



OPERATOR ASSISTED DRIVE TEST REPORT

DHARAMSHALA CITY

HP LSA

MARCH 2026 (REGIONAL OFFICE, DELHI)

The Operator Assisted Drive Test has been carried out by Regional Office, Delhi with the help of Telecom Service Providers in HP LSA covering **Dharamshala City** from **17th to 19th March 2026** from 09.30 AM to 07.30 PM. The drive test covered drive route of **110 KM (approx.)** over a period of three days, covering hotspot at seven (04) locations. Networks Tested: 3 in 2G, 1 in 3G, 4 in 4G and 2 in 5G.

Voice and Dynamic/Static Data Test Route – HP LSA

S.No	Date	Location/Area	Static Hotspot Locations
1	17-03-2026	Naddi, Bhagsunag, Dharamkot, Dharamshala	NA
2	18-03-2026	Hot-Spots	Govt Degree College Dharamshala, HPCA Stadium, Maximus Mall, McLeodGanj Market
3	19-03-2026	Chamunda, Yol, Malan, Matur	NA

Key observations from Drive Test (Voice)

TSP	Network tested
Airtel	2G,4G & 5G
BSNL	2G,3G & 4G
RJIO	4G & 5G
VIL	2G & 4G

Calls were made for the **180-sec** duration on the highway route and **90-sec** duration on the city route, with a wait time of **15 sec** between calls in all technologies.

KPI	Benchmark	Observations
Drop call rate %	≤2%	All TSPs achieved the benchmark except BSNL.
CSSR %	≥98 %	All TSPs achieved the benchmark except BSNL.

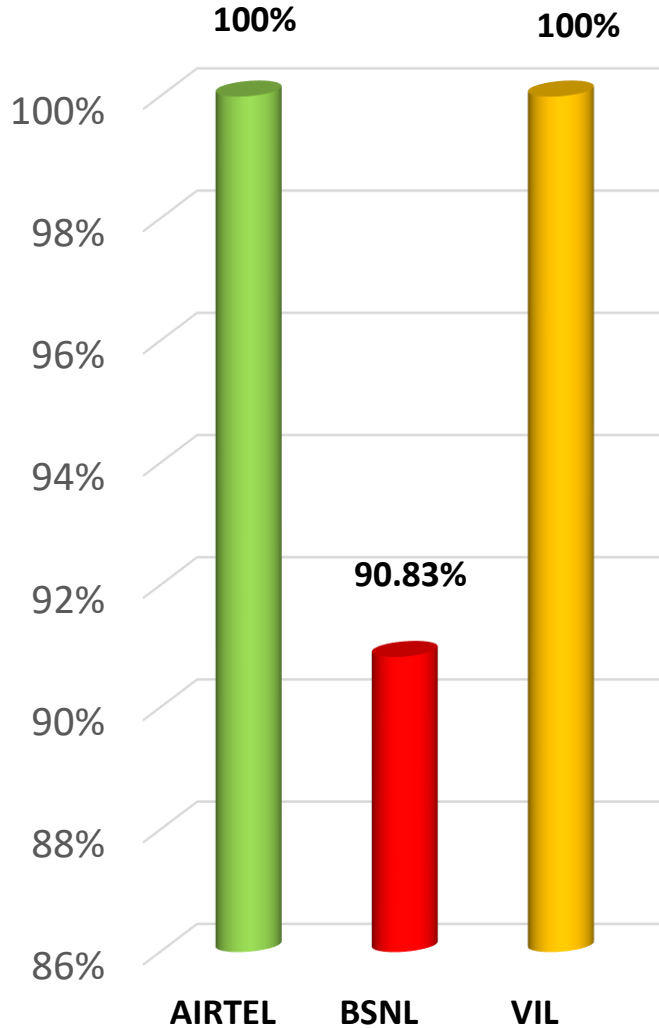
Speech Quality (Average MOS)	VIL	BSNL	Airtel	RJIL
	4.02	-	4.08	4.11

Summary – Voice City Dynamic in 3G/2G (Locked Mode)

