TELECOM REGULATORY AUTHORITY OF INDIA
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For Immediate Release

TRAI Assesses Network Quality Across Hubballi City and Surrounding Area

The Telecom Regulatory Authority of India (TRAI) released its Independent Drive Test (IDT) findings for the Hubballi, Karnataka Licensed Service Area (LSA), covering extensive City/Highway routes during the month of August 2025. The drive tests, conducted under the supervision of the TRAI Regional Office, Bengaluru, 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 05th August 2025 to 08th August 2025, TRAI teams conducted detailed tests across 249.5 Kms of City drive, 261 Kms of Highway, 10.5 Kms Walk Test and 09 Hot spot locations. Technologies evaluated included 2G, 3G, 4G, and 5G, reflecting the service experience of users across multiple handset capabilities. The findings of IDT have been intimated to all the TSPs concerned for further necessary action.

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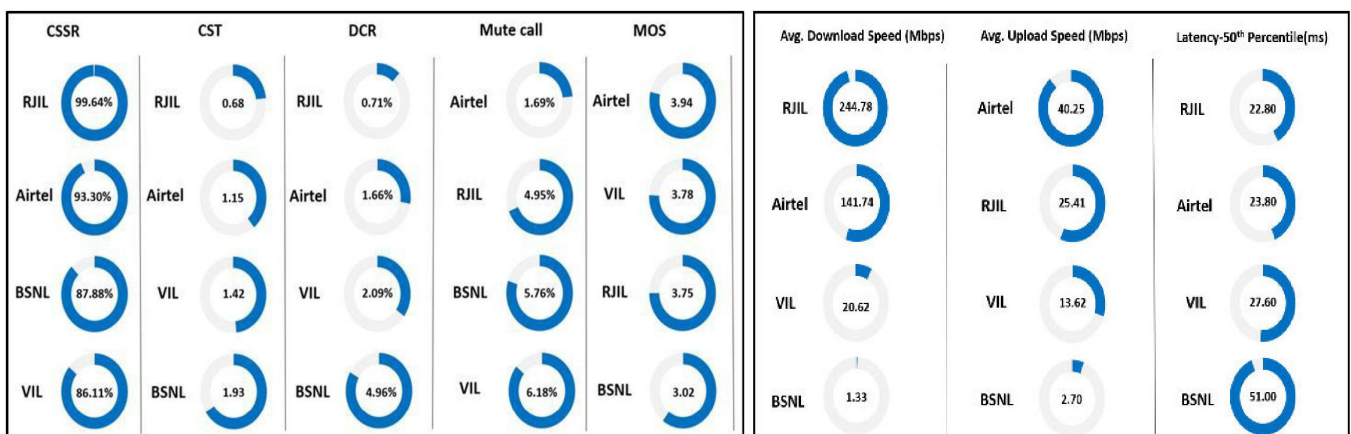
b) **Data Services**: Download/Upload Throughput, Latency, Jitter, Packet Drop Rate, and Video Streaming Delay.

Call Setup Success Rate - Airtel, BSNL, RJIL and VIL have 93.30%, 87.88%, 99.64% and 86.11% call setup success rate respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate - Airtel, BSNL, RJIL and VIL have drop call rate of 1.66%, 4.96%, 0.71% and 2.09% respectively in Auto-selection mode (5G/4G/3G/2G).

Summary of Performance against key QoS parameters

CSSR: Call Setup Success Rate i.e. (in %), **CST**: Call Setup Time (in seconds), **DCR**: Drop Call Rate (in %) & **MOS**: Mean Opinion Score representing typical voice quality.

CSSR		CST		DCR		Mute call		MOS	
RJIL	99.64%	RJIL	0.68	RJIL	0.71%	Airtel	1.69%	Airtel	3.94
Airtel	93.30%	Airtel	1.15	Airtel	1.66%	RJIL	4.95%	VIL	3.78
BSNL	87.88%	VIL	1.42	VIL	2.09%	BSNL	5.76%	RJIL	3.75
VIL	86.11%	BSNL	1.93	BSNL	4.96%	VIL	6.18%	BSNL	3.02

Avg. Download Speed (Mbps)		Avg. Upload Speed (Mbps)		Latency-50th Percentile(ms)	
RJIL	244.78	Airtel	40.25	RJIL	22.80
Airtel	141.74	RJIL	25.41	Airtel	23.80
VIL	20.62	VIL	13.62	VIL	27.60
BSNL	1.33	BSNL	2.70	BSNL	51.00

