.50 | 1.34 | 2.37 | 95.98 | 0     | 0.09 | 0.05 | 100.00 | 100.00 | 100.00 | 93.57  | 100.00 | 100.00 |        |
| UPW      | Airtel    | 0.27 | 0.96  | 98.81 | 0.11 | 0.22 | 0.62 | 2.81  | 97.53 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 95.38  | 100.00 | 100.00 |
|          | Airtel    | 0.16 | 0.09  | 98.11 | 0.38 | 0.84 | 1.10 | 1.31  | 97.72 | 0    | 0.02 | 0.02   | 100.00 | 100.00 | 100.00 | 94.00  | 100.00 | 100.00 |
|          | BSNL      | 0.81 | 1.93  | 96.94 | 0.87 | 1.30 | 1.86 | 2.78  | 96.28 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 94.05  | 100.00 | 100.00 |
|          | Idea      | 0.07 | 0.20  | 99.87 | 0.58 | 0.84 | 1.00 | 2.74  | 99.81 | 0    | 0.05 | 0.01   | 100.00 | 100.00 | 99.46  | 96.15  | 100.00 | 100.00 |
|          | MTS       | 0.18 | 0.00  | 99.33 | 0.00 | 0.00 | 0.64 | 1.48  | 99.17 | 0    | 0.08 | 0.06   | 100.00 | 100.00 | 100.00 | 93.48  | 100.00 | NA     |
|          | RCOM CDMA | 0.31 | 0.68  | 97.81 | 0.00 | 0.03 | 0.08 | 0.52  | 99.78 | 0    | 0.10 | 0.10   | 100.00 | 100.00 | 97.84  | 92.83  | 100.00 | 100.00 |
|          | RCOM GSM  | 0.28 | 0.78  | 99.52 | 0.06 | 0.06 | 0.37 | 0.24  | 98.85 | 0    | 0.09 | 0.10   | 100.00 | 100.00 | 98.89  | 85.20  | 100.00 | 100.00 |
|          | TATA CDMA | 0.01 | 0.00  | 99.01 | 0.00 | 0.11 | 0.69 | 0.61  | 98.01 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.12  | 96.00  | 100.00 | 100.00 |
| TATA GSM | 0.09      | 0.25 | 98.61 | 0.07  | 0.27 | 0.83 | 2.26 | 97.80 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 99.43  | 93.00  | 100.00 | 100.00 |        |
| Uninor   | 0.22      | 1.05 | 96.16 | 0.66  | 1.94 | 1.26 | 2.07 | 95.50 | 0     | NA   | 0.02 | 100.00 | NA     | 96.63  | 97.19  | NA     | NA     |        |
| Vodafone | 0.38      | 1.93 | 99.25 | 0.15  | 0.75 | 0.87 | 1.47 | 97.22 | 0     | 0.09 | 0.00 | 100.00 | 100.00 | 100.00 | 95.63  | 99.93  | 100.00 |        |
| WB       | Airtel    | 0.65 | 1.90  | 95.06 | 0.81 | 1.91 | 1.36 | 2.88  | 95.12 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 100.00 | 95.42  | 100.00 | 100.00 |
|          | Airtel    | 0.10 | 0.40  | 99.11 | 0.19 | 0.40 | 0.95 | 1.11  | 98.72 | 0    | 0.02 | 0.01   | 100.00 | 100.00 | 100.00 | 97.00  | 100.00 | 100.00 |
|          | BSNL      | 1.78 | 1.77  | 98.17 | 0.63 | 1.38 | 1.08 | 2.88  | 97.42 | 0    | 0.08 | 0.71   | 100.00 | 100.00 | 100.00 | 85.00  | 80.56  | 100.00 |
|          | Idea      | 0.16 | 1.00  | 98.73 | 0.06 | 0.25 | 0.61 | 1.81  | 95.63 | 0    | 0.03 | 0.02   | 100.00 | 100.00 | 99.40  | 99.95  | 100.00 | 100.00 |
|          | MTS       | 0.21 | 0.88  | 99.16 | 0.00 | 0.23 | 1.02 | 2.78  | 99.57 | 0    | 0.09 | 0.04   | 100.00 | 100.00 | 100.00 | 95.29  | 100.00 | NA     |
|          | RCOM CDMA | 0.21 | 0.39  | 98.94 | 0.00 | 0.01 | 0.08 | 0.45  | 99.67 | 0    | 0.08 | 0.10   | 100.00 | 100.00 | 99.16  | 88.34  | 100.00 | 100.00 |
|          | RTL       | 0.27 | 1.01  | 98.58 | 0.02 | 0.16 | 0.68 | 0.29  | 98.07 | 0    | 0.08 | 0.10   | 100.00 | 100.00 | 98.93  | 90.76  | 100.00 | 100.00 |
|          | TATA CDMA | 0.06 | 0.00  | 98.65 | 0.00 | 0.63 | 0.67 | 2.62  | 98.03 | 0    | 0.00 | 0.00   | 100.00 | 100.00 | 99.50  | 97.00  | 100.00 | 100.00 |
| TATA GSM | 0.00      | 0.00 | 98.42 | 0.04  | 0.41 | 0.77 | 2.10 | 97.79 | 0     | 0.00 | 0.00 | 100.00 | 100.00 | 96.34  | 90.00  | 100.00 | 100.00 |        |
| Vodafone | 0.02      | 0.03 | 99.26 | 0.29  | 0.74 | 0.96 | 1.85 | 95.49 | 0     | 0.12 | 0.05 | 100.00 | 100.00 | 100.00 | 94.73  | 100.00 | 100.00 |        |

**Note:** NA : Not Applicable  
 NR : Not Reported  
 RCOM CDMA & RCOM GSM :  
 CN included in TN for Network Related parameters only  
 RCOM GSM :  
 % of calls answered by the operators has been reported combined for TN and CH for customer related parameters only.  
 RCOM CDMA :  
 % of calls answered by the operators has been reported combined for TN and CH for customer related parameters only.  
 % of calls answered by the operators has been reported combined for WB and KOL for customer related parameters only.

## Annexure 4.2: Performance of QoS Parameters for Cellular Mobile 3G Service

| Performance Monitoring Report on Quality of Service of Cellular Mobile (3G) Service Providers for quarter ending, September , 2013 |                             |  |  |  |  |  |  |  |  |   |
|--|-----------------------------|--|--|--|--|--|--|--|--|---|
| Name of the Service Provider   | Name of Service Area / City | Network Availability   |  | Connection Establishment (Accessibility)                 |  |  | Connection Maintenance (Retainability)                 |  |  | POI                                       |
|  |                             | Node-B's Accumulated downtime (not available for service) (%age) | Worst affected Node-B's due to downtime (%age) | Call Set-up Success Rate (within licensee's own network) | SDCCH/Paging Channel and RRC Congestion (%age) | TCH and Circuit Switched RAB Congestion (%age) | Call Drop and Circuit Switched Voice Drop Rate: (%age) | Worst affected cells having more than 3% TCH drop (call drop) and Circuit Switched Voice Drop Rate:-CBBH | Connections with good voice quality and Circuit Switch Voice Quality (CSV quality) | Point of Interconnection (POI) Congestion |
|  | 1                           | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10  |
|  | Benchmark                   | ≤ 2%   | ≤ 2%   | ≥ 95%  | ≤ 1%   | ≤ 2%   | ≤ 2%   | ≤ 3%   | ≥ 95%  | ≤ 0.5%                                    |
| AP   | Aircel                      | 0.07   | 0.00   | 99.29  | 0.28   | 0.30   | 0.59   | 2.40   | 99.76  | 0   |
|  | Airtel                      | 0.08   | 0.08   | 99.06  | 0.15   | 0.00   | 0.58   | 1.85   | 99.14  | 0   |
|  | Idea                        | 0.01   | 0.00   | 99.60  | 0.10   | 0.37   | 0.41   | 0.48   | 98.77  | 0   |
| ASM  | Aircel                      | 0.34   | 1.86   | 98.39  | 0.15   | 0.13   | 1.12   | 4.35   | 99.46  | 0   |
|  | Airtel                      | 0.29   | 1.07   | 98.78  | 0.54   | 0.14   | 0.69   | 1.39   | 99.15  | 0   |
|  | RTL                         | 1.01   | 1.49   | 97.22  | 0.11   | 0.01   | 0.84   | 1.93   | 99.85  | 0   |
| BH   | Aircel                      | 1.29   | 3.30   | 98.15  | 0.72   | 0.14   | 1.40   | 16.32  | 99.12  | 0   |
|  | Airtel                      | 0.01   | 0.42   | 99.52  | 0.03   | 0.20   | 0.48   | 0.17   | 99.63  | 0   |
|  | RTL                         | 0.98   | 1.00   | 96.55  | 0.11   | 0.48   | 0.75   | 2.46   | 99.84  | 0   |
| CHN  | Aircel                      | 0.90   | 4.39   | 98.57  | 0.30   | 0.29   | 1.13   | 6.38   | 98.31  | 0   |
|  | Airtel                      | 0.09   | 0.05   | 99.72  | 0.01   | 0.07   | 0.27   | 0.37   | 99.69  | 0   |
|  | Vodafone                    | 0.03   | 0.15   | 99.83  | 0.02   | 0.00   | 0.34   | 1.03   | 99.07  | 0   |
| DEL  | Vodafone                    | 0.05   | 0.00   | 97.77  | 0.01   | 0.00   | 0.90   | 2.78   | 99.09  | 0   |
|  | Airtel                      | 0.18   | 0.97   | 98.45  | 0.24   | 0.10   | 0.73   | 2.74   | 99.09  | 0   |
|  | MTNL                        | 0.47   | 1.40   | 96.57  | 0.57   | 1.67   | 1.60   | 2.20   | 96.30  | 0   |
|  | RCOM                        | 0.69   | 1.68   | 98.89  | 0.19   | 0.19   | 0.84   | 2.27   | 99.76  | 0   |
| GJ   | Idea                        | 0.09   | 0.21   | 99.87  | 0.04   | 0.02   | 0.51   | 0.80   | 99.14  | 0   |
|  | Tata                        | 0.00   | 0.00   | 98.87  | 0.10   | 0.57   | 0.78   | 1.41   | 99.76  | 0   |
|  | Vodafone                    | 0.03   | 0.02   | 99.84  | 0.04   | 0.01   | 0.24   | 0.12   | 99.09  | 0   |
| HP   | Airtel                      | 0.07   | 0.00   | 99.05  | 0.00   | 0.00   | 0.89   | 2.35   | 99.10  | 0   |
|  | Idea                        | 0.79   | 0.00   | 99.55  | 0.72   | 0.24   | 1.23   | 2.46   | 98.96  | 0   |
|  | RTL                         | 0.64   | 0.78   | 97.74  | 0.00   | 0.00   | 0.65   | 1.80   | 99.89  | 0   |
| HR   | Idea                        | 0.01   | 0.00   | 99.81  | 0.03   | 0.00   | 0.31   | 2.09   | 99.01  | 0   |
|  | Tata                        | 0.05   | 0.10   | 99.63  | 0.14   | 0.15   | 0.27   | 0.06   | 99.28  | 0   |
|  | Vodafone                    | 0.24   | 0.76   | 99.88  | 0.02   | 0.00   | 0.34   | 0.78   | 99.05  | 0   |
| J&K  | Aircel                      | 0.31   | 1.33   | 98.76  | 0.33   | 0.09   | 1.63   | 2.15   | 99.03  | 0   |
|  | Airtel                      | 0.22   | 0.53   | 98.48  | 0.21   | 0.00   | 1.30   | 1.98   | 98.85  | 0   |
|  | RCOM                        | 0.70   | 1.37   | 99.55  | 0.01   | 0.02   | 1.20   | 2.26   | 99.73  | 0   |
|  | Idea                        | 0.39   | 1.49   | 99.79  | 0.07   | 0.02   | 1.01   | 2.14   | 99.09  | 0   |
| KOL  | Aircel                      | 0.40   | 1.67   | 99.15  | 0.18   | 0.03   | 0.28   | 1.34   | 99.05  | 1   |
|  | RTL                         | 0.32   | 1.28   | 97.20  | 0.45   | 0.00   | 1.37   | 2.22   | 99.86  | 0   |
|  | Vodafone                    | 0.05   | 0.05   | 99.77  | 0.07   | 0.05   | 0.55   | 1.00   | 99.06  | 0   |
| KR   | Aircel                      | 0.00   | 0.00   | 99.74  | 0.00   | 0.00   | 0.07   | 0.04   | 99.96  | 0   |
|  | Idea                        | 0.07   | 0.11   | 99.79  | 0.56   | 0.13   | 0.19   | 1.79   | 99.66  | 0   |
|  | Tata                        | 0.01   | 0.00   | 99.61  | 0.02   | 0.07   | 0.38   | 0.70   | 99.81  | 0   |

**Annexure 4.2 (Contd.)**

|     |                 |      |             |       |      |      |      |              |        |   |
|-----|-----------------|------|-------------|-------|------|------|------|--------------|--------|---|
| KTK | <b>Aircel</b>   | 0.18 | 0.03        | 99.05 | 0.53 | 0.42 | 0.70 | 2.43         | 99.73  | 0 |
|     | <b>Airtel</b>   | 0.03 | 0.04        | 99.02 | 0.04 | 0.16 | 0.36 | 0.55         | 99.74  | 0 |
|     | <b>Tata</b>     | 0.06 | 0.13        | 99.43 | 0.43 | 0.21 | 0.44 | 0.85         | 99.20  | 0 |
| MBI | <b>Airtel</b>   | 0.02 | 0.00        | 99.97 | 0.00 | 0.00 | 0.19 | 0.36         | 99.90  | 0 |
|     | <b>MTNL</b>     | 0.80 | 1.80        | 98.70 | 0.00 | 0.30 | 1.43 | 2.50         | 99.11  | 0 |
|     | <b>RCOM</b>     | 0.57 | 1.77        | 98.49 | 0.15 | 0.26 | 0.93 | 1.93         | 99.76  | 0 |
|     | <b>Vodafone</b> | 0.01 | 0.00        | 99.58 | 0.00 | 0.00 | 0.66 | 2.05         | 99.07  | 0 |
| MH  | <b>Idea</b>     | 0.12 | 0.30        | 99.77 | 0.13 | 0.05 | 1.02 | 2.88         | 98.75  | 0 |
|     | <b>Tata</b>     | 0.01 | 0.00        | 98.40 | 0.09 | 0.37 | 0.21 | 2.84         | 100.00 | 0 |
|     | <b>Vodafone</b> | 0.12 | 0.30        | 99.74 | 0.10 | 0.02 | 0.47 | 1.28         | 99.06  | 0 |
| MP  | <b>Idea</b>     | 0.08 | 0.18        | 99.83 | 0.07 | 0.04 | 0.62 | 1.72         | 99.21  | 0 |
|     | <b>RTL</b>      | 0.62 | 1.54        | 97.16 | 0.41 | 0.01 | 0.72 | 2.45         | 99.83  | 0 |
|     | <b>Tata</b>     | 0.00 | 0.00        | 99.60 | 0.05 | 0.02 | 0.87 | 2.68         | 99.82  | 0 |
| NE  | <b>Aircel</b>   | 0.50 | 1.73        | 97.97 | 0.10 | 0.01 | 1.24 | <b>7.42</b>  | 99.17  | 0 |
|     | <b>Airtel</b>   | 1.39 | 1.30        | 96.72 | 0.39 | 1.02 | 1.41 | 1.17         | 99.13  | 0 |
|     | <b>RTL</b>      | 1.28 | 1.66        | 96.79 | 0.00 | 0.28 | 1.42 | 2.49         | 99.80  | 0 |
| OR  | <b>Aircel</b>   | 0.10 | 0.69        | 98.48 | 0.28 | 0.06 | 0.95 | <b>13.26</b> | 99.45  | 0 |
|     | <b>RTL</b>      | 0.53 | 1.58        | 97.69 | 0.11 | 0.00 | 0.56 | 2.25         | 99.86  | 0 |
| PB  | <b>Aircel</b>   | 0.23 | 0.98        | 98.96 | 0.21 | 0.00 | 0.82 | <b>20.99</b> | 97.24  | 0 |
|     | <b>RCOM</b>     | 0.14 | 0.34        | 98.39 | 0.23 | 0.31 | 0.86 | 2.17         | 99.77  | 0 |
|     | <b>Tata</b>     | 0.10 | 0.07        | 99.70 | 0.16 | 0.04 | 0.39 | 0.60         | 99.19  | 0 |
| RAJ | <b>Airtel</b>   | 0.10 | 0.23        | 99.41 | 0.13 | 0.11 | 0.69 | 2.47         | 99.12  | 0 |
|     | <b>RCOM</b>     | 0.34 | 1.14        | 98.97 | 0.22 | 0.19 | 0.37 | 1.92         | 99.75  | 0 |
|     | <b>Tata</b>     | 0.01 | 0.00        | 99.75 | 0.00 | 0.00 | 0.79 | 1.87         | 99.78  | 0 |
| TN  | <b>Aircel</b>   | 0.35 | 0.69        | 98.37 | 0.55 | 0.72 | 1.04 | <b>7.07</b>  | 98.46  | 0 |
|     | <b>Airtel</b>   | 0.03 | 0.01        | 99.82 | 0.12 | 0.06 | 0.18 | 0.22         | 99.73  | 0 |
|     | <b>Vodafone</b> | 0.06 | 0.20        | 99.86 | 0.00 | 0.00 | 0.29 | 0.95         | 99.14  | 0 |
| UPE | <b>Aircel</b>   | 0.46 | 1.78        | 99.05 | 0.08 | 0.00 | 0.99 | <b>4.65</b>  | 99.60  | 0 |
|     | <b>Idea</b>     | 0.65 | 0.83        | 99.65 | 0.05 | 0.00 | 0.30 | 2.88         | 98.92  | 0 |
|     | <b>Vodafone</b> | 0.18 | 0.84        | 99.90 | 0.00 | 0.00 | 0.24 | 0.58         | 99.10  | 0 |
| UPW | <b>Airtel</b>   | 0.29 | 0.87        | 99.18 | 0.09 | 0.00 | 0.97 | 1.54         | 99.03  | 0 |
|     | <b>Idea</b>     | 0.28 | 1.58        | 99.56 | 0.24 | 0.10 | 0.25 | 2.51         | 99.19  | 0 |
|     | <b>Tata</b>     | 0.09 | 0.42        | 99.65 | 0.22 | 0.05 | 0.34 | 0.76         | 99.29  | 0 |
| WB  | <b>Aircel</b>   | 0.58 | <b>2.54</b> | 98.09 | 0.13 | 0.00 | 0.66 | <b>8.61</b>  | 99.07  | 0 |
|     | <b>Airtel</b>   | 0.23 | 0.98        | 99.60 | 0.03 | 0.34 | 0.48 | 2.80         | 99.62  | 0 |
|     | <b>RTL</b>      | 0.71 | 1.48        | 96.96 | 0.35 | 0.11 | 0.98 | 2.50         | 99.85  | 0 |
|     | <b>Vodafone</b> | 0.05 | 0.19        | 99.88 | 0.00 | 0.01 | 0.31 | 1.55         | 99.04  | 0 |

