

TRAI Assesses Network Quality Across Bhubaneswar to Rourkela Highway and extensive city of Rourkela City and their adjoining areas in the State of Odissa (under OD LSA)

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The Telecom Regulatory Authority of India (TRAI) released its Independent Drive Test (IDT) findings for the Odissa Licensed Service Area (LSA), covering Bhubaneswar to Rourkela Highway and extensive city of Rourkela City in the month of August 2025. The drive tests conducted under the supervision of the TRAI Regional Office, Hyderabad, were designed to capture real-world mobile network performance across diverse usage environments- Urban Zones, Institutional Hotspots, rural residential areas etc.

Between 19th August 2025 to 22th August 2025, TRAI teams conducted detailed tests for 331.4Km Bhubaneswar to Rourkela Highway and 355Kms Rourkela City drive test, 3.6Km Walk test and 8 Hotspot locations. Technologies evaluated included 2G, 3G, 4G, and 5G, reflecting the service experience of users across multiple handset capabilities. The findings of the IDT have 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.

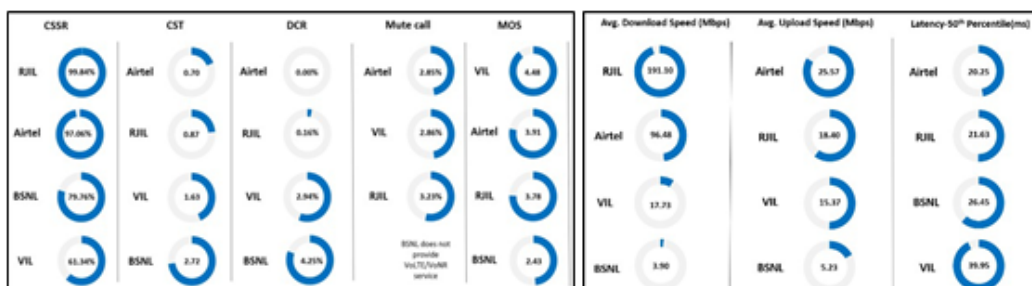
b) **Data Services:** Download/Upload Throughput, Latency, Jitter, Packet Drop Rate, and Video Streaming Delay.

The overall mobile network performance in Bhubaneswar to Rourkela Highway and Rourkela City is summarized below:

Call Setup Success Rate - Airtel, BSNL, RJIL and VIL have 100.00%, 87.85%, 99.80% and 99.60% call setup success rate respectively in auto-selection mode

Drop Call Rate- Airtel, BSNL, RJIL and VIL drop call rate is 0.00%, 5.32%, 0.40% and 0.00% respectively in auto-selection mode (5G/4G/3G/2G).

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



Summary-Voiceservices

Call Setup Success Rate: Airtel, BSNL, RJIL and VIL have 97.06%, 79.76%, 99.84% and 61.34%, 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 0.70, 2.72, 0.87 and 1.63 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%, 4.25%, 0.16% and 2.94% respectively in Auto-selection mode (5G/4G/3G/2G).

Call Silence/Mute Rate: Airtel, RJIL and VIL have silence call rate 2.85%, 3.23% and 2.86% respectively in packet switched network (4G/5G).

Mean Opinion Score (MOS): Airtel, BSNL, RJIL and VIL have average MOS of 3.91, 2.43, 3.78 and 4.48 respectively.

Summary-Dataservices

Data Download performance (Overall): Average download speed of Airtel (5G/4G/2G) is 96.48 Mbps, BSNL (4G/3G/2G) is 3.90

Mbps, RJIL (5G/4G) is 191.10 Mbps and VIL (4G/3G/2G) is 17.73 Mbps.

Data Upload performance (Overall):

Average upload speed of Airtel (5G/4G/2G) is 25.57 Mbps, BSNL (4G/3G/2G) is 5.23 Mbps, RJIL (5G/4G) is 18.40 Mbps and VIL (4G/3G/2G) is 15.37 Mbps.

Latency (Overall): Airtel, BSNL, RJIL and VIL 50th percentile latency is 20.25 ms, 26.45 ms, 21.63 ms, 39.95 ms.

Data performance-Hotspots (in Mbps):

Airtel- 4G D/L: 36.64 4G U/L: 5.41

5G D/L: 145.66 5G U/L: 30.77

BSNL-4G D/L: 4.40 4G U/L: 4.61

RJIL-4G D/L: 39.77 4G U/L: 9.73

5G D/L: 219.43 5G U/L: 25.40

VIL-4G D/L: 17.02 4G U/L: 11.29

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

In Bhubaneswar to Rourkela Highway, the assessment included the areas of passing through Sunaparbat, Lohadar, Raniberna, Banki, Chandiposh, Musabira, Barghat, Darjing, Juniani, Gudhiali, Jhaliaberna, Kenaveta, Tuniapali, Khulundikudar, Lakhapali, Thianal, Kamakhyanagar and Cuttack etc.

In Rourkela City, the assessment included the areas nearby Timjore, Lathikata, Hathibura, Ring Road, Rourkela Bisra Jaraikela Road, Nuagaon, Kuarmunda, Biramitrapur, Bisra, Jhirpani, Koel Nagar, Chhend Main Road, Panposh Road and Pitamahar Dam Road etc.

Walk test at Rourkela Railway Station in Rourkela City.

TRAI also evaluated real-world conditions at 1. Collector Office Rourkela 2. District and Session Court Rourkela 3. Govt. Medical Hospital 4. Municipal Corporation 5. NIT Rourkela 6. Rourkela Bus Stand 7. Rourkela Steel Plant 8. STI Market Complex in Rourkela City to reflect stationary user experience.

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 B. Praveen Kumar, Advisor (Regional Office, Hyderabad) TRAI may be contacted on email: adv.hyderabad@trai.gov.in or at Tel. No. +91-40-23000761.

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