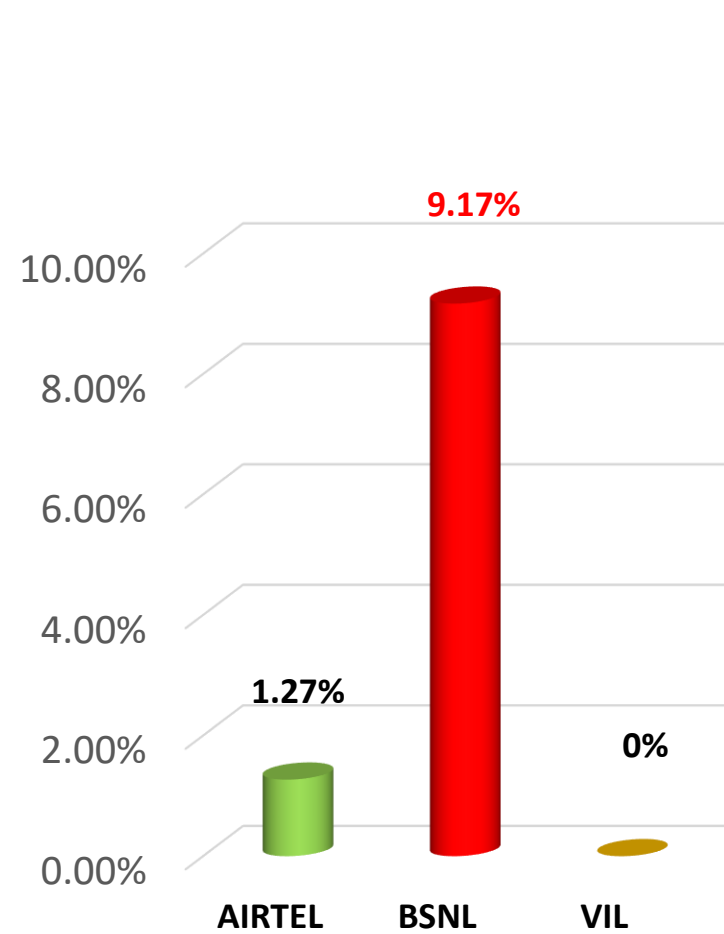
Voice Call	AIRTEL 2G	BSNL 3G/2G	VIL 2G
Call Attempt	158	120	148
Call Established	158	109	148
CSSR% (Accessibility)	100%	90.83%	100%
Drop Call Rate (%)	1.27%	9.17%	0%
Handover Success Rate (%)	99.16%	99.22%	98.02%

SUMMARY – VOICE CITY DYNAMIC IN 3G/2G (LOCKED MODE)