### Annexure 4.3: Performance of QoS Parameters for Basic (Wire-line) Service

| Performance Monitoring Report of Basic Service (Wireline) for Quarter Ending September, 2013 |                      |                          |   |  |                                    |                                    |             |                            |                            |                         |       |   |  |   |  |  |  |  |   |  |
|--|----------------------|--------------------------|---|--|------------------------------------|------------------------------------|-------------|----------------------------|----------------------------|-------------------------|-------|---|--|---|--|--|--|--|---|--|
| Sl. No.  | Name of Service Area | Name of Service Provider | Faults incidences (No. of faults/100 Subs./month) | Fault Repair                             |                                    |                                    | Rent Rebate | Mean Time to Repair (MTTR) | Call Completion Rate (CCR) | Answer to Seizure Ratio | POI   | Metering and Billing  |  |   |  | Response time to the customer for Assistance   |  | Termination / closure of service   |   |  |
|  |                      |                          |   | % of faults repaired by next working day | % of faults repaired within 3 days | % of faults repaired within 5 days |             |                            |                            |                         |       | Point of Interconnection (POI) Congestion (No. of POIs not meeting the benchmark) | Metering and Billing credibility - post paid | Metering and billing credibility - pre paid | Resolution of billing/charging/validity complaints | Period of applying credit/waiver/ adjustment to customer's account from the date of resolution of complaints | Accessibility of call centre/customer care | Percentage of calls answered by the operators (voice to voice) within 60 seconds | %age requests for Termination / Closure of service complied within 7 days | Time taken for refund of deposits after closures |
|  |                      |                          |   |  |                                    |                                    |             |                            |                            |                         |       |   |  |   |  |  |  |  |   |  |
| 1  | A & N                | BSNL                     | 4.50  | 85.54%                                   | 94.31%                             | 97.72%                             | 5           | 10.67                      | 65.54%                     | NA                      | NIL   | 0.00%   | 0.00%  | 100.00%                                     | 100.00%  | 100.00%  | 89.00%                                     | 100.00%  | 100.00%   |  |
| 2  | AP                   | Bharti                   | 2.50  | 91.66%                                   | 100.00%                            | NA                                 | 0           | 3.45                       | 94.50%                     | NA                      | 0.00% | 0.02%   | NA   | 100.00%                                     | 100.00%  | 100.00%  | 93.00%                                     | 100.00%  | 100.00%   |  |
| 3  |                      | Reliance                 | 0.22  | 100.00%                                  | 100.00%                            | NA                                 | NA          | 1:40                       | NA                         | 92.62%                  | 0.00% | 0.00%   | NA   | 100.00%                                     | 100.00%  | 97.00%   | 97.00%                                     | 100.00%  | 100.00%   |  |
| 4  |                      | TTSL                     | 4.00  | 98.67%                                   | 100.00%                            | 100.00%                            | NA          | 5.98                       | 92.38%                     | NA                      | NA    | 0.07%   | NA   | 100.00%                                     | 100.00%  | 98.86%   | 90.10%                                     | 100.00%  | 100.00%   |  |
| 5  |                      | Vodafone                 | 0.15  | 100.00%                                  | NA                                 | NA                                 | NA          | 2:54                       | 92.96%                     | NA                      | 0.00% | 0.00%   | NA   | NA  | NA   | 100.00%  | 100.00%                                    | NA   | NA  |  |
| 6  |                      | BSNL                     | 5.50  | 77.68%                                   | 88.71%                             | 99.33%                             | 69          | 5.84                       | 68.98%                     | NA                      | NIL   | 0.01%   | NIL  | 100.00%                                     | 100.00%  | 97.47%   | 78.00%                                     | 100.00%  | 100.00%   |  |
| 7  | ASM                  | TTSL                     | NA  | NA                                       | NA                                 | NA                                 | NA          | NA                         | NA                         | NA                      | NA    | NA  | NA   | NA  | NA   | NA   | NA   | NA   | NA  |  |
| 8  |                      | Vodafone                 | 1.99  | 97.87%                                   | NA                                 | NA                                 | NA          | 3:16                       | 96.75%                     | NA                      | 0.00% | 0.00%   | NA   | NA  | NA   | 100.00%  | 100.00%                                    | NA   | NA  |  |
| 9  |                      | BSNL                     | 3.72  | 96.81%                                   | 100.00%                            | 100.00%                            | NA          | 3:11                       | 70.19%                     | NA                      | NIL   | 0.13%   | 0.00%  | 100.00%                                     | 100.00%  | 98.58%   | 94.33%                                     | 100.00%  | 100.00%   |  |
| 10   | BR                   | Reliance                 | NIL   | NA                                       | NA                                 | NA                                 | NA          | NA                         | 97.78%                     | 0.00%                   | NIL   | NA  | NIL  | NIL   | 97.00%   | 97.00%   | 100.00%                                    | 100.00%  |   |  |
| 11   |                      | TTSL                     | 0.74  | 100.00%                                  | 100.00%                            | 100.00%                            | NA          | 2:12                       | 90.71%                     | NA                      | 0.03% | NA  | 100.00%                                      | NIL   | 99.20%   | 93.90%   | 100.00%                                    | NA   |   |  |
| 12   |                      | Vodafone                 | 1.14  | 100.00%                                  | NA                                 | NA                                 | NA          | 3:34                       | 93.78%                     | NA                      | 0.00% | 0.00%   | NA   | NA  | 100.00%  | 100.00%  | 100.00%                                    | 100.00%  | NA  |  |
| 13   |                      | BSNL                     | 2.98  | 95.05%                                   | 100.00%                            | 100.00%                            | 0           | 5:00                       | 65.83%                     | NA                      | NIL   | 0.00%   | 0.00%  | 100.00%                                     | 100.00%  | NA   | NA   | 100.00%  | 100.00%   |  |
| 14   | CH                   | Reliance                 | 0.11  | 100.00%                                  | 100.00%                            | NA                                 | NA          | 4:43                       | NA                         | 88.20%                  | 0.00% | NIL   | NA   | NIL   | NIL  | 97.00%   | 97.00%                                     | 100.00%  | 100.00%   |  |
| 15   |                      | TTSL                     | 0.48  | 100.00%                                  | 100.00%                            | 100.00%                            | NA          | 4:78                       | 99.85%                     | NA                      | NA    | 0.03%   | NA   | 100.00%                                     | 100.00%  | 98.78%   | 93.40%                                     | 100.00%  | NA  |  |
| 16   |                      | Vodafone                 | 0.53  | 100.00%                                  | NA                                 | NA                                 | NA          | 2:22                       | 93.91%                     | NA                      | 0.00% | 0.00%   | NA   | NA  | NA   | 100.00%  | 100.00%                                    | NA   | NA  |  |
| 17   |                      | BSNL                     | 9.25  | 70.29%                                   | 82.12%                             | 95.01%                             | 864         | 54.43                      | 85.77%                     | NA                      | NIL   | 0.00%   | 0.00%  | 100.00%                                     | 100.00%  | 98.43%   | 71.67%                                     | 100.00%  | 100.00%   |  |
| 18   | Chhattisgarh         | BSNL                     | 3.91  | 97.33%                                   | 99.10%                             | 100.00%                            | 820         | 5.24                       | 70.24%                     | NA                      | NIL   | 0.03%   | NA   | 100.00%                                     | 100.00%  | 96.53%   | 42.67%                                     | 100.00%  | 100.00%   |  |
| 19   | DL                   | Bharti                   | 3.65  | 94.39%                                   | 100.00%                            | NA                                 | 0           | 5:51                       | 92.99%                     | NA                      | 0.00% | 0.03%   | NA   | 100.00%                                     | 100.00%  | 100.00%  | 94.00%                                     | 100.00%  | 100.00%   |  |
| 20   |                      | Reliance                 | 0.19  | 100.00%                                  | 100.00%                            | NA                                 | NA          | 1:26                       | NA                         | 93.83%                  | 0.00% | 0.01%   | NA   | 100.00%                                     | 100.00%  | 97.00%   | 97.00%                                     | 100.00%  | 100.00%   |  |
| 21   |                      | TTSL                     | 0.54  | 100.00%                                  | 100.00%                            | 100.00%                            | NA          | 3:32                       | 98.21%                     | NA                      | NA    | 0.04%   | NA   | 100.00%                                     | NIL  | 99.56%   | 92.70%                                     | 100.00%  | NA  |  |
| 22   |                      | Vodafone                 | 0.25  | 99.05%                                   | NA                                 | NA                                 | NA          | 2:11                       | 100.00%                    | NA                      | 0.00% | 0.00%   | NA   | NA  | NA   | 100.00%  | 100.00%                                    | 100.00%  | NA  |  |
| 23   |                      | MTNL                     | 9.74  | 84.06%                                   | 94.17%                             | NA                                 | NA          | 4:99                       | 55.51%                     | NA                      | 0.00% | 0.05%   | NA   | 96.37%                                      | DNF  | 99.60%   | 99.08%                                     | 95.01%   | 100.00%   |  |
| 24   | GJ                   | Bharti                   | 1.64  | 97.06%                                   | 100.00%                            | NA                                 | 0           | 3:69                       | 86.85%                     | NA                      | 0.00% | 0.01%   | NA   | 100.00%                                     | 100.00%  | 100.00%  | 93.00%                                     | 100.00%  | 100.00%   |  |
| 25   |                      | Reliance                 | 0.77  | 100.00%                                  | 100.00%                            | NA                                 | NA          | 0:52                       | NA                         | 86.49%                  | 0.00% | 0.04%   | NA   | 100.00%                                     | 100.00%  | 97.00%   | 97.00%                                     | 100.00%  | 100.00%   |  |
| 26   |                      | TTSL                     | 1.89  | 99.71%                                   | 100.00%                            | 100.00%                            | NA          | 5:80                       | 56.85%                     | NA                      | NA    | 0.05%   | NA   | 100.00%                                     | NIL  | 99.06%   | 90.03%                                     | 100.00%  | NA  |  |
| 27   |                      | Vodafone                 | 1.57  | 100.00%                                  | NA                                 | NA                                 | NA          | 3:36                       | 97.33%                     | NA                      | 0.00% | 0.00%   | NA   | NA  | NA   | 100.00%  | 100.00%                                    | NA   | NA  |  |
| 28   | BSNL                 | 5.00                     | 94.77%  | 100.00%                                  | 100.00%                            | NA                                 | 4:79        | 71.17%                     | NA                         | NIL                     | 0.02% | 0.00%   | 100.00%                                      | 100.00%                                     | 95.61%   | 72.33%   | 100.00%                                    | 100.00%  |   |  |

