

TRAI Assesses Network Quality Across Leh City and Highway Route from Leh to Nubra Valley, Nubra Valley to Pangong and Pangong to Leh

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The Telecom Regulatory Authority of India (TRAI) released its Independent Drive Test (IDT) findings for the Jammu & Kashmir Licensed Service Area (LSA), covering extensive City/Highway routes during the month of June 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 10th June 2025 to 12th June 2025, TRAI teams conducted detailed tests across 41.3 kms of City Drive Test, 302 kms of Highway Drive Test, 5 Hotspot locations and 2 kms 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:

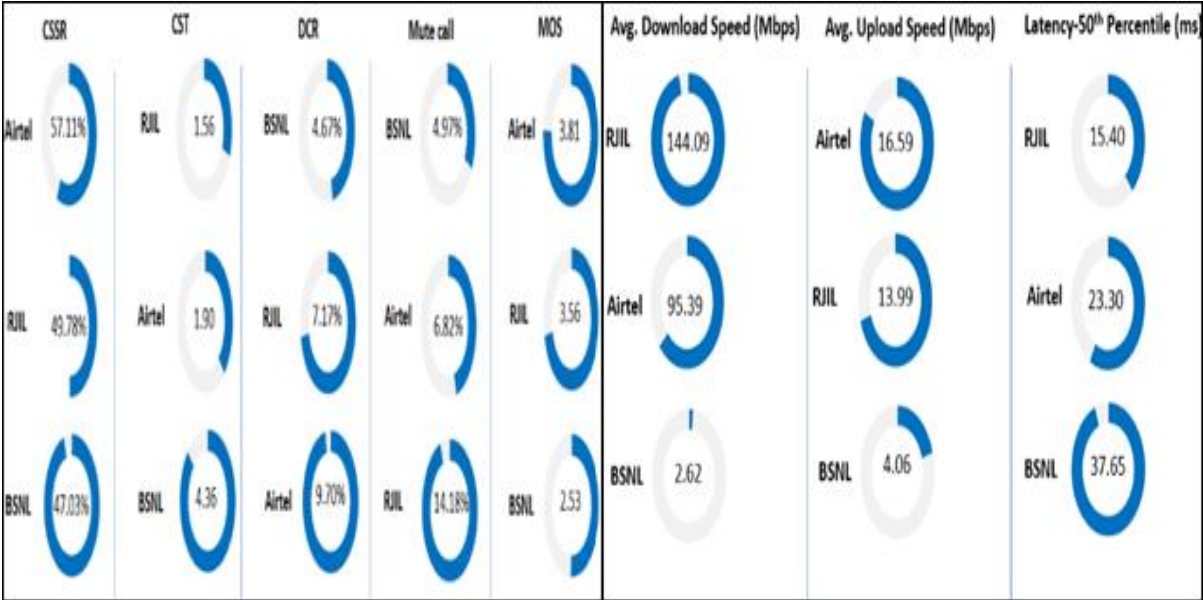
a) **Voice Services:** Call Setup Success Rate (CSSR), Drop Call Rate (DCR), Call Setup Time, Call Silence Rate, Speech Quality (MOS), Coverage.

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

Call Setup Success Rate: Airtel, BSNL and RJIL have call setup success rate of 57.11%, 47.03% and 49.78% respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, BSNL and RJIL have drop call rate of 9.70%, 4.67% and 7.17% 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.

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Summary-Data services

Data Download performance (Overall): Average download speed of Airtel (5G/4G/2G) is 95.39 Mbps, BSNL (4G/3G/2G) is 2.62 Mbps and RJIL (5G/4G) is 144.09 Mbps.

Data Upload performance (Overall): Average upload speed of Airtel (5G/4G/2G) is 16.59 Mbps, BSNL (4G/3G/2G) is 4.06 Mbps and RJIL (5G/4G) is 13.99 Mbps.

Latency – 50th Percentile (Overall):

Airtel – 23.30 ms

BSNL – 37.65 ms

RJIL – 15.40 ms

Data performance - Hotspots (in Mbps):

Airtel- 4G D/L: 37.08 4G U/L: 13.29

5G D/L: 152.00 5G U/L: 26.45

BSNL- 4G D/L: 2.29 4G U/L: 6.55

RJIL- 4G D/L: 15.53 4G U/L: 4.08

5G D/L: 275.60 5G U/L: 32.73

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

In Leh, the assessment included high-density neighbourhoods like Choglamsar, Spituk and Yurtung etc. TRAI also evaluated real-world conditions at EJM College, Lamdon School, Leh Airport, Shanti Stupa and SNM Hospital to reflect stationary user experience.

The walk test, conducted on 12th June 2025 in Leh City, focused on, Leh Market, capturing mobile network behaviour in crowded pedestrian environments.

The Leh to Nubra Valley highway corridor, a high-speed mobility stretches passing through North Pullu, Khardung, Khalsar and Hunder etc., and Nubra Valley to Pangong passing through Shyok, Durbuk, Tangtse, Spangmik, Man and Merak etc., and Pangong to Leh passing through Tsoltak, Zingral, Karu, Thiksey and Shey etc., was also assessed to reflect mobile experience in high-speed transit.

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@traigov.in or at Tel. No. +91-11-20907772.

Samrat/Allen

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