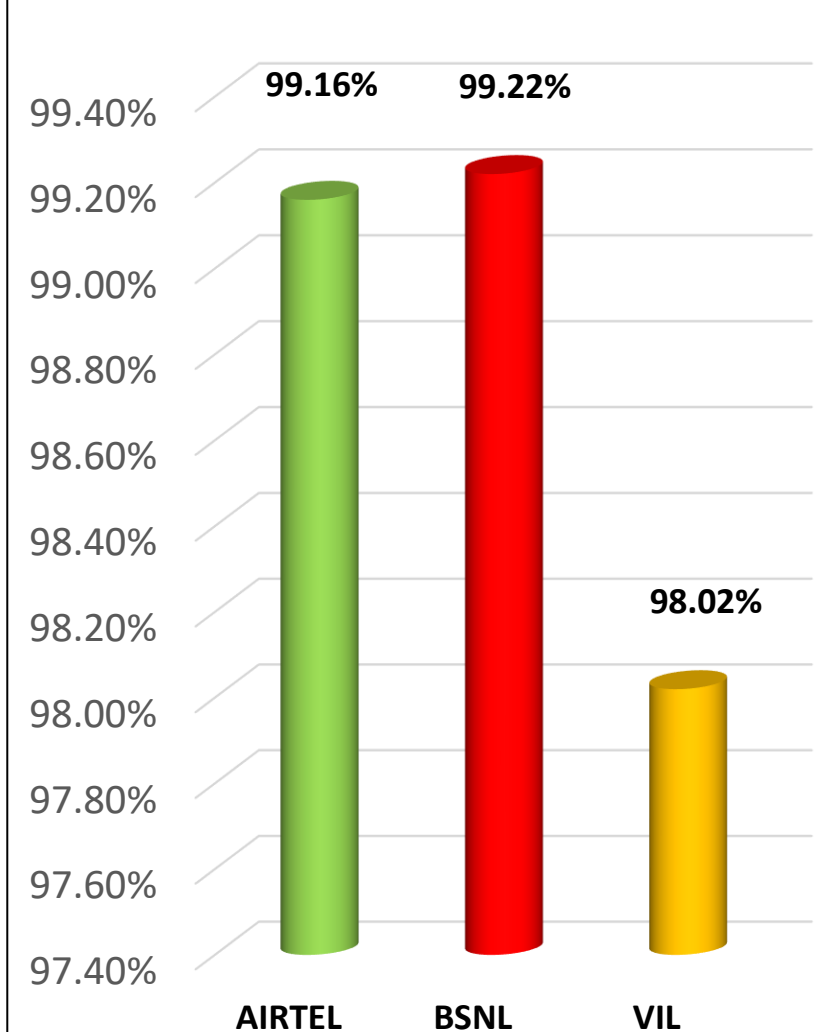
Call Setup Success Rate



Drop Call Rate



Handover Success Rate

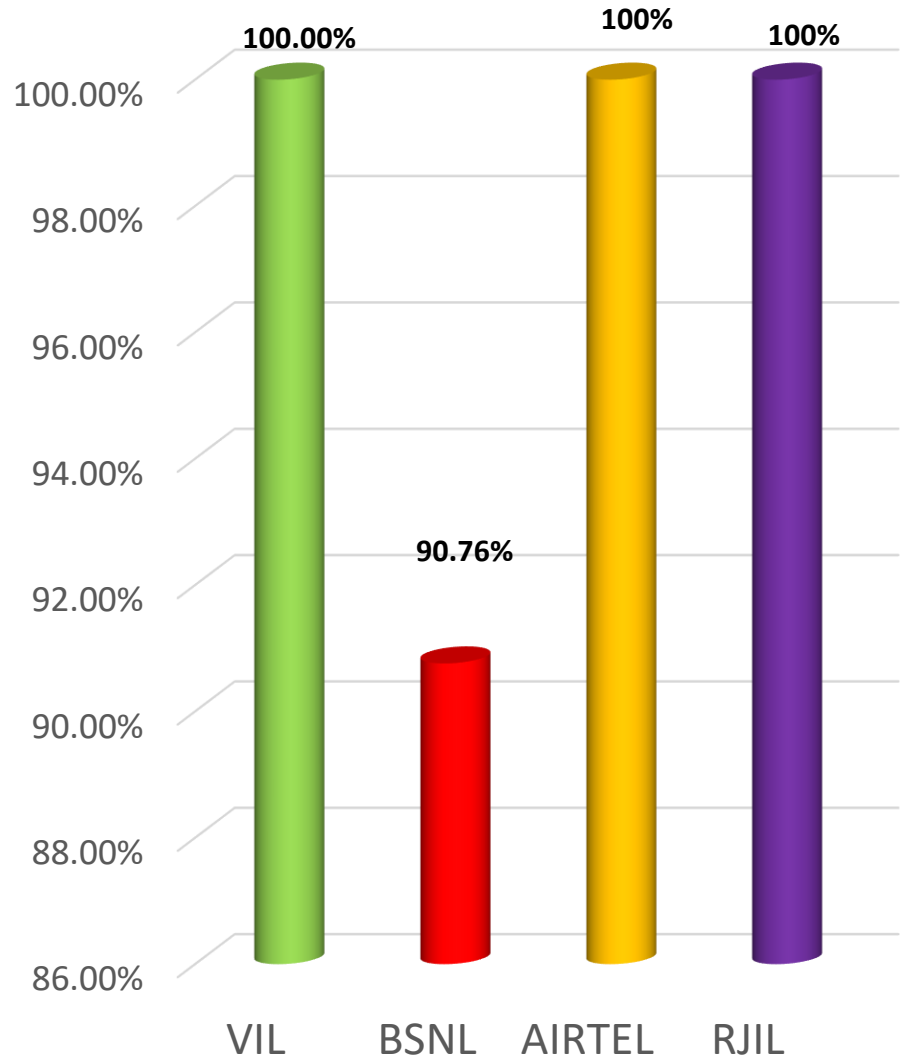


Summary – Voice City Dynamic in 5G/4G/3G/2G (Auto Mode)