### Annexure 4.3 (Contd.)

|    |      |          |       |         |         |         |         |       |         |        |       |       |       |         |         |         |         |         |         |
|----|------|----------|-------|---------|---------|---------|---------|-------|---------|--------|-------|-------|-------|---------|---------|---------|---------|---------|---------|
| 29 | HP   | Reliance | NIL   | NA      | NA      | NA      | NA      | NA    | NA      | 94.03% | 0.00% | NIL   | NA    | NIL     | NIL     | 97.00%  | 97.00%  | 100.00% | 100.00% |
| 30 |      | TTSL     | NA    | NA      | NA      | NA      | NA      | NA    | NA      | NA     | NA    | NA    | NA    | NA      | NA      | 99.66%  | 93.71%  | NA      | NA      |
| 31 |      | Vodafone | NA    | NA      | NA      | NA      | NA      | NA    | NA      | NA     | NA    | NA    | NA    | NA      | NA      | 100.00% | 100.00% | NA      | NA      |
| 32 | HR   | BSNL     | 4.48  | 93.94%  | 98.84%  | 99.69%  | 0       | 6.22  | 71.71%  | NA     | NIL   | 0.07% | 0.00% | 100.00% | 100.00% | 96.72%  | 87.00%  | 100.00% | 100.00% |
| 33 |      | Bharti   | 4.73  | 98.07%  | 100.00% | NA      | 0       | 3.46  | 95.84%  | NA     | 0.00% | 0.00% | NA    | 100.00% | 100.00% | 100.00% | 93.00%  | 100.00% | 100.00% |
| 34 | HR   | Reliance | NIL   | NA      | NA      | NA      | NA      | NA    | NA      | 84.95% | 0.00% | NIL   | NA    | NIL     | NIL     | 97.00%  | 97.00%  | 100.00% | 100.00% |
| 35 |      | TTSL     | 0.16  | 100.00% | 100.00% | 100.00% | NA      | 1.81  | 99.99%  | NA     | NA    | NA    | NA    | NA      | NA      | 98.88%  | 92.60%  | NA      | NA      |
| 36 |      | Vodafone | NA    | NA      | NA      | NA      | NA      | NA    | NA      | NA     | NA    | NA    | NA    | NA      | NA      | 100.00% | 100.00% | NA      | NA      |
| 37 | J&K  | BSNL     | 4.55  | 97.99%  | 100.00% | 100.00% | 522     | 6.17  | 78.87%  | NA     | NIL   | 0.10% | NIL   | 100.00% | 100.00% | 96.01%  | 36.67%  | 100.00% | 100.00% |
| 38 |      | TTSL     | NA    | NA      | NA      | NA      | NA      | NA    | NA      | NA     | NA    | NA    | NA    | NA      | NA      | NA      | NA      | NA      | NA      |
| 39 | J&K  | Vodafone | NA    | NA      | NA      | NA      | NA      | NA    | NA      | NA     | NA    | NA    | NA    | NA      | NA      | 100.00% | 100.00% | NA      | NA      |
| 40 |      | BSNL     | 7.23  | 66.08%  | 82.27%  | 92.44%  | 7       | 7.02  | 70.10%  | NA     | NIL   | 0.00% | 0.00% | 100.00% | 100.00% | 96.56%  | 62.67%  | 100.00% | 100.00% |
| 41 | JHAR | BSNL     | 2.42  | 96.83%  | 100.00% | 100.00% | 48      | 5.98  | 74.28%  | NA     | NIL   | 0.08% | 0.00% | 100.00% | 100.00% | 98.53%  | 95.67%  | 100.00% | 100.00% |
| 42 |      | Bharti   | 2.86  | 94.07%  | 100.00% | NA      | 0       | 6.18  | 98.69%  | NA     | 0.00% | 0.01% | NA    | 100.00% | 100.00% | 100.00% | 94.00%  | 100.00% | 100.00% |
| 43 | KOL  | Reliance | 0.51  | 100.00% | 100.00% | NA      | NA      | 1:31  | NA      | 91.32% | 0.00% | 0.05% | NA    | 100.00% | 100.00% | 97.00%  | 97.00%  | 100.00% | 100.00% |
| 44 |      | TTSL     | 1.15  | 100.00% | 100.00% | 100.00% | NA      | 3.10  | 91.03%  | NA     | NA    | 0.02% | NA    | 100.00% | NIL     | 99.11%  | 93.37%  | Nil     | NA      |
| 45 |      | Vodafone | 0.81  | 100.00% | NA      | NA      | NA      | 2:24  | 69.22%  | NA     | 0.00% | 0.00% | NA    | NA      | NA      | 100.00% | 100.00% | NA      | NA      |
| 46 | KR   | BSNL     | 14.74 | 31.39%  | 47.95%  | 0.00%   | 174     | 42.62 | 60.96%  | NA     | NIL   | 0.07% | NA    | 100.00% | 100.00% | 98.72%  | 84.00%  | 38.55%  | 100.00% |
| 47 |      | Bharti   | 1.00  | 96.40%  | 100.00% | NA      | 0       | 2.46  | 93.27%  | NA     | 0.00% | 0.01% | NA    | 100.00% | 100.00% | 99.00%  | 95.00%  | 100.00% | 100.00% |
| 48 |      | Reliance | 0.23  | 100.00% | 100.00% | NA      | NA      | 4:36  | NA      | 81.80% | 0.00% | 0.01% | NA    | 100.00% | 100.00% | 97.00%  | 97.00%  | 100.00% | 100.00% |
| 49 |      | TTSL     | 0.09  | 100.00% | 100.00% | 100.00% | NA      | 3.90  | 95.86%  | NA     | NA    | 0.03% | NA    | 100.00% | NIL     | 99.40%  | 93.71%  | 100.00% | NA      |
| 50 |      | Vodafone | NA    | NA      | NA      | NA      | NA      | NA    | NA      | NA     | NA    | NA    | NA    | NA      | NA      | 100.00% | 100.00% | NA      | NA      |
| 51 | KTK  | BSNL     | 8.48  | 54.38%  | 77.82%  | 85.79%  | 2865558 | 72.84 | 72.57%  | NA     | NIL   | 0.08% | 0.00% | 100.00% | 100.00% | 98.12%  | 98.00%  | 100.00% | 100.00% |
| 52 |      | Bharti   | 2.83  | 92.14%  | 100.00% | NA      | 0       | 3.23  | 92.63%  | NA     | 0.00% | 0.06% | NA    | 100.00% | 100.00% | 99.00%  | 93.00%  | 100.00% | 100.00% |
| 53 |      | Reliance | 0.09  | 100.00% | 100.00% | NA      | NA      | 7:51  | NA      | 88.26% | 0.00% | 0.01% | NA    | 100.00% | 100.00% | 97.00%  | 97.00%  | 100.00% | 100.00% |
| 54 |      | TTSL     | 0.70  | 99.12%  | 100.00% | 100.00% | NA      | 3.71  | 84.56%  | NA     | NA    | 0.02% | NA    | 100.00% | NIL     | 99.32%  | 90.50%  | 100.00% | 100.00% |
| 55 |      | Vodafone | 0.42  | 100.00% | NA      | NA      | NA      | 2:31  | 91.85%  | NA     | 0.00% | 0.00% | NA    | NA      | NA      | 100.00% | 100.00% | NA      | NA      |
| 56 | MH   | BSNL     | 6.35  | 75.49%  | 85.66%  | 94.82%  | 2209    | 46.69 | 72.01%  | NA     | NIL   | 0.07% | NA    | 100.00% | 100.00% | 96.87%  | 61.67%  | 100.00% | 100.00% |
| 57 |      | Bharti   | 0.95  | 97.61%  | 100.00% | NA      | 0       | 2.96  | 83.27%  | NA     | 0.00% | 0.01% | NA    | 100.00% | 100.00% | 100.00% | 93.00%  | 100.00% | 100.00% |
| 58 |      | Reliance | 0.19  | 100.00% | 100.00% | NA      | NA      | 3:26  | NA      | 87.46% | 0.00% | 0.04% | NA    | 100.00% | 100.00% | 97.00%  | 97.00%  | 100.00% | 100.00% |
| 59 |      | TTSL     | 0.70  | 99.12%  | 100.00% | 100.00% | NA      | 7.06  | 98.86%  | NA     | NA    | 0.04% | NA    | 100.00% | NIL     | 99.17%  | 90.00%  | 100.00% | NA      |
| 60 |      | Vodafone | 0.48  | 97.73%  | NA      | NA      | NA      | 3:09  | 91.05%  | NA     | 0.00% | 0.00% | NA    | NA      | NA      | 100.00% | 100.00% | NA      | NA      |
| 61 | MP   | BSNL     | 8.81  | 36.31%  | 63.96%  | 82.99%  | 179     | 22.43 | 56.73%  | NA     | NIL   | 0.00% | NA    | 100.00% | 100.00% | 95.59%  | 56.67%  | 93.74%  | 100.00% |
| 62 |      | Bharti   | 4.89  | 97.28%  | 100.00% | NA      | 0       | 3.44  | 88.15%  | NA     | 0.00% | 0.05% | NA    | 100.00% | 100.00% | 99.00%  | 94.00%  | 100.00% | 100.00% |
| 63 |      | Reliance | 0.67  | 100.00% | 100.00% | NA      | NA      | 3:05  | NA      | 87.75% | 0.00% | 0.02% | NA    | 100.00% | 100.00% | 97.00%  | 97.00%  | 100.00% | 100.00% |
| 64 |      | TTSL     | 1.04  | 100.00% | 100.00% | 100.00% | NA      | 6.50  | 100.00% | NA     | NA    | 0.08% | NA    | 100.00% | NIL     | 99.17%  | 92.20%  | NIL     | NA      |
| 65 |      | Vodafone | 3.50  | 100.00% | NA      | NA      | NA      | 1:19  | 92.72%  | NA     | 0.00% | 0.00% | NA    | NA      | NA      | 100.00% | 100.00% | NA      | NA      |
| 66 | MUM  | BSNL     | 3.61  | 93.99%  | 100.00% | 100.00% | 284880  | 3.35  | 72.04%  | NA     | NIL   | 0.07% | 0.00% | 100.00% | 100.00% | 95.30%  | 88.00%  | 100.00% | 100.00% |
| 67 |      | Bharti   | 0.48  | 98.46%  | 100.00% | NA      | 0       | 3.37  | 84.06%  | NA     | 0.00% | 0.00% | NA    | 100.00% | 100.00% | 100.00% | 93.00%  | 100.00% | 100.00% |
| 68 |      | Reliance | 0.12  | 100.00% | 100.00% | NA      | NA      | 2:52  | NA      | 90.17% | 0.00% | 0.05% | NA    | 100.00% | 100.00% | 97.00%  | 97.00%  | 100.00% | 100.00% |
| 69 | MUM  | TTSL     | 0.32  | 98.42%  | 100.00% | 100.00% | NA      | 6.62  | 98.09%  | NA     | NA    | 0.03% | NA    | 100.00% | NIL     | 99.09%  | 90.70%  | 100.00% | 100.00% |
| 70 |      | Vodafone | 0.13  | 100.00% | NA      | NA      | NA      | 1:25  | 95.83%  | NA     | 0.00% | 0.00% | NA    | NA      | NA      | 100.00% | 100.00% | 100.00% | NA      |
| 71 |      | MTNL     | 7.78  | 87.06%  | 93.91%  | NA      | NA      | 8.51  | 55.81%  | 79.21% | 0.00% | 0.04% | NIL   | 100.00% | NA      | 98.78%  | 96.37%  | 95.83%  | 100.00% |





## Annexure 4.4: Quality of Service Performance of Broadband Service Providers

**Performance Monitoring Report on Quality of Service of Broadband Service Providers for Quarter Ending September, 2013**

| Sl. No.  | Service Operators/Service area | Service Provisioning   | Faults Repair                                   |   | Billing Performance |                     |   |  | Response Time to the Customer for assistance                   |  | Bandwidth utilisation/throughput  |   |  |   | Packet Loss  | Network latency (for wired broadband access)     |   |   |   |
|----------|--------------------------------|--|---|---|---------------------|---------------------|---|--|--|--|---|---|--|---|--|--|---|---|---|
|          |                                | % 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         | % of bills disputed | % of billing complaints resolved within 4 weeks | % of cases to whom refund of deposits is made within 60 days of closures | % of calls answered by operator (Voice to voice) within 60 sec | % 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) (Enclose 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 access) in %age | User reference point at POP/ISP Gateway node to IGSP/NIXI | 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) |
|          |                                | 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   |
| <b>1</b> | <b>BSNL</b>                    |  |   |   |                     |                     |   |  |  |  |   |   |  |   |  |  |   |   |   |
| 1.1      | Andhra Pradesh                 | 100.00%  | 81.70%  | 92.40%                                    | 13                  | 0.06%               | 100.00%   | 100.00%  | 52.64%   | 57.82%   |   |   |  | 93.90%  | 99.90%   |  |   |   |   |
| 1.2      | Assam                          | 89.40%   | 78.50%  | 92.60%                                    | 29                  | 0.02%               | 100.00%   | 100.00%  | 5.75%  | 5.95%  |   |   |  | 97.10%  | 99.90%   |  |   |   |   |
| 1.3      | Bihar                          | 100.00%  | 93.30%  | 99.10%                                    | 0                   | 0.00%               | 100.00%   | 100.00%  | NR   | NR   |   |   |  | 87.70%  | 99.60%   |  |   |   |   |
|          | Jharkhand                      | 100.00%  | 80.10%  | 84.10%                                    | 213                 | 0.20%               | 100.00%   | 100.00%  | 96.29%   | 98.01%   |   |   |  | 96.40%  | 99.70%   |  |   |   |   |
| 1.4      | Chennai                        | 88.00%   | 62.90%  | 90.30%                                    | 0                   | 0.17%               | 100.00%   | 100.00%  | 29.62%   | 34.65%   |   |   |  | 85.00%  | 100.00%  |  |   |   |   |
| 1.5      | Gujarat                        | 100.00%  | 94.70%  | 99.40%                                    | 0                   | 0.03%               | 100.00%   | 100.00%  | 38.03%   | 41.72%   |   |   |  | 89.80%  | 99.70%   |  |   |   |   |
| 1.6      | Haryana                        | 100.00%  | 92.10%  | 99.40%                                    | 80                  | 0.12%               | 100.00%   | 100.00%  | 17.16%   | 23.26%   |   |   |  | 90.70%  | 99.50%   |  |   |   |   |
| 1.7      | Himachal Pradesh               | 100.00%  | 88.40%  | 94.30%                                    | 20                  | 0.05%               | 100.00%   | 100.00%  | 78.93%   | 93.49%   |   |   |  | 87.00%  | 99.50%   |  |   |   |   |
| 1.8      | Jammu & Kashmir                | 100.00%  | 76.30%  | 91.40%                                    | 12                  | 0.02%               | 100.00%   | 99.33%   | 62.67%   | 73.67%   |   |   |  | 92.30%  | 99.50%   |  |   |   |   |
| 1.9      | Karnataka                      | 100.00%  | 94.60%  | 99.30%                                    | 14                  | 0.01%               | 99.90%  | 99.80%   | 3.07%  | 4.26%  |   |   |  | 93.60%  | 99.90%   |  |   |   |   |
| 1.10     | Kerala                         | 84.00%   | 56.80%  | 73.20%                                    | 757                 | 0.08%               | 100.00%   | 100.00%  | 84.33%   | 92.33%   |   |   |  | 88.80%  | 99.50%   |  |   |   |   |
| 1.11     | Kolkata                        | 100.00%  | 94.20%  | 99.10%                                    | 0                   | 0.00%               | 100.00%   | 100.00%  | 58.00%   | 72.00%   |   |   |  | 90.00%  | 99.50%   |  |   |   |   |
| 1.12     | Maharashtra                    | 99.30%   | 86.90%  | 97.90%                                    | 524                 | 0.02%               | 100.00%   | 100.00%  | 2.92%  | 4.20%  |   |   |  | 92.30%  | 99.70%   |  |   |   |   |
| 1.13     | Madhya Pradesh                 | 100.00%  | 93.40%  | 99.70%                                    | 0                   | 0.20%               | 100.00%   | 100.00%  | 65.10%   | 75.43%   | 0   | 19  | 86.60%   | 89.20%  | 99.90%   | 2.90%  | 57  | 260.7   | 0   |
|          | Chhattisgarh                   | 100.00%  | 95.00%  | 99.40%                                    | 77                  | 0.00%               | 100.00%   | 100.00%  | 15.97%   | 13.42%   |   |   |  | 93.00%  | 99.80%   |  |   |   |   |
|          | North East I                   | 100.00%  | 92.60%  | 99.10%                                    | 23                  | 0.00%               | 100.00%   | 100.00%  | 94.00%   | 95.00%   |   |   |  | 92.80%  | 99.70%   |  |   |   |   |
| 1.14     | North East II                  | 100.00%  | 95.50%  | 100.00%                                   | 0                   | 0.27%               | 100.00%   | 100.00%  | 89.80%   | 98.04%   |   |   |  | 93.00%  | 99.50%   |  |   |   |   |
| 1.15     | Orissa                         | 99.60%   | 85.70%  | 98.90%                                    | 510457              | 0.03%               | 99.79%  | 99.95%   | 84.27%   | 93.10%   |   |   |  | 88.30%  | 99.20%   |  |   |   |   |
| 1.16     | Punjab                         | 100.00%  | 96.50%  | 99.50%                                    | 143                 | 0.05%               | 100.00%   | 100.00%  | 46.67%   | 49.00%   |   |   |  | 91.10%  | 99.70%   |  |   |   |   |
| 1.17     | Rajasthan                      | 100.00%  | 95.90%  | 100.00%                                   | 17                  | 0.00%               | 100.00%   | 100.00%  | 1.55%  | 2.07%  |   |   |  | 89.70%  | 99.80%   |  |   |   |   |
| 1.18     | Tamil Nadu                     | 99.00%   | 77.50%  | 90.20%                                    | 0                   | 0.20%               | 100.00%   | 100.00%  | 63.35%   | 67.79%   |   |   |  | 96.80%  | 99.90%   |  |   |   |   |
| 1.19     | UP East                        | 100.00%  | 93.40%  | 100.00%                                   | 0                   | 0.02%               | 100.00%   | 100.00%  | NR   | NR   |   |   |  | 93.40%  | 99.80%   |  |   |   |   |
| 1.2      | UP West                        | 100.00%  | 91.70%  | 99.70%                                    | 44                  | 0.05%               | 100.00%   | 100.00%  | 12.17%   | 15.69%   |   |   |  | 89.90%  | 99.80%   |  |   |   |   |
|          | Uttaranchal                    | 100.00%  | 92.80%  | 100.00%                                   | 0                   | 0.01%               | 100.00%   | 100.00%  | 89.94%   | 95.92%   |   |   |  | 94.80%  | 99.50%   |  |   |   |   |
| 1.21     | West Bengal                    | 88.10%   | 72.80%  | 92.80%                                    | 241                 | 0.14%               | 100.00%   | 100.00%  | NR   | NR   |   |   |  | 90.40%  | 99.10%   |  |   |   |   |
|          | A&N                            | 96.90%   | 82.70%  | 96.70%                                    | 0                   | 0.00%               | 100.00%   | 100.00%  | 89.00%   | 100.00%  |   |   |  | 60.00%  | 99.50%   |  |   |   |   |
| <b>2</b> | <b>MTNL</b>                    |  |   |   |                     |                     |   |  |  |  |   |   |  |   |  |  |   |   |   |
| 2.1      | Delhi                          | 88.35%   | 81.01%  | 94.05%                                    | 16582               | 0.130%              | 100.00%   | 100.00%  | 99.81%   | 99.87%   | Nil   | 1   | 84.48%   | 95.00%  | 99.73%   | C/DNF  | C/DNF   | C/DNF   | NA  |
| 2.2      | Mumbai                         | 83.80%   | 81.28%  | 90.26%                                    | 39454               | 0.01%               | 100.00%   | NA   | 67.09%   | 69.87%   | 0   | 0   | 88.25%   | 80.00%  | 100.00%  | 1.00%  | 70  | 350   | NA  |
| <b>3</b> | <b>Bharti Airtel Ltd.</b>      |  |   |   |                     |                     |   |  |  |  |   |   |  |   |  |  |   |   |   |
| 3.1      | Andhra Pradesh                 | 100.00%  | 90.24%  | 100.00%                                   | 0                   | 0.01%               | 100.00%   | 100.00%  | 91.00%   | 95.00%   | 0   | 0   | 57.38%   | 105.47%   | 100.00%  | 0.00%  | 41  | 51.67   | NA  |
| 3.2      | Delhi                          | 100.00%  | 93.91%  | 99.22%                                    | 757                 | 0.03%               | 100.00%   | 100.00%  | 88.00%   | 92.00%   | 0   | 0   | 76.08%   | 104.00%   | 99.98%   | 0.00%  | 31  | 78.27   | NA  |
| 3.3      | Gujarat                        | 100.00%  | 94.48%  | 99.24%                                    | 29                  | 0.01%               | 100.00%   | 100.00%  | 87.00%   | 92.00%   | 0   | NA  | NA   | 100.00%   | 100.00%  | 0.00%  | 40  | 61.63   | NA  |
| 3.4      | Haryana                        | 100.00%  | 97.58%  | 99.65%                                    | 6                   | 0.01%               | 100.00%   | 100.00%  | 89.00%   | 92.00%   | 0   | NA  | NA   | 103.00%   | 99.99%   | 0.00%  | 26  | 77.93   | NA  |
| 3.5      | Karnataka                      | 100.00%  | 90.75%  | 100.00%                                   | 0                   | 0.08%               | 100.00%   | 100.00%  | 90.00%   | 94.00%   | 0   | 0   | 60.25%   | 107.79%   | 99.98%   | 0.00%  | 27  | 39.33   | NA  |
| 3.6      | Kerala                         | 100.00%  | 96.71%  | 100.00%                                   | 0                   | 0.01%               | 100.00%   | 100.00%  | 90.00%   | 92.00%   | 0   | NA  | NA   | 103.52%   | 100.00%  | 0.00%  | 52  | 32.33   | NA  |
| 3.7      | Kolkata                        | 100.00%  | 94.59%  | 99.26%                                    | 57                  | 0.01%               | 100.00%   | 100.00%  | 88.00%   | 91.00%   | 0   | 0   | 65.97%   | 113.00%   | 99.99%   | 0.00%  | 27  | 81.02   | NA  |
| 3.8      | Madhya Pradesh & CG            | 100.00%  | 97.03%  | 99.37%                                    | 156                 | 0.05%               | 100.00%   | 100.00%  | 84.00%   | 89.00%   | 0   | 0   | 75.50%   | 99.07%  | 99.97%   | 0.00%  | 77  | 67.67   | NA  |
| 3.9      | Maharashtra                    | 100.00%  | 96.06%  | 99.31%                                    | 19                  | 0.04%               | 100.00%   | 100.00%  | 89.00%   | 93.00%   | 0   | NA  | NA   | 100.00%   | 99.89%   | 0.00%  | 40  | 61.63   | NA  |
| 3.10     | Mumbai                         | 100.00%  | 97.81%  | 99.57%                                    | 24                  | 0.01%               | 100.00%   | 100.00%  | 87.00%   | 91.00%   | 0   | 0   | 58.34%   | 99.75%  | 99.97%   | 0.00%  | 31  | 61.63   | NA  |
| 3.11     | Punjab                         | 100.00%  | 97.48%  | 99.74%                                    | 15                  | 0.01%               | 100.00%   | 100.00%  | 89.00%   | 92.00%   | 0   | 0   | 31.58%   | 101.00%   | 100.00%  | 0.00%  | 45  | 87.16   | NA  |
| 3.12     | Rajasthan                      | 100.00%  | 99.19%  | 100.00%                                   | 0                   | 0.00%               | 100.00%   | 100.00%  | 89.00%   | 93.00%   | 0   | NA  | NA   | 100.00%   | 100.00%  | 0.00%  | 28  | 78.13   | NA  |
| 3.13     | Tamilnadu                      | 100.00%  | 94.98%  | 99.98%                                    | 4                   | 0.05%               | 100.00%   | 100.00%  | 82.00%   | 88.00%   | 0   | 0   | 64.31%   | 114.75%   | 99.99%   | 0.00%  | 26  | 32.33   | NA  |
| 3.14     | UP - East                      | 100.00%  | 96.66%  | 99.83%                                    | 12                  | 0.03%               | 100.00%   | 100.00%  | 87.00%   | 90.00%   | 0   | NA  | NA   | 108.00%   | 99.93%   | 0.00%  | 34  | 77.93   | NA  |
| 3.15     | UP - West                      | 100.00%  | 97.44%  | 100.00%                                   | 0                   | 0.01%               | 100.00%   | 100.00%  | 88.00%   | 92.00%   | 0   | NA  | NA   | 101.00%   | 99.99%   | 0.00%  | 33  | 77.93   | NA  |

