



प्रभावी विनियमन – सुगम संचार
Effective Regulation – Ease of Communication

Operator Assisted Drive Test Report Bareilly City and nearby Area

27/05/2025 to 29/05/2025

By
TRAI Regional Office Bhopal

The Operator Assisted Drive Test has been carried out by Regional Office, Bareilly with the help of Telecom Service Providers for Bareilly City and surrounding areas from 9:00 AM to 8:00 PM from 27/05/2025 to 29/05/2025. The drive test covered drive route of around ...280..... KMs.

TSP	Network tested
Airtel	2G & VoLTE
BSNL	2G & 3G
JIO	VoLTE
VIL	2G, VoLTE

Key Performance Indicators:

KPI	Benchmark	Observations
Drop call rate %	$\leq 2\%$	All TSPs achieved the benchmark except BSNL in VoLTE
CSSR %	$\geq 98\%$	All TSPs achieved the benchmark except BSNL in 2G, 3G and VoLTE
Mobility HOSR %	$\geq 95\%$	All TSPs achieved the benchmark.
Good RX Quality %	$\geq 95\%$	All achieved except BSNL in 2G, 3G and VoLTE and Airtel in VoLTE

Overview

Regional Office, TRAI Haridwar-Rishikesh conducted Operator Assisted Drive Test. The performance of Airtel, BSNL, Vodafone Idea and Jio was monitored across various technologies (2G, 3G, 4G & 5G). The test results obtained from these drive tests were utilized to assess the network quality for Voice and Data services.

Voice: Coverage, Quality, Handover Success Rate, Call Setup Success Rate, Drop Call Rate and Block Call Rate.

Data: Download Throughputs

Drive Test Details :

Voice Tests:

- i. 2G – measurement – UE Locked in 2G
- ii. 3G – measurement – UE in Dual mode (2G and 3G)
- iii. 4G – measurement – UE in Free mode

Calls were made for the **90-sec** duration with a wait time of **10 sec** between calls in all technologies.

Data Tests:

Dynamic data – repeat data file download (to check throughput on the entire route)

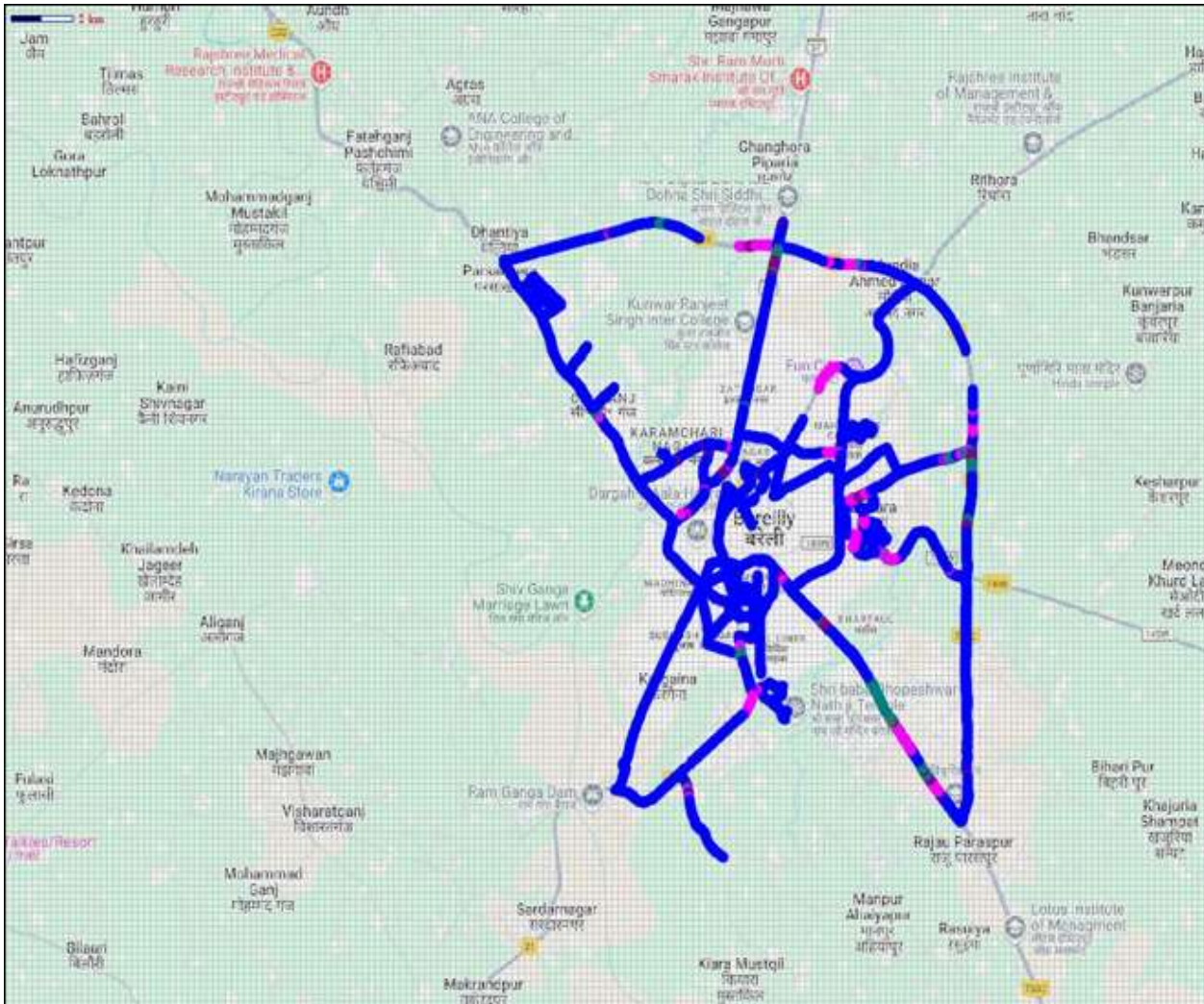
- i. 3G – measurement – UE in 3G File Size- 20MB
- ii. 4G – measurement – UE in LTE File Size- 40MB
- iii. 5G – measurement – UE in 5G File Size- 200MB

Static Data: Download and Upload Throughputs, Web Browsing Delay, Video Streaming Delay, and Latency

- i. Download- 3G - 20 MB, 4G - 40MB, 5G -200 MB
- ii. Upload - 3G - 5 MB, 4G - 10MB, 5G – 100 MB
- iii. Web browsing - 3 links of e-commerce websites <https://www.amazon.in>, <https://www.flipkart.com>, <https://paytm.com>.
- iv. Video Streaming – 130 sec clip
- v. Latency – 32 Bytes on www.google.com.

Overview

Voice & Dynamic Data Test Drive Route

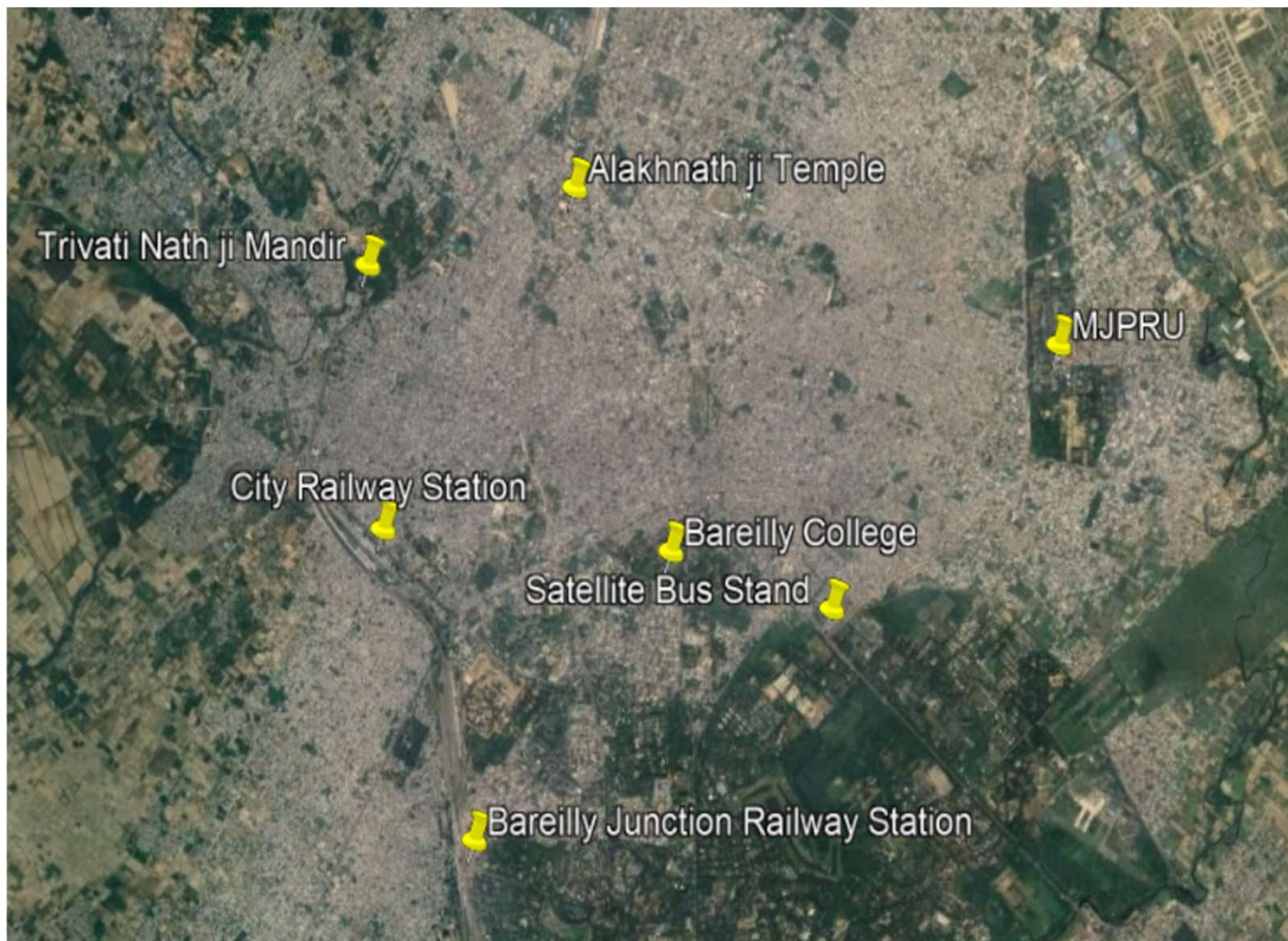


List of important area covered during the drive test

Pilbhit by pass road, Mahanagar, Green Park, Suresh Sharma Nagar,
 Izzatnagar, Model town, Rajendra Nagar, Chopla Road, Old City, Rampur Road
 Gandhi udhyan , University campus , Phoenix mall , Mahanagr area, Damru chowk
 Railway junction, Cantt area, Chaupla chauraha, Fun city, Old bus stand , Jhumka chauraha
 Parsakhera industrial area , Chaurasi ghanta mandir, Air force gate , ITBP, Transport nagar ,
 Mini Bypass, Rohilkhand University, Satellite bus Stand, Nainital Road, Stadium Road
 V Mart, Radisson Hotel, Ramada Hotel
 Dargah-e-Ala-Hazrat, Bada Hanuman Mandir, Chauki chauraha, civil lines bareilly
 Patel chowk , Chowki chauraha , Kutubkhana Koharapeer, Dharamkanta

Overview

Data Service Test- Static Locations

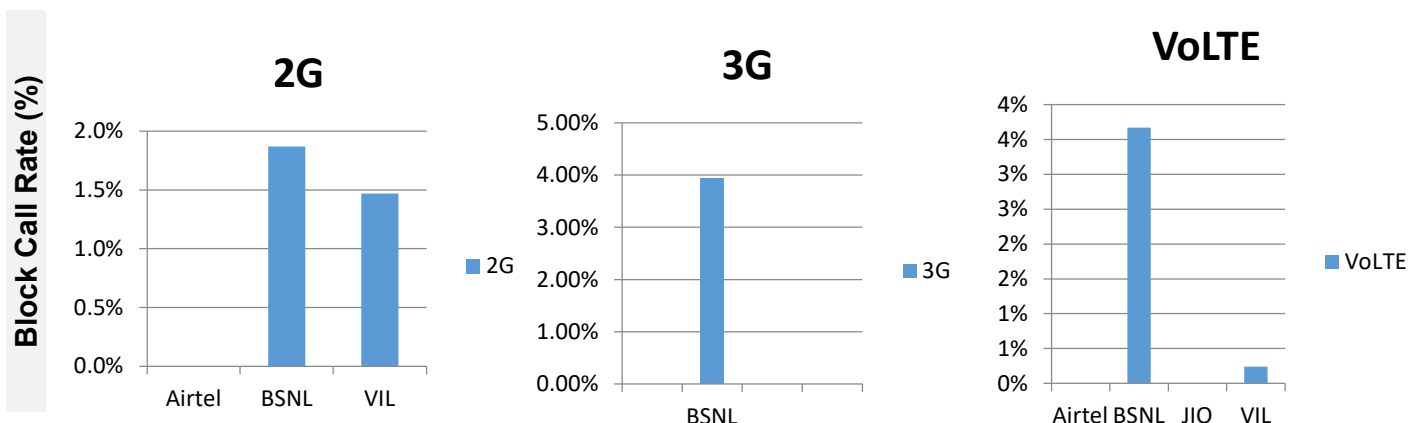
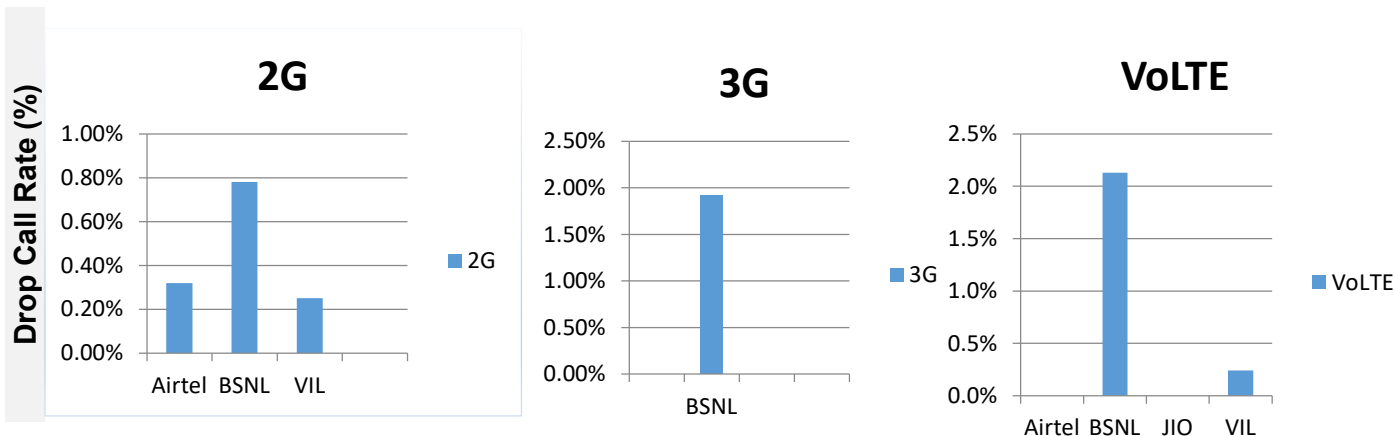


