

Information Note to the Press (Press Release No. 129/ 2025)

TELECOM REGULATORY AUTHORITY OF INDIA

<https://www.trai.gov.in>

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For Immediate Release

TRAI Assesses Network Quality Across Saran District including Chhapra city and Siwan District in the State of Bihar under Bihar Licensed Service Area

The Telecom Regulatory Authority of India (TRAI) released its Independent Drive Test (IDT) findings for the Bihar (LSA), covering extensive city routes of Saran District including Chhapra city and Siwan District in the month of September 2025. The drive tests, conducted under the supervision of the TRAI Regional Office, Kolkata, were designed to capture real-world mobile network performance across diverse usage environments- Urban Zones, Institutional Hotspots, business areas, rural residential areas etc.

Between 9th September 2025 and 12th September 2025, TRAI teams conducted detailed tests across Saran District including Chhapra city and Siwan District in the state of Bihar covering 309.1 Km of city drive test, 10 Hotspot locations and 2.7 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 the 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.

The overall mobile network performance in Saran District including Chhapra city and Siwan Districts and adjoining areas is summarized below:

Call Setup Success Rate- Airtel, BSNL, RJIL and VIL have call setup success rate of 100.00%, 79.73%, 100.00% and 96.15% respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate Airtel, BSNL, RJIL and VIL have drop call rate of 0.00%, 5.60%, 0.00% and 1.00% respectively in Auto-selection mode (5G/4G/3G/2G).

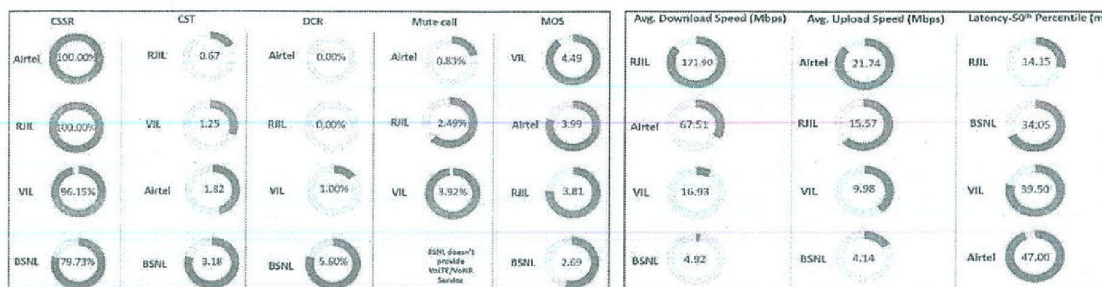
5G Data Services delivered maximum average download speed of 171.90 Mbps and maximum average upload speed of 21.74 Mbps in city drive.

In **Saran District including Chhapra city and Siwan District**, the assessment included the areas of - Hasanpur, Gaighat, Andar, Habib Nagar, Mahadeva, Chanp, Jasauli, Parauli, Harsar, Duraundha, Korari Kala, Madari Chak, Rasulpur, Daudpur, Jaitpur, Deuria, Madhopur, Nagra, Khaira, Makim Pur, Parsa, Sonapur, Sabalpur, Barbatta, Makhdumpur, Gopalpur, Chaturpur, Jatia Bajidpur, Chirand, Doriganj, Saran, Inai, Revelganj Ghat, Gorhat, Tajpur, Sainpur, Siwan, Gurghat, Jalalpur, Andar, Faridpur, Hathaura etc. TRAI also evaluated real-world conditions at (i) Civil Court Siwan, (ii) Daroga Ray College Ayodhyapuri Siwan, (iii) Government Engineering College Siwan, (iv) Government Medical College and Hospital Chhapra, (v) Jai Prakash University Chhapra, (vi) Sadar Hospital Chhapra, (vii) Sadar Hospital Siwan, (viii) Siwan Bus Stand,

(ix) Sonapur Mela Sonapur, (x) Sub Divisional Hospital Sonapur through **static testing** and at (i) Chhapra Railway Station, (ii) Siwan Railway Station, (iii) Sonapur Railway Station, through **walk-test**.

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, BSNL, RJIL and VIL have call setup success rate of 100.00%, 79.73%, 100.00% and 96.15% respectively in Auto-selection mode (5G/4G/3G/2G).

Call Setup Time: Airtel, BSNL, RJIL and VIL have call setup time of 1.82, 3.18, 0.67 and 1.25 seconds respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, BSNL, RJIL and VIL have drop call rate of 0.00%, 5.60%, 0.00% and 1.00% respectively in Auto-selection mode (5G/4G/3G/2G).

Call Silence/Mute Rate: Airtel, RJIL and VIL have silence call rate of 0.83%, 2.49% and 3.92% respectively in packet switched network (5G/4G).

Mean Opinion Score (MOS): Airtel, BSNL, RJIL and VIL have Average MOS of 3.99, 2.69, 3.81 & 4.49 respectively.

Summary-Data services

Data Download performance (Overall): Average download speed of Airtel (5G/4G) is 67.51 Mbps, BSNL (4G/3G/2G) is 4.92 Mbps, RJIL (5G/4G) is 171.90 Mbps and VIL (4G/2G) is 16.93 Mbps.

Data Upload performance (Overall): Average upload speed of Airtel (5G/4G) is 21.74 Mbps, BSNL (4G/3G/2G) is 4.14 Mbps, RJIL (5G/4G) is 15.57 Mbps and VIL (4G/2G) is 9.98 Mbps.

Latency (Overall): Airtel, BSNL, RJIL & VIL 50th percentile latency is 47.00 ms, 34.05 ms, 14.15 ms & 39.50 ms respectively.

Data performance - Hotspots (in Mbps):

Airtel- 4G D/L: 28.88	4G U/L: 6.73
5G D/L: 64.62	5G U/L: 38.99
BSNL- 4G D/L: 7.67	4G U/L: 5.99
RJIL- 4G D/L: 29.03	4G U/L: 7.04
5G D/L: 274.79	5G U/L: 32.05
VIL- 4G D/L: 17.95	4G U/L: 8.61

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 Kaushik Mukherjee, Advisor (Regional Office, Kolkata) TRAI may be contacted on email: adv.kolkata@trai.gov.in or at Tel. No. +91-33-22361401.

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