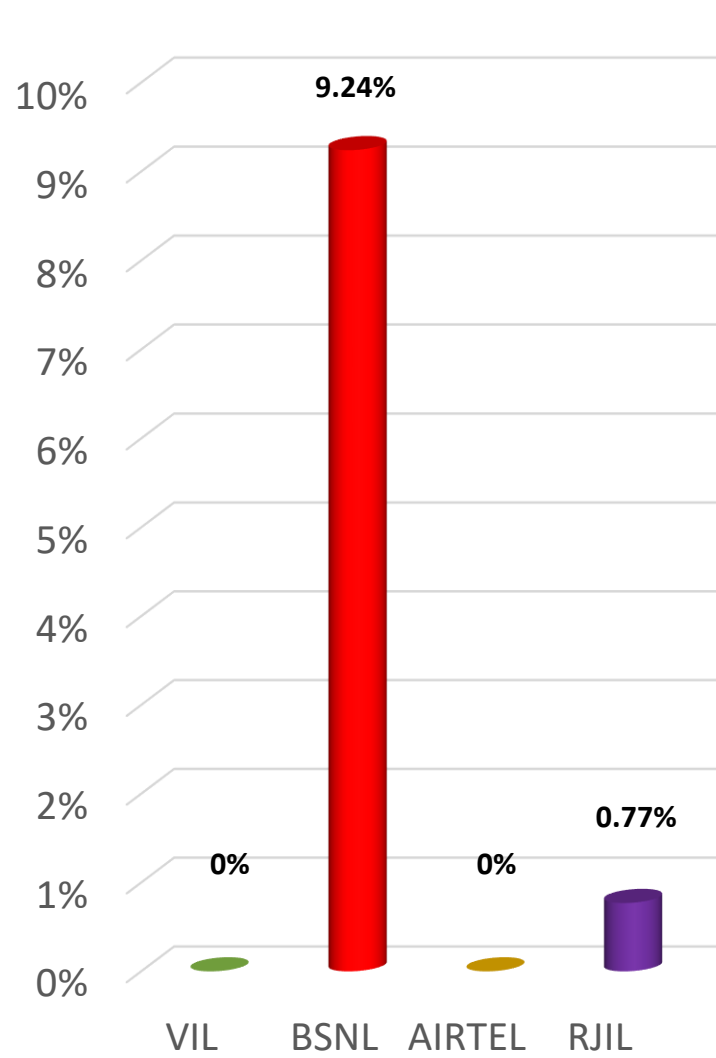
Voice Call	VIL	BSNL	AIRTEL	RJIL
Call Attempt	149	130	163	129
Call Established	149	118	163	129
CSSR% (Accessibility)	100%	90.76%	100%	100%
Drop Call Rate (%)	0%	9.24%	0%	0.77%
Handover Success Rate (%)	99.47%	97.29%	99.64%	98.94%
Silence Call Rate %	0 %	0%	0.10%	2.69%
Speech Quality (Average MOS)	4.02	-	4.08	4.11

SUMMARY – VOICE CITY DYNAMIC IN 5G/4G/3G/2G (AUTO MODE)