Hotspot Locations
1. Mahatma Jyotiba Phule Rohilkhand University
2. Bareilly City Railway Station
3. Bareilly Satellite Bus Stand
4. Bareilly College, Rampur Garden
5. Bareilly Junction Railway Station
6. Shri Baba Trivati Nath ji Mandir
7. Baba shri Alakhnath ji Temple

Voice Calls

Key Observations

QoS compliance of the TSPs for Voice across technologies 2G/3G/4G-VoLTE:



KPIs	2G			3G	VoLTE			
	Airtel	BSNL	VIL	BSNL	Airtel	BSNL	RJIL	VIL
Drop Call Rate %	0.32	0.78	0.25	1.92	0	2.13	0	0.24
Block Call Rate %	0.00	1.87	1.47	3.93	0	3.67	0	0.24

a) All TSPs have met the 2% QOS benchmark of Drop Call Rate (DCR%) except BSNL in VoLTE

Voice Calls

Key Observations

Coverage

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

TSPs	2G		
	Airtel	BSNL	VIL
Coverage %	95.46	95.68	96.67

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

TSPs	3G
	BSNL
Coverage %	76.06

b) Percentage of coverage samples for LTE \geq -110 dBm.

TSPs	VoLTE			
	Airtel	BSNL	JIO	VIL
Coverage %	99.49	88.28	99.89	96.14

c) Percentage of time spent on 3G/4G/5G network

TSPs	3G	VoLTE			
	BSNL	Airtel	BSNL	VIL	JIO
Time Spent on 3G/4G %	6.81	100	49.27	100	100

Data Services Dynamic

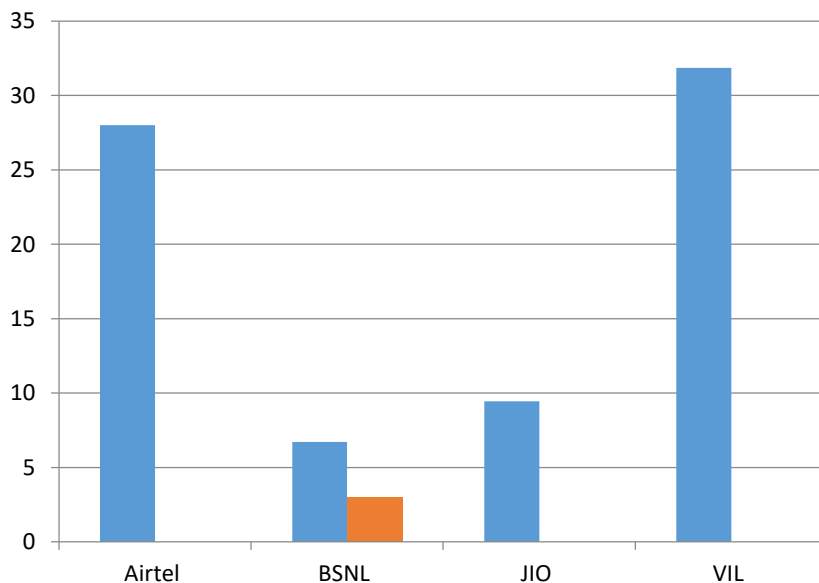
Key Observations

Dynamic Data -Download Throughput was tested.

Data Download Performance – Dynamic 3G/4G/ 5G Network

■ Avg Download Throughput 4G ■ Avg Download Throughput 3G

Dynamic Data Avg. Download Throughput (Mbps)



TSP	Airtel	BSNL	JIO	VIL
Average Download throughput- 3G In Mbps	NA	2.98	NA	NA
Average Download throughput-LTE in Mbps	28.01	6.70	9.45	31.85
Average Download throughput- 5G in Mbps	NA	NA	NA	NA

Summary

City Level Summary- Voice

TSP (For 2G)	Airtel	BSNL	VIL
Call attempts	311	535	408
Block call rate %	0.00	1.87	1.47
CSSR %	100.00	95.7	98.53
Drop call rate %	0.32	0.78	0.25
Mobility HOSR %	96.86	97.19	98.11
RX Quality %	95.61	93.24	97.34
Average CST Sec	3.1	3.25	3.2

TSP (For 3G)	BSNL
Call attempts	559
Block call rate %	3.93
CSSR %	93.38
Drop call rate %	1.92
Mobility HOSR %	98.29
RX Quality %	85.2
Average CST (Sec)	3.48

TSP (For Volte)	Airtel	BSNL	JIO	VIL
Call attempts	270	517	345	412
Block call rate %	0.37	3.67	0	0.24
CSSR %	99.63	93.42	100	99.76
Drop call rate %	0	2.13	0	0.24
Mobility HOSR %	99.87	96.59	99.68	98.75
RX Quality %	92.49	94.49	99.69	96.80
Average CST(Sec)	10.55	2.85	0.80	1.3

Summary

City Level Summary- Data Services -Static

TSP (For 3G)	BSNL
Download throughput in Mbps	3.25
Upload Throughput in Mbps	0.73
Video streaming delay in sec	NA
Web browsing delay in second	0.5
Latency in (msec)	112.2

TSP (For LTE)	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	22.5	9.04	38.90	70.26
Upload Throughput in Mbps	9.89	0.30	7.31	16.33
Video streaming delay in sec	2.13	Not Available	0	1.26
Web browsing delay in second	10.5	14.72	1.82	1.40
Latency in (msec)	64.29	53.99	30.07	42.43

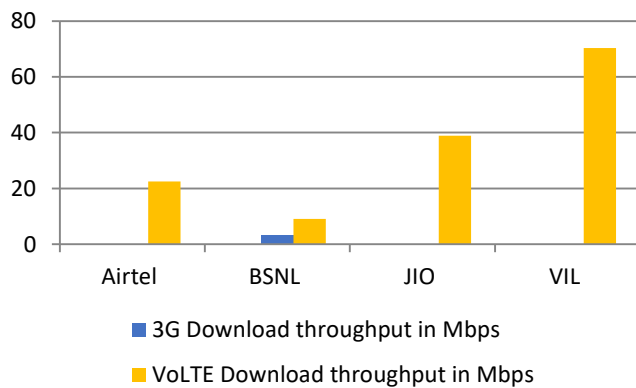
Data Services Static

Key Observations

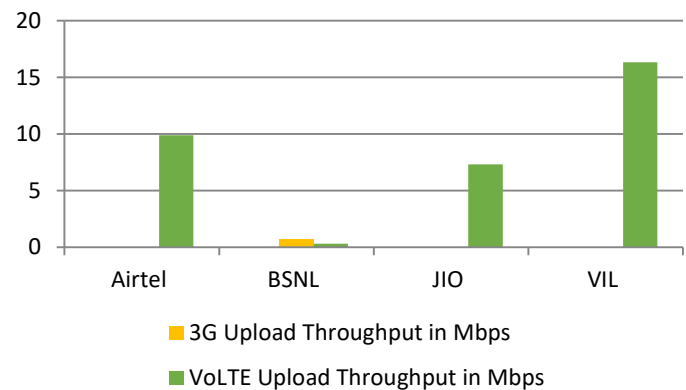
Data was tested at 7 locations .Following services were tested: Data Download/Upload, Latency (www.google.com), and Web browsing (Flipkart, Amazon, PayTm)

3G/4G/ 5G Network

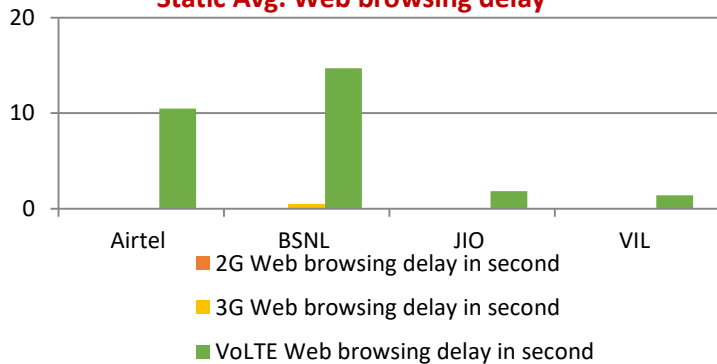
Static Avg. Data download throughput



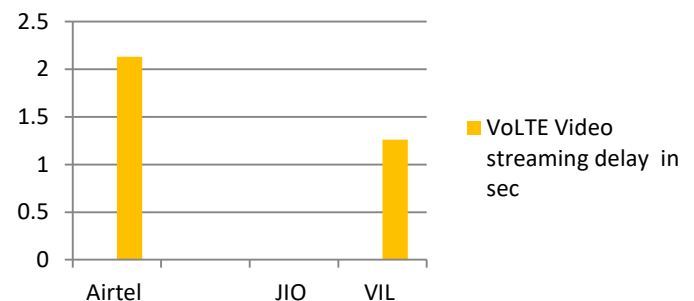
Static Avg. Data Upload Throughput



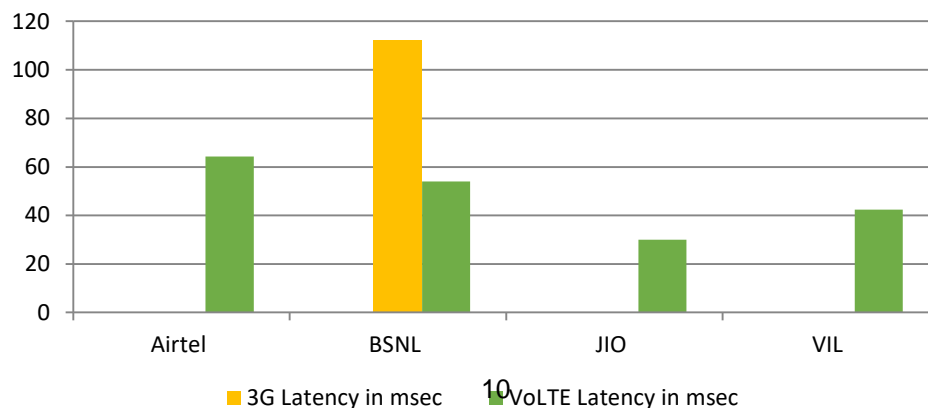
Static Avg. Web browsing delay



Static Avg. Video Streaming Delay



Static Latency in (msec)



1. Hotspot Location- Mahatma Jyotiba Phule Rohilkhand University

	3G			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	NA	11.5	NA	NA
Upload Throughput in Mbps	NA	0.41	NA	NA
Video streaming delay in sec	NA	NA	NA	NA
Web browsing delay in second	NA	0-0.5	NA	NA
Latency in (msec)	NA	164.8	NA	NA

	LTE			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	45.71	5.26	26.94	54.4
Upload Throughput in Mbps	1.82	0.38	6.62	30.7
Video streaming delay in sec	0	NA	0	1.21
Web browsing delay in second	59.44	4.67	2.08	1.33
Latency in (msec)	144.33	46.3	31.57	32

2. Hotspot Location- Bareilly City Railway Station

	3G			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	NA	4.52	NA	NA
Upload Throughput in Mbps	NA	0.88	NA	NA
Video streaming delay in sec	NA	NA	NA	NA
Web browsing delay in second	NA	0.5	NA	NA
Latency in (msec)	NA	81.3	NA	NA

	LTE			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	12.31	8.77	48.62	50.7
Upload Throughput in Mbps	3.43	0.21	6.60	3.7
Video streaming delay in sec	0	NA	0	1.28
Web browsing delay in second	4.99	3.59	1.78	1.48
Latency in (msec)	49.9	37.75	28.77	45

3. Hotspot Location- Bareilly Satellite Bus Stand

	3G			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	NA	4.06	NA	NA
Upload Throughput in Mbps	NA	0.89	NA	NA
Video streaming delay in sec	NA	NA	NA	NA
Web browsing delay in second	NA	0.5	NA	NA
Latency in (msec)	NA	92.9	NA	NA

	LTE			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	10.87	5.78	44.69	56.7
Upload Throughput in Mbps	20.52	0.38	4.94	6.63
Video streaming delay in sec	5.31	Not Available	0	1.32
Web browsing delay in second	7.53	37.68	1.81	1.39
Latency in (msec)	42.1	47.4	31.90	41

4. Hotspot Location- Bareilly College, Rampur Garden

	3G			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	NA	4.65	NA	NA
Upload Throughput in Mbps	NA	.96	NA	NA
Video streaming delay in sec	NA	NA	NA	NA
Web browsing delay in second	NA	0.5	NA	NA
Latency in (msec)	NA	163.5	NA	NA

	LTE			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	38.44	13.47	22.29	111
Upload Throughput in Mbps	22.77	0.33	10.43	20.9
Video streaming delay in sec	0	NA	0	1.18
Web browsing delay in second	4.38	5.23	1.59	1.34
Latency in (msec)	48.6	65.4	28.40	46

5. Hotspot Location- Bareilly Junction Railway Station

	3G			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	NA	0.71	NA	NA
Upload Throughput in Mbps	NA	0.035	NA	NA
Video streaming delay in sec	NA	NA	NA	NA
Web browsing delay in second	NA	0.5	NA	NA
Latency in (msec)	NA	134.4	NA	NA

