

TRAI Assesses Network Quality of Mobile Service Operators across Mirzapur Chandauli and Mughalsarai Cities of Uttar Pradesh East LSA.

Findings of Independent Drive Tests (IDT)

Posted On: 31 JUL 2025 12:54PM by PIB Delhi

The Telecom Regulatory Authority of India (TRAI) has conducted Independent Drive Tests (IDT) covering Mirzapur, Chandauli and Mughalsarai Cities of Uttar Pradesh East LSA during the month of July 2025. The IDT have been designed to capture real-world mobile network performance across diverse usage environments –Urban zones, hotspots, public transport hubs, etc.

TRAI, through its appointed agency, conducted detailed drive tests across 282.5 Kms of City test and 5 kms of walk test in Mirzapur, Chandauli and Mughalsarai between 30th June to 4th July 2025. These tests were conducted under the supervision of the TRAI Regional Office, Bhopal.

During drive test, live data and voice sessions were established over 2G, 3G, 4G, and 5G networks using mobile advanced test handsets with SIM cards from all telecom operators. The voice calls and data sessions were monitored and analysed in real-time using state-of-the-art Drive test System. The data collected during the drive test had further been analysed by experts using specialized tools, and the final report is prepared based on this analysis.

During the IDT, following Key Performance Indicators (KPIs) for Voice as well as Data service were assessed for the networks of all Telecom service providers operating in the region:

I. Voice services:

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|---|---|
| a) Call setup success rate (CSSR) | e) Downlink & Uplink packet (voice) drop rate |
| b) Call Setup Time | f) Call Silence Rate |
| c) Drop call rate (DCR) | g) Coverage (%) - Signal strength |
| d) Speech Quality using MOS(mean opinion score) | |

II. Data Services:

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|---|------------|
| a) Data Throughput (Downlink and uplink both) | d) Latency |
| b) Packet drop rate (Downlink & Uplink) | e) Jitter |
| c) Video streaming delay | |

The details of drive test and performance summary in respect of Test results in Mirzapur, Chandauli and Mughalsarai Cities of Uttar Pradesh of UP East LSA as detailed above are attached at **Annexure-A**. The report has been shared with respective units of TSPs for taking note & further action required, if any.

Detailed reports are available on the TRAI website at www.trai.gov.in. For any clarification or additional information, you may send an email to adv.bhopal@trai.gov.in or contact **Regional Office** of TRAI at Bhopal on telephone no. +91-755-2575501.

Annexure-A

S. No.	City / Routes Covered	Licensed Service Area	Period of Drive Test	Distance Covered
1.	City: Mirzapur, Chandauli and Mughalsarai	Uttar Pradesh East	30th June to 4 th July 2025	City :282.5 Kms Walk Test: 5 Kms

Performance against key QoS parameters:

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



Summary-Data services

Data Download performance (Overall): Average download speed of Airtel (5G/4G/2G) is 112.52 Mbps, BSNL (4G/3G/2G) is 2.80 Mbps, RJIL (5G/4G) is 172.41 Mbps and VIL (4G/2G) is 39.88 Mbps.

Data Upload performance (Overall): Average upload speed of Airtel (5G/4G/2G) is 23.44 Mbps, BSNL (4G/3G/2G) is 3.64 Mbps, RJIL (5G/4G) is 21.52 Mbps and VIL (4G/2G) is 11.71 Mbps.

Data performance - Hotspots (in Mbps):

Airtel- 4G D/L: 36.07	4G U/L: 7.10
5G D/L: 211.18	5G U/L: 48.50
BSNL- 4G D/L: 3.33	4G U/L: 5.99
RJIL- 4G D/L: 26.07	4G U/L: 12.88
5G D/L: 130.70	5G U/L: 22.50
VIL- 4G D/L: 44.65	4G U/L: 15.69

Note- "D/L" Download speed, "U/L" Upload speed

Summary-Voice services

Call Setup Success Rate: Airtel, BSNL, RJIL and VIL have call setup success rate of 100.00%, 92.75%, 100.00% and 99.75% respectively in Auto-selection mode (5G/4G/3G/2G).

Call Setup Time: Airtel, BSNL, RJIL & VIL have call setup time of 1.22, 3.62, 0.68 and 0.77 seconds respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, BSNL, RJIL and VIL have drop call rate of 0.13%, 4.95%, 0.37% and 0.00% respectively in Auto-selection mode (5G/4G/3G/2G).

Call Silence/Mute Rate: Airtel, RJIL and VIL have silence call rate of 0.31%, 0.47%, and 2.92% respectively in packet switched network (4G/5G).

Mean Opinion Score (MOS): Airtel, BSNL, RJIL and VIL have average MOS 3.96, 2.29, 3.92 and 4.33 respectively.

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(Release ID: 2150582)