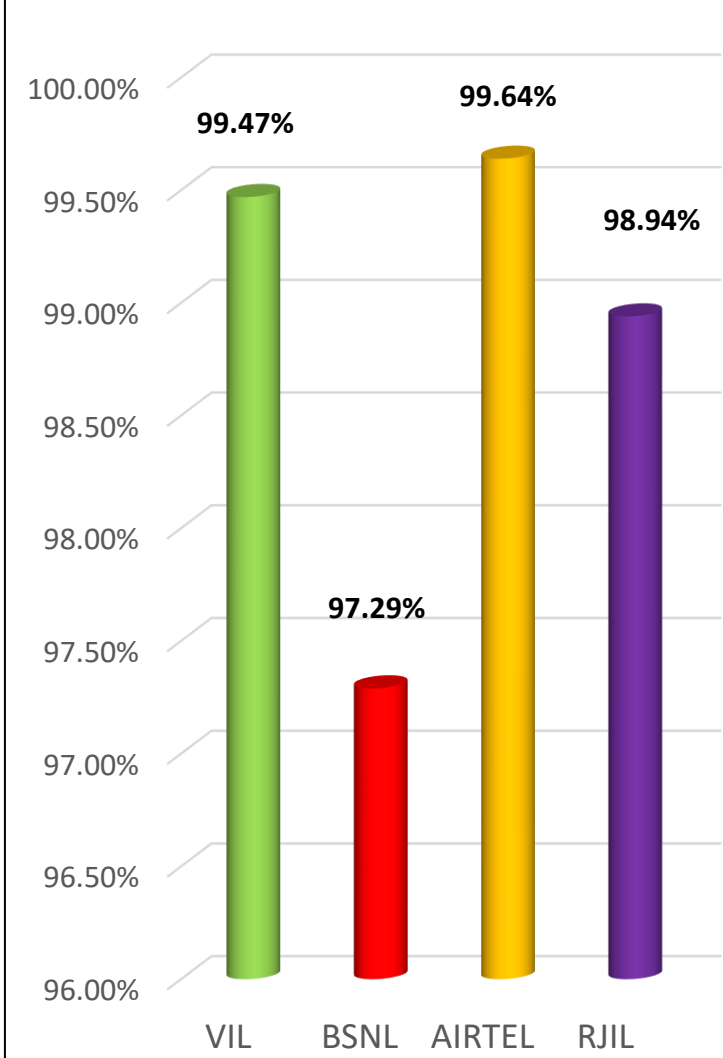
Call Setup Success Rate