	LTE			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	41.3	4.73	54.15	90.8
Upload Throughput in Mbps	28.3	0.18	9.27	37.8
Video streaming delay in sec	0	Not Available	0	1.20
Web browsing delay in second	3.72	7.95	1.89	1.31
Latency in (msec)	40.4	53.2	33.83	39

6. Hotspot Location- Shri Baba Trivati Nath ji Mandir

	3G			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	NA	3.09	NA	NA
Upload Throughput in Mbps	NA	0.891	NA	NA
Video streaming delay in sec	NA	NA	NA	NA
Web browsing delay in second	NA	0.5	NA	NA
Latency in (msec)	NA	68	NA	NA

	LTE			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	27.48	18.99	53.93	82.5
Upload Throughput in Mbps	3.92	0.37	6.47	12.1
Video streaming delay in sec	0	Not Available	0	1.24
Web browsing delay in second	13.25	11.28	1.91	1.44
Latency in (msec)	58.2	62.9	28.07	43

7. Hotspot Location- Baba Shri Alakhnath ji Temple

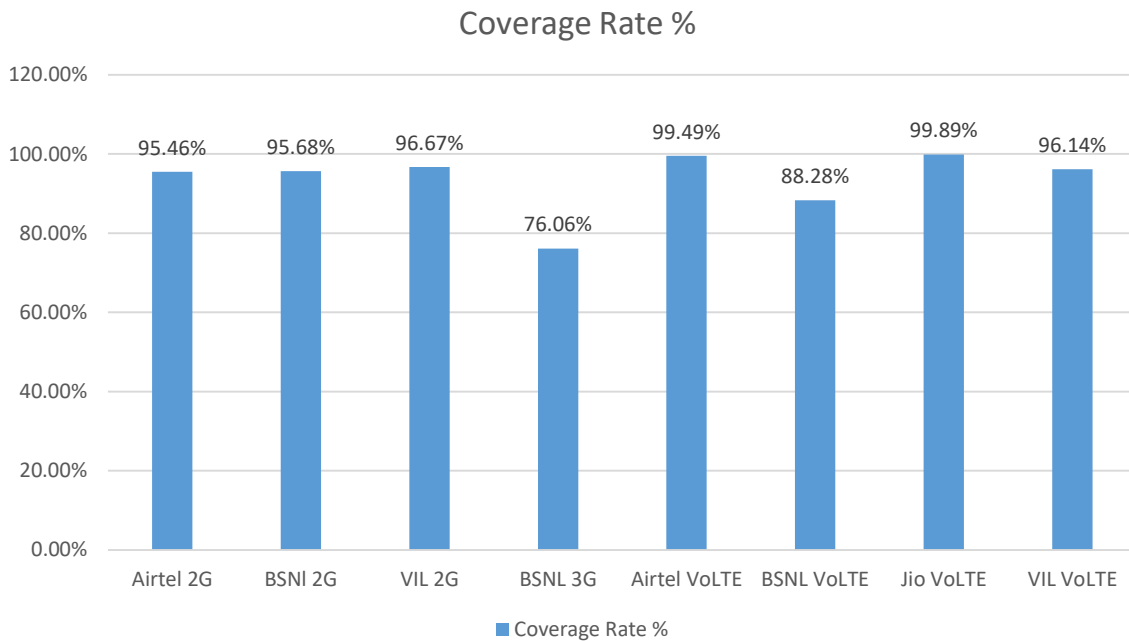
	3G			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	NA	3.61	NA	NA
Upload Throughput in Mbps	NA	0.927	NA	NA
Video streaming delay in sec	NA	NA	NA	NA
Web browsing delay in second	NA	0.5	NA	NA
Latency in (msec)	NA	85.6	NA	NA

	LTE			
	Airtel	BSNL	JIO	VIL
Download throughput in Mbps	14.15	6.34	21.70	45.7
Upload Throughput in Mbps	13.31	0.29	6.88	2.48
Video streaming delay in sec	0	Not Available	0	1.36
Web browsing delay in second	5.22	32.65	1.71	1.52
Latency in (msec)	44.7	65.03	27.93	51

Coverage Details

RF Coverage relates to the geographical footprint within the system that has sufficient RF signal strength to provide for a call session. The Coverage rate is calculated on the basis of % of samples in which the Rx level \geq -85 dBm, RSCP is \geq -90 dBm & RSRP \geq -110dBm. The details are as follows.

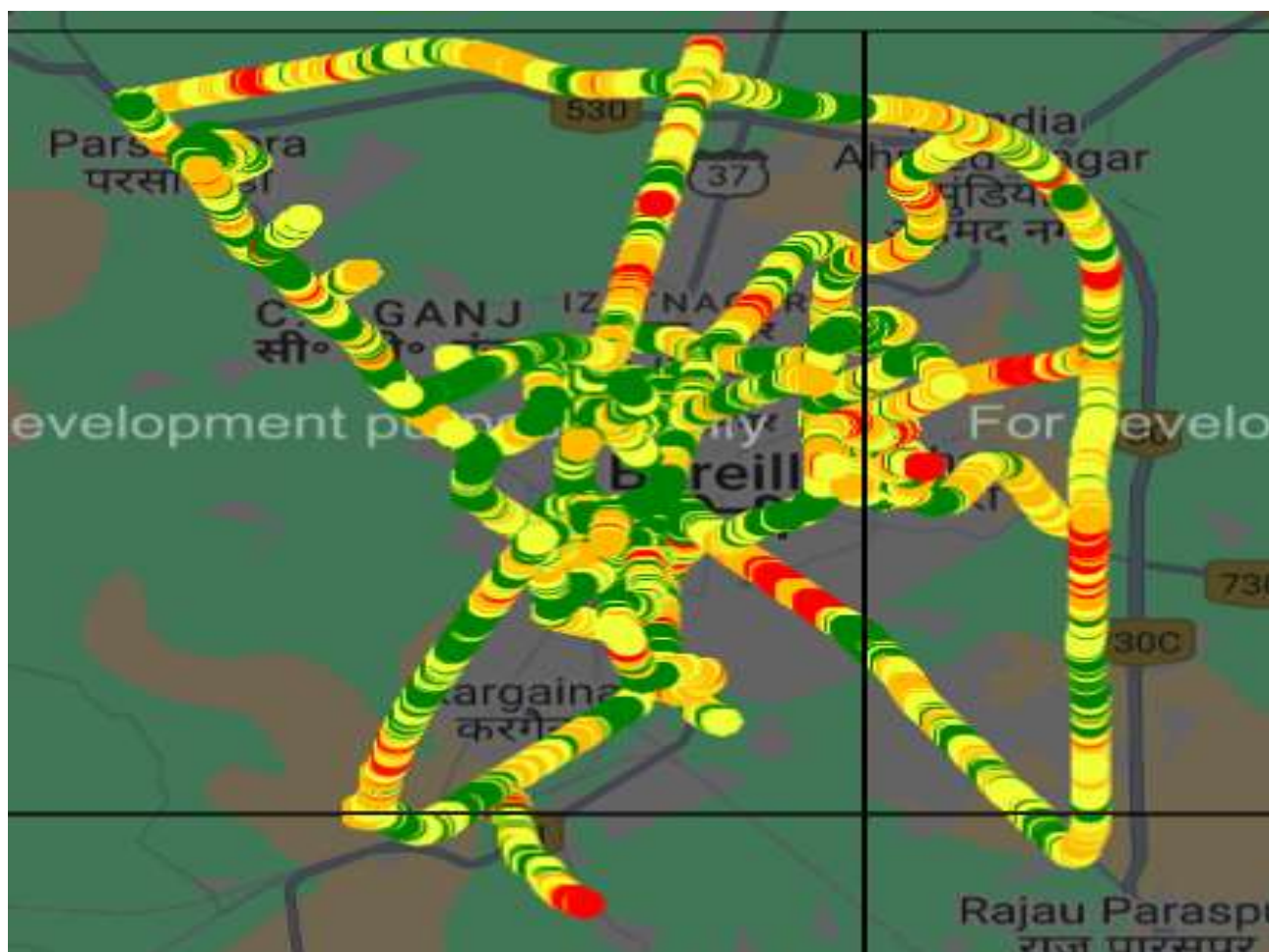
TSP	Coverage Rate %
Airtel 2G	95.46
BSNI 2G	95.68
VIL 2G	96.67
BSNL 3G	76.06
Airtel VoLTE	99.49
BSNL 4G	88.28
Jio VoLTE	99.89
VIL VoLTE	96.14



Coverage Details

TSP- AIRTEL

Technology	Coverage %
2G	95.46

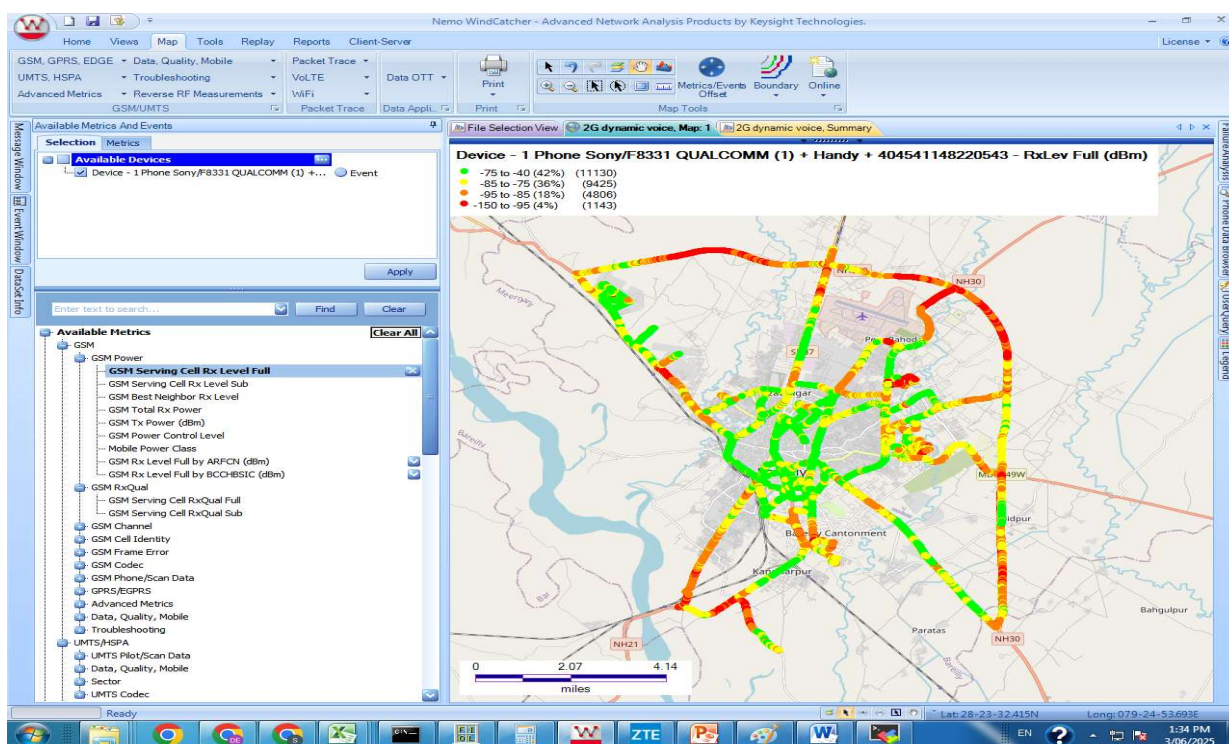


2G			
Overall RxLevel	# Samples	% PDF	Legends
[Max, >=-65]	6709	40.58	
[-65, >=-75)	5569	33.68	
[-75, >=-85)	3506	21.2	
[-85, >=Min)	751	4.54	
Total	16535	100	

Coverage Details

TSP-BSNL

Technology	Coverage %
2G	95.68

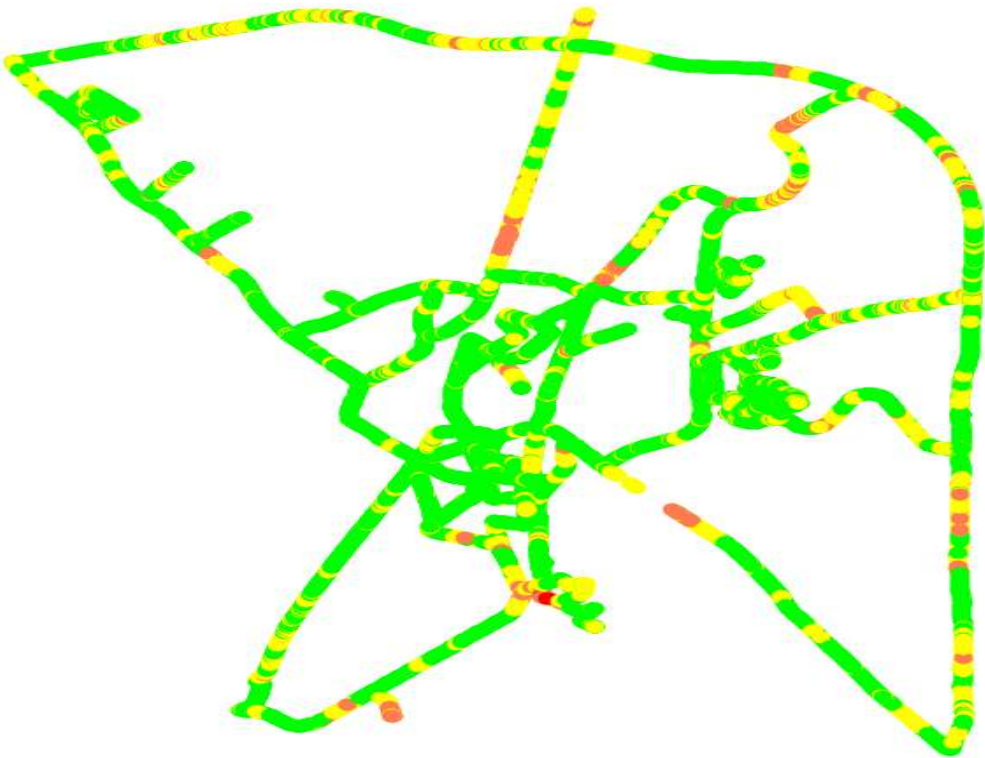


2G			
Overall RxLevel	# Samples	% PDF	Legends
[Max, >=-75]	11130	41.99	
[-75, >=-85)	9425	35.56	
[-85, >=-95)	4806	18.13	
[-95, >=Min)	1143	4.31	
Total	26504	100.00	

