Operator Assisted Drive Test Report
Ranchi & Lohardaga Districts, Jharkhand
June, 2024
(RO, Kolkata)

Key Performance Indicators (KPIs):

The following TSPs could not meet the KPIs benchmark as stated below—

AIRTEL- Rx Quality in 4G (SINR) network.

BSNL-Drop Call Rate in 2G & 3G network, Rx Quality in 2G & 3G (Ec/Io) network.

RJIO-Rx Quality in 4G (SINR) network.

VIL- Rx Quality in 4G (SINR) network.

The Operator Assisted Drive Test has been carried out by Regional Office, Kolkata with the help of Service Providers in Ranchi & Lohardaga Districts and surrounding areas including National Highways 39 & 143A on 13th and 14th June 2024 from 08.30 AM to 07.30 PM. The drive test covered drive route of 408 KMs (approx) over a period of two days. Approximately 388 + calls were made for each of the 7 networks: three 2G networks, one 3G network and three 4G networks covering four TSPs.

| Overview | Voice Summary | Data Summary |

Overview

Ranchi district is the most populous district of Jharkhand state in eastern India. Ranchi the capital of Jharkhand, is the district headquarters. It was established as a district in 1899.

Lohardaga district is one of the twenty-four districts of the Indian state of Jharkhand. The district is named after the town of Lohardaga, the administrative headquarters of the district. The district was created from a portion of Ranchi district in 1983

The test results obtained from these drive tests were utilized to assess the network quality for Voice and Data services in terms of:

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

Data: Download Throughputs and Data File Success Rate.

Voice Tests: Calls were made for 90 secs duration with wait time of 5 secs between call in all technologies. Three 2G networks, one 3G network, Three 4G networks covering 4 unique TSPs were tested.

Data Tests: Dynamic Data Service Testing was performed along same route in all technologies. 500 KB file for 2G, 20MB file for 3G and 40MB file for 4G were downloaded from FTTP server in TSP's own server. Static Data Service Testing was also performed. Three 2G (Lock Mode) networks, one 3G (Lock Mode) network, Three LTE (Lock Mode) networks covering 4 unique TSPs were tested.

Service	Static Data Service Testing- Specifications
Download	2G (Locked) - 500KB, 3G (Locked) - 20 MB, 4G (Locked) - 40 MB
Upload	2G (Locked) - 100KB, 3G (Locked) - 5 MB, 4G (Locked) - 10 MB
Web Browsing	3 links of e/m commerce website www.amazon.in, www.flipkart.com and PayTm
Video Steaming	130 secs Clip
Latency	32 Bytes on www.google.com

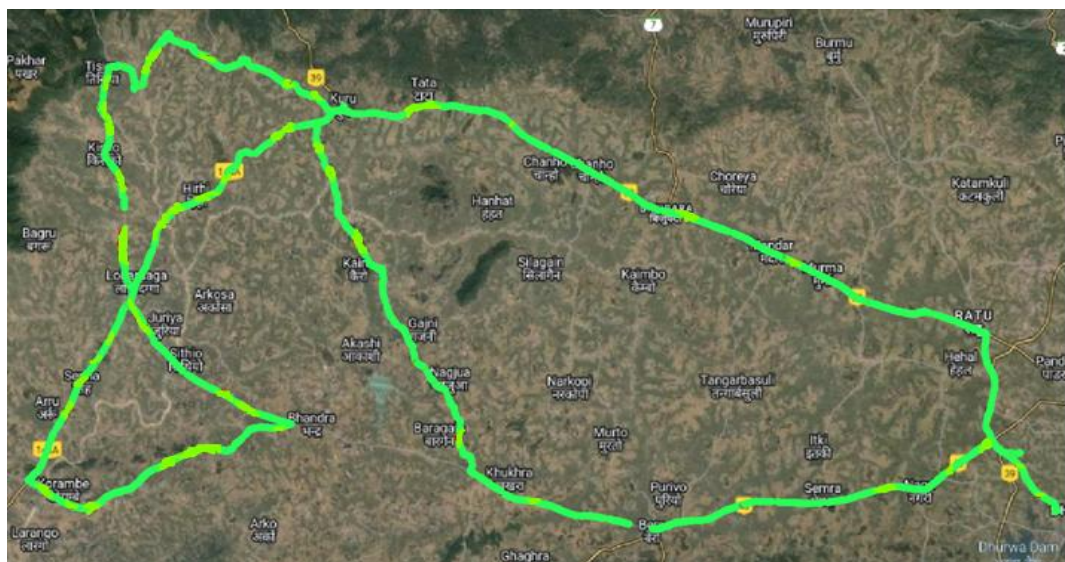| Technology/ TSP	AIRTEL	BSNL	RJIO	VODAFONE-IDEA
2G	YES	YES	NO	YES
3G	NO	YES	NO	NO
4G	YES	NO	YES	YES
TOOL USED	TEMS	NIMO	X-CAL	TEMS

Overview

Voice & Dynamic Data Test Drive Route

DRIVE ROUTE-DAY 1