Summary-Voice services	Summary-Data services
Call Setup Success Rate: Airtel, BSNL, RJIL and VIL have 93.30%, 87.88%, 99.64% and 86.11% call setup success rate respectively in Auto-selection mode (5G/4G/3G/2G).	**Data Download performance (Overall):** Average download speed of Airtel (5G/4G/2G) is 141.74 Mbps, BSNL (4G/3G/2G) is 1.33 Mbps, RJIL (5G/4G) is 244.78 Mbps and VIL (4G/2G) is 20.62 Mbps.
Call Setup Time: Airtel, BSNL, RJIL and VIL have call setup time of 1.15, 1.93, 0.68 and 1.42 seconds respectively in Auto-selection mode (5G/4G/3G/2G).	**Data Upload performance (Overall):** Average upload speed of Airtel (5G/4G/2G) is 40.25 Mbps, BSNL (4G/3G/2G) is 2.70 Mbps, RJIL (5G/4G) is 25.41 Mbps and VIL (4G/2G) is 13.62 Mbps.
Drop Call Rate: Airtel, BSNL, RJIL and VIL have drop call rate of 1.66%, 4.96%, 0.71% and 2.09% respectively in Auto-selection mode (5G/4G/3G/2G).	**Latency (Overall):** Airtel, BSNL, RJIL and VIL 50th percentile latency is 23.80 ms, 51.00 ms, 22.80 ms and 27.60 ms.

Data performance - Hotspots (in Mbps):

Airtel-	4G D/L: 53.39	4G U/L: 20.41
	5G D/L: 177.98	5G U/L: 57.92
BSNL-	4G D/L: 1.72	4G U/L: 4.45
RJIL-	4G D/L: 31.54	4G U/L: 6.34
	5G D/L: 354.49	5G U/L: 31.01
VIL-	4G D/L: 31.65	4G U/L: 26.32

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

Call Silence/Mute Rate: Airtel, BSNL, RJIL and VIL have silence call rate 1.69%, 5.76%, 4.95% and 6.18% respectively in packet switched network (4G/5G).

Mean Opinion Score (MOS): Airtel, BSNL, RJIL and VIL have average MOS of 3.94, 3.02, 3.75 and 3.78 respectively.

In Hubballi city, the assessment included high-density neighbourhoods like Kavalgeri, Dharwad, Kelgeri, Gulaganjikoppa, Malmaddi, Saptapur, Gandhi Nagar, Sattur Colony, Amargol, Rajnagar, Keshwapur, Durgad Bail, Kasugal, Hebsur, Byahatti, Shivahalli, Revadihal and Yerikoppa etc.

TRAI also evaluated real-world conditions at APMC Market Hubballi, Chandramouleshwara Temple Unkal Hubballi, Deputy Commissioner office Dharwad, High Court Bench Dharwad, Hubballi-Dharwad Municipal Corporation (HDMC), KIMS Hospital Hubballi, KSRTC Bus Stand Hubballi, RTO office Dharwad and Saptapur Circle Dharwad to reflect stationary user experience.

The walk tests, conducted on 05th and 07th August 2025 in Hubballi City, focused on Hubballi Railway Junction, KSRTC Old Bus Stand Dharwad, Unakal Lake and University of Agricultural Sciences Dharwad, capturing mobile network behaviour in crowded pedestrian environments.

The highway drive test was covered Hubballi–Haveri–Sirsi–Yellapur Hubballi Junction passing through Gabbur, Pale, Varur, Tadas Cross, Jigalur, Shiggaon, Aladakatti, Gourapura, Sangur, Balambeed, Goudalli, Sirsi, Agsal, Sonda, Chawadi and Yellapur Devikoppa etc covering the NH and SH.

The tests were conducted using TRAI-calibrated 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 Brajendra Kumar, Advisor (Regional Office, Bengaluru) TRAI may be contacted on email: adv.bengaluru@trai.gov.in or at Tel. No. +91-80-22865004.

BRAJENDRA KUMAR
Digitally signed by BRAJENDRA KUMAR
Date: 2025.09.22 12:13:22 +05'30'

(Brajendra Kumar)
Advisor, TRAI RO Bengaluru