Coverage Details

TSP- VIL

Technology	Coverage %
2G	96.67



2G			
Overall RxLevel	# Samples	% PDF	Legends
[Max, >=-75]	16267	77.33	
[-75, >=-85)	4068	19.34	
[-85, >=-95)	693	3.29	
[-95, >=Min)	7	0.03	
Total	21035	100	

Coverage Details

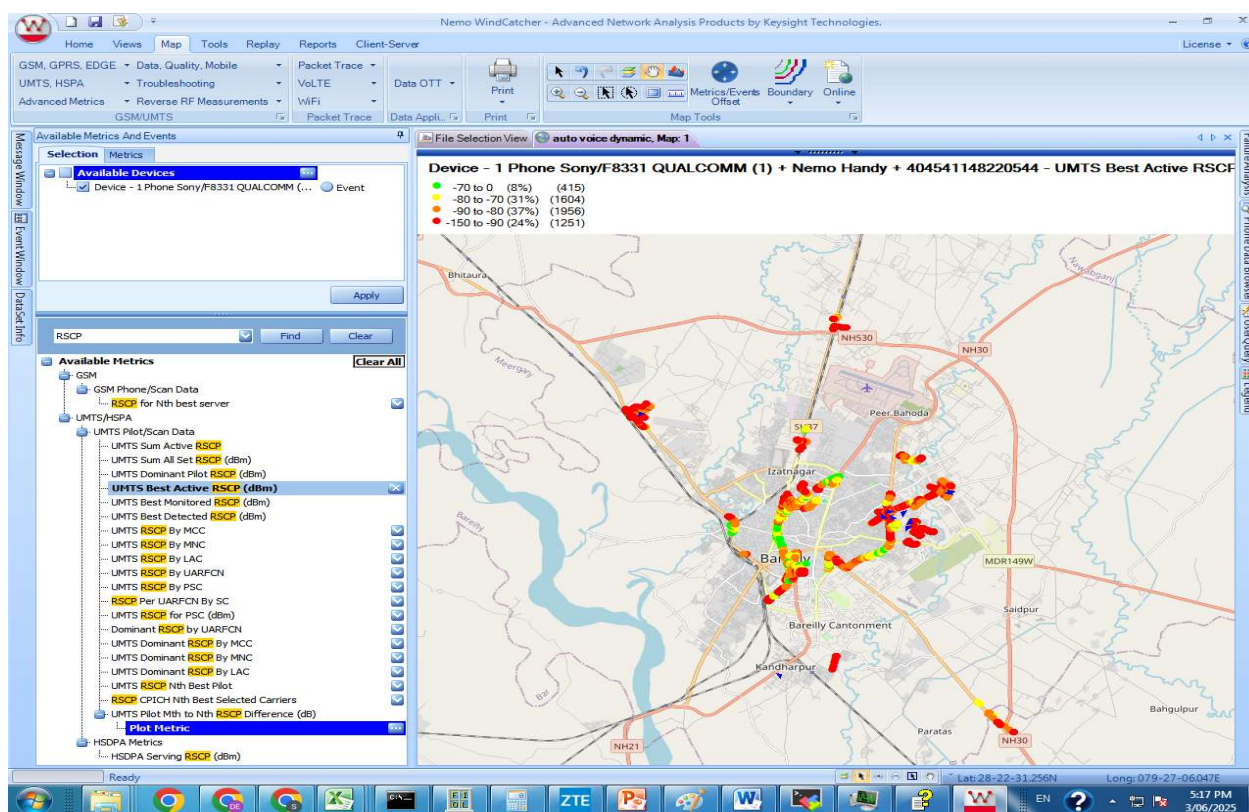
TSP- BSNL

Technology

3G

Coverage %

76.06

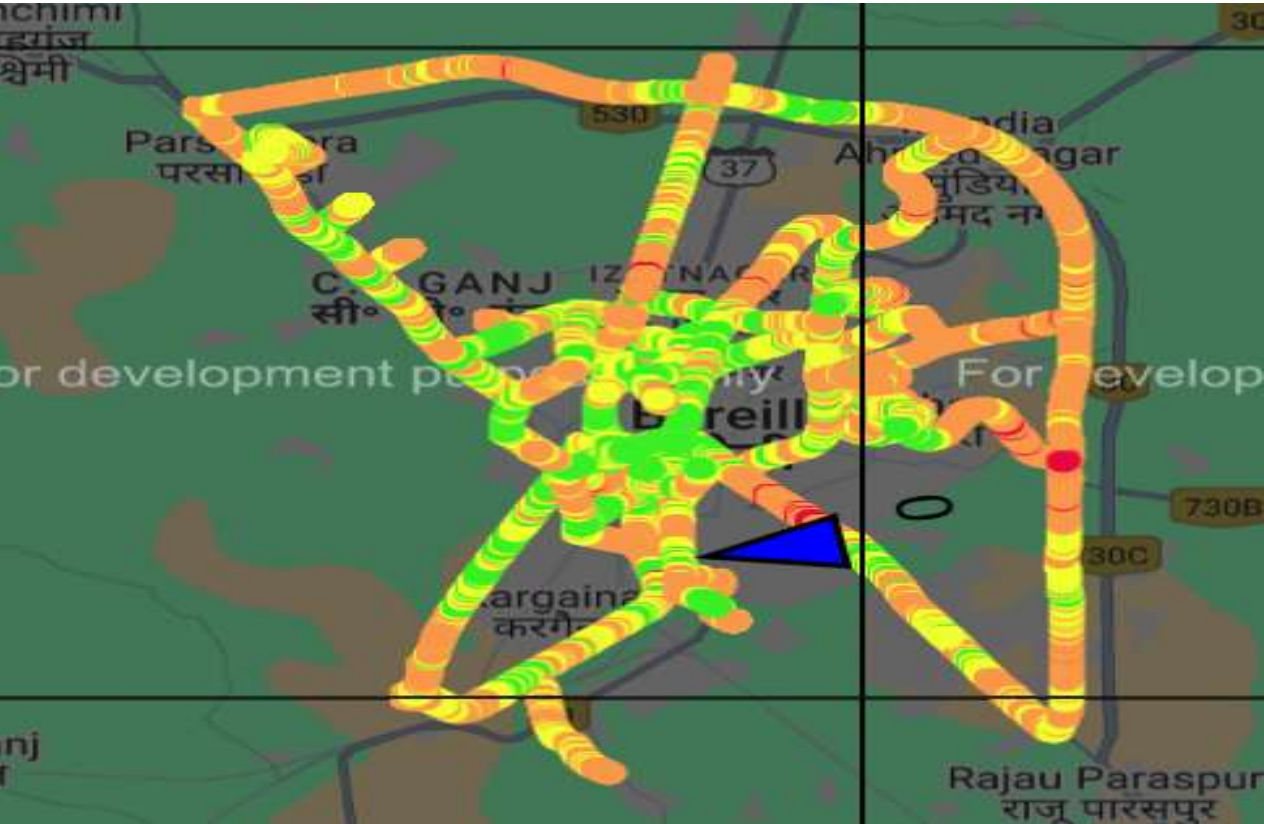


3G			
Overall RSCP	# Samples	% PDF	Legends
[Max, >=-70]	415	7.94	
[-70, >=-80)	1604	30.69	
[-80, >=-90)	1956	37.43	
[-90, >=Min)	1251	23.94	
Total	5226	100.00	

Coverage Details

TSP- AIRTEL

Technology	Coverage %
4G	99.49

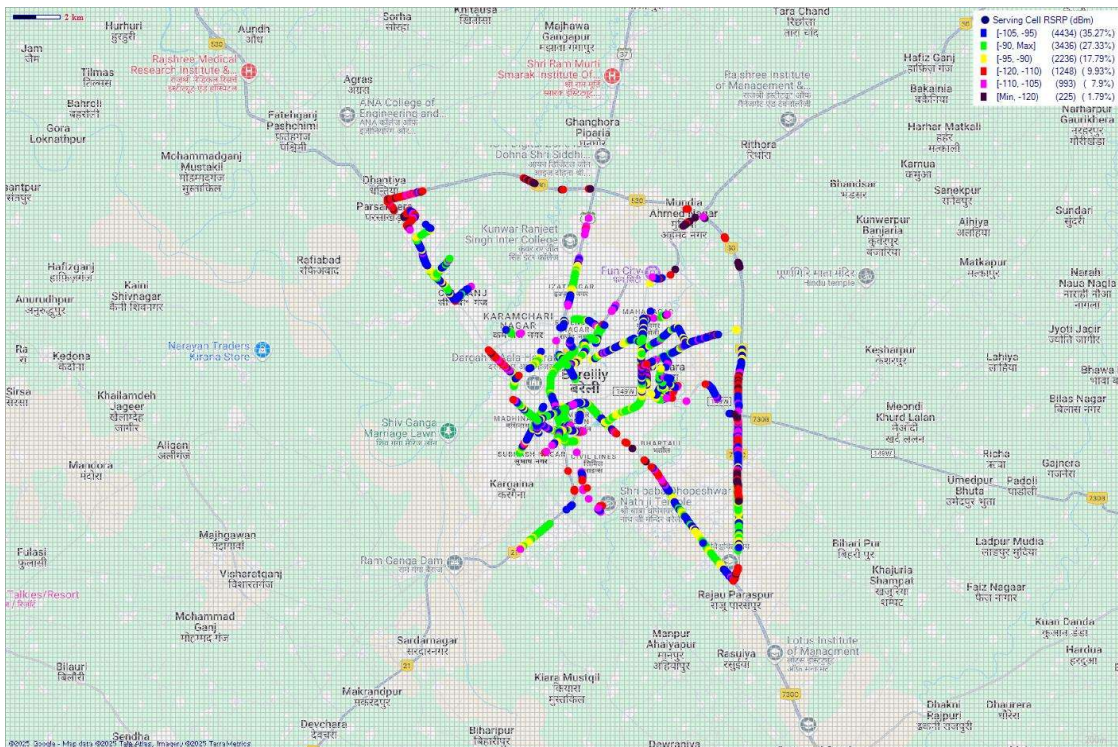


VoLTE /4G			
Overall RSRP	# Samples	% PDF	Legends
[Max, >=-80]	4465	27.19	
[-80, >=-90)	5778	35.18	
[-90, >=-110)	6190	37.12	
[-110, >=Min)	83	0.51	
Total	16516 ₂₃	100	

Coverage Details

TSP-BSNL

Technology	Coverage %
VoLTE	88.28

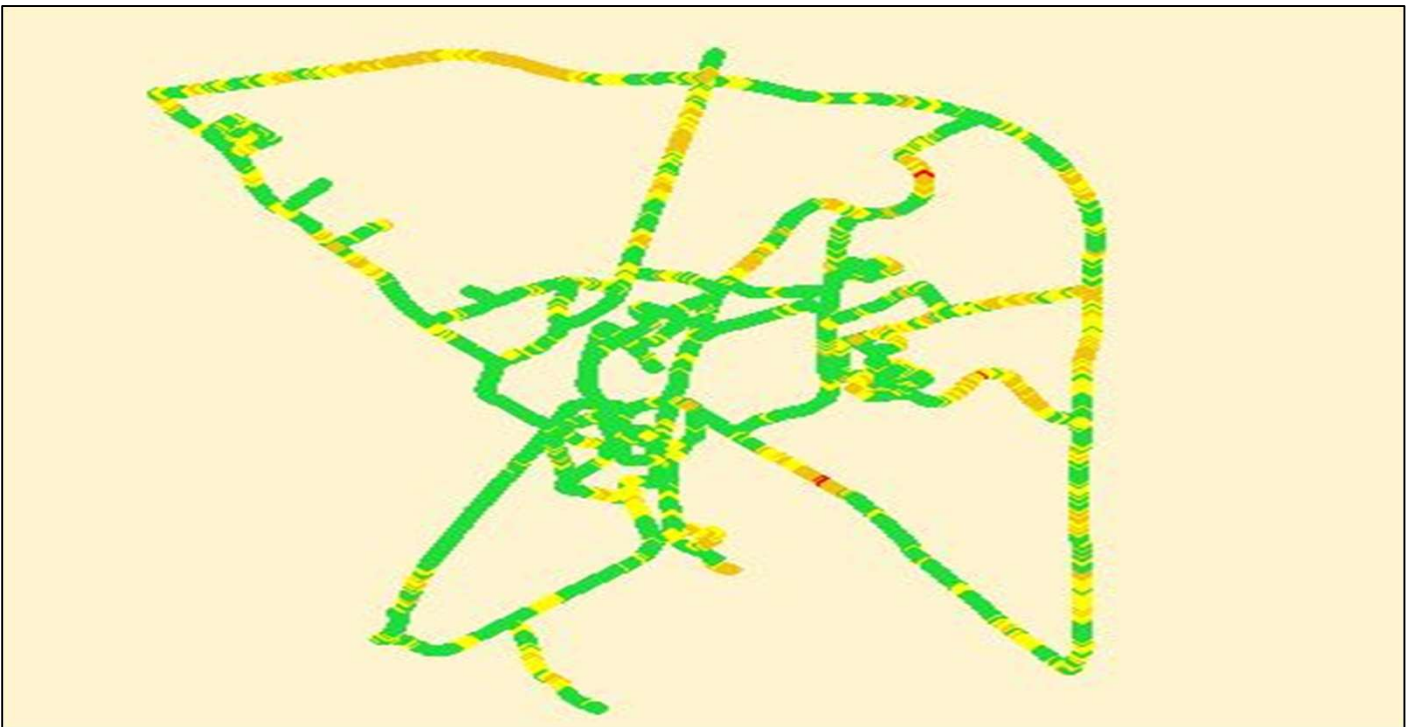


VoLTE			
Overall RSRP	# Samples	% PDF	Legends
[Max, >=-80]	2788	22.18	
[-80, >=-90]	648	5.15	
[-90, >=-110]	7663	60.95	
[-110, >=Min)	1473	11.72	
Total	12572	100	