### Annexure 4.4 (Contd.)

|           |  |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|-----------|--|---------|--------|---------|------|-------|---------|---------|---------|---------|-----|-----|--------|---------|---------|-------|-----|-----|-----|
| <b>4</b>  | <b>Hathway</b>   |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
| 4.1       | Andhra Pradesh   | 100.00% | 97.00% | 100.00% | 25   | 1.93% | 100.00% | 100.00% | 89.00%  | 94.00%  | 0   | 0   | 87.00% | 85.00%  | 99.73%  | 1.00% | 75  | 320 | NA  |
| 4.2       | Delhi  | 100.00% | 96.00% | 99.00%  | 41   | 1.38% | 100.00% | 100.00% | 65.00%  | 83.00%  | NR  | NR  | 60.00% | 85.00%  | 98.37%  | 1.00% | 4   | 295 | NA  |
| 4.3       | Gujarat  | 100.00% | 88.00% | 99.00%  | 0    | 0.00% | NA      | NA      | 79.00%  | 95.00%  | 0   | 0   | 85.00% | 85.00%  | 99.00%  | 1.00% | 100 | 270 | NA  |
| 4.4       | Haryana  | 100.00% | NA     | NA      | NR   | 0.00% | NA      | NA      | DNF     | DNF     | 0   | DNF | NA     | 85.00%  | 100.00% | 1.00% | 10  | 308 | NA  |
| 4.5       | Karnataka  | 100.00% | 98.00% | 100.00% | 28   | 1.98% | 100.00% | 100.00% | 75.00%  | 82.00%  | 0   | 0   | 87.00% | 85.00%  | 99.73%  | 1.00% | 75  | 350 | NA  |
| 4.6       | Maharashtra  | 100.00% | 93.00% | 98.23%  | 1425 | 0.80% | 100.00% | 100.00% | 74.00%  | 84.00%  | 0   | 0   | 87.00% | 85.00%  | 99.00%  | 1.00% | 100 | 280 | NA  |
| 4.7       | Punjab   | 100.00% | 79.00% | 87.00%  | 6    | 1.89% | 100.00% | 100.00% | 99.00%  | 99.00%  | NR  | 0   | 77.00% | 85.00%  | 98.69%  | 1.00% | 4   | 302 | NA  |
| 4.8       | Goa  | 100.00% | 96.00% | 100.00% | 0    | 0.00% | NA      | NA      | 74.00%  | 93.00%  | 0   | 0   | 84.00% | 85.00%  | 98.00%  | 1.00% | 95  | 250 | NA  |
| 4.9       | Uttar Pradesh  | 100.00% | 99.00% | 99.00%  | 0    | 0.90% | 100.00% | 100.00% | DNF     | DNF     | NR  | NA  | 72.00% | 85.00%  | 100.00% | 1.00% | 10  | 298 | NA  |
| 4.10      | Chhatisgarh  | 100.00% | 99.00% | 100.00% | 0    | 1.03% | 100.00% | 100.00% | 99.00%  | 99.00%  | 0   | 0   | 80.00% | 85.00%  | 99.00%  | 1.00% | 8   | 310 | NA  |
| <b>5</b>  | <b>Quadrant Televitures Ltd.(Formerly HFCL Infotel Ltd.)</b>         |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | Punjab   | 99.80%  | 95.50% | 99.22%  | 54   | 0.01% | 100.00% | 100.00% | 69.00%  | 82.00%  | Nil | Nil | 80.00% | 100.00% | 99.85%  | 0.00% | 80  | 280 | NA  |
| <b>6</b>  | <b>Tata Teleservices (Maharashtra) Ltd.</b>                          |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | Maharashtra & Goa  | 100.00% | 91.29% | 100.00% | Nil  | 0.28% | 100.00% | NA      | 94.00%  | 96.00%  | 0   | 0   | 85.66% | 95.00%  | 99.37%  | 0.00% | 31  | 195 | NA  |
| <b>7</b>  | <b>Beam Cables</b>   |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | Hyderabad  | 100.00% | 73.00% | 97.66%  | 2866 | 2.00% | 100.00% | NA      | 80.33%  | 87.00%  | 0   | 0   | 64.30% | 80.00%  | 99.00%  | 1.00% | 50  | 300 | NA  |
| <b>8</b>  | <b>Alliance Broadband</b>  |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | Kolkata  | 100.00% | 95.00% | 100.00% | 0    | 0.13% | 100.00% | NA      | 98.00%  | 99.00%  | 0   | 0   | NR     | DNF     | 99.00%  | 1.00% | NA  | NA  | NA  |
| <b>9</b>  | <b>Broadband Pacenet India Private Ltd.</b>                          |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
| 9.1       | Mumbai   | 100.00% | 91.00% | 99.00%  | 61   | 0.00% | 100.00% | NA      | 66.00%  | 82.00%  | 0   | 0   | 81.00% | DNF     | 99.00%  | 1.00% | 50  | 280 | NA  |
| 9.2       | Mumbai-Pune  | 100.00% | 92.00% | 100.00% | NR   | NR    | 100.00% | NA      | 70.00%  | 85.00%  | 0   | 0   | 79.00% | DNF     | 99.00%  | 1.00% | 50  | 280 | NA  |
| 9.3       | All India  | 100.00% | 91.00% | 99.00%  | 62   | 0.00% | NA      | NA      | 68.00%  | 83.00%  | 0   | 2   | 80.00% | DNF     | 99.00%  | 1.00% | 75  | 310 | NA  |
| 9.4       | Madhya Pradesh   | 100.00% | 92.00% | 100.00% | 0    | 0.00% | 100.00% | NA      | 65.00%  | 93.00%  | 0   | 0   | 67.00% | DNF     | 99.00%  | 1.00% | 50  | 280 | NA  |
| 9.5       | Gujarat  | 100.00% | 91.00% | 100.00% | 15   | 1.00% | 100.00% | NA      | 70.00%  | 85.00%  | 0   | 0   | 74.00% | DNF     | 99.00%  | 1.00% | 50  | 280 | NA  |
| 9.6       | Rajasthan  | 100.00% | 91.00% | 100.00% | 0    | 0.00% | NA      | NA      | 72.00%  | 87.00%  | 0   | 0   | 80.00% | DNF     | 99.00%  | 1.00% | 50  | 280 | NA  |
| 9.7       | Andhra Pradesh   | 100.00% | 91.00% | 99.00%  | 0    | 2.00% | 100.00% | NA      | 68.00%  | 83.00%  | 0   | 0   | 82.93% | DNF     | 99.00%  | 1.00% | 50  | 280 | NA  |
| <b>10</b> | <b>Tikona Digital Network</b>  |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | All India  | 99.91%  | 95.46% | 99.27%  | 621  | 0.19% | 100.00% | 100.00% | 70.00%  | 82.00%  | 0   | 0   | 71.05% | 98.91%  | 99.66%  | NA    | NA  | NA  | NA  |
| <b>11</b> | <b>Asianet Satellite Communications Ltd.</b>                         |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | Kerala   | 100.00% | 90.61% | 99.36%  | NR   | 1.33% | 100.00% | 100.00% | NR      | NR      | Nil | 0   | 61.84% | 90.00%  | 99.60%  | 1.00% | 50  | 270 | NA  |
| <b>12</b> | <b>IndusInd Media &amp; Communications Ltd. (Broadband Division)</b> |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | All India  | 100.00% | 97.00% | 99.00%  | 39   | 0.00% | 100.00% | 100.00% | 100.00% | 100.00% | 0   | 0   | 74.51% | 80.00%  | 96.00%  | 1.00% | 45  | 260 | NA  |
| <b>13</b> | <b>Gujarat Telelink Pvt. Ltd.</b>                                    |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | Gujarat  | 100.00% | 97.00% | 99.00%  | 118  | 0.42% | 100.00% | NA      | 97.00%  | 99.00%  | NA  | 0   | 89.00% | 89.00%  | 99.84%  | 0.00% | 11  | 300 | NA  |
| <b>14</b> | <b>D-Vois Broadband</b>  |         |        |         |      |       |         |         |         |         |     |     |        |         |         |       |     |     |     |
|           | All India  | 100.00% | 94.37% | 99.65%  | NR   | 0.57% | 100.00% | NR      | 98.00%  | 99.00%  | 0   | 0   | Nil    | 90.00%  | 99.99%  | 0.10% | 100 | 100 | 100 |

**Annexure 4.4 (Contd.)**

|           |                                    |         |         |         |      |       |         |         |         |         |     |     |        |        |        |       |       |       |         |
|-----------|------------------------------------|---------|---------|---------|------|-------|---------|---------|---------|---------|-----|-----|--------|--------|--------|-------|-------|-------|---------|
| <b>15</b> | <b>Wish Net Private Ltd</b>        |         |         |         |      |       |         |         |         |         |     |     |        |        |        |       |       |       |         |
| 15.1      | West Bengal                        | 100.00% | 98.92%  | 100.00% | 0    | 0.33% | 100.00% | NA      | 80.67%  | 97.33%  | 0   | 0   | 73.74% | DNF    | 99.00% | 1.00% | NA    | NA    | NA      |
| 15.2      | Kolkata                            | 100.00% | 98.92%  | 100.00% | 0    | 0.06% | 100.00% | NA      | 81.00%  | 97.67%  | 0   | 0   | 76.93% | DNF    | 99.00% | 1.00% | NA    | NA    | NA      |
| <b>16</b> | <b>Tata Communications</b>         |         |         |         |      |       |         |         |         |         |     |     |        |        |        |       |       |       |         |
| 16.1      | Andhra Pradesh                     | 100.00% | 95.00%  | 99.00%  | 935  | 0.02% | 100.00% | 100.00% | 92.00%  | 92.00%  | Nil | Nil | 52.97% | 80.00% | 0.00%  | 50    | 245   | NA    | 99.53%  |
| 16.2      | Assam                              | NA      | 100.00% | 100.00% |      | NA    | NA      | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.3      | Delhi & NCR                        | NA      | 99.00%  | 100.00% |      | 0.02% | 100.00% | 100.00% |         |         |     |     |        |        |        |       |       |       | 99.56%  |
| 16.4      | Gujarat & Daman & Du               | 100.00% | 96.00%  | 99.00%  |      | 0.05% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | 98.27%  |
| 16.5      | Haryana                            | NA      | 98.00%  | 100.00% |      | 0.00% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.6      | Himachal Pradesh                   | NA      | 100.00% | 100.00% |      | 0.00% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.7      | Jammu & Kashmir                    | NA      | 100.00% | 100.00% |      | NA    | NA      | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.8      | Karnataka                          | NA      | 99.00%  | 100.00% |      | 0.06% | 100.00% | 100.00% |         |         |     |     |        |        |        |       |       |       | 99.52%  |
| 16.9      | Kerala & Lakshadweep               | 100.00% | 90.03%  | 98.00%  |      | 0.00% | 100.00% | 100.00% |         |         |     |     |        |        |        |       |       |       | 96.79%  |
| 16.10     | Madhya Pradesh & Chhattisgarh      | 100.00% | 94.00%  | 99.00%  |      | 0.00% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | 97.59%  |
| 16.11     | Maharashtra & Goa                  | 100.00% | 90.00%  | 95.00%  |      | 0.04% | 100.00% | 100.00% |         |         |     |     |        |        |        |       |       |       | 95.03%  |
| 16.12     | Mumbai                             | 100.00% | 92.00%  | 97.00%  |      | 0.02% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | 98.32%  |
| 16.13     | North Eastern                      | NA      | 100.00% | 100.00% |      | NA    | NA      | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.14     | Orissa                             | NA      | 100.00% | 100.00% |      | 0.00% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.15     | Punjab                             | NA      | 99.00%  | 100.00% |      | 0.00% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.16     | Rajasthan                          | NA      | 99.00%  | 100.00% |      | 0.00% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.17     | Tamil Nadu & Pondicherry           | 100.00% | 97.00%  | 100.00% |      | 0.01% | 100.00% | 100.00% |         |         |     |     |        |        |        |       |       |       | 98.46%  |
| 16.18     | Uttar Pradesh - East               | NA      | 100.00% | 100.00% |      | 0.00% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.19     | Uttar Pradesh - West               | NA      | 100.00% | 100.00% |      | NA    | NA      | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.20     | West Bengal                        | NA      | 100.00% | 100.00% |      | NA    | NA      | NA      |         |         |     |     |        |        |        |       |       |       | NA      |
| 16.21     | Kolkata                            | 100.00% | 96.00%  | 100.00% |      | 0.03% | 100.00% | 100.00% |         |         |     |     |        |        |        |       |       |       | 98.51%  |
| 16.22     | Bihar & Jharkhand                  | NA      | 91.00%  | 100.00% |      | 0.00% | 100.00% | NA      |         |         |     |     |        |        |        |       |       |       | 100.00% |
| <b>17</b> | <b>Ortel Communications</b>        |         |         |         |      |       |         |         |         |         |     |     |        |        |        |       |       |       |         |
|           | Orissa                             | 100.00% | 91.00%  | 100.00% | Nil  | 0.00% | NA      | NA      | 100.00% | 100.00% | 0   | 0   | 77.00% | 95.00% | 99.13% | 0.00% | 88    | 257   | NA      |
| <b>18</b> | <b>Reliance Communications</b>     |         |         |         |      |       |         |         |         |         |     |     |        |        |        |       |       |       |         |
|           | All India                          | 100.00% | 100.00% | 100.00% | NA   | 0.15% | 100.00% | 100.00% | 84.00%  | 89.00%  | 0   | 0   | 35.34% | 93.00% | 99.57% | 0.53% | C/DNF | C/DNF | DNF     |
| <b>19</b> | <b>You Broadband India Pvt Ltd</b> |         |         |         |      |       |         |         |         |         |     |     |        |        |        |       |       |       |         |
| 19.1      | All India                          | 93.00%  | 85.00%  | 96.00%  | 1503 | 1.00% | 100.00% | 57.00%  | 51.00%  | 55.00%  | NA  | 0   | 70.96% | 86.94% | 99.20% | 0.00% | 10    | 272   | NA      |
| 19.2      | Maharashtra                        | 89.00%  | 91.00%  | 98.00%  | 160  | 1.21% | 100.00% | 53.00%  | 18.00%  | 21.00%  | NA  | 0   | 70.40% | 85.98% | 99.65% | 0.00% | 9     | 284   | NA      |
| 19.3      | Gujarat                            | 86.90%  | 84.00%  | 96.00%  | 693  | 0.49% | 100.00% | 56.00%  | 19.00%  | 23.00%  | NA  | 0   | 71.24% | 87.64% | 98.84% | 0.00% | 13    | 265   | NA      |
| 19.4      | Karnataka                          | 90.58%  | 77.00%  | 92.00%  | 139  | 1.23% | 100.00% | 79.00%  | 68.00%  | 76.00%  | NA  | 0   | 70.00% | 86.74% | 99.45% | 0.00% | 9     | 266   | NA      |
| 19.5      | Tamilnadu                          | 85.00%  | 85.00%  | 96.00%  | 111  | 1.56% | 100.00% | 71.00%  | 91.00%  | 93.00%  | NA  | 0   | 75.24% | 86.51% | 99.81% | 0.00% | 8     | 269   | NA      |
| 19.6      | Haryana                            | 98.00%  | 93.00%  | 99.00%  | 25   | 0.00% | NA      | 47.00%  | 90.00%  | 92.00%  | NA  | 0   | 70.90% | 87.63% | 99.67% | 0.00% | 8     | 271   | NA      |
| 19.7      | Andhra Pradesh                     | 96.00%  | 79.00%  | 94.00%  | 375  | 0.73% | 100.00% | 58.00%  | 20.00%  | 23.00%  | NA  | 0   | 70.73% | 86.46% | 99.33% | 0.00% | 10    | 275   | NA      |

