



TRAI Assesses Network Quality Across Delhi City

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The Telecom Regulatory Authority of India (TRAI) released its Independent Drive Test (IDT) findings for the Delhi Licensed Service Area (LSA), covering extensive City routes during the month of July 2025. The drive tests, conducted under the supervision of the TRAI Regional Office, Delhi, 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 09th July 2025 to 16th July 2025, TRAI teams conducted detailed tests across 858.9 km of City Drive Test, 21 Hotspot locations, 250 km of Metro Rail routes (Magenta Line, Violet Line, Blue Line, Yellow Line, Red Line and Orange Line) and 03 km of 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 already been intimated to all the TSPs concerned.

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, MTNL, RJIL and VIL have 99.40%, 35.29%, 99.12% and 99.10% call setup success rate respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, MTNL, RJIL and VIL have drop call rate of 0.00%, 14.64%, 1.07% and 0.06% respectively in Auto-selection mode (5G/4G/3G/2G).

Performance against key QoS parameters

CSSR: Call Setup Success Rate (in %), **CST:** Call Setup Time (in seconds), **DCR:** Drop Call Rate (in %) & **MOS:** Mean Opinion Score.



Summary-Voice services

Call Setup Success Rate: Airtel, MTNL, RJIL and VIL have 99.40%, 35.29%, 99.12% and 99.10% call setup success rate respectively in Auto-selection mode (5G/4G/3G/2G).

Call Setup Time: Airtel, MTNL, RJIL & VIL have call setup time of 0.85, 3.75, 0.73 and 0.66 seconds respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, MTNL, RJIL and VIL have drop call rate of 0.00%, 14.64%, 1.07% and 0.06% respectively in Auto-selection mode (5G/4G/3G/2G).

Call Silence/Mute Rate: Airtel, RJIL and VIL have silence call rate of 0.61%, 2.39% and 3.37% respectively in packet switched network (4G/5G).

Mean Opinion Score (MOS): Airtel, MTNL, RJIL and VIL have average MOS of 3.96, 2.60, 3.77 and 4.30 respectively.

Summary-Data services

Data Download performance (Overall): Average download speed of Airtel (5G/4G/2G) is 173.73 Mbps, MTNL (3G/2G) is 1.56 Mbps, RJIL (5G/4G) is 50.55 Mbps and VIL (5G/4G/2G) is 64.17 Mbps.

Data Upload performance (Overall): Average upload speed of Airtel (5G/4G/2G) is 26.21 Mbps, MTNL (3G/2G) is 1.15 Mbps, RJIL (5G/4G) is 21.61 Mbps and VIL (5G/4G/2G) is 14.14 Mbps.

Latency (Overall): Airtel, MTNL, RJIL & VIL 50th percentile latency is 16.70 ms, MTNL 53.00 ms, RJIL 18.30 ms & VIL 38.00 ms.

Data performance - Hotspots (in Mbps):

Airtel- 4G D/L: 20.82 4G U/L: 7.18

5G D/L: 198.72 5G U/L: 19.70

RJIL- 4G D/L: 16.19 4 G U/L: 8.98

5G D/L: 108.41 5G U/L: 21.88

VIL- 4G D/L: 19.60 4G U/L: 6.49

5G D/L: 147.51 5G U/L: 14.36

Note- “D/L” Download speed, “U/L” Upload speed 4G & 5G technology have not been observed in MTNL

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

The assessment in Delhi included high-density neighbourhoods such as Shahdara, Anand Vihar, Raj Nagar Extension, Lal Kuan, Indirapuram, Mayur Vihar, Noida Sec-45, Noida Sec-104, Noida Greater Noida Expressway, Surajpur, Dadri, Delta II, Omicron & Eco tech III etc.

TRAI also evaluated real-world conditions at Advant Navis Business Park, Noida, Anand Vihar ISBT, Ghaziabad , Apeejay School, Greater Noida , Brahmaputra Market, Noida, Christ University, Ghaziabad, Cloudnine Hospital, Noida, Dav Public School, Ghaziabad, Delhi Public School, Ghaziabad, Gaur City Mall, Greater Noida, Gaur Plaza, Ghaziabad, Ghaziabad District and Session Court, Ghaziabad Railway Station, GIP Mall, Noida, Hindon Airport, Ghaziabad, Indirapuram Habitat Centre, Jaipuria Mall, Indirapuram, Max Super Speciality Hospital, Ghaziabad, Sahibabad Fruit Mandi, St. Xavier’s High School, Greater Noida, Vaishali Metro Station, Yatharth Hospital, Greater Noida.

TRAI conducted an Independent Drive Test (IDT) for RJIL only, after being requested by the Service provider for repetition from 24th September 2025 to 30th September 2025 (excluding 27th and 28th September—Saturday and Sunday) covering a total of 834.9 km of city route only. The findings of IDT have already been intimated to the concerned TSP and the same are also indicated as under:

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.

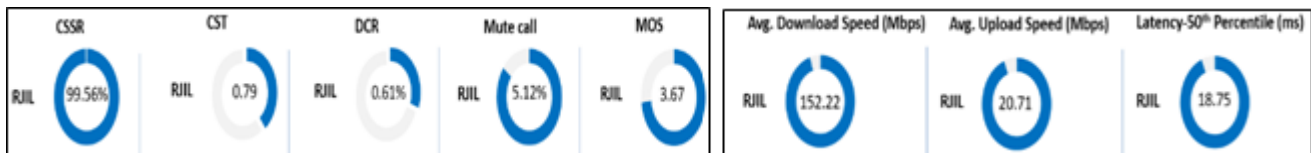
b) **Data Services:** Download/Upload Throughput, Latency, Jitter, Packet Drop Rate, and Video Streaming Delay.

Call Setup Success Rate: RJIL has 99.56% call setup success rate in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: RJIL has drop call rate of 0.61% in Auto-selection mode (5G/4G/3G/2G).

Performance against key QoS parameters

CSSR: Call Setup Success Rate (in %), **CST:** Call Setup Time (in seconds), **DCR:** Drop Call Rate (in %) & **MOS:** Mean Opinion Score.



Summary-Voice services

Call Setup Success Rate: RJIL has 99.56% call setup success rate in Auto-selection mode (5G/4G/3G/2G).

Call Setup Time: RJIL has call setup time of 0.79 seconds in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: RJIL has drop call rate of 0.61% in Auto-selection mode (5G/4G/3G/2G).

Call Silence/Mute Rate: RJIL has silence call rate of 5.12% in packet switched network (4G/5G).

Mean Opinion Score (MOS): RJIL has average MOS of 3.67.

Summary-Data services

Data Download performance (Overall): Average download speed of RJIL (5G/4G) is 152.22 Mbps.

Data Upload performance (Overall): Average upload speed of RJIL (5G/4G) is 20.71 Mbps.

Latency (Overall): RJIL 50th percentile latency is 18.75 ms.

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

The tests were conducted using TRAI suggested 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 Vivek Khare, Advisor (Regional Office, Delhi) TRAI may be contacted on email: adv.ca@trai.gov.in or at Tel. No. +91-11-20907772.

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