Coverage Details

TSP-JIO

Technology	Coverage %
VoLTE	99.89



VoLTE			
Overall RSRP	# Samples	% PDF	Legends
[Max, >=-80]	22237	67.68	
[-80, >=-90)	7595	23.11	
[-90, >=-110)	2989	9.10	
[-110, >=Min)	37	0.11	
Total	32858	100	

Coverage Details

TSP- VIL

Technology	Coverage %
VoLTE	96.14

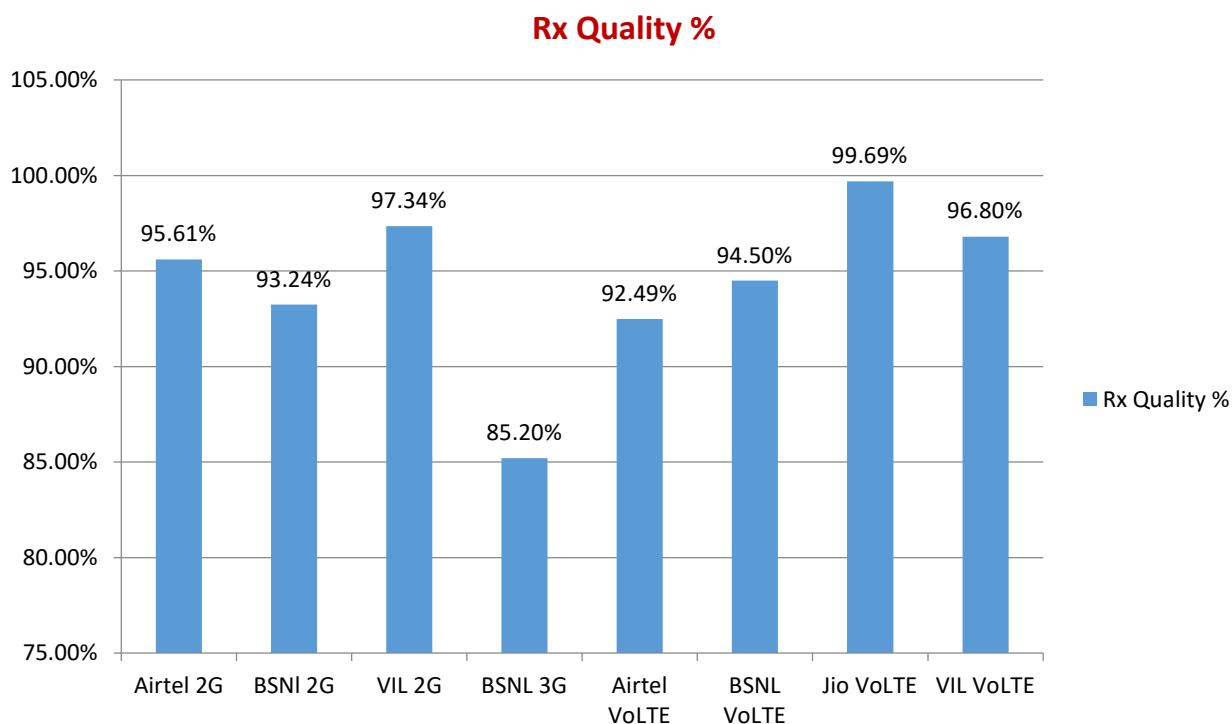


VoLTE			
Overall RSRP	# Samples	% PDF	Legends
[Max, >=-80]	4857	19.66	
[-80, >=-90)	7391	29.92	
[-90, >=-110)	11504	46.56	
[-110, >=Min)	954	3.86	
Total	24706	100	

Quality Details

For measuring voice quality, as per the QoS norms, RxQual ≤ 5 for GSM TSPs, EcNo ≥ -14 dBm for 3G TSP and SINR > -6 in case of VoLTE is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be $\geq 95\%$.

TSP	Rx Quality %
Airtel 2G	95.61
BSNI 2G	93.24
VIL 2G	97.34
BSNL 3G	85.2
Airtel VoLTE	92.49
BSNL 4G	94.50
Jio VoLTE	99.69
VIL VoLTE	96.80

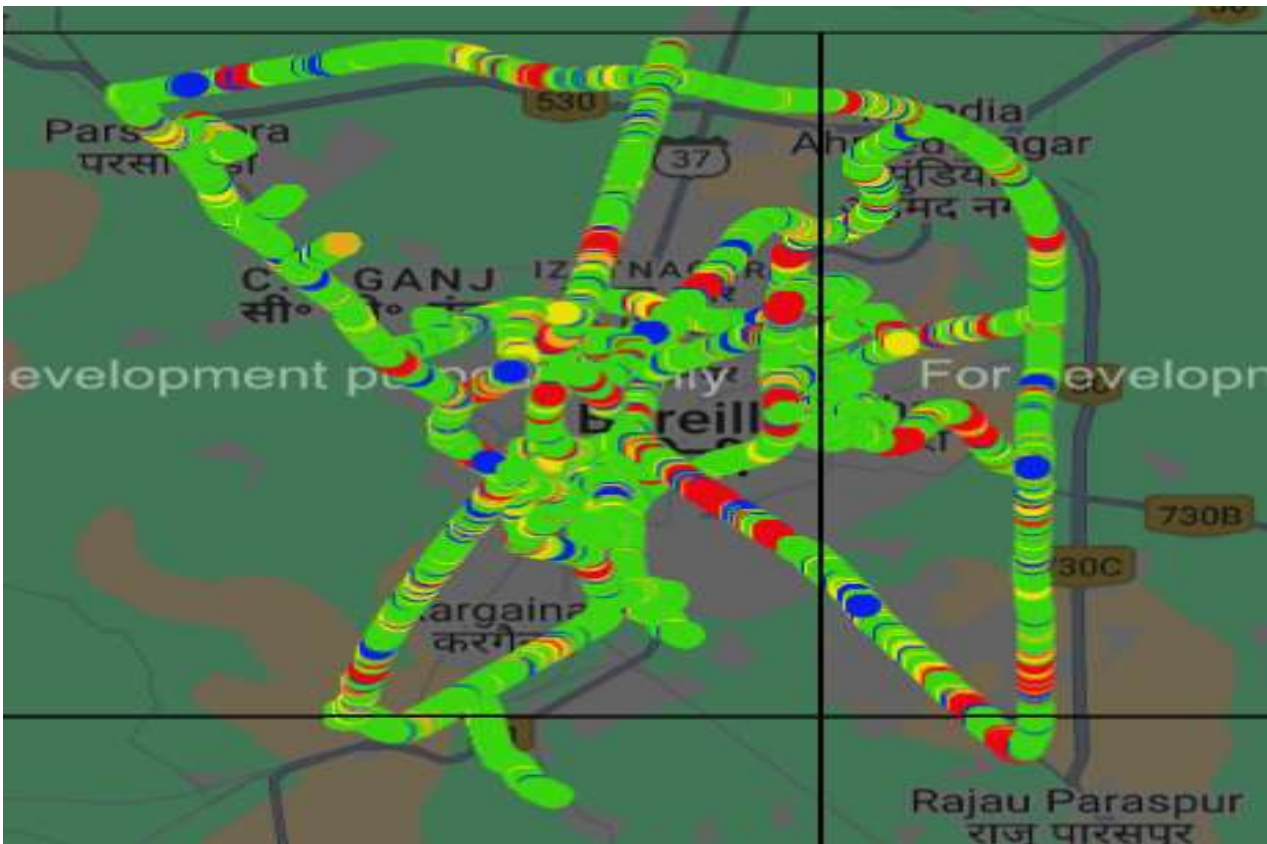


Quality Details

For measuring voice quality, as per the QoS norms, RxQual ≤ 5 for GSM TSPs, EcNo ≥ -14 dBm for 3G TSP sand SINR > 0 in case of VoLTE /5G is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be $\geq 95\%$.

TSP- AIRTEL

Technology	Rx Quality %
2G	95.61



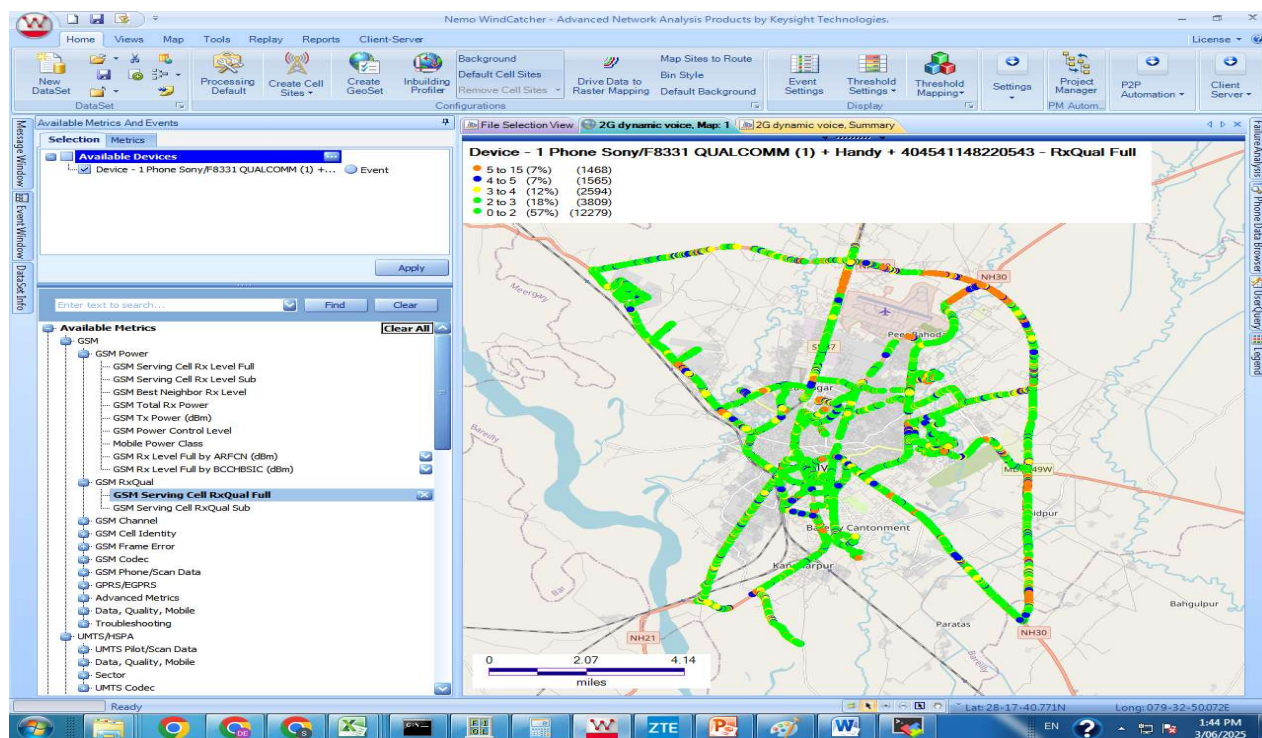
Overall Rx Quality	# Samples	% PDF	Legends
(Min, ≤ 2)	10593	74.38	
(2, ≤ 3)	1258	8.83	
(3, ≤ 4)	1161	8.14	
(4, ≤ 5)	608	4.26	
(5, $\leq \text{Max}$)	626	4.39	
Total	14246	100	

Quality Details

For measuring voice quality, as per the QoS norms, RxQual ≤ 5 for GSM TSPs, EcNo ≥ -14 dBm for 3G TSP and SINR > 0 in case of VoLTE is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be $\geq 95\%$.

TSP-BSNL

Technology	Rx Quality %
2G	93.24



Overall Rx Quality	# Samples	% PDF	Legends
(Min, ≤ 2)	12279	56.55	
(2, ≤ 3)	3809	17.54	
(3, ≤ 4)	2594	11.95	
(4, ≤ 5)	1565	7.21	
(5, $\leq \text{Max}$)	1468	6.76	
Total	21715	100.00	

Quality Details

For measuring voice quality, as per the QoS norms, RxQual ≤ 5 for GSM TSPs, EcNo ≥ -14 dBm for 3G TSP and SINR > 0 in case of VoLTE is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be $\geq 95\%$.

TSP- VIL

Technology	Rx Quality %
2G	97.34



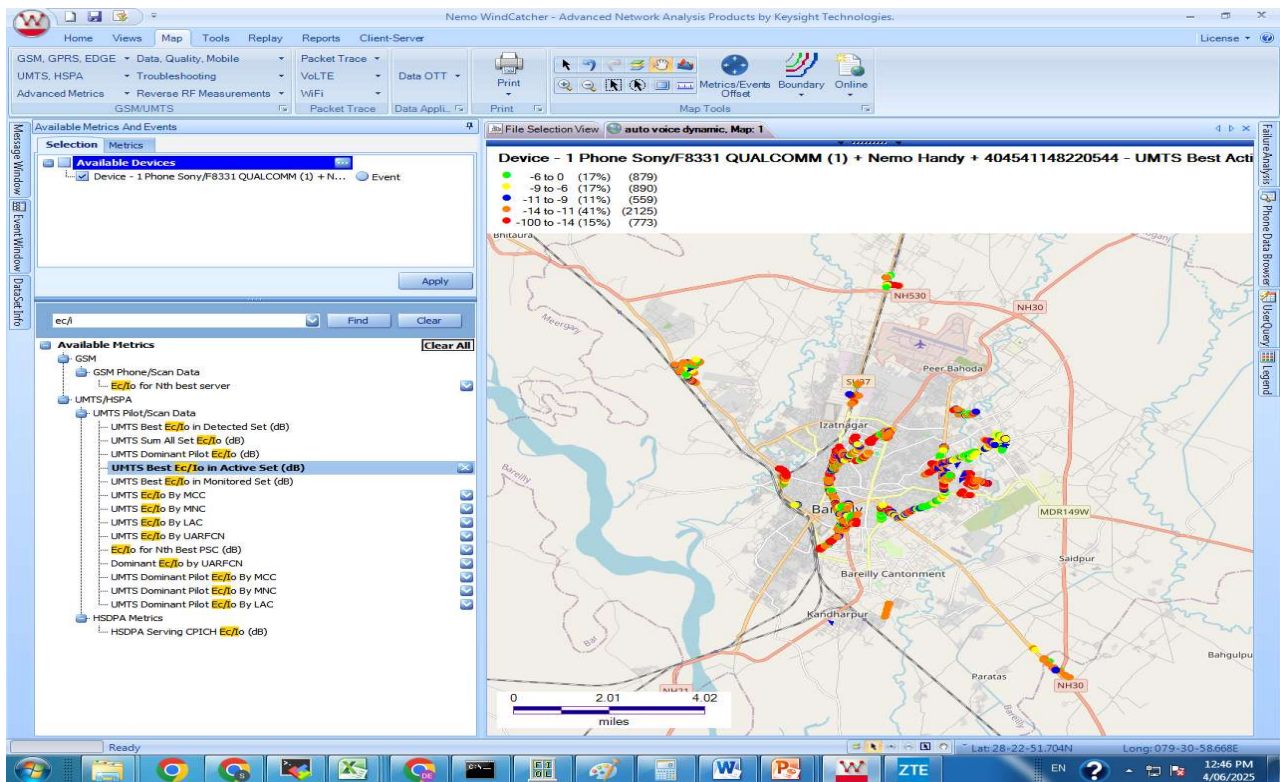
Overall Rx Quality	# Samples	% PDF	Legends
(Min, ≤ 2)	15749	86.89	
(2, ≤ 3)	759	4.19	
(3, ≤ 4)	751	4.14	
(4, ≤ 5)	385	2.12	
(5, $\leq \text{Max}$)	482	2.66	
Total	18126	100.00	

Quality Details

For measuring voice quality, as per the QoS norms, RxQual ≤ 5 for GSM TSPs, EcNo ≥ -14 dBm for 3G TSP sand SINR > 0 in case of VoLTE is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be $\geq 95\%$.