### Annexure 4.4 (Contd.)

|    |  |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|----|--|-------------------------------------|---------|---------|------|---|---------|---------|---------|---------|------|-----|----------------------------|---------|--------|--|-----|--------|-----|----|
| 20 | <b>Five Networks</b>                                     |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | All India  | 100.00%                             | 99.50%  | 100.00% | NA   | NR  | 100.00% | 100.00% | NA      | NA      | NA   | 0   | NA                         | 85.75%  | 99.00% | 1.00%  | NA  | 350    | NA  |    |
| 21 | <b>Noida Software Technology</b>                         |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | All India  | 100.00%                             | 100.00% | NA      | Nil  | NA  | NA      | NA      | 85.00%  | 100.00% | NR   | NA  | NA                         | 98.00%  | 99.28% | 1.00%  | 15  | 200    | NA  |    |
| 22 | <b>Meghbela Cable &amp; Broadband</b>                    |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | All India  | 100.00%                             | 99.90%  | 100.00% | 0    | 0.00%   | 100.00% | 100.00% | 100.00% | 100.00% | 0    | 0   | 0.00%                      | 100.00% | 99.90% | 0.00%  | 60  | NR     | NR  |    |
| 23 | <b>Atria Convergence Tech</b>                            |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | All India  | 95.00%                              | 70.00%  | 91.00%  | 1186 | 0.24%   | 100.00% | NA      | 92.00%  | 95.00%  | Nil  | Nil | 92.00%                     | 95.00%  | 99.31% | 1.00%  | 30  | 264    | Nil |    |
| 24 | <b>Citycom Networks Pvt. Ltd.</b>                        |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | All India  | 100.00%                             | 99.00%  | 99.00%  | 0    | 0.34%   | 100.00% | 100.00% | 85.00%  | 88.00%  | 0    | 0   | 53.00%                     | 87.94%  | 99.10% | 1.00%  | 4   | 172    | NA  |    |
| 25 | <b>Digital Network associates</b>                        |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | MH & Goa   | 100.00%                             | 91.31%  | 99.37%  | None | 0.67%   | 100.00% | NA      | 61.85%  | 82.50%  | None | 0   | 80.00%                     | 80.00%  | 99.68% | 1.00%  | 4   | 255    | NR  |    |
| 26 | <b>Southern Online Bio technologies</b>                  |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | Andhra Pradesh   | 100.00%                             | 90.00%  | 99.00%  | None | NA  | NA      | NA      | DNF     | NR      | 0    | 0   | 90.00%                     | 99.00%  | 99.00% | 1.00%  | 120 | 350    | NA  |    |
| 27 | <b>Vasai Cable Pvt Ltd.</b>                              |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | Mumbai   | 100.00%                             | 93.96%  | 99.56%  | None | 0.59%   | 100.00% | NA      | 73.64%  | 88.24%  | 0    | 0   | 80.00%                     | 80.00%  | 99.59% | 1.00%  | 4   | 255    | NR  |    |
| 28 | <b>Nivvyah Infrastructure &amp; Telecom Services Ltd</b> |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | All India  | 100.00%                             | 100.00% | 100.00% | Nil  | 0.00%   | 100.00% | 100.00% | 91.66%  | 99.00%  | 0    | 0   | Nil                        | 95.00%  | 99.00% | 0.00%  | 50  | 253.33 | NA  |    |
| 29 | <b>Spectranet</b>  |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | All India  | NA                                  | NA      | NA      | NA   | NA  | NA      | NA      | NA      | NA      | NA   | NA  | NA                         | NA      | NA     | NA   | NA  | NA     | NA  | NA |
| 30 | <b>R.K. Infratel Ltd</b>                                 |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | Gujarat  | 100.00%                             | 91.28%  | 99.21%  | 0    | 0.00%   | 100.00% | NA      | 99.97%  | 100.00% | 0    | 0   | 87.71%                     | 85.00%  | 99.56% | 0.00%  | 120 | 350    | NA  |    |
| 31 | <b>Rajesh Multichannel Pvt</b>                           |                                     |         |         |      |   |         |         |         |         |      |     |                            |         |        |  |     |        |     |    |
|    | Mumbai   | 100.00%                             | 98.00%  | 100.00% | 0    | 0.00%   | 100.00% | Nil     | 92.00%  | 87.00%  | 2    | NR  | 86.00%                     | 85.00%  | 99.00% | 1.00%  | 91  | 250    | 500 |    |
|    |  | <b>DNF</b> = Data not as per Format |         |         |      | <b>NR</b> = Data not reported by the Service Provider |         |         |         |         |      |     | <b>NA</b> = Not Applicable |         |        | <b>C/DNF</b> = Complied the parameter but Data is not in the required format |     |        |     |    |

**Annexure 5.1: A -la-carte rates of pay channels for non-CAS areas, as reported to TRAI by the respective Broadcasters**

| <b>S.No</b> | <b>Name of the channel</b> | <b>Reported Rates( in INR)</b> |
|-------------|----------------------------|--------------------------------|
| 1           | Zee TV                     | 13.88                          |
| 2           | Zee Cinema                 | 13.88                          |
| 3           | Cartoon Network            | 13.37                          |
| 4           | Zee Marathi                | 08.56                          |
| 5           | Zee News                   | 08.02                          |
| 6           | CNN                        | 01.60                          |
| 7           | Zee Café                   | 08.56                          |
| 8           | Zee Studios                | 07.49                          |
| 9           | Zee Bangla                 | 08.67                          |
| 10          | Zee Punjabi                | 01.60                          |
| 11          | Zee Trendz                 | 01.07                          |
| 12          | HBO                        | 16.69                          |
| 13          | POGO                       | 13.37                          |
| 14          | Zee Business               | 05.14                          |
| 15          | Zee Classic                | 10.70                          |
| 16          | Zee Action                 | 10.70                          |
| 17          | Zee Premier                | 11.98                          |
| 18          | Zee Telugu                 | 11.13                          |
| 19          | Zee Kannada                | 07.98                          |
| 20          | ETC Punjabi                | 09.63                          |
| 21          | ETC                        | 03.21                          |
| 22          | Zing                       | 05.35                          |
| 23          | Zee Jagran                 | 02.14                          |
| 24          | Zee Smile                  | 06.57                          |
| 25          | 24 Ghante                  | 06.42                          |
| 26          | 24 Taas                    | 09.09                          |
| 27          | Zee Talkies                | 16.58                          |
| 28          | WB                         | 06.60                          |
| 29          | Zee 24 Ghantalu            | 05.60                          |
| 30          | Zee Salaam                 | 15.00                          |
| 31          | 9X                         | 20.50                          |
| 32          | Star Plus                  | 18.73                          |
| 33          | Star Gold                  | 17.66                          |
| 34          | Star Movies                | 17.66                          |
| 35          | Star World                 | 04.87                          |
| 36          | Vijay TV                   | 04.28                          |
| 37          | NGC                        | 06.15                          |
| 38          | Fox Traveller channel      | 04.71                          |
| 39          | Channel V                  | 01.07                          |
| 40          | Life Ok                    | 21.94                          |

**Annexure 5.1 (contd.)**

| <b>S.No</b> | <b>Name of the channel</b>          | <b>Reported Rates( in INR)</b> |
|-------------|-------------------------------------|--------------------------------|
| 41          | The MGM                             | 06.42                          |
| 42          | Star Jalsha                         | 12.00                          |
| 43          | ABP Ananda                          | 06.00                          |
| 44          | FX                                  | 15.50                          |
| 45          | FOX CRIME                           | 15.50                          |
| 46          | BABY TV                             | 13.25                          |
| 47          | Nat Geo Wild                        | 16.00                          |
| 48          | Nat Geo Adventure                   | 16.00                          |
| 49          | Nat GEO Music                       | 07.40                          |
| 50          | Asianet                             | 12.45                          |
| 51          | Star Pravah                         | 12.00                          |
| 52          | Star Movies Action                  | 15.00                          |
| 53          | Movies OK                           | 17.00                          |
| 54          | NDTV 24X7                           | 09.10                          |
| 55          | NDTV Profit                         | 06.42                          |
| 56          | NDTV Good Times                     | 09.63                          |
| 57          | Suvarna                             | 12.00                          |
| 58          | Asianet Plus                        | 07.00                          |
| 59          | NDTV India                          | 08.02                          |
| 60          | Zee Bangla Cinema                   | 16.20                          |
| 61          | ABP Majha                           | 09.20                          |
| 62          | SET (Sony Entertainment Television) | 21.40                          |
| 63          | MAX                                 | 18.19                          |
| 64          | Discovery                           | 16.05                          |
| 65          | Animal Planet                       | 05.35                          |
| 66          | AXN                                 | 15.52                          |
| 67          | Animax                              | 0.50                           |
| 68          | TLC                                 | 09.63                          |
| 69          | SAB TV                              | 14.70                          |
| 70          | SET PIX                             | 12.84                          |
| 71          | Aaj Tak                             | 07.49                          |
| 72          | Headlines Today                     | 03.21                          |
| 73          | Tez                                 | 02.14                          |
| 74          | Channel 8 (Sony AATH)               | 10.00                          |
| 75          | Discovery Science                   | 12.00                          |
| 76          | Discovery Turbo                     | 10.00                          |
| 77          | Neo Sports                          | 26.60                          |
| 78          | NEO Prime                           | 35.45                          |
| 79          | Discovery Channel – Tamil           | 16.05                          |
| 80          | MIX                                 | 07.50                          |
| 81          | Discovery Kids                      | 13.25                          |
| 82          | SIX                                 | 35.00                          |

**Annexure 5.1 (contd.)**

| <b>S.No</b> | <b>Name of the channel</b> | <b>Reported Rates( in INR)</b> |
|-------------|----------------------------|--------------------------------|
| 83          | ET NOW                     | 08.50                          |
| 84          | Times Now                  | 09.10                          |
| 85          | Zoom                       | 08.35                          |
| 86          | The Disney Channel         | 09.52                          |
| 87          | Disney XD                  | 09.52                          |
| 88          | Hangama TV                 | 08.35                          |
| 89          | IBN 7                      | 07.49                          |
| 90          | IBN Lokmat                 | 07.86                          |
| 91          | Colors                     | 21.40                          |
| 92          | MTV                        | 07.49                          |
| 93          | NICK                       | 06.42                          |
| 94          | VH 1                       | 03.21                          |
| 95          | CNBC TV 18                 | 09.10                          |
| 96          | CNN-IBN                    | 05.35                          |
| 97          | CNBC Awaaz                 | 04.82                          |
| 98          | ETV                        | 10.70                          |
| 99          | ETV 2                      | 05.99                          |
| 100         | ETV Bangla                 | 11.12                          |
| 101         | ETV Marathi                | 11.12                          |
| 102         | ETV Kannada                | 11.12                          |
| 103         | ETV Gujarathi              | 11.12                          |
| 104         | ETV Oriya                  | 11.12                          |
| 105         | ETV UP                     | 11.12                          |
| 106         | ETV Bihar                  | 11.12                          |
| 107         | ETV Urdu                   | 11.12                          |
| 108         | ETV Rajasthan              | 11.12                          |
| 109         | ETV MP                     | 11.12                          |
| 110         | Bindass                    | 10.00                          |
| 111         | UTV Action                 | 10.00                          |
| 112         | World Movies               | 10.00                          |
| 113         | UTV Movies                 | 15.00                          |
| 114         | Disney Junior              | 13.37                          |
| 115         | Nick Jr / Teen Nick        | 13.37                          |
| 116         | Comedy Central             | 15.50                          |
| 117         | SONIC                      | 13.00                          |
| 118         | SUN TV                     | 13.26                          |
| 119         | Gemini TV                  | 11.02                          |
| 120         | Udaya TV                   | 12.30                          |
| 121         | K TV                       | 16.06                          |
| 122         | Gemini Comedy              | 05.68                          |
| 123         | Udaya Movies               | 15.40                          |
| 124         | Sun Music                  | 07.50                          |
| 125         | Gemini Music               | 07.50                          |



**Annexure 5.1 (contd.)**

| <b>S.No</b> | <b>Name of the channel</b> | <b>Reported Rates( in INR)</b> |
|-------------|----------------------------|--------------------------------|
| 126         | Sun News                   | 01.50                          |
| 127         | Gemini News                | 08.02                          |
| 128         | Udaya News                 | 07.86                          |
| 129         | Gemini Movies              | 18.20                          |
| 130         | Chintu TV                  | 13.37                          |
| 131         | Udaya Comedy               | 16.06                          |
| 132         | Kushi TV                   | 13.37                          |
| 133         | Chutti TV                  | 13.37                          |
| 134         | Udaya Music                | 07.49                          |
| 135         | Adithya TV                 | 18.19                          |
| 136         | Surya TV                   | 12.31                          |
| 137         | Kiran TV                   | 18.19                          |
| 138         | Sun News English           | 08.00                          |
| 139         | Gemini Life                | 11.13                          |
| 140         | SUN TV RI                  | 12.50                          |
| 141         | SUN Life                   | 12.50                          |
| 142         | BBC World                  | 05.35                          |
| 143         | Star Sports 4              | 35.45                          |
| 144         | Star Sports 1              | 35.45                          |
| 145         | Star Sports 3              | 29.96                          |
| 146         | Fox Sports News            | 09.10                          |
| 147         | Star Sports 2              | 36.00                          |
| 148         | Raj TV                     | 11.77                          |
| 149         | Raj Digital Plus           | 08.26                          |
| 150         | Vissa TV                   | 05.01                          |
| 151         | Raj Musix                  | 05.00                          |
| 152         | Raj News (24X7)            | 04.00                          |
| 153         | 9XM                        | 07.00                          |
| 154         | 9X Jhakaas                 | 05.00                          |
| 155         | 9XO                        | 05.00                          |
| 156         | 9X Jalwa                   | 05.00                          |
| 157         | Sahara One                 | 20.50                          |
| 158         | Filmy                      | 16.50                          |
| 159         | B4U Movies                 | 06.65                          |
| 160         | MAA TV                     | 06.00                          |
| 161         | MAA Music                  | 07.50                          |
| 162         | MAA Movies                 | 18.50                          |
| 163         | MAA Gold                   | 11.00                          |
| 164         | Dilli Aaj Tak              | 08.50                          |
| 165         | E-24                       | 15.00                          |
| 166         | Toonami                    | 13.37                          |
| 167         | Tarang                     | 10.70                          |
| 168         | Tarang Music               | 05.00                          |

**Annexure 5.1 (contd.)**

| <b>S.No</b> | <b>Name of the channel</b> | <b>Reported Rates( in INR)</b> |
|-------------|----------------------------|--------------------------------|
| 169         | Prarthana                  | 05.00                          |
| 170         | Ten Sports                 | 16.05                          |
| 171         | Ten Cricket                | 35.45                          |
| 172         | Ten Action                 | 35.00                          |
| 173         | BIG CBS PRIME              | 14.00                          |
| 174         | BIG CBS LOVE               | 11.00                          |
| 175         | BIG CBS SPARK              | 11.00                          |
| 176         | BIG CBS Spark Punjabi      | 11.00                          |
| 177         | BIG MAGIC                  | 11.00                          |
| 178         | Bloomberg UTV              | 08.50                          |
| 179         | 9X Tashan                  | 05.00                          |
| 180         | Sarthak TV                 | 09.50                          |
| 181         | Jaya TV                    | 09.00                          |
| 182         | Jaya Plus                  | 04.00                          |
| 183         | Jaya Max                   | 06.00                          |
| 184         | J Movies                   | 06.00                          |
| 185         | Mega TV                    | 05.00                          |
| 186         | Mega Musiq                 | 05.00                          |
| 187         | Mega 24                    | 05.00                          |