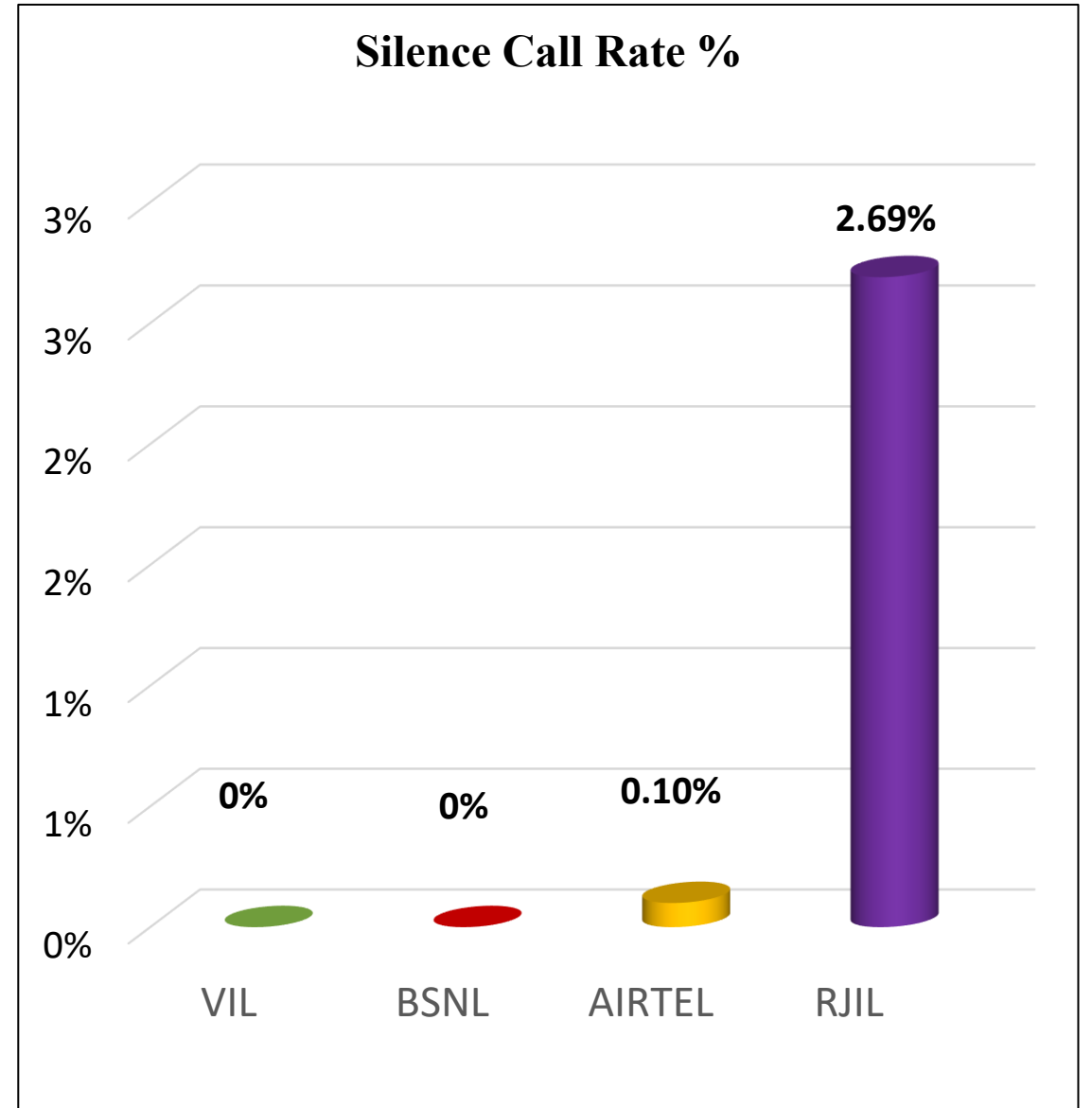
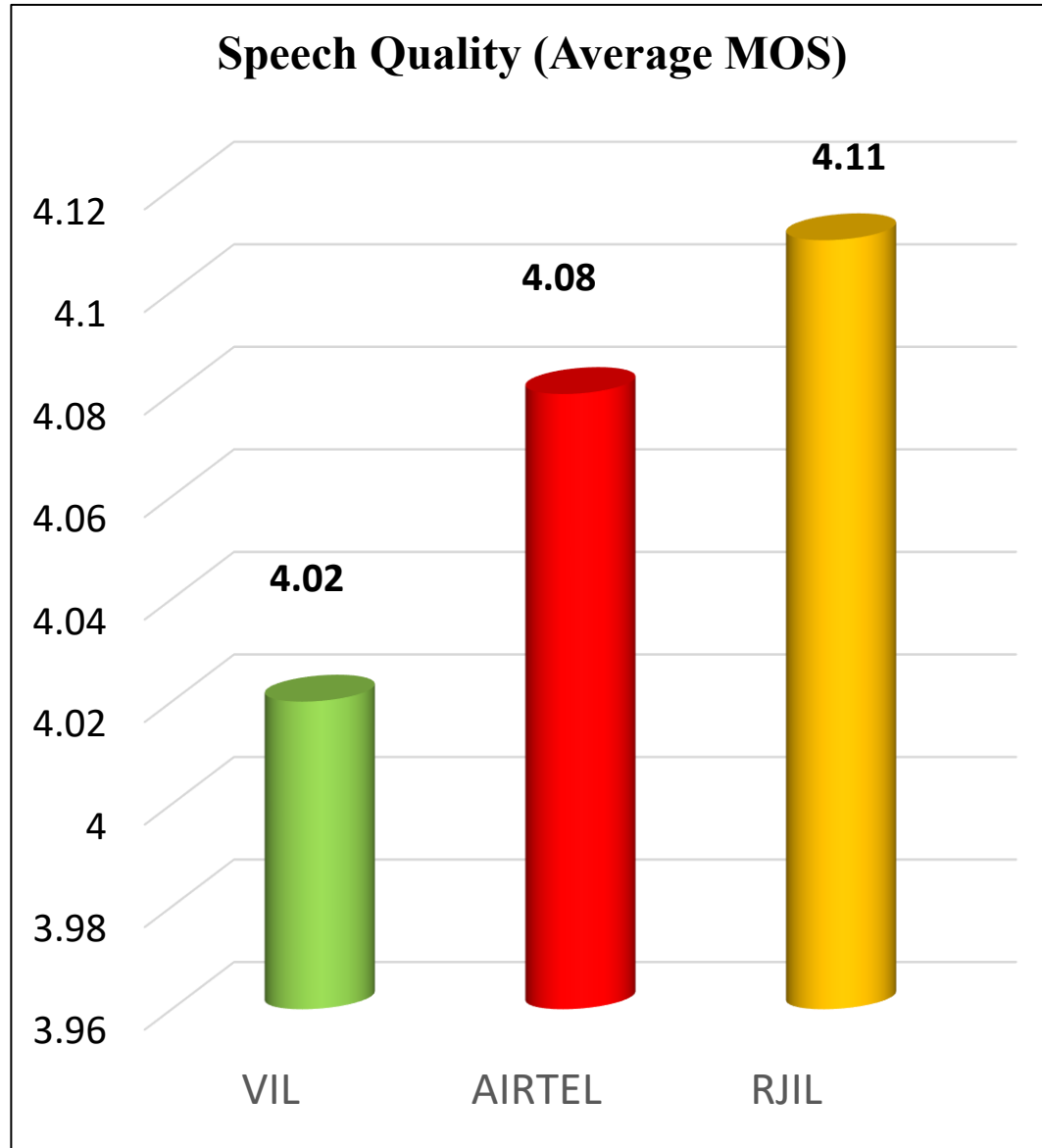
Drop Call Rate