TSP-BSNL

Technology	Rx Quality %
3G	85.21



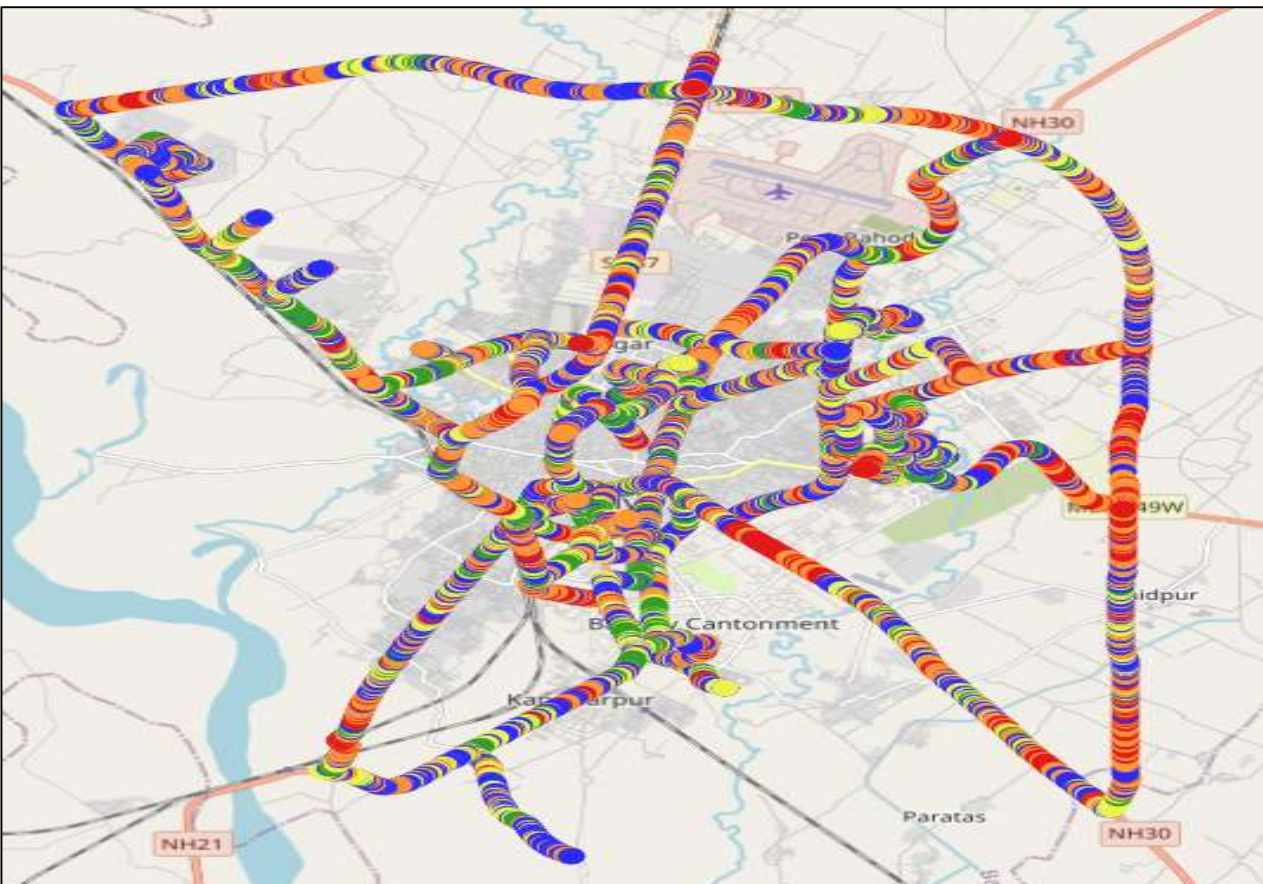
Overall Ec/No	# Samples	% PDF	Legends
(Max, ≤ -6)	879	16.82	
(-6, ≤ -9)	890	17.03	
(-9, ≤ -11)	559	10.70	
(-11, ≤ -14)	2125	40.66	
(-14, \leq Min)	773	14.79	
Total	5226	100.00	

Quality Details

For measuring voice quality, as per the QoS norms, RxQual ≤ 5 for GSM TSPs, EcNo ≥ -14 dBm for 3G TSP and SINR > 0 in case of VoLTE /5G is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be $\geq 95\%$.

TSP- AIRTEL

Technology	Rx Quality %
4G	92.49%



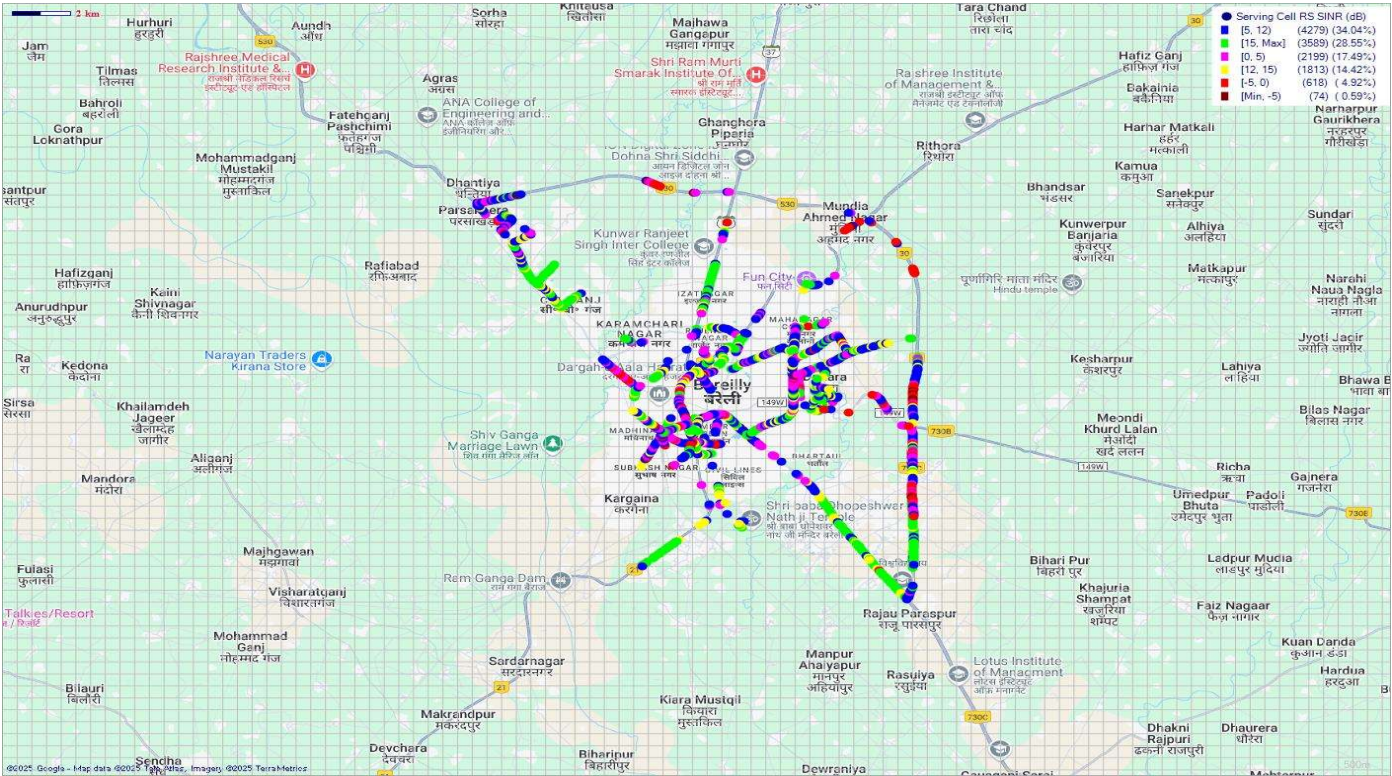
Overall SINR	# Samples	% PDF	Legends
(Min, ≤ 0)	1228	7.51	
(0, ≤ 5)	4272	26.14	
(5, ≤ 10)	4652	28.47	
(10, ≤ 15)	3620	22.15	
(15, \leq Max)	2506	15.73	
Total	16338	100	

Quality Details

For measuring voice quality, as per the QoS norms, RxQual <=5 for GSM TSPs, EcNo >= -14 dBm for 3G TSP sand SINR >0 in case of VoLTE is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be ≥ 95%.

TSP- BSNL

Technology	Rx Quality %
VoLTE	94.49



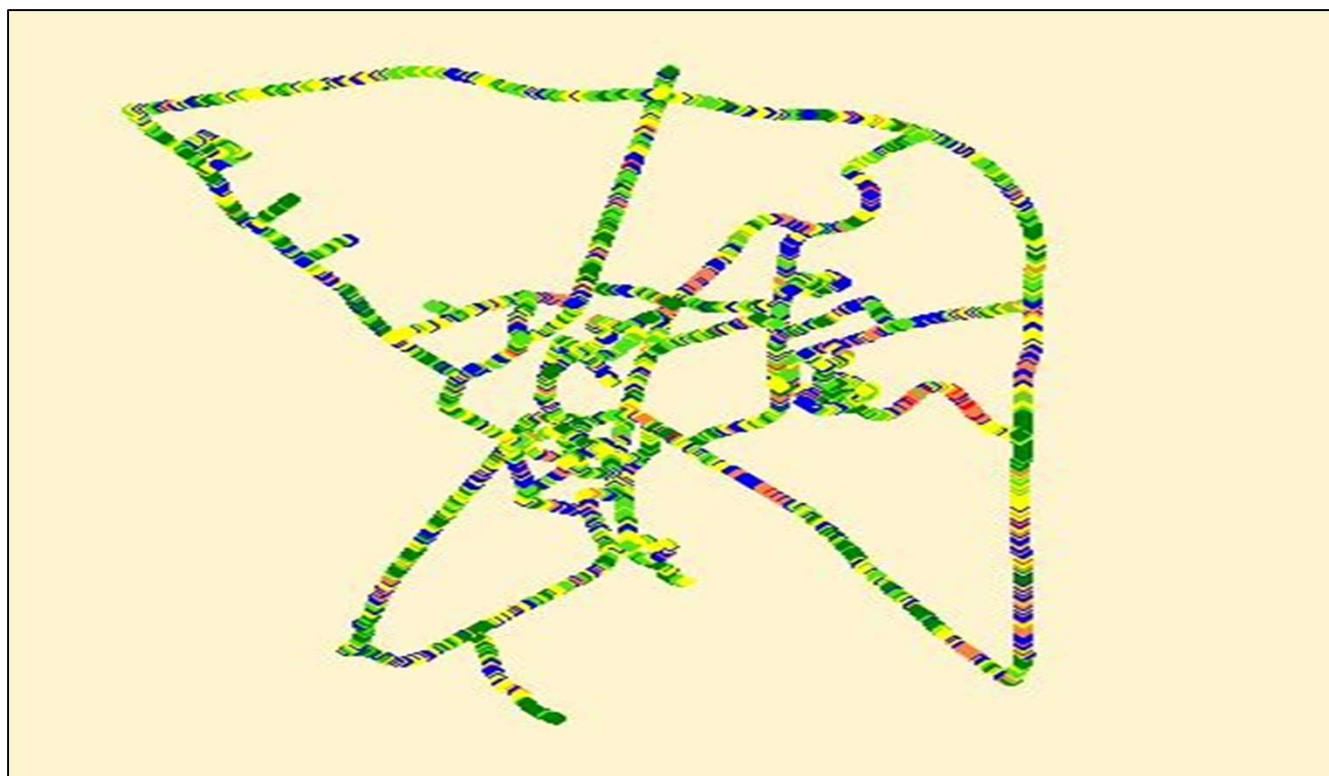
Overall SINR	# Samples	% PDF	Legends
(Min, <=0)	692	5.50	
(0, <=5)	2199	17.49	
(5, <=10)	3511	27.93	
(10, <=15)	2581	20.53	
(15, <=Max)	3589	28.55	
Total	12572	100	

Quality Details

For measuring voice quality, as per the QoS norms, RxQual ≤ 5 for GSM TSPs, EcNo ≥ -14 dBm for 3G TSP and SINR > -6 in case of VoLTE is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be $\geq 95\%$.