### Annexure 5.2: List of operational private FM Radio Stations in India

| S.NO. | CITY       | NAME OF THE COMPANY             | CHANNEL IDENTITY | DATE OF OPERATIONALISATION |
|-------|------------|---------------------------------|------------------|----------------------------|
| 1     | DELHI      | CLEAR MEDIA                     | HIT-FM           | 01.09.2006                 |
| 2     | DELHI      | DIGITAL RADIO                   | RED-FM           | 29.04.2003                 |
| 3     | DELHI      | E.N.I.L.                        | RADIO- MIRCHI    | 29.04.2003                 |
| 4     | DELHI      | H.T. MEDIA                      | FEVER 104        | 30.10.2006                 |
| 5     | DELHI      | M.B.P.L.                        | RADIO-CITY       | 29.04.2003                 |
| 6     | DELHI      | RADIO-ONE LTD.                  | RADIO-ONE [1]    | 23.09.2006                 |
| 7     | DELHI      | TV TODAY BROADCASTING LTD       | RADIO- MEOW      | 28.05.2007                 |
| 8     | DELHI      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM           | 24-09-2006                 |
| 9     | MUMBAI     | RELIANCE BROADCAST NETWORK LTD. | BIG-FM           | 14.11.2006                 |
| 10    | MUMBAI     | DIGITAL RADIO                   | RED-FM           | 29.04.2002                 |
| 11    | MUMBAI     | E.N.I.L.                        | RADIO- MIRCHI    | 29.04.2002                 |
| 12    | MUMBAI     | H.T. MEDIA                      | FEVER 104        | 15.01.2007                 |
| 13    | MUMBAI     | M.B.P.L.                        | RADIO-CITY       | 21.05.2002                 |
| 14    | MUMBAI     | TV TODAY BROADCASTING LTD       | RADIO- MEOW      | 26.01.2008                 |
| 15    | MUMBAI     | RADIO-ONE LTD.                  | RADIO-ONE [1]    | 29.04.2003                 |
| 16    | KOLKATA    | RELIANCE BROADCAST NETWORK LTD. | BIG-FM           | 21.10.2006                 |
| 17    | KOLKATA    | T.V. TODAY BROADCASTING LTD     | RADIO- MEOW      | 04.10.2007                 |
| 18    | KOLKATA    | ANANDA OFFSET                   | FRIEND 91.9      | 28.02.2007                 |
| 19    | KOLKATA    | DIGITAL RADIO                   | RED-FM           | 03.05.2003                 |
| 20    | KOLKATA    | E.N.I.L.                        | RADIO- MIRCHI    | 03.05.2003                 |
| 21    | KOLKATA    | HITZ FM                         | POWER-FM         | 03.05.2003                 |
| 22    | KOLKATA    | INDIA FM                        | AMAR-FM          | 03.05.2003                 |
| 23    | KOLKATA    | RADIO-ONE LTD.                  | RADIO-ONE [1]    | 12.12.2008                 |
| 24    | KOLKATA    | H.T. MEDIA                      | FEVER 104        | 23.01.2008                 |
| 25    | CHENNAI    | RELIANCE BROADCAST NETWORK LTD. | BIG-FM           | 27.09.2006                 |
| 26    | CHENNAI    | E.N.I.L.                        | RADIO- MIRCHI    | 05.05.2003                 |
| 27    | CHENNAI    | M.B.P.L.                        | RADIO-CITY       | 10.07.2006                 |
| 28    | CHENNAI    | MALAR PUBLICATIONS              | HELLO-FM         | 02.10.2006                 |
| 29    | CHENNAI    | MUTHOOT BROADCASTING PVT. LTD.  | CHENNAI LIVE     | 04.01.2008                 |
| 30    | CHENNAI    | NOBLE BROADCASTING              | AAHAA-FM         | 18.01.2007                 |
| 31    | CHENNAI    | RADIO-ONE LTD.                  | RADIO-ONE [1]    | 10.01.2007                 |
| 32    | CHENNAI    | SUN TV                          | SURYANA FM       | 05.05.2003                 |
| 33    | AGARTALA   | POSITIVE RADIO                  | OOLALA FM        | 07.08.2007                 |
| 34    | AGRA       | RELIANCE BROADCAST NETWORK LTD. | BIG-FM           | 18.08.2007                 |
| 35    | AGRA       | SHRI PURAN MULTIMEDIA           | MANTRA FM        | 08.07.2007                 |
| 36    | AHMEDABAD  | E.N.I.L.                        | RADIO- MIRCHI    | 10.12.2001                 |
| 37    | AHMEDABAD  | M.B.P.L.                        | RADIO-CITY       | 25.07.2007                 |
| 38    | AHMEDABAD  | RADIO-ONE LTD.                  | RADIO-ONE [1]    | 26.08.2007                 |
| 39    | AHMEDABAD  | SOUTH ASIA                      | S. FM            | 20.04.2008                 |
| 40    | AHMEDABAD  | D. B. CORP.                     | MY-FM            | 21.07.2007                 |
| 41    | AHMEDNAGAR | B.A.G. INFOTAINMENT             | RADIO- DHAMAL    | 01.03.2008                 |

**Annexure 5.2 (Contd.)**

| <b>S.NO.</b> | <b>CITY</b>  | <b>NAME OF THE COMPANY</b>      | <b>CHANNEL IDENTITY</b> | <b>DATE OF OPERATIONALISATION</b> |
|--------------|--------------|---------------------------------|-------------------------|-----------------------------------|
| 42           | AHMEDNAGAR   | M.B.P.L.                        | RADIO-CITY              | 07.02.2008                        |
| 43           | AJMER        | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 28-08-2007                        |
| 44           | AJMER        | D. B. CORP.                     | MY-FM                   | 31.08.2007                        |
| 45           | AKOLA        | M.B.P.L.                        | RADIO-CITY              | 13.03.2008                        |
| 46           | ALIGARH      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 08.12.2006                        |
| 47           | ALLAHABAD    | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 29.10.2007                        |
| 48           | ALLAHABAD    | SOUTH ASIA                      | S. FM                   | 18.03.2008                        |
| 49           | AMRITSAR     | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 01.08.2007                        |
| 50           | AMRITSAR     | TV TODAY BROADCASTING LTD       | RADIO- MEOW             | 15.05.2008                        |
| 51           | AMRITSAR     | D. B. CORP.                     | MY-FM                   | 27-07-2007                        |
| 52           | ASANSOL      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 29.06.2007                        |
| 53           | ASANSOL      | SOUTH ASIA                      | S. FM                   | 03.06.2008                        |
| 54           | AURANGABAD   | E.N.I.L.                        | RADIO- MIRCHI           | 24.07.2007                        |
| 55           | AURANGABAD   | SOUTH ASIA                      | S. FM                   | 21.04.2008                        |
| 56           | BANGALURU    | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 09.10.2006                        |
| 57           | BANGALURU    | E.N.I.L.                        | RADIO- MIRCHI           | 17.04.2006                        |
| 58           | BANGALURU    | H.T. MEDIA                      | FEVER 104               | 06.03.2007                        |
| 59           | BANGALURU    | INDIA RADIO VENTURES            | RADIO- INDIGO           | 01.10.2006                        |
| 60           | BANGALURU    | KAL RADIO                       | S. FM                   | 06.11.2006                        |
| 61           | BANGALURU    | M.B.P.L.                        | RADIO-CITY              | 10.06.2001                        |
| 62           | BANGALURU    | RADIO-ONE LTD.                  | RADIO-ONE [1]           | 01.08.2006                        |
| 63           | BAREILLY     | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 30.03.2007                        |
| 64           | BAREILLY     | SHRI PURAN MULTIMEDIA           | MANTRA FM               | 09.04.2007                        |
| 65           | BHOPAL       | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 20.05.2007                        |
| 66           | BHOPAL       | E.N.I.L.                        | RADIO- MIRCHI           | 26.05.2007                        |
| 67           | BHOPAL       | SOUTH ASIA                      | S. FM                   | 06.11.2007                        |
| 68           | BHOPAL       | D. B. CORP.                     | MY-FM                   | 26.05.2007                        |
| 69           | BHUBANESHWAR | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 14.04.2007                        |
| 70           | BHUBANESHWAR | EASTERN MEDIA                   | CHOCOLATE               | 04.05.2007                        |
| 70           | BHUBANESHWAR | SOUTH ASIA                      | S. FM                   | 28.06.2007                        |
| 72           | BIKANER      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 19.01.2007                        |
| 73           | BILASPUR     | D. B. CORP.                     | MY-FM                   | 27.09.2007                        |
| 74           | CHANDIGARH   | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 12.02.2007                        |
| 75           | CHANDIGARH   | D. B. CORP.                     | MY-FM                   | 19.02.2007                        |
| 76           | COIMBATORE   | E.N.I.L.                        | RADIO- MIRCHI           | 03.11.2007                        |
| 77           | COIMBATORE   | M.B.P.L.                        | RADIO-CITY              | 12.11.2007                        |
| 78           | COIMBATORE   | MALAR PUBLICATIONS              | HELLO-FM                | 29.10.2007                        |
| 79           | COIMBATORE   | SUN TV                          | SURYANA FM              | 07.03.2003                        |
| 80           | DHULE        | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 15.08.2007                        |

**Annexure 5.2 (Contd.)**

| <b>S.NO.</b> | <b>CITY</b> | <b>NAME OF THE COMPANY</b>      | <b>CHANNEL IDENTITY</b> | <b>DATE OF OPERATIONALISATION</b> |
|--------------|-------------|---------------------------------|-------------------------|-----------------------------------|
| 81           | GANGTOK     | CHINAR CIRCUITS                 | NINE-91.9 FM            | 10.08.2008                        |
| 82           | GANGTOK     | PCM CEMENTS                     | MISTY FM                | 31.01.2009                        |
| 83           | GANGTOK     | SOUTH ASIA                      | S.FM                    |                                   |
| 84           | GORAKHPUR   | SHRI PURAN MULTIMEDIA           | MANTRA FM               | 03.06.2007                        |
| 85           | GULBERGA    | KAL RADIO                       | S. FM                   | 02.06.2008                        |
| 86           | GUWAHATI    | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 14.04.2007                        |
| 87           | GUWAHATI    | PURVY BROADCASTING              | GUP-SHUP                | 09.10.2007                        |
| 88           | GUWAHATI    | SOUTH ASIA                      | S. FM                   | 11.04.2008                        |
| 89           | GWALIOR     | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 06.08.2007                        |
| 90           | GWALIOR     | GWALIOR FARMS                   | CHASKA                  | 04.08.2007                        |
| 91           | GWALIOR     | ITM SOFTWARE                    | SUNO LEMON              | 07.09.2007                        |
| 92           | GWALIOR     | D. B. CORP.                     | MY-FM                   | 06.08.2007                        |
| 93           | HISSAR      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 02.03.2007                        |
| 94           | HISSAR      | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 18.06.2007                        |
| 95           | HISSAR      | SHRI PURAN MULTIMEDIA           | MANTRA FM               | 21.03.2007                        |
| 96           | HYDERABAD   | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 25.09.2006                        |
| 97           | HYDERABAD   | E.N.I.L.                        | RADIO- MIRCHI           | 19.04.2006                        |
| 98           | HYDERABAD   | KAL RADIO                       | S. FM                   | 06.11.2006                        |
| 99           | HYDERABAD   | M.B.P.L.                        | RADIO-CITY              | 30.05.2006                        |
| 100          | INDORE      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 03.08.2007                        |
| 101          | INDORE      | E.N.I.L.                        | RADIO- MIRCHI           | 01.10.2001                        |
| 102          | INDORE      | SOUTH ASIA                      | S. FM                   | 09.12.2007                        |
| 103          | INDORE      | D. B. CORP.                     | MY-FM                   | 11.08.2007                        |
| 104          | ITANAGAR    | POSITIVE RADIO                  | OOLALA FM               | 05.08.2008                        |
| 105          | JABALPUR    | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 01.03.2008                        |
| 106          | JABALPUR    | E.N.I.L.                        | RADIO- MIRCHI           | 15.02.2008                        |
| 107          | JABALPUR    | SOUTH ASIA                      | S. FM                   | 19.03.2008                        |
| 108          | JABALPUR    | D. B. CORP.                     | MY-FM                   | 15.02.2008                        |
| 109          | JAIPUR      | E.N.I.L.                        | RADIO- MIRCHI           | 17.04.2006                        |
| 110          | JAIPUR      | M.B.P.L.                        | RADIO-CITY              | 08.09.2006                        |
| 111          | JAIPUR      | RAJASTHAN PATRIKA               | RADIO- TADKA            | 15.08.2006                        |
| 112          | JAIPUR      | SOUTH ASIA                      | S. FM                   | 06.11.2006                        |
| 113          | JAIPUR      | D. B. CORP.                     | MY-FM                   | 28.05.2006                        |
| 114          | JALANDHAR   | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 14.04.2007                        |
| 115          | JALANDHAR   | E.N.I.L.                        | RADIO- MIRCHI           | 24.04.2007                        |
| 116          | JALANDHAR   | SHRI PURAN MULTIMEDIA           | MANTRA FM               | 14.04.2007                        |
| 117          | JALANDHAR   | D. B. CORP.                     | MY-FM                   | 19.04.2007                        |
| 118          | JALGOAN     | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 22.04.2008                        |
| 119          | JALGOAN     | M.B.P.L.                        | RADIO-CITY              | 21.05.2008                        |
| 120          | JAMMU       | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 07.12.2006                        |
| 121          | JAMSHED PUR | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 07.11.2007                        |

**Annexure 5.2 (Contd.)**

| <b>S.NO.</b> | <b>CITY</b> | <b>NAME OF THE COMPANY</b>      | <b>CHANNEL IDENTITY</b> | <b>DATE OF OPERATIONALISATION</b> |
|--------------|-------------|---------------------------------|-------------------------|-----------------------------------|
| 122          | JAMSHED PUR | SOUTH ASIA                      | S. FM                   | 13.04.2008                        |
| 123          | JAMSHED PUR | NEUTRAL PUBLICATION             | DHOOM FM                | 18.07.2008                        |
| 124          | JHANSI      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 19.01.2007                        |
| 125          | JODHPUR     | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 14.12.2007                        |
| 126          | JODHPUR     | TV TODAY BROADCASTING LTD       | RADIO- MEOW             | 01.06.2008                        |
| 127          | JODHPUR     | D. B. CORP.                     | MY-FM                   | 20.12.2007                        |
| 128          | KANNUR      | ASIANET RADIO PVT. LTD.         | BEST FM                 | 13.01.2008                        |
| 129          | KANNUR      | KAL RADIO                       | S. FM                   | 12.03.2008*                       |
| 130          | KANNUR      | MALAYALLA MANORAMA              | MANGO FM                | 30.12.2007                        |
| 131          | KANNUR      | THE MATHRABHUMI                 | CLUB-FM                 | 30.12.2007                        |
| 132          | KANPUR      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 14.06.2007                        |
| 133          | KANPUR      | E.N.I.L.                        | RADIO- MIRCHI           | 16.06.2007                        |
| 134          | KANPUR      | SOUTH ASIA                      | S. FM                   | 28.01.2008                        |
| 135          | KARNAL      | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 18.06.2007                        |
| 136          | KARNAL      | SHRI PURAN MULTIMEDIA           | MANTRA FM               | 02.04.2007                        |
| 137          | KOCHI       | KAL RADIO                       | S. FM                   | 17.05.2008*                       |
| 138          | KOCHI       | MALAYALLA MANORAMA              | MANGO FM                | 18.05.2008                        |
| 139          | KOCHI       | THE MATHRABHUMI                 | CLUB-FM                 | 17.05.2008                        |
| 140          | KOLHAPUR    | E.N.I.L.                        | RADIO- MIRCHI           | 18.09.2007                        |
| 141          | KOLHAPUR    | PUDHARI PUBLICATION             | TOMOTO FM               | 21.09.2007                        |
| 142          | KOTA        | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 21.01.2008                        |
| 143          | KOTA        | RAJASTHAN PATRIKA               | RADIO- TADKA            | 25.02.2008                        |
| 144          | KOTA        | D. B. CORP.                     | MY-FM                   | 02.02.2008                        |
| 145          | KOZHIKKODE  | KAL RADIO                       | S. FM                   | 07.12.2007                        |
| 146          | KOZHIKKODE  | MALAYALLA MANORAMA              | MANGO FM                | 29.11.2007                        |
| 147          | LUCKNOW     | E.N.I.L.                        | RADIO- MIRCHI           | 13.08.2007                        |
| 148          | LUCKNOW     | M.B.P.L.                        | RADIO-CITY              | 10.12.2001                        |
| 149          | LUCKNOW     | SOUTH ASIA                      | S. FM                   | 06.11.2007                        |
| 150          | MADURAI     | E.N.I.L.                        | RADIO- MIRCHI           | 28-09.2007                        |
| 151          | MADURAI     | KAL RADIO                       | S. FM                   | 05.10.2007                        |
| 152          | MADURAI     | MALAR PUBLICATIONS              | HELLO-FM                | 01.10.2007                        |
| 153          | MANGALORE   | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 24.11.2007                        |
| 154          | MANGALORE   | E.N.I.L.                        | RADIO- MIRCHI           | 24.11.2007                        |
| 155          | MANGALORE   | KAL RADIO                       | S. FM                   | 21.02.2008                        |
| 156          | MUZAFFARPUR | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 01.08.2007                        |
| 157          | MYSORE      | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 14.10.2007                        |
| 158          | MYSORE      | KAL RADIO                       | S. FM                   | 07.12.2007                        |
| 159          | NAGPUR      | E.N.I.L.                        | RADIO- MIRCHI           | 18.10.2007                        |
| 160          | NAGPUR      | M.B.P.L.                        | RADIO-CITY              | 21.10.2007                        |
| 161          | NAGPUR      | SOUTH ASIA                      | S. FM                   | 04.05.2008                        |
| 162          | NAGPUR      | D. B. CORP.                     | MY-FM                   | 21.10.2007                        |
| 163          | NANDED      | M.B.P.L.                        | RADIO-CITY              | 15.05.2008                        |
| 164          | NASIK       | E.N.I.L.                        | RADIO- MIRCHI           | 06.07.2007                        |