Handover Success Rate

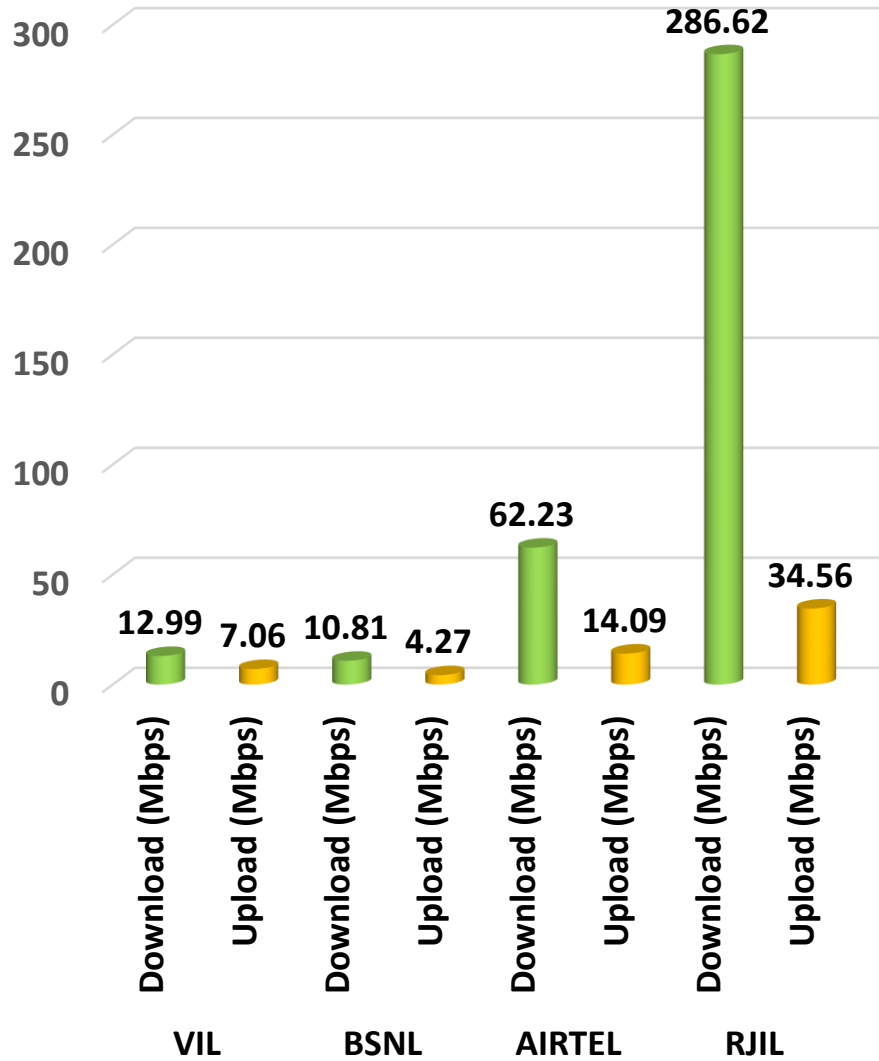


SUMMARY – VOICE CITY DYNAMIC IN 5G/4G/3G/2G (AUTO MODE) (CONTD..)