TSP-JIO

Technology	Rx Quality %
VoLTE	99.69



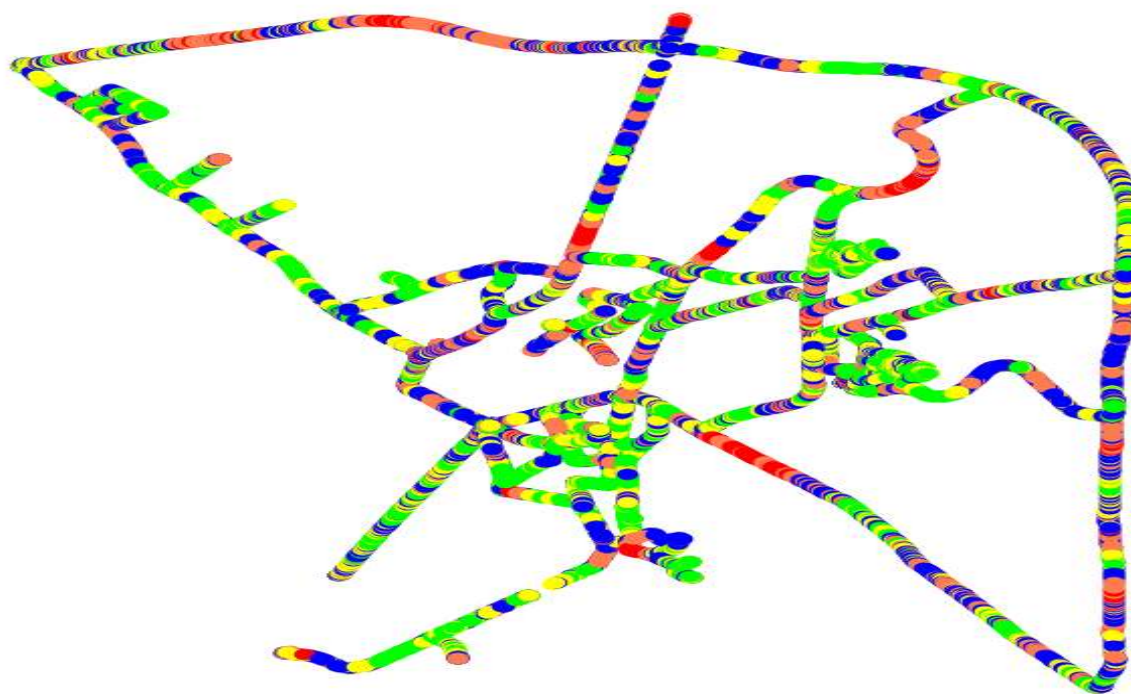
Overall SINR	# Samples	% PDF	Legends
(Min, < -6)	101	0.31	
(-6 , ≤ 0)	1760	5.36	
(0 , ≤ 5)	6185	18.82	
(5 , ≤ 10)	10083	30.69	
(10 , ≤ 15)	8297	25.25	
(15 , $\leq \text{Max}$)	6432	19.58	
Total	32858	100.00	

Quality Details

For measuring voice quality, as per the QoS norms, RxQual ≤ 5 for GSM TSPs, EcNo ≥ -14 dBm for 3G TSP and SINR > 0 in case of VoLTE is considered to be good, where as quality beyond this benchmark is considered to be bad. The benchmark should usually be $\geq 95\%$.

TSP- VIL

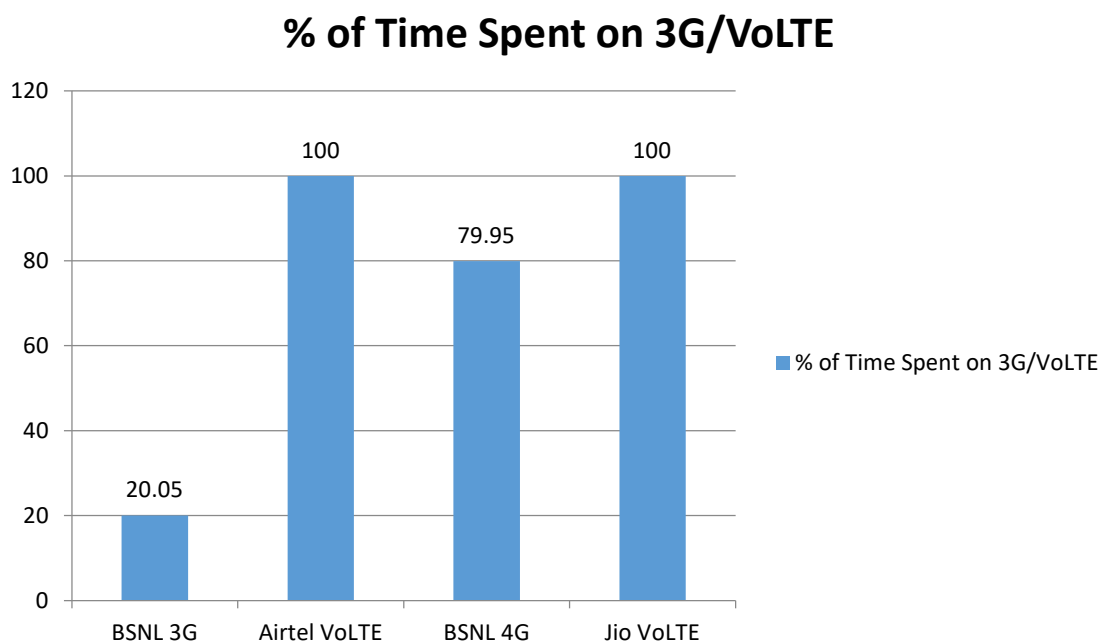
Technology	Rx Quality %
VoLTE	96.80



Overall SINR	# Samples	% PDF	Legends
(Min, ≤ 0)	789	3.20	
(0, ≤ 5)	2971	12.06	
(5, ≤ 10)	5896	23.93	
(10, ≤ 15)	6362	25.82	
(15, $\leq \text{Max}$)	8623	34.99	
Total	24641	100	

Technology Details

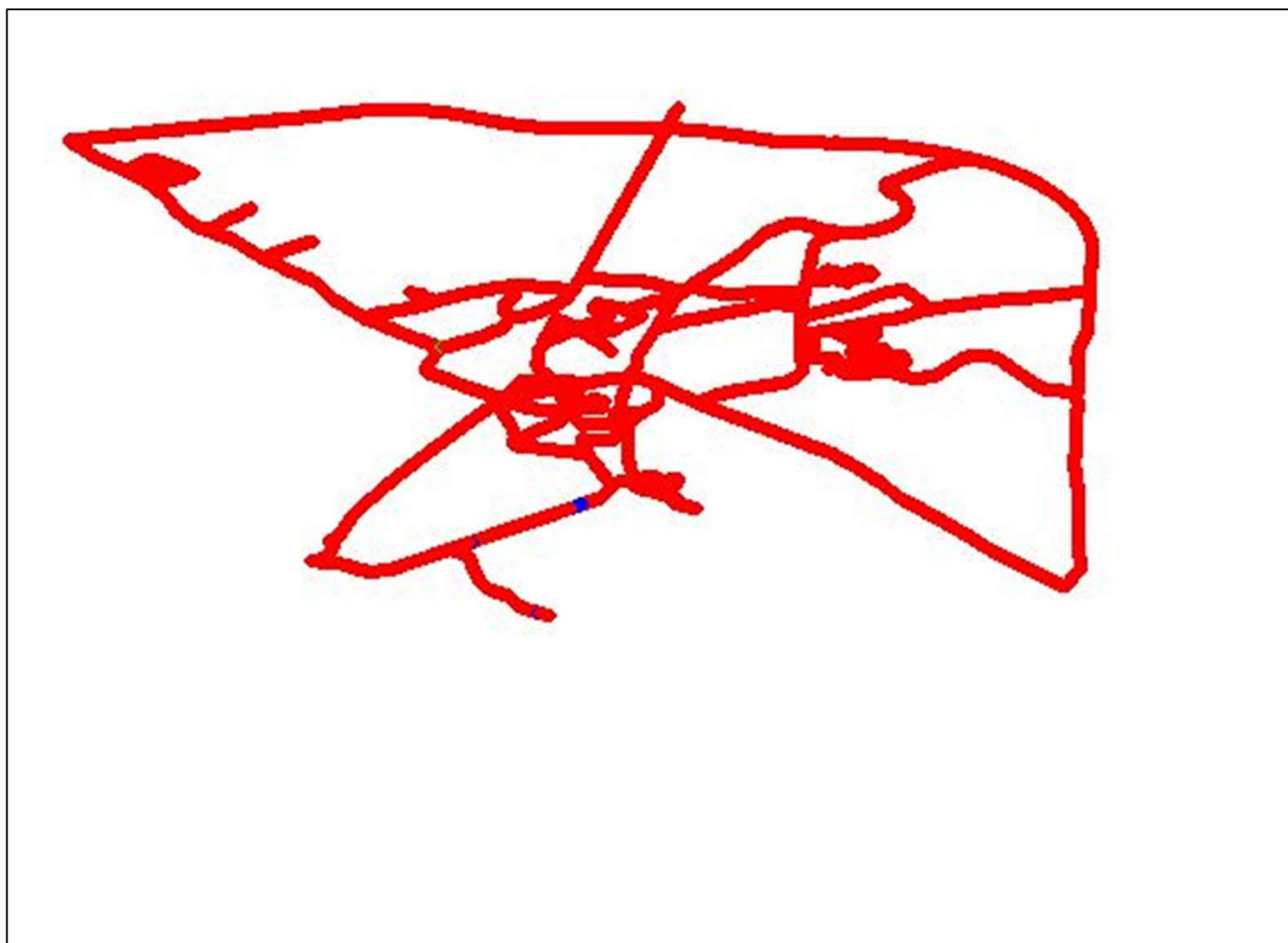
TSP	% of Time Spent on 3G/VoLTE
BSNL 3G	20.05
Airtel VoLTE	100
BSNL 4G	79.95
Jio VoLTE	100
VIL VoLTE	100