**Annexure 5.2 (Contd.)**

| <b>S.NO.</b> | <b>CITY</b>     | <b>NAME OF THE COMPANY</b>      | <b>CHANNEL IDENTITY</b> | <b>DATE OF OPERATIONALISATION</b> |
|--------------|-----------------|---------------------------------|-------------------------|-----------------------------------|
| 165          | NASIK           | SOUTH ASIA                      | S. FM                   | 16.04.2008                        |
| 166          | PANAJI          | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 22.05.2007                        |
| 167          | PANAJI          | E.N.I.L.                        | RADIO- MIRCHI           | 22.05.2007                        |
| 168          | PANAJI          | INDIA RADIO VENTURES            | RADIO INDIGO            | 25.06.2007                        |
| 169          | PATIALA         | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 01.08.2007                        |
| 170          | PATIALA         | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 18.06.2007                        |
| 171          | PATIALA         | TV TODAY BROADCASTING LTD       | RADIO- MEOW             | 01.06.2008                        |
| 172          | PATNA           | E.N.I.L.                        | RADIO- MIRCHI           | 02.04.2007                        |
| 173          | PUDUCHERRY (UT) | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 01.12.2007                        |
| 174          | PUDUCHERRY (UT) | KAL RADIO                       | S. FM                   | 20.12.2007                        |
| 175          | PUDUCHERRY (UT) | MALAR PUBLICATIONS              | HELLO-FM                | 22.12.2007                        |
| 176          | PUNE            | E.N.I.L.                        | RADIO- MIRCHI           | 18.10.2002                        |
| 177          | PUNE            | M.B.P.L.                        | RADIO-CITY              | 06.04.2008                        |
| 178          | PUNE            | RADIO-ONE LTD.                  | RADIO-ONE [1]           | 12.05.2008                        |
| 179          | PUNE            | SOUTH ASIA                      | S. FM                   | 22.07.2008                        |
| 180          | RAIPUR          | E.N.I.L.                        | RADIO- MIRCHI           | 11.01.2008                        |
| 181          | RAIPUR          | RAJASTHAN PATRIKA               | RADIO- TADKA            | 10.02.2009                        |
| 182          | RAIPUR          | RANEKA FINCOM                   | RANGILA 104.8           | 15.01.2008                        |
| 183          | RAIPUR          | D. B. CORP.                     | MY-FM                   | 16.01.2008                        |
| 184          | RAJAHMUNDRY     | KAL RADIO                       | S. FM                   | 19.01.2008                        |
| 185          | RAJKOT          | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 13.06.2007                        |
| 186          | RAJKOT          | E.N.I.L.                        | RADIO- MIRCHI           | 13.06.2007                        |
| 187          | RAJKOT          | SOUTH ASIA                      | S. FM                   | 18.04.2008                        |
| 188          | RANCHI          | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 24.10.2007                        |
| 189          | RANCHI          | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 15.11.2007                        |
| 190          | RANCHI          | SHRI PURAN MULTIMEDIA           | MANTRA FM               | 27.10.2007                        |
| 191          | RANCHI          | NEUTRAL PUBLICATION             | DHOOM FM                | 18.07.2008                        |
| 192          | ROURKELA        | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 06.01.2008                        |
| 193          | ROURKELA        | EASTERN MEDIA                   | RADIO- CHOCOLATE        | 22.01.2008                        |
| 194          | SANGLI          | M.B.P.L.                        | RADIO-CITY              | 08.02.2008                        |
| 195          | SANGLI          | PUDHARI PUBLICATION             | TOMOTO FM               | 21.09.2009                        |
| 196          | SHILLONG        | SOUTH ASIA                      | S. FM                   | 13.06.2008                        |
| 197          | SHIMLA          | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 25.06.2009                        |
| 198          | SHIMLA          | TV TODAY BROADCASTING LTD       | RADIO- MEOW             | 01.10.2009                        |
| 199          | SHIMLA          | B.A.G. INFOTAINMENT             | RADIO- DHAMAL           | 30.11.2009                        |
| 200          | SHOLAPUR        | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 08.11.2007                        |
| 201          | SHOLAPUR        | M.B.P.L.                        | RADIO-CITY              | 14.11.2007                        |
| 202          | SILIGURI        | PCM CEMMENTS                    | MISTY FM                | 14.11.2007                        |
| 203          | SILIGURI        | SYNTECH INFORMATICS             | HIGH FM                 | 24.11.2007                        |
| 204          | SILIGURI        | SOUTH ASIA                      | S. FM                   | 25.10.2008                        |

**Annexure 5.2 (Contd.)**

| <b>S.NO.</b> | <b>CITY</b>         | <b>NAME OF THE COMPANY</b>      | <b>CHANNEL IDENTITY</b> | <b>DATE OF OPERATIONALISATION</b> |
|--------------|---------------------|---------------------------------|-------------------------|-----------------------------------|
| 205          | SRI-NAGAR           | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 10.12.2006                        |
| 206          | SURAT               | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 29.08.2007                        |
| 207          | SURAT               | E.N.I.L.                        | RADIO- MIRCHI           | 21.08.2007                        |
| 208          | SURAT               | D. B. CORP.                     | MY-FM                   | 27.08.2007                        |
| 209          | SURAT               | M.B.P.L.                        | RADIO-CITY              | 22.08.2007                        |
| 210          | THIRUVANANTHA-PURAM | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 29.01.2008                        |
| 211          | THIRUVANANTHA-PURAM | E.N.I.L.                        | RADIO- MIRCHI           | 29.01.2008                        |
| 212          | THIRUVANANTHA-PURAM | KAL RADIO                       | S. FM                   | 06.02.2008                        |
| 213          | THIRUVANANTHA-PURAM | THE MATHRABHUMI                 | CLUB-FM                 | 29.01.2008                        |
| 214          | THRISSUR            | ASIANET RADIO PVT. LTD.         | BEST FM                 | 23.12.2007                        |
| 215          | THRISSUR            | KAL RADIO                       | S. FM                   | 26.12.2007                        |
| 216          | THRISSUR            | MALAYALLA MANORAMA              | MANGO FM                | 14.12.2007                        |
| 217          | THRISSUR            | THE MATHRABHUMI                 | CLUB-FM                 | 14.12.2007                        |
| 218          | TIRUCHI             | KAL RADIO                       | S. FM                   | 17.01.2008                        |
| 219          | TIRUCHI             | MALAR PUBLICATIONS              | HELLO-FM                | 14.01.2008                        |
| 220          | TIRUNELVELI         | MALAR PUBLICATIONS              | HELLO-FM                | 13.10.2007                        |
| 221          | TIRUNELVELI         | SUN TV                          | SURYANA FM              | 07.03.2003                        |
| 222          | TIRUPATI            | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 01.08.2007                        |
| 223          | TIRUPATI            | KAL RADIO                       | S. FM                   | 27.08.2007                        |
| 224          | TUTICORIN           | KAL RADIO                       | S. FM                   | 05.10.2007                        |
| 225          | TUTICORIN           | MALAR PUBLICATIONS              | HELLO-FM                | 15.10.2007                        |
| 226          | UDAIPUR             | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 03.08.2007                        |
| 227          | UDAIPUR             | RAJASTHAN PATRIKA               | RADIO- TADKA            | 27.08.2007                        |
| 228          | UDAIPUR             | D. B. CORP.                     | MY-FM                   | 07.07.2007                        |
| 229          | VADODARA            | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 05.06.2007                        |
| 230          | VADODARA            | E.N.I.L.                        | RADIO- MIRCHI           | 05.06.2007                        |
| 231          | VADODARA            | M.B.P.L.                        | RADIO-CITY              | 11.06.2007                        |
| 232          | VADODARA            | SOUTH ASIA                      | S. FM                   | 17.04.2008                        |
| 233          | VARANASI            | E.N.I.L.                        | RADIO- MIRCHI           | 14.07.2007                        |
| 234          | VARANASI            | SHRI PURAN MULTIMEDIA           | MANTRA FM               | 20.07.2007                        |
| 235          | VARANASI            | SOUTH ASIA                      | S. FM                   | 29.12.2007                        |
| 236          | VIJAYWADA           | E.N.I.L.                        | RADIO- MIRCHI           | 11.12.2007                        |
| 237          | VIJAYWADA           | KAL RADIO                       | S. FM                   | 25.12.2007                        |
| 238          | VISHAKAPATNAM       | RELIANCE BROADCAST NETWORK LTD. | BIG-FM                  | 27.10.2007                        |
| 239          | VISHAKAPATNAM       | E.N.I.L.                        | RADIO- MIRCHI           | 26.10.2007                        |
| 240          | VISHAKAPATNAM       | M.B.P.L.                        | RADIO-CITY              | 29.10.2007                        |
| 241          | VISHAKAPATNAM       | UDAYA TV                        | VISAKHA FM              | 06.02.2003                        |
| 242          | WARANGAL            | KAL RADIO                       | S. FM                   | 28.05.2008                        |

**Source:** Ministry of Information & Broadcasting



### **Annexure 5.3: List of applicants who have been granted DTH License**

- 1. M/s. Tata Sky Ltd.,**  
3<sup>rd</sup> Floor,  
Bombay Dyeing A.O. Building,  
Pandurang Budhkar Marg,  
Worli, Mumbai □ 400 025  
Tel: 022-6613 3000  
Fax-022-6613 3030/6616 3013
  
- 2. M/s Dish TV India Ltd.**  
FC-9, Sector-16A, Film City,  
Noida-201301  
Tel: 91-120-2511064-78  
Fax: 91-120-2511186
  
- 3. SUN Direct TV(P) Ltd.**  
Murasoli Maran Towers,  
73, MRC Nagar,  
Main Road, MRC Nagar,  
Chennai □ 28  
PH: 044-44676767
  
- 4. Bharti Telemedia Ltd.**  
Airtel centre, Plot No 16,  
Udyog Vihar Phase IV,  
Gurgaon □ 122015  
Ph: 0124-4222222
  
- 5. Reliance Big TV Pvt. Ltd.**  
3<sup>rd</sup> Floor, B-Wing,  
Reliance Centre,  
Maharaja Ranjit Singh Marg,  
New Delhi □ 110 002  
Ph: 011-30332832
  
- 6. M/s Bharat Business Channel Ltd.**  
Uplink Centre, Plot No 1D,  
Udyog Vihar, Industrial Area,  
Greater NOIDA,  
Distt-Gautam Budh Nagar (UP) - 201 306  
PH: 0120-6141000

### Annexure 5.4: List of permitted teleports at various locations in India

[As on 20/03/2013]

| Sr. No | Name of Teleport  | Address  | Location           | Date of Permission |
|--------|---|--|--------------------|--------------------|
| 1      | TV TODAY NETWORK LIMITED                                    | TV TODAY NETWORK LIMITED<br>FC-8, SECTOR-16A, NOIDA(UP)                                      | NEW DELHI          | 22-Nov-00          |
| 2      | SUN TV LTD.   | R S NO. 4288/72,73 & 116,<br>BLOCK NO. 94, MRC NAGAR<br>CHENNAI-600018                       | CHENNAI            | 12-Mar-01          |
| 3      | ENTERTAINMENT TELEVISION NETWORK PVT.LTD                    | 7B, SHAH INDUSTRIAL ESTATE,<br>OFF VEERA DESAI ROAD,<br>ANDHERI W , MUMBAI-400053            | MUMBAI             | 23-May-01          |
| 4      | USHODAYA ENTERPRISES LTD.                                   | 6-3-570, EENADU COMPLEX,<br>SOMAJIGUDA, HYDERABAD-<br>500082                                 | HYDERABAD          | 23-May-01          |
| 5      | ESSEL SHYAM COMMUNICATION LIMITED                           | C-34,SECTOR-62,ELECTRONIC<br>CITY,NOIDA-201307   | NOIDA              | 3-Sep-01           |
| 6      | ASIANET INFRASTRUCTURE PVT. LTD.                            | ASIANET STUDIO/COMPLEX,<br>PULIYARAKONAM P.O.<br>THIRUVANANTHAPURAM<br>KERALA                | THIRUVANANTHAPURAM | 17-Oct-01          |
| 7      | ESSEL SHYAM COMMUNICATION LTD                               | C-34, ELECTRONIC CITY,<br>SECTOR-62, NOIDA-201307  | NOIDA-2            | 7-Feb-02           |
| 8      | SAHARA SANCHAR LIMITED                                      | SAHARA INDIA COMPLEX, C-2,<br>C-3, SECTOR-XI NOIDA-201301                                    | NOIDA              | 12-Feb-02          |
| 9      | TELEVISION EIGHTEEN INDIA LIMITED                           | VIDEOCON TOWER, E-1 RANI<br>JHANSI ROAD, JHANDEWALAN<br>EXTN., NEW DELHI-110055              | NEW DELHI          | 18-Mar-02          |
| 10     | NEW DELHI TELEVISION LTD. (NDTV)                            | ARCHANA COMPLEX, GREATER<br>KAILASH-I NEW DELHI-110048                                       | NEW DELHI          | 11-Jun-02          |
| 11     | INDIAVISION COMMUNICATIONS LTD.                             | SATELLITE TATU'S TOWER,<br>32/1787, PADIVATTOM, NH<br>BY-PASS ROAD, KOCHI<br>(KERALA) 682024 | KOCHI -KERALA      | 7-Nov-02           |
| 12     | NOIDA SOFTWARE TECHNOLOGY PARK LTD.                         | B-23-25, POCKET-C,<br>SURAJPUR INDUSTRIAL AREA,<br>GREATER NOIDA(U.P)                        | GREATER NOIDA      | 27-Jan-03          |
| 13     | DISH TV INDIA LIMITED (Formerly known ASC Enterprises Ltd.) | FC-19, SECTOR-16A, NOIDA-<br>201301 (U.P.)   | NOIDA              | 2-Apr-03           |
| 14     | POSITIVE TELEVISION PVT. LTD.                               | 7 C, DOCTORS LANE, GOL<br>MARKET, NEW DELHI-110001   | GUWAHATI           | 9-Jun-03           |
| 15     | CHANNEL GUIDE INDIA LTD.                                    | BOKADIA MANSION, 3RD<br>FLOOR,229, PRINCESS STREET,<br>MUMBAI                                | MUMBAI             | 15-Sep-03          |
| 16     | INDIASIGN PVT. LTD.   | A-49, SECTOR-18,<br>ELECTRONICS CITY, HARTRON<br>COMPLEX, GURGAON(HARYANA)                   | GURGAON            | 18-Nov-03          |
| 17     | ASSOCIATED BROADCASTING PVT. LTD.                           | CO.NO.97, ROAD NO.3,<br>BANJARA HILLS, HYDERABAD-<br>500034                                  | HYDERABAD          | 24-Nov-03          |
| 18     | AV ENTERTAINMENT PVT. LTD.                                  | 240, ZONE-I, M.P.NAGER,<br>BHOPAL(M.P)   | BHOPAL             | 15-Dec-03          |

**Annexure 5.4 (Contd.)**

| <b>Sr.No</b> | <b>Name of Teleport</b>              | <b>Address</b>  | <b>Location</b>    | <b>Date of Permission</b> |
|--------------|--------------------------------------|---|--------------------|---------------------------|
| 19           | TELEVISION EIGHTEEN INDIA LIMITED    | EMPIRE COMPLEX, 414, SENAPATI BAPAT MARG, LOWER PAREL, MUMBAI-400013                                    | MUMBAI             | 19-Mar-04                 |
| 20           | AMRITA ENTERPRISES PVT. LTD.         | TCNO.15/1069, AMRITA, GANDHI NAGER, VAZHUTHANCADU, THIRUVANANTHAPURAM-695014                            | THIRUVANANTHAPURAM | 20-Apr-04                 |
| 21           | MAVIS SATCOM LIMITED                 | NO.48 NP, JAWAHARLAL NEHRU ROAD, EKKATUTHANGAL, CHENNAI-600092  | CHENNAI            | 22-Apr-04                 |
| 22           | TATA COMMUNICATIONS LTD.VSNL         | VSNL, TECHNICAL COMPLEX, SDF BUILDING, SALT LAKE, KOLKATTA-700091                                       | KOLKATTA           | 14-May-04                 |
| 23           | TATA COMMUNICATIONS LTD. VSNL        | VSNL, VSB, KAKKANAD, THIRKKAKARA, ERNAKULAM, COACHIN-682030   | COCHIN             | 14-May-04                 |
| 24           | TATA COMMUNICATIONS LTD., VSNL,      | THIRUVELLUVAR SATELLITE VSNL EARTH STATION, REDHILLS ROAD, AMBATTUR, CHENNAI-600053                     | CHENNAI            | 14-May-04                 |
| 25           | TATA COMMUNICATIONS LTD., VSNL       | VSNL, VSB, BANGLA SAHAB ROAD, NEW DELHI-110001  | NEW DELHI          | 14-May-04                 |
| 26           | TATA COMMUNICATIONS LTD., VSNL       | VSNL,VSB, FORT, MG ROAD, MUMBAI-400001  | MUMBAI             | 14-May-04                 |
| 27           | LAMHAS SATELLITE LTD.                | SERVICES 161, TOWER-I, INTERNATIONAL INFOTECH PARK, VASHI, NAVI MUMBAI                                  | MUMBAI             | 10-Aug-04                 |
| 28           | MALAYALAM COMMUNICATIONS LTD.        | MALAYALAM COMMUNICATIONS LTD. CHANDRAGIRI 61, VIKRAMPURAM HILLS,KOWDIAR P.O., THIRUVANANTHAPURAM-695003 | THIRUVANANTHAPURAM | 22-Dec-04                 |
| 29           | SANSKAR INFO TV PVT. LTD.            | B-10, MELKAY BUILDING, OPP. MAROL TELEPHONE EXCHANGE, CENTRAL ROAD, MIDC, ANDHERI E, MUMBAI-400093      | MUMBAI             | 23-Feb-05                 |
| 30           | BENNETT COLEMAN AND CO. LTD.         | BENNETT, COLEMAN & CO. LTD., THE TIMES OF INDIA BUILDING DR. D.N ROAD, MUMBAI-400001                    | MUMBAI             | 2-May-05                  |
| 31           | SENIOR MEDIA LTD.                    | SENIOR MEDIA LTD NO.3, SIRI FORT ROAD, NEW DELHI-49   | NEW DELHI          | 5-May-05                  |
| 32           | LOK PRAKASHAN LTD.                   | LOK PRAKASHAN LTD. 57 CHOWRINGHEE ROAD, HORIZON, 3RD FLOOR, KOLKATA-700071                              | AHMEDABAD          | 6-May-05                  |
| 33           | CALCUTTATELEVISION NETWORK PVT. LTD. | CALCUTTA TELEVISION NETWORK PVT. LTD. 89 M.B.ROAD BIRATI, KOLKATA-70051                                 | KOLKATA            | 22-Aug-05                 |
| 34           | KOHINOOR CORPORATION LTD.            | BROADCASTING KOHINOOR BROADCASTING CORPORATION LTD. TAGORE COMPLEX, MODEL TOWN, PATIALA-147001, PUNJAB  | RAJPURA - PUNJAB   | 9-Sep-05                  |

**Annexure 5.4 (Contd.)**

| <b>Sr.No</b> | <b>Name of Teleport</b>                                 | <b>Address</b>  | <b>Location</b> | <b>Date of Permission</b> |
|--------------|---|---|-----------------|---------------------------|
| 35           | TELEVISION INDIA EIGHTEEN LIMITED                       | VIDEOCON TOWER, E-1 RANI JHANSI ROAD, JHANDEWALAN EXTN., NEW DELHI-110055   | NOIDA           | 14-Sep-05                 |
| 36           | KAMYAB TV PVT. LTD. (Formerly known as MD TV Pvt. Ltd.) | KAMYAB TV PVT. LTD. 168, EKAMRA MARG, UNIT-6 BHUBANESWER-751001   | BHUBANESHWER    | 30-Sep-05                 |
| 37           | KASTURI MEDIA PVT. LTD.                                 | KASTHURI MEDIAS PVT. LTD. NO.286, 3RD MAIN ROAD, J.P. NAGER, BANGLORE-560078  | BANGALORE       | 10-Nov-05                 |
| 38           | SST MEDIA PVT. LTD.                                     | 57 J.L NEHRU ROAD HORIZON, 3RD FLOOR, KOLKATA-700071  | KOLKATA         | 30-Nov-05                 |
| 39           | ESSEL SHYAM COMMUNICATION LTD.                          | ROYAL PALAMS, SURVEY NO. 169, NEAR UNIT 26, AAREY MILK COLONY GOREGAON EAST, MUMBAI- 400065                           | MUMBAI          | 2-Dec-05                  |
| 40           | MM TV LTD.  | MM TV LTD. POST BOX NO. 106, KANDATHIL VARGHESE MAPPILLAI MEMORIAL SOCIETY BUILDING K.K.ROAD, KOTTAYAM-686001, KERALA | ALAPUZZA        | 2-Mar-06                  |
| 41           | IN CABLENET ANDHRA LTD.                                 | IN CABLENET ANDHRA LTD. 98, OM PLAZA, DOMALGUDA, HYDERABAD-500029   | HYDERABAD       | 9-Mar-06                  |
| 42           | INDRA TELEVISION LTD.                                   | INDRA TELEVISION LTD. MEGA CITY NO. 338, ROAD NO.3, ARORA COLONY BANJARA HILLS HYDERABAD-500034                       | HYDERABAD       | 7-Jun-06                  |
| 43           | SUN TV LTD.   | R S NO. 4288/72,73 & 116, BLOCK NO. 94, MRC NAGAR CHENNAI-600018  | CHENNAI         | 14-Jul-06                 |
| 44           | MEDIA CONTENT AND COMMUNICATION INDIA PRIVATE LIMITED   | DLF CNTRE, 7TH FLOOR, 4 SNANSAD SERVICESMARG, NEW DELHI-110001  | NOIDA           | 20-Sep-06                 |
| 45           | TATA SKY LIMITED  | TATA SKY LTD. 3RD FLOOR,C-1, WADIA INTERNATIONAL CENTRE BOMBAY DYEING, PANDURANG BUDHAR MARG, WORLI, MUMBAI-400025    | NEW DELHI       | 20-Sep-06                 |
| 46           | SATISH SUGERS LTD.                                      | VAISHNAVI BHAVANA, 89/1, 1ST A MAIN ROAD, INDUSTRIAL SUBRUB, 2ND STAGE, YESHWANTHPUR, BANGLORE-560022                 | BANGALORE       | 26-Sep-06                 |
| 47           | SHITAL FIBRES LTD.                                      | SHITAL FIBRES LTD. A-17, FOCAL POINT EXTENSION, P.O.BOX NO. 407 AND 449, JALLANDHAR-144004                            | JALANDHAR       | 29-Sep-06                 |
| 48           | MH ONE TV NETWORK LTD.                                  | MH ONE TV NETWORK LTD. 2,SSI INDUSTRIAL AREA, GT KARNAL ROAD, DELHI-33  | DELHI           | 23-Nov-06                 |
| 49           | STV ENTERPRISES LTD.                                    | 268 MASJID KOTH, NEAR UDAI PARK MARKET, NEW DELHI-110049  | NEW DELHI       | 11-Jan-07                 |
| 50           | AIRR X MEDIA LTD.                                       | 502 ASHWIN ATHWA LINES SURAT GUJARAT  | SURAT           | 13-Mar-07                 |

**Annexure 5.4 (Contd.)**

| <b>Sr.No</b> | <b>Name of Teleport</b>                | <b>Address</b>  | <b>Location</b>                         | <b>Date of Permission</b> |
|--------------|--|---|---|---------------------------|
| 51           | BROADCAST EQUIPMENTS INDIA PVT. LTD.   | 370-371/2, FIRST FLOOR, HOSPITAL ROAD, JANGPURA, NEW DELHI-110014                             | NEW DELHI                               | 21-May-07                 |
| 52           | WINNING COMMUNICATIONS LTD.            | EDGEWINNING EDGE COMMUNICATIONS LTD. 301, SWARNA JAYANTHI COMPLEX, AMEERPET, HYDERABAD-500038 | HYDERABAD                               | 25-May-07                 |
| 53           | INDIASIGN PVT. LTD.                    | GL-34/1 SALT LAKE ELECTRONIC COMPLEX SECTOR-5, KOLKATTA WEST BANGAL                           | KOLKATA                                 | 15-Jun-07                 |
| 54           | INDIASIGN PVT. LTD.                    |   | CHENNAI                                 | 15-Jun-07                 |
| 55           | RACHANA TELEVISION PVT. LTD.           | PLOT NO. 564-A-19-III, ROAD NO.92, JUBILEE HILLS, HYDERABAD-500033                            | HYDERABAD                               | 15-Jun-07                 |
| 56           | ORTEL COMMUNICATIONS LTD.              | ORTEL COMMUNICATIONS LTD. B-7/122 A, SAFDARJUNG ENCLAVE, NEW DELHI-110029                     | BHUBANESHWER                            | 25-Jun-07                 |
| 57           | SOWBHAGYA EXPORTS LTD.                 | SOWBHAGYA EXPORTS LTD. 77/14 SKD NAGER, SRINAGER COLONY HYDERABAD-500073 ANDHRA PRADESH       | HYDERABAD                               | 4-Jul-07                  |
| 58           | ESSEL SHYAM COMMUNICATION LTD.         | C-138, NARAINA INDUSTRIAL AREA-I, AROOR NEW DELI-28   | KERALA                                  | 5-Jul-07                  |
| 59           | PRAGYA VISION PVT. LTD.                | FC-13, SECTOR 16A, FILM CITY, NOIDA-201301  | NOIDA                                   | 5-Sep-07                  |
| 60           | BRAHMAPUTRA TELE-PRODUCTIONS PVT. LTD. | 13 <sup>TH</sup> MILE TAMULIKUCHI BYRNIHAT RI -BHOI MEGHALAYA                                 | GUWAHATI                                | 25-Sep-07                 |
| 61           | G. NEXT MEDIA PVT. LTD.                | 78, OKHALA INDUSTRIAL ESTATE PHASE-III, NEW DELHI-110020                                      | NEW DELHI                               | 5-Oct-07                  |
| 62           | INDIASIGN PVT. LTD.                    | 1343, ROAD NO. 67, JUBILEE HILL, HYDERABAD  | HYDERABAD                               | 14-Mar-08                 |
| 63           | TATA COMMUNICATIONS LIMITED            | THIRUVALLUR SATELLITE EARTH STATION, 226, RED HILLS ROAD, AMBATTUR, CHENNAI-600053            | CHENNAI-2                               | 6-May-08                  |
| 64           | POSITIVE TELEVISION PVT. LTD.          | POSITIVE TELEVISION PVT. LTD. DOCTOR'S LANE, GOL MARKET, NEW DELHI-110001                     | 7C,NOIDA                                | 23-May-08                 |
| 65           | EASTERN MEDIA LTD.                     | A/62,NAYAPALLI, BHUBANESWAR-751003, ORISSA  | BHUBANESHWER                            | 2-Jul-08                  |
| 66           | RAJASTHAN PATRIKA PRIVATE LIMITED      | KESARGARH, JLN MARG, JAIPUR-302004  | JAIPUR                                  | 5-Aug-08                  |
| 67           | PRIDE EAST ENTERTAINMENT PVT. LIMITED  | NEWS LIVE, 558, G.S.ROAD, CHRISTIAN BARTI, DISPUR, GUWAHATI-78                                | GUWAHATI                                | 13-Aug-08                 |
| 68           | INDIASIGN PVT. LTD.                    | 1343, ROAD NO. 67, JUBILEE HILL, HYDERABAD  | HYDERABAD (Location Shifted from Noida) | 17-Sep-08                 |
| 69           | VINTAGE STUDIO PVT. LTD.               | 23/24, EAST PATEL NAGAR, NEW DELHI-110008   | NEW DELHI                               | 5-Jan-09                  |
| 70           | SKYLINE TELE MEDIA SERVICES PVT. LTD.  | C-4,SHIVALIK, NEAR MALVIYA NAGAR MARKET, NEW DELHI-110017                                     | NOIDA                                   | 27-May-09                 |
| 71           | INFORMATION TV PVT. LTD.               | 275, CAPTAIN GAUR MARG, SRINIVASPURI, NEW DELHI-110065  | NEW DELHI                               | 3-Jun-09                  |

**Annexure 5.4 (Contd.)**

| <b>Sr.No</b> | <b>Name of Teleport</b>                             | <b>Address</b>   | <b>Location</b> | <b>Date of Permission</b> |
|--------------|---|--|-----------------|---------------------------|
| 72           | UNILAZER EXPORTS AND MANAGEMENT CONSULTANTS LIMITED | PARIJAT HOUSE, 1076, DR. E.MOSES ROAD, WORLI, NAKA, MUMBAI-400018                                      | MUMBAI          | 26-Jun-09                 |
| 73           | COMSAT SYSTEM PVT. LTD.                             | PLOT NO.22/A, IDA, MALLAPUR, HYDERABAD-50076   | HYDERABAD       | 14-Oct-09                 |
| 74           | BHARTI TELEPORTS LIMITED                            | THE GRAND HOTEL, VASANT KUNJ, PHASE-II, NELSON MANDELA ROAD, NEW DELHI-110070                          | Noida           | 11-Nov-09                 |
| 75           | SRI VENKATESWARA CHANNEL PVT. LTD.                  | BHAKTITHIRUNILAYAM, HIMAYATH NAGAR, HYDERABAD  | TIRUPATI        | 11-Nov-09                 |
| 76           | TATA COMMUNICATIONS LIMITED                         | THIRUVALLUVAR SATELLITE EARTH STATION, 226, RED HILLS ROAD, AMBATTUR, CHENNAI-600053                   | CHENNAI -3      | 13-Jan-10                 |
| 77           | ROYS INSTITUTE OF COMPETITIVE EXAMINATION PVT LTD   | 11/1 B.T ROAD BELGHORIA KOLKATA-700056 24 PARGANAS NORTH WEST BENGAL                                   | KOLKATA         | 1-Apr-10                  |
| 78           | INDEPENDENT NEWS SERVICES PVT. LTD.                 | PLOT NO. 17B & 17C, SECTOR 16A, FILM CITY NOIDA(UP)  | NOIDA -2        | 28-Apr-10                 |
| 79           | RAJ TELEVISION NETWORK LTD.                         | 32, POES ROAD, 2ND STREET, TEYNAMPET, CHENNAI-600018   | CHENNAI         | 5-May-10                  |
| 80           | ESSEL SHYAMCOMMUNICATION LTD.                       | C-138, NARAINA INDUSTRIAL AREA-I, NEW DELHI-28   | NOIDA -3        | 12-May-10                 |
| 81           | KANSANNEWS PRIVATE LIMITED                          | HOUSE NO. 18, SECTOR-18, CHANDIGARH  | CHANDIGARH      | 13-May-10                 |
| 82           | TATA COMMUNICATIONS LTD. VSNL                       | TATA COMMUNICATIONS LTD. VIDESH SANCHAR BHAWAN MAHATMA GANDHI ROAD, MUMBAI-400001                      | CHENNAI -4      | 4-Jun-10                  |
| 83           | DISH TV INDIA LTD.                                  | PLOT NO.18, SECTOR-16A, NOIDA-201301   | NOIDA           | 6-Apr-11                  |
| 84           | AASTHA BROADCASTING NETWORK LIMITED                 | AASTHA BHAWAN, A-105, SECTOR-5, NOIDA-201301   | NOIDA           | 2-May-11                  |
| 85           | MAHUA MEDIA PRIVATE LIMITED                         | FC 17A & 17B, SECTOR 16A, FILM CITY, NOIDA-201301  | NOIDA           | 25-May-11                 |
| 86           | RTR Broadcast Pvt. Ltd.                             | D-38, RDC, Raj Nagar, Ghaziabad  | Ghaziabad       | 7-Sep-11                  |
| 87           | Silver Star Communication Ltd.                      | NO. 24, VI MAIN ROAD, KASTURIBA NAGAR, ADYAR, CHENNAI-600020 INDIA                                     | CHENNAI         | 2-Nov-11                  |
| 88           | Lamha Satellite Services Ltd                        | TOWER-I, 6TH FLOOR, INTERNATIONAL INFOTECH PARK, ABOVE VASI RAILWAY STATION, VASI, NAVI MUMBAI-400703. | MUMBAI          | 13-Feb-12                 |
| 89           | Skyline Tele Media Services Ltd.                    | FC-23, SECTOR-16A, FILM CITY, NOIDA-201305   | NOIDA-2         | 02-Jul-12                 |
| 90           | Bharti Teleports Limited                            | Plot No 192, Block B, Phase II, NOIDA - 201 305  | NOIDA-2         | 29-Oct-12                 |

**Source:** Ministry of Information & Broadcasting

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