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For Immediate Release

TRAI Assesses Network Quality Across Kochi City

The Telecom Regulatory Authority of India (TRAI) has released its Independent Drive Test (IDT) findings for the Kochi City, Kerala Licensed Service Area (LSA), covering extensive city and highway routes during the month of July 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 30th Jun 2025 to 03rd July 2025, TRAI teams conducted detailed tests across Kochi City and surrounding areas including 231.4 Kms of City drive, Coastal drive of 8.3 Kms (Marine Drive Park to Marine Drive Jetty), Walk Test of 8.8 Kms and 08 Hot spots segments. Technologies evaluated included 2G, 3G, 4G, and 5G, reflecting the service experience of users across multiple handset capabilities. The findings of IDT have already been intimated to all Telecom Service Providers (TSPs) concerned for further necessary action.
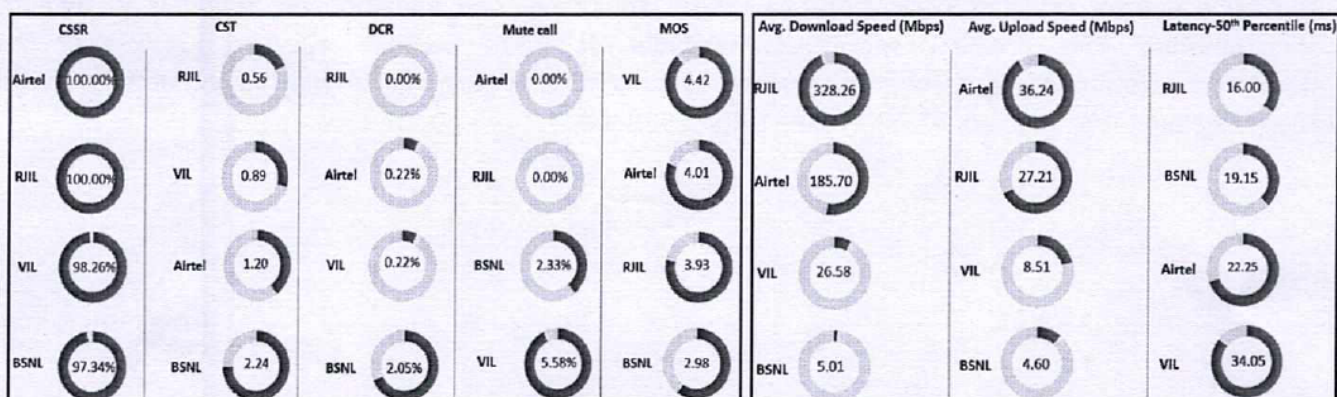
Key Parameters Assessed:

a) **Voice Services**: Call Setup Success Rate (CSSR), Drop Call Rate (DCR), Call Setup Time, Call Silence Rate, Speech Quality (MOS), Coverage.

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

Call Setup Success Rate: Airtel, BSNL, RJIL and VIL have 100.00%, 97.34%, 100.00% and 98.26% respectively in Auto-selection mode (5G/4G/3G/2G).
Drop Call Rate - Airtel, BSNL, RJIL and VIL have drop call rate of 0.22%, 2.05%, 0.00% and 0.22% respectively in Auto-selection mode (5G/4G/3G/2G).

Summary of Performance against key QoS parameters:

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

CSSR		CST		DCR		Mute call		MOS		Avg. Download Speed (Mbps)		Avg. Upload Speed (Mbps)		Latency-50th Percentile (ms)	
Airtel	100.00%	RJIL	0.56	RJIL	0.00%	Airtel	0.00%	VIL	4.42	RJIL	328.26	Airtel	36.24	RJIL	16.00
RJIL	100.00%	VIL	0.89	Airtel	0.22%	RJIL	0.00%	Airtel	4.01	Airtel	185.70	RJIL	27.21	BSNL	19.15
VIL	98.26%	Airtel	1.20	VIL	0.22%	BSNL	2.33%	RJIL	3.93	VIL	26.58	VIL	8.51	Airtel	22.25
BSNL	97.34%	BSNL	2.24	BSNL	2.05%	VIL	5.58%	BSNL	2.98	BSNL	5.01	BSNL	4.60	VIL	34.05

Summary-Voice services

Call Setup Success Rate: Airtel, BSNL, RJIL and VIL have 100.00%, 97.34%, 100.00% and 98.26% 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 1.20, 2.24, 0.56 and 0.89 seconds respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, BSNL, RJIL and VIL have drop call rate of 0.22%, 2.05%, 0.00% and 0.22% respectively in Auto-selection mode (5G/4G/3G/2G).

Call Silence/Mute Rate: Airtel, BSNL, RJIL and VIL have silence call rate of 0.00%, 2.33%, 0.00% and 5.58% respectively in packet switched network (4G/5G).

Mean Opinion Score (MOS): Airtel, BSNL, RJIL and VIL have average MOS of 4.01, 2.98, 3.93 and 4.42 respectively.

Summary-Data services

Data Download performance (Overall): Average download speed of Airtel (5G/4G/2G) is 185.70 Mbps, BSNL (4G/3G/2G) is 5.01 Mbps, RJIL (5G/4G) is 328.26 Mbps and VIL (4G) is 26.58 Mbps.

Data Upload performance (Overall): Average upload speed of Airtel (5G/4G/2G) is 36.24 Mbps, BSNL (4G/3G/2G) is 4.60 Mbps, RJIL (5G/4G) is 27.21 Mbps and VIL (4G) is 8.51 Mbps.

Data performance - Hotspots (in Mbps):

Airtel	4G D/L:	33.12	4G U/L:	5.48
	5G D/L:	179.14	5G U/L:	32.16
BSNL	4G D/L:	3.96	4G U/L:	9.06
RJIL	4G D/L:	22.00	4G U/L:	7.73
	5G D/L:	285.03	5G U/L:	17.92
VIL	4G D/L:	12.56	4G U/L:	7.79

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

In Kochi, the assessment included high-density neighbourhoods like Koonammayu, Nearby North Paravur, Varapuzha, Edavanakkad, Vaduthala, Kakkanad, Perumpilly, South Paravoor, Panambukad Colony, Kumbalam, Ernakulam Junction, Ponnurunni East and Vaduthala etc.

TRAI also evaluated real-world conditions at 08 static hotspots—including Aluva Metro Station, Cochin University, General Hospital, High Court, Info Park, International Airport Kochi, Kaloor Stadium and Wonderla Amusement Park - to reflect stationary user experience.

The Coastal route covered from Marine Drive Park to Marine Drive Jetty, capturing mobile network behaviour in Coastal area.

The walk tests, conducted on 02 July and 03 July 2025, focused on Ernakulam South Railway Station, Fort Kochi, KSRTC Bus Stand, and Marine Drive, capturing mobile network behaviour in crowded pedestrian environments.

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 (RO, Bengaluru) TRAI may be contacted on email: adv.bengaluru@trai.gov.in or at Tel. No. +91-80-22865004.

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