

**For Immediate Release**

**TRAI Assesses Network Quality Across Namchi and Gyalshing districts in the State of Sikkim under West Bengal Licensed Service Area (LSA)**

The Telecom Regulatory Authority of India (TRAI) released its Independent Drive Test (IDT) findings for the West Bengal LSA, covering extensive city routes of Namchi and Gyalshing districts in the State of Sikkim in the month of December 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- Institutional Hotspots, secretariat areas, residential areas, tourist spots etc.

Between **2<sup>nd</sup> December 2025 and 6<sup>th</sup> December 2025**, TRAI teams conducted detailed tests across city routes of Namchi and Gyalshing districts in the State of Sikkim in West Bengal LSA covering **294.6 Km of city drive test, 10 Hotspot locations, and 2.0 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 city routes of Namchi and Gyalshing districts in the State of Sikkim in West Bengal LSA is summarized below:

**Call Setup Success Rate-** Airtel, BSNL, RJIL and VIL have call setup success rate of 98.85%, 70.00%, 99.62% and 85.83% respectively in Auto-selection mode (5G/4G/3G/2G).

**Drop Call Rate** Airtel, BSNL, RJIL and VIL have drop call rate of 0.39%, 19.62%, 1.71% and 10.02% respectively in Auto-selection mode (5G/4G/3G/2G).

**5G Data Services** delivered maximum average download speed of 59.26 Mbps and maximum average upload speed of 8.74 Mbps in the overall drive test.

The **poor Signal Strength** in auto-selection mode (5G/4G/3G/2G) has been observed for 17.83%, 47.91%, 8.09% & 27.22% of the total IDT route during **voice testing in city drive** in case of Airtel, BSNL, RJIL & VIL respectively. The same, during **data testing in city drive** was observed for 40.23%, 52.51%, 40.01% & 46.43% in case of Airtel, BSNL, RJIL & VIL respectively.

In **Namchi and Gyalshing** districts, the assessment included the areas of Melli, Sumbuk, Jorethang, Nayabazar Namchi, Legship, Gyalsing, Darap, Thingle I, Labing, Chongrang, Tashiding, Kewzing, Barfung, Sangmo, Chemchery, Bomtar and Kitam etc.



TRAI also evaluated real-world conditions at (i) D C Office Gyalshing; (ii) District & Sessions Court Gyalshing; (iii) District Court Namchi; (iv) District Hospital Gyalshing; (v) District Hospital Namchi; (vi) Kanchenjunga Falls Thingle I Sikkim; (vii) Namchi Local Taxi Stand; (viii) Pemayangtse Monastery Sikkim; (ix) Temi Tea Garden South Sikkim; (x) Zilla Panchayat West Sikkim through **static testing** and

at (i) Budha Park Ravangla Sikkim; (ii) Siddheshwar Dham (Char Dham Mandir) Namchi, (iii) Skywalk Pelling Sikkim **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

CSSR	CST	DCR	Mute call	MOS	Avg. Download Speed (Mbps)	Avg. Upload Speed (Mbps)	Latency-50 <sup>th</sup> Percentile (ms)
RJIL 99.62%	RJIL 0.89	Airtel 0.39%	RJIL 3.49%	RJIL 4.13	RJIL 59.26	RJIL 8.74	RJIL 42.75
Airtel 98.85%	VIL 1.70	RJIL 1.71%	BSNL 4.58%	VIL 3.94	Airtel 36.13	Airtel 7.73	Airtel 64.65
VIL 85.83%	Airtel 2.38	VIL 10.02%	Airtel 8.60%	Airtel 3.76	VIL 13.72	VIL 6.51	VIL 65.93
BSNL 70.00%	BSNL 5.82	BSNL 19.62%	VIL 19.46%	BSNL 3.01	BSNL 8.89	BSNL 3.24	BSNL 67.14
<b>Summary-Voice services</b> <b>Call Setup Success Rate:</b> Airtel, BSNL, RJIL and VIL have call setup success rate of 98.85%, 70.00%, 99.62% and 85.83% respectively in Auto-selection mode (5G/4G/3G/2G). <b>Call Setup Time:</b> Airtel, BSNL, RJIL and VIL have call setup time of 2.38, 5.82, 0.89 and 1.70 seconds respectively in Auto-selection mode (5G/4G/3G/2G). <b>Drop Call Rate:</b> Airtel, BSNL, RJIL and VIL have drop call rate of 0.39%, 19.62%, 1.71% and 10.02% respectively in Auto-selection mode (5G/4G/3G/2G). <b>Call Silence/Mute Rate:</b> Airtel, BSNL, RJIL and VIL have silence call rate of 8.60%, 4.58%, 3.49% and 19.46% respectively in packet switched network (5G/4G). <b>Mean Opinion Score (MOS):</b> Airtel, BSNL, RJIL and VIL have Average MOS of 3.76, 3.01, 4.13 and 3.94 respectively.					<b>Summary-Data services</b> <b>Data Download performance (Overall):</b> Average download speed of Airtel (5G/4G/2G) is 36.13 Mbps, BSNL (4G/3G/2G) is 8.89 Mbps, RJIL (5G/4G) is 59.26 Mbps and VIL (4G/2G) is 13.72 Mbps. <b>Data Upload performance (Overall):</b> Average upload speed of Airtel (5G/4G/2G) is 7.73 Mbps, BSNL (4G/3G/2G) is 3.24 Mbps, RJIL (5G/4G) is 8.74 Mbps and VIL (4G/2G) is 6.51 Mbps. <b>Latency (Overall):</b> Airtel, BSNL, RJIL & VIL 50 <sup>th</sup> percentile latency is 64.65 ms, 67.14 ms, 42.75 ms, 65.93 ms respectively. <b>Data performance - Hotspots (in Mbps):</b> Airtel- 4G D/L: 24.63      4G U/L: 5.78 5G D/L: 20.27      5G U/L: 19.50 BSNL- 4G D/L: 10.43      4G U/L: 7.24 RJIL- 4G D/L: 10.81      4G U/L: 3.51 5G D/L: 123.24      5G U/L: 6.89 VIL- 4G D/L: 6.46      4G U/L: 4.59 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](http://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](mailto:adv.kolkata@trai.gov.in) or at Tel. No. +91-33-22361401.

  
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