



TRAI Assesses Network Quality Across Pune City and Surrounding Area

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The Telecom Regulatory Authority of India (TRAI) released its Independent Drive Test (IDT) findings for the Pune, Maharashtra Licensed Service Area (LSA), covering extensive City/Highway routes during the month of September 2025. The drive tests, conducted under the supervision of the TRAI Regional Office, Bengaluru, were designed to capture real-world mobile network performance across diverse usage environments – Urban Zones, Institutional Hotspots, Public Transport Hubs, and high-speed Corridors.

Between 08th September 2025 to 12th September 2025, TRAI teams conducted detailed tests across **415.5 kms of Pune City and surrounding area including 379.9 Kms of City drive, Metro drive of 27 Kms, 14 Hot spots and 8.6 Kms Walk Test**. Technologies evaluated included 2G, 3G, 4G, and 5G, reflecting the service experience of users across multiple handset capabilities. The findings of IDT have been intimated to all the TSPs concerned for further necessary action.

Key Parameters Assessed:

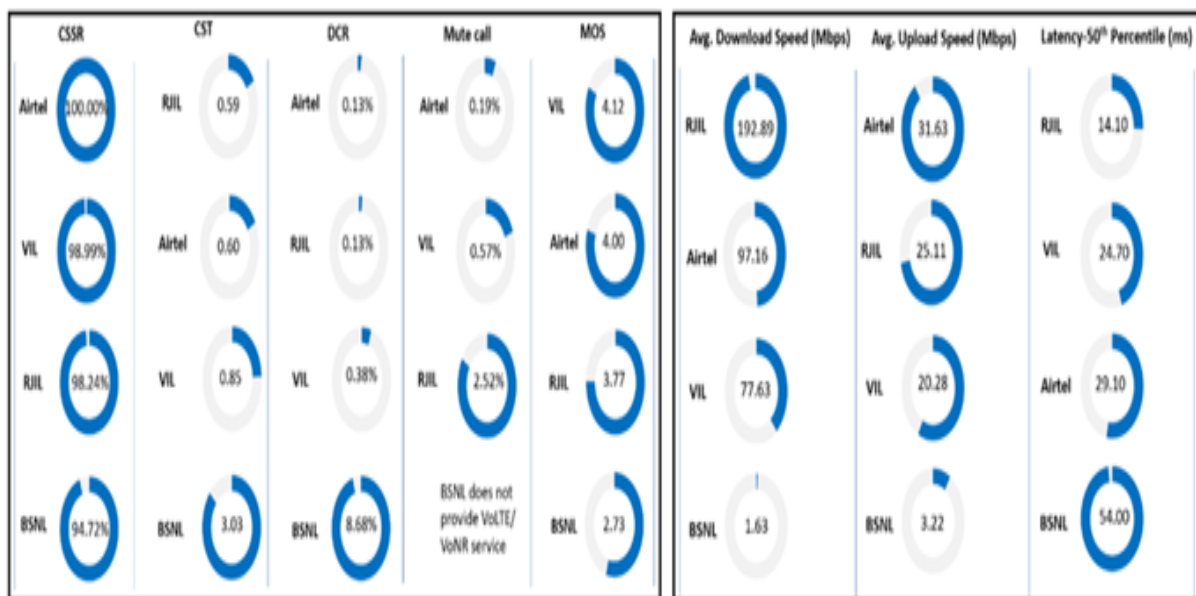
- a) **Voice Services:** Call Setup Success Rate (CSSR), Drop Call Rate (DCR), Call Setup Time, Call Silence Rate, Speech Quality (MOS), Coverage.
- b) **Data Services:** Download/Upload Throughput, Latency, Jitter, Packet Drop Rate, and Video Streaming Delay.

Call Setup Success Rate - Airtel, BSNL, RJIL and VIL have 100.00%, 94.72%, 98.24% and 98.99% call setup success rate respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate - Airtel, BSNL, RJIL and VIL have drop call rate of 0.13%, 8.68%, 0.13% and 0.38% respectively in Auto-selection mode (5G/4G/3G/2G).