Technology Details

TSP-JIO

Technology	% of Time Spent on
3G	
VoLTE	100



Technology Details

TSP- VIL

Technology	% of Time Spent on
3G	
VoLTE	100

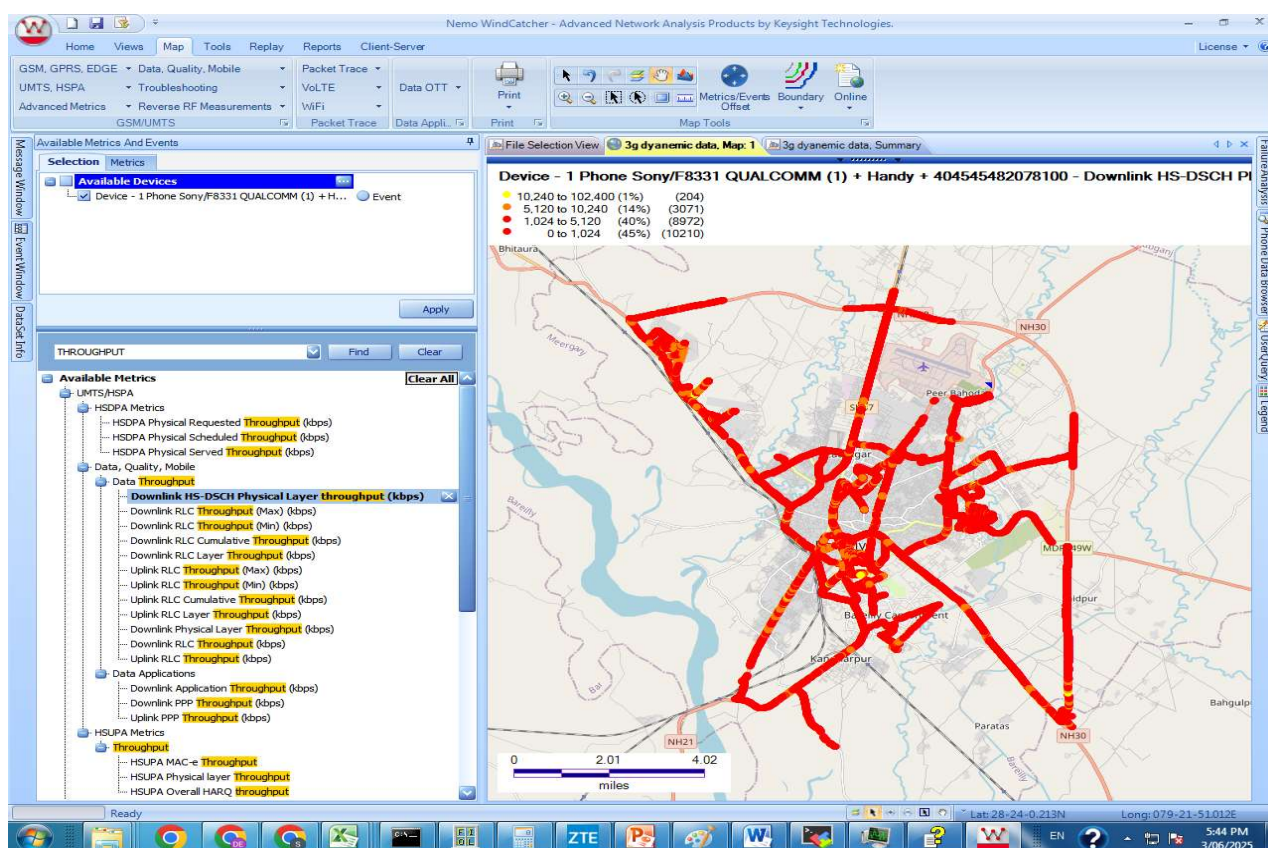


Dynamic Data Test

TSP- BSNL

Data Statistics - Dynamic data testing

Data KPIs - Overall	3G
Download Throughput (Mbps)	2.98



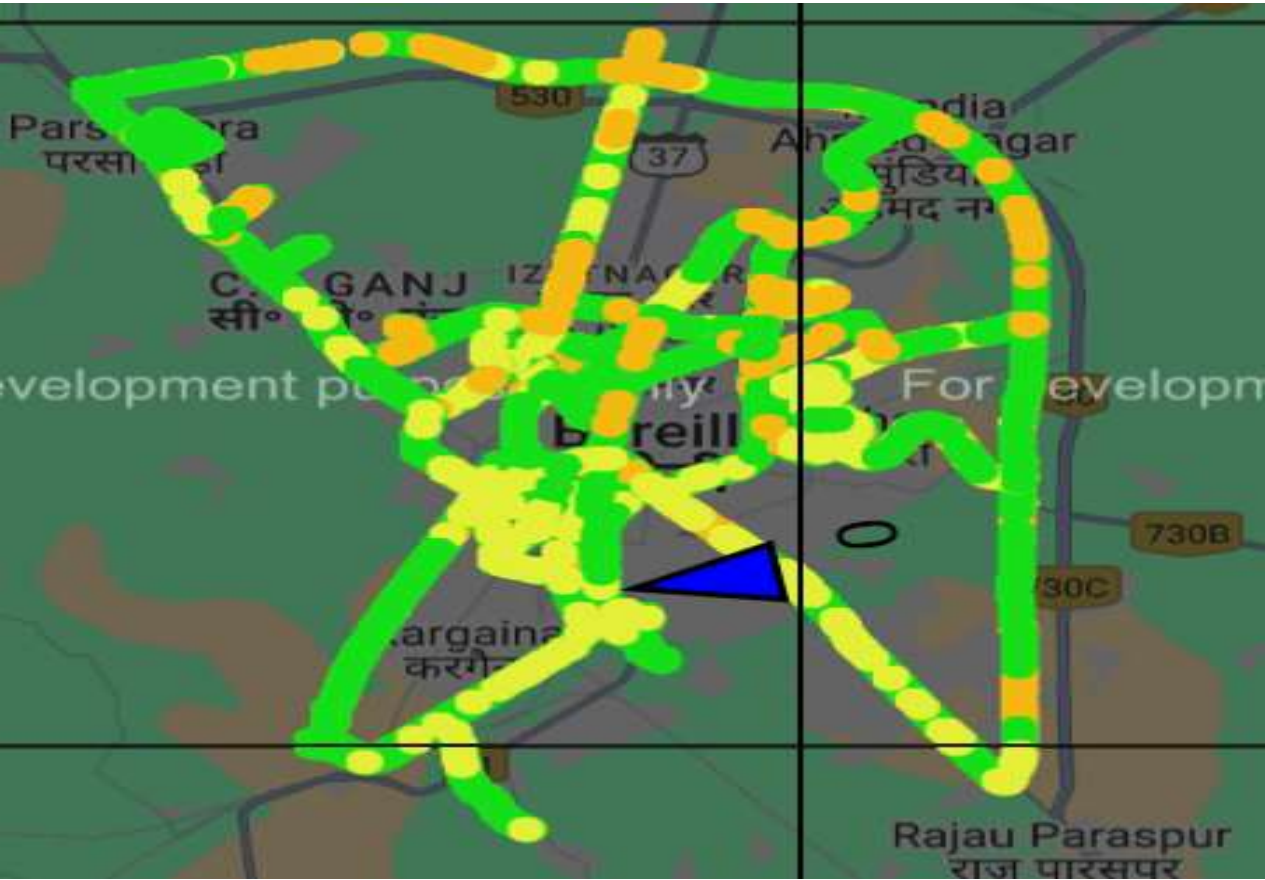
DL throughput	No of Sample	%	Legends
< 1 Mbps	10210	45.46	
1-5 Mbps	8972	39.95	
5-10 Mbps	3071	13.68	
>10Mbps	204	0.91	

Dynamic Data Test

TSP- AIRTEL

Data Statistics - Dynamic data testing -280 Kms

Data KPIs - Overall	LTE /5G
Download Throughput (Mbps)	28.01



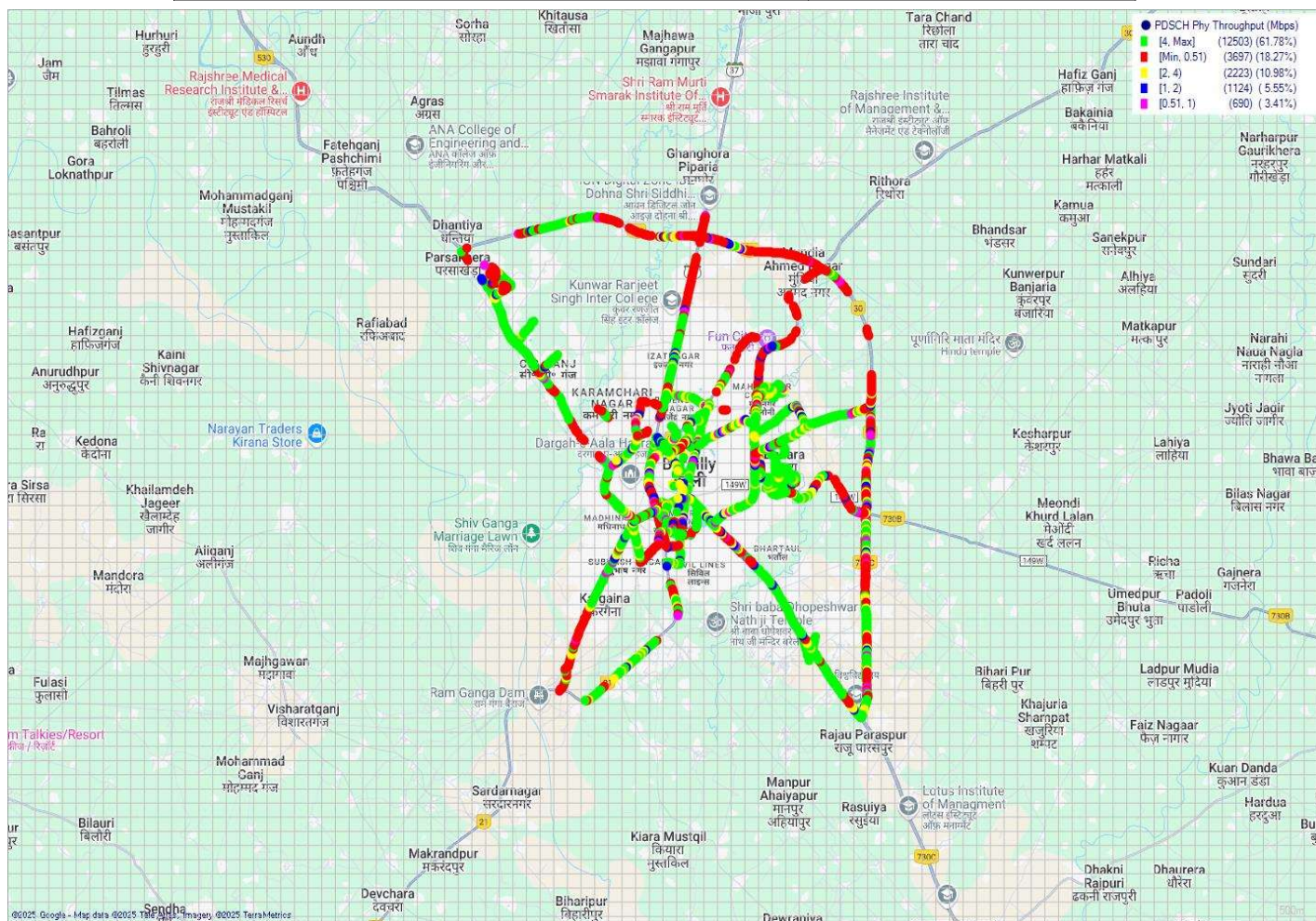
DL throughput	No. of Sample	%	Legends
< 2Mbps	1189	7.93	
2-5 Mbps	861	5.74	
5-10 Mbps	1467	9.79	
>10Mbps	11475	76.54	
	14992	100.00	

Dynamic Data Test

TSP- BSNL

Data Statistics - Dynamic data testing

Data KPIs - Overall	LTE
Download Throughput (Mbps)	6.7



DL throughput	No of Sample	%	Legends
< 2Mbps	5511	27.23	
2-5 Mbps	3576	17.67	
5-10 Mbps	6418	31.71	
>10Mbps	4732	23.38	

Dynamic Data Test

TSP-JIO

Data Statistics - Dynamic data testing

Data KPIs - Overall	LTE
Download Throughput (Mbps)	9.45



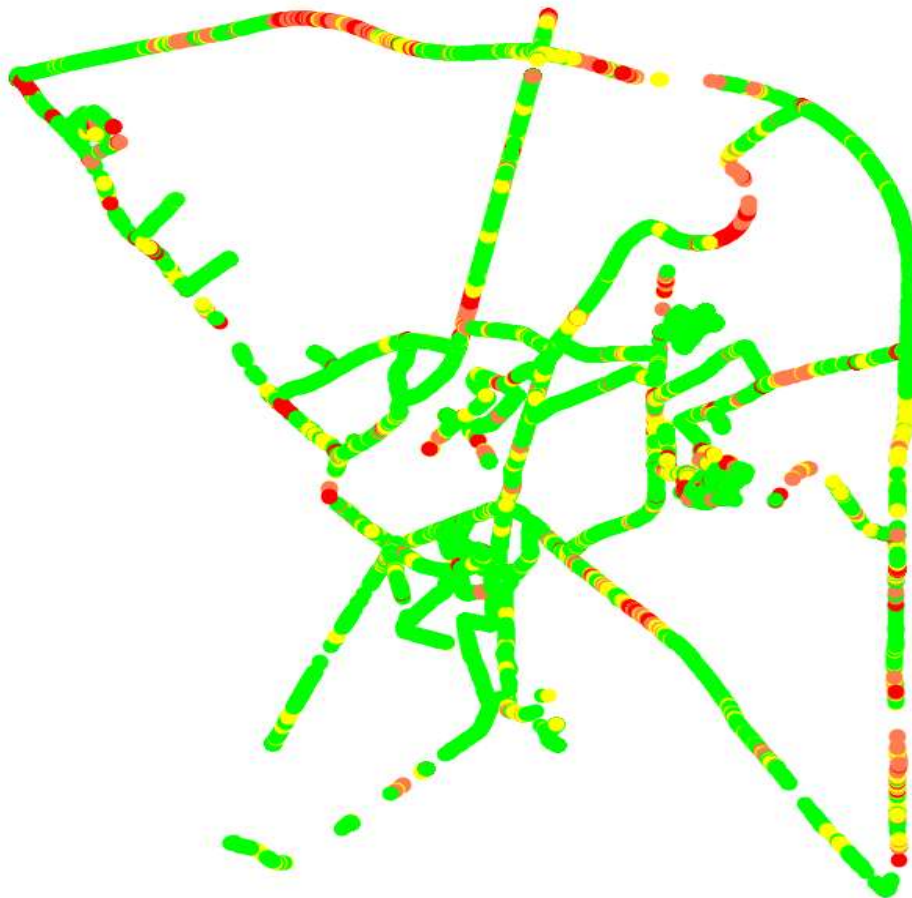
DL throughput	No of Sample	%	Legends
< 2Mbps	9815	32.89	Red
2-5 Mbps	3086	10.34	Orange
5-10 Mbps	5817	19.49	Yellow
>10Mbps	11122	37.27	Green

Dynamic Data Test

TSP- VIL

Data Statistics - Dynamic data testing

Data KPIs - Overall	LTE
Download Throughput (Mbps)	31.85



DL throughput	No of Sample	%	Legends
< 2Mbps	825	4.24	
2-5 Mbps	783	4.02	
5-10 Mbps	2033	10.44	
>10Mbps	15835	81.31	

Data testing on hotspots using traимyspeed app

Hotspot		Airtel	BSNL	JIO	VIL
1. Mahatma Jyotiba Phule Rohilkhand University	3G download in Mbps	NA	8.86	NA	NA
	3G upload in Mbps	NA	1.99	NA	NA
	4G download in Mbps	47.46	11.04	34.57	26.89
	4G upload in Mbps	6.16	21.21	7.77	17.68
	5G download in Mbps	NA	NA	NA	NA
	5G upload in Mbps	NA	NA	NA	NA
2. Bareilly City Railway Station	3G download in Mbps	NA	1.27	NA	NA
	3G upload in Mbps	NA	1.02	NA	NA
	4G download in Mbps	12.05	10.00	47.37	23.42
	4G upload in Mbps	3.67	9.10	4.85	3.43
	5G download in Mbps	NA	NA	NA	NA
	5G upload in Mbps	NA	NA	NA	NA

Data testing on hotspots using traимyspeed app

Hotspot		Airtel	BSNL	JIO	VIL
3. Bareilly Satellite Bus Stand	3G download in Mbps	NA	2.88	NA	NA
	3G upload in Mbps	NA	1.53	NA	NA
	4G download in Mbps	270.79	10.61	50.39	32.22
	4G upload in Mbps	55.33	18.34	6.10	6.3
	5G download in Mbps	NA	NA	NA	NA
	5G upload in Mbps	NA	NA	NA	NA
4. Bareilly College, Rampur Garden	3G download in Mbps	NA	4.87	NA	NA
	3G upload in Mbps	NA	1.72	NA	NA
	4G download in Mbps	23.04	11.78	25.15	32.73
	4G upload in Mbps	18.94	18.10	11.66	11.71
	5G download in Mbps	NA	NA	NA	NA
	5G upload in Mbps	NA	NA	NA	NA

Data testing on hotspots using traимyspeed app

Hotspot		Airtel	BSNL	JIO	VIL
5. Bareilly Junction Railway Station	3G download in Mbps	NA	2.37	NA	NA
	3G upload in Mbps	NA	1.43	NA	NA
	4G download in Mbps	28.59	10.86	47.07	40.08
	4G upload in Mbps	18.0	10.10	10.52	17.34
	5G download in Mbps	NA	NA	NA	NA
	5G upload in Mbps	NA	NA	NA	NA
6. Shri Baba Trivati Nath ji Mandir	3G download in Mbps	NA	1.88	NA	NA
	3G upload in Mbps	NA	1.67	NA	NA
	4G download in Mbps	11.27	17.11	87.51	35.88
	4G upload in Mbps	17.40	17.74	9.07	9.76
	5G download in Mbps	NA	NA	NA	NA
	5G upload in Mbps	NA	NA	NA	NA

Data testing on hotspots using traимyspeed app

Hotspot		Airtel	BSNL	JIO	VIL
7. Baba shri Alakhnath ji Temple	3G download in Mbps	NA	2.87	NA	NA
	3G upload in Mbps	NA	1.68	NA	NA
	4G download in Mbps	14.6	8.22	25.61	33.55
	4G upload in Mbps	7.08	7.35	7.99	0.78
	5G download in Mbps	NA	NA	NA	NA
	5G upload in Mbps	NA	NA	NA	NA