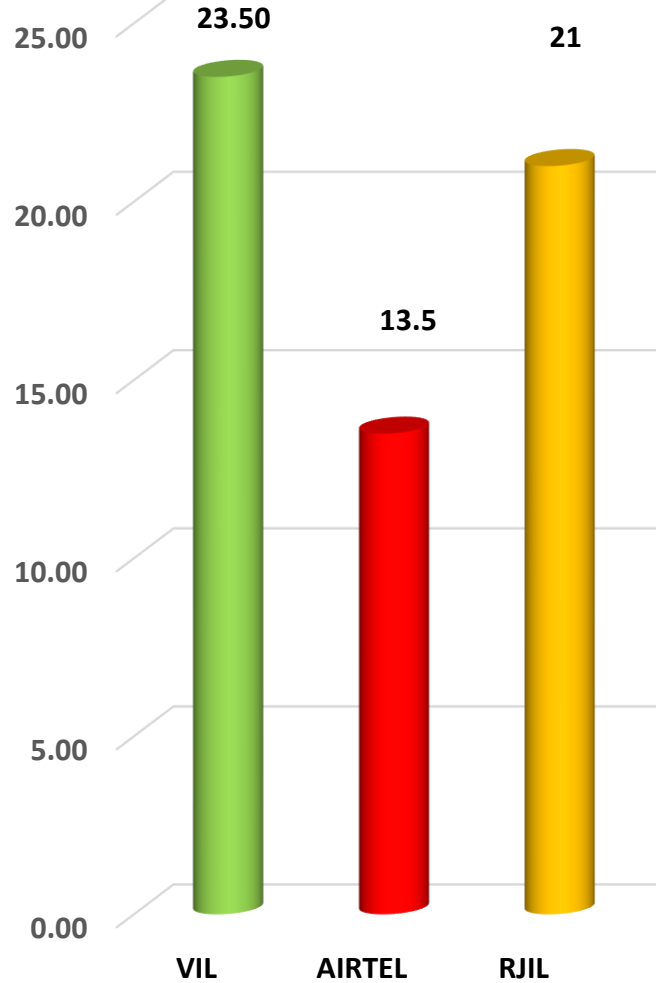


DATA SERVICE PERFORMANCE IN 5G/4G/3G/2G (AUTO MODE) - DYNAMIC

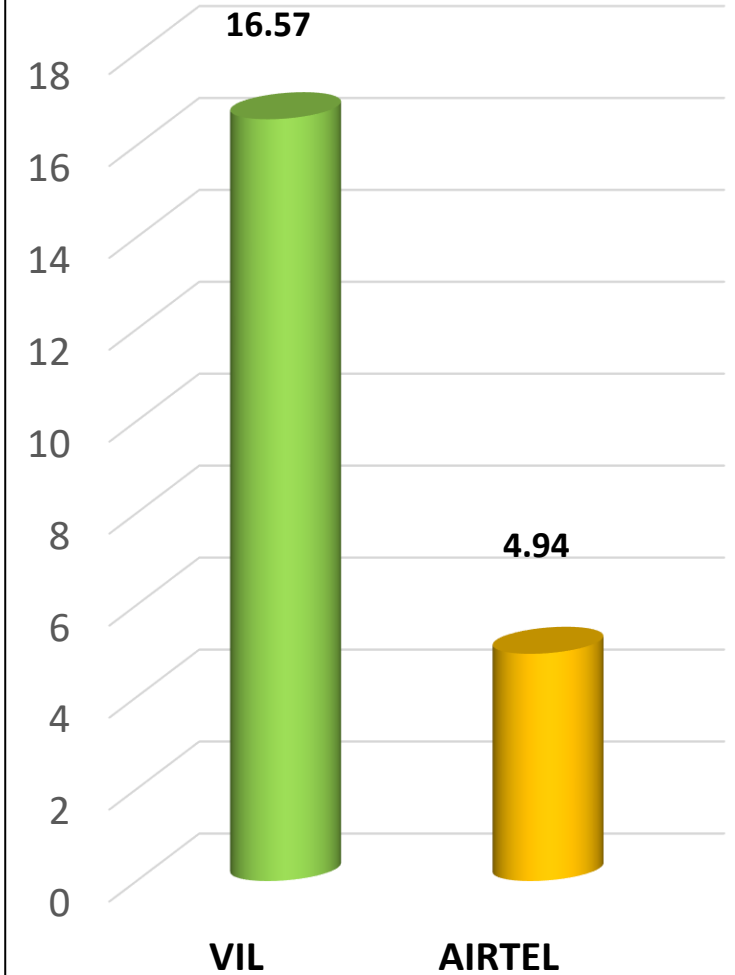
Average Download/Upload Speed - Dynamic



Average Latency - Dynamic



Average Jitter - Dynamic



Summary-Voice Service Performance (5G/ 4G/ 3G/ 2G - Auto mode) – Over all (Static-Hotspot)

Voice Call	AIRTEL	BSNL	RJIL	VIL
Call Attempt	40	40	40	40
Call Established	40	40	40	40
CSSR% (Accessibility)	100	100	100	100
No. of Drop Call	0	0	0	0
Drop Call Rate (%)	0	0	0	0
Call Setup Time Average (Sec.)	1.16	3.44	0.57	0.84

Summary-Data Service Performance (5G/ 4G/ 3G/ 2G - Auto mode) – Over all (Static-Hotspot)

Data Service	AIRTEL	BSNL	RJIL	VIL
Average Download speed (Mbps)	71.1	15.13	293	7.04
Average Upload speed (Mbps)	20.37	11.95	19.28	8.76
Latency 50th percentile (ms)	15	53.31	20	34.50
Average Jitter (ms)	3.26	27.3	NA	18.51
Packet Drop Rate (%)	1.43	4.36	0.005	2.27%
Web browsing delay (sec)	4.9	8.11	1.17	3.12
Video Streaming performance for video (sec)	2.65	1.75	0.43	1.67

Data Summary at Hotspot Locations: Download and Upload Speed(in Mbps)

S.No.	Hotspot Locations	AIRTEL		BSNL		RJIL		VIL	
		Download	Upload	Download	Upload	Download	Upload	Download	Upload
1.	Degree Collage Dharamshala	61.32	4.06	4.48	2.15	26.95	10.92	1.88	0.24
2.	HPSCA Stadium	85.14	43.66	22.51	20.95	175.51	10.48	5.63	10.00
3.	Macleod Ganj	93.39	32.51	7.89	4.9	317.18	18.85	9.91	13.13
4.	Maximax mall Dharamshala	63.04	15.1	23.25	5.78	391.81	85.59	10.77	11.67

Coverage – Voice Calls

- Percentage of coverage samples for 2G \geq -85 dBm

TSPs	2G		
	Airtel	VIL	BSNL
Coverage%	84.99%	97.59%	76.51%

- Percentage of coverage samples for 3G \geq - 90 dBm

TSPs	3G
	BSNL
Coverage%	51.22%

Coverage – Voice Calls (Contd..)

- Percentage of coverage samples for 4G \geq -110 dBm

TSPs	4G			
	Airtel	RJIL	VIL	BSNL
Coverage %	98.22%	98.63%	92.60%	NA

- Percentage of coverage samples for 5G \geq -110 dBm

TSPs	5G	
	RJIL	Airtel
Coverage %	98.15%	97.94%

THANK YOU