Summary of Performance against key QoS parameters

CSSR: Call Setup Success Rate i.e. (in %), **CST:** Call Setup Time (in seconds), **DCR:** Drop Call Rate (in %) & **MOS:** Mean Opinion Score representing typical voice quality.



Summary-Voice services

Call Setup Success Rate: Airtel, BSNL, RJIL and VIL have 95.33%, 94.03%, 99.18% and 96.54% call setup success rate respectively in Auto-selection mode (5G/4G/3G/2G).

Call Setup Time: Airtel, BSNL, RJIL & VIL have call setup time of 0.89, 4.13, 0.87 and 1.08 seconds respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, BSNL, RJIL and VIL have drop call rate 0.43%, 3.94%, 0.62% and 1.27% respectively in Auto-selection mode (5G/4G/3G/2G).

Call Silence/Mute Rate: Airtel, RJIL and VIL have silence call rate 2.48%, 2.55% and 1.98% respectively in packet switched network (4G/5G).

Mean Opinion Score (MOS): Airtel, BSNL, RJIL and VIL have average MOS of 3.98, 2.48, 3.79 and 3.97 respectively.

Summary-Data services

Data Download performance (Overall): Average download speed of Airtel (5G/4G/2G) is 90.05 Mbps, BSNL (4G/3G/2G) is 1.26 Mbps, RJIL (5G/4G) is 143.94 Mbps and VIL (4G/2G) is 26.45 Mbps.

Data Upload performance (Overall): Average upload speed of Airtel (5G/4G/2G) is 17.33 Mbps, BSNL (4G/3G/2G) is 2.09 Mbps, RJIL (5G/4G) is 20.77 Mbps and VIL (4G/2G) is 11.36 Mbps.

Latency (Overall): Airtel, BSNL, RJIL & VIL 50th percentile latency is 24.15 ms, 58.50 ms, 29.25 ms & 22.80 ms respectively.

Data performance - Hotspots (in Mbps):

Airtel- 4G D/L: 56.41 4G U/L: 6.80

5G D/L: 178.70 5G U/L: 19.49

BSNL- 4G D/L: 1.15 4G U/L: 2.88

RJIL- 4G D/L: 31.14 4G U/L: 7.51

5G D/L: 157.02 5G U/L: 18.34

VIL- 4G D/L: 37.61 4G U/L: 10.92

Note- “D/L” Download speed, “U/L” Upload speed

In Pune, the assessment included high-density neighbourhoods like Chakan, Talegaon Dabhade, Ravet, Pirangut, Kothrud, Bibwewadi, Loni Kalbhor, Wagholi, Alandi, Bhosari etc.

TRAI also evaluated real-world conditions at Aga Khan Palace, Botanical Garden, Iskcon Temple Pune, IT Hub (Hinjawadi Phase 1 – Infosys / Wipro Circle), Phoenix Mall, Pune Maha Nigam, Pune University, Raja Dinkar Kalkar Museum, Rajiv Gandhi Zoo Park, RTO Office, Shaniwar Wada, Shree Chintamani Vinayaka Temple, SS Deccan Gymkhana Hospital, Westend Mall to reflect stationary user experience.

The walk tests, conducted on 10th and 11th September 2025 focused on Kamala Nehru Hospital, Maharashtra Jyotiba Phule Mandai, Pune Bus Stand, and Pune Railway Station, capturing mobile network behaviour in crowded pedestrian environments.

The Metro drive test was conducted from Ramwadi to Vanaz Metro (Aqua Line), and Swargate to PCMC Metro (Purple Line) to understand quality of service along the route.

The tests were conducted using TRAI-calibrated equipment and standardised protocols in real-time environments. The detailed report is available at TRAI website www.trai.gov.in. For any clarification/information, Shri Brajendra Kumar, Advisor (Regional Office, Bengaluru) TRAI may be contacted on email: adv.bengaluru@trai.gov.in or at Tel. No. +91-80-22865004.

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