

## Information note to the Press

For Immediate Release

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### Telecom Regulatory Authority of India

#### TRAI releases findings of Independent drive tests in Delhi & Mumbai Metros.

**New Delhi, 15<sup>th</sup> October, 2015:** TRAI conducts Audit and Assessment of Quality of Service being provided by the service providers through independent agencies for Cellular Mobile Telephone Services, Basic Services and Broadband Services. As a part of this audit, the Audit Agency, M/s TUV SUD has carried out special independent drive tests for Cellular Mobile Telephone Services in the metro cities of Mumbai and Delhi in June and July, 2015. The findings of these tests along with a consolidated analysis of the reports were uploaded on TRAI website [www.traigov.in](http://www.traigov.in). Since the results showed unsatisfactory network quality, TRAI had convened a meeting of the service providers to improve the quality of network. To assess the improvement, TRAI had undertaken repeat drive test of the network of Cellular Mobile Telephone Service providers in Mumbai and Delhi on 27<sup>th</sup> and 28<sup>th</sup> September, 2015 to assess improvements, if any, in network Quality of Service implemented by service providers. The findings of these tests with the Executive Summary and the consolidated analysis of the reports have been uploaded on TRAI website [www.traigov.in](http://www.traigov.in).

The report assess the network condition most specifically Radio Frequency coverage, the accessibility of the network (measured by the call setup success rate and the block call rate), the retainability of the network (measured by drop call rate) and voice quality. The salient points are:

- a. Radio Frequency (RF) Coverage relates to the geographical footprint within an area that has sufficient RF signal strength to allow for a call/data session. The RF Coverage rate of an operator is calculated on the basis of % of samples in which the receive level (Rx) is better than -85 dbm at street level. In the case of Mumbai, all the operators' coverage have dropped during this period but the overall coverage was found to be satisfactory, while in the case of Delhi most of the operators have improved the coverage.
- b. The Accessibility of the network is monitored by measuring the Call Setup Success Rate (CSSR). Non availability of control channel or traffic channel will lead to congestion. This is monitored through the 'Blocked Call rate' parameter in the Drive test. In Mumbai, most of the operators have shown improvement in block call rate and CSSR, while in Delhi some of the operators have shown improvement.





- c. Retainability of the network is the ability of a service, once obtained, to continue to be provided for a requested duration. The Call Drop Rate (CDR) parameter gives a reliable measure of the ability of the mobile network to maintain a call once it has been correctly established. In Mumbai, though none of the operators are meeting the prescribed benchmark, there is marginal improvement in some of the operators, while in Delhi some of the operators have improved the benchmark and 3 operators are still not meeting the benchmark.
- d. For measuring voice quality, Rx Qual samples on a scale from 0 to 7 for GSM operators are measured. As per the TRAI QoS norms, Rx Qual between 0- 5 for GSM operators is considered to be good, whereas Rx Qual beyond this benchmark is considered to be poor. TRAI has set down the QoS norm requiring connections with good voice quality to be >95%. In Mumbai, all the operators have improved their quality during this period though only one operator was able to meet the benchmark. In Delhi, most of the operators have improved their quality though only one operator were able to meet the benchmark.

|                                |                  | Delhi  |        |          |        |                |             | Mumbai |        |          |        |                |            |
|--------------------------------|------------------|--------|--------|----------|--------|----------------|-------------|--------|--------|----------|--------|----------------|------------|
| KPI                            | Month            | Aircel | Idea   | Vodafone | Airtel | Reliance (GSM) | Tata (CDMA) | Aircel | Idea   | Vodafone | Airtel | Reliance (GSM) | Tata (GSM) |
| Blocked Call Rate (<3%)        | Sep-15           | 5.45%  | 3.65%  | 2.60%    | 3.53%  | 4.08%          | 2.28%       | 4.63%  | 2.19%  | 2.61%    | 3.02%  | 7.44%          | 4.84%      |
|                                | June / July      | 2.95%  | 26.09% | 4.69%    | 8.18%  | 10.45%         | 1.11%       | 4.36%  | 10.00% | 3.93%    | 3.02%  | 31.13%         | 4.58%      |
| Call Setup Success Rate (>95%) | Sep-15           | 94.55% | 96.35% | 97.40%   | 96.47% | 95.92%         | 97.72%      | 95.37% | 97.81% | 97.39%   | 96.98% | 92.56%         | 95.16%     |
|                                | June / July 2015 | 97.05% | 73.91% | 95.31%   | 91.82% | 89.55%         | 98.89%      | 95.64% | 90.00% | 96.07%   | 96.98% | 68.88%         | 95.43%     |
| Call Drop Rate (2%)            | Sep-15           | 9.13%  | 0.94%  | 4.74%    | 6.58%  | 1.75%          | 1.50%       | 2.94%  | 2.64%  | 5.51%    | 2.68%  | 3.24%          | 5.47%      |
|                                | June / July      | 5.18%  | 2.84%  | 4.28%    | 8.04%  | 17.29%         | 0.84%       | 3.19%  | 5.56%  | 4.83%    | 0.97%  | 2.29%          | 5.51%      |
| Rx Quality (0-5) (>95%)        | Sep-15           | 89.14% | 94.33% | 92.89%   | 87.59% | 88.53%         | 98.59%      | 91.34% | 94.22% | 94.13%   | 95.13% | 91.68%         | 93.95%     |
|                                | June / July      | 82.69% | 91.12% | 90.67%   | 84.32% | 85.36%         | 99.68%      | 85.60% | 86.46% | 89.56%   | 91.11% | 85.53%         | 89.50%     |

There seems to be no significant improvement in the quality of service parameters.

2. In case of any clarification, please contact Shri A. Robert J. Ravi, Advisor (QoS & TD) at Tel. No. 23230404 of e-mail id: [advqos@traigov.in](mailto:advqos@traigov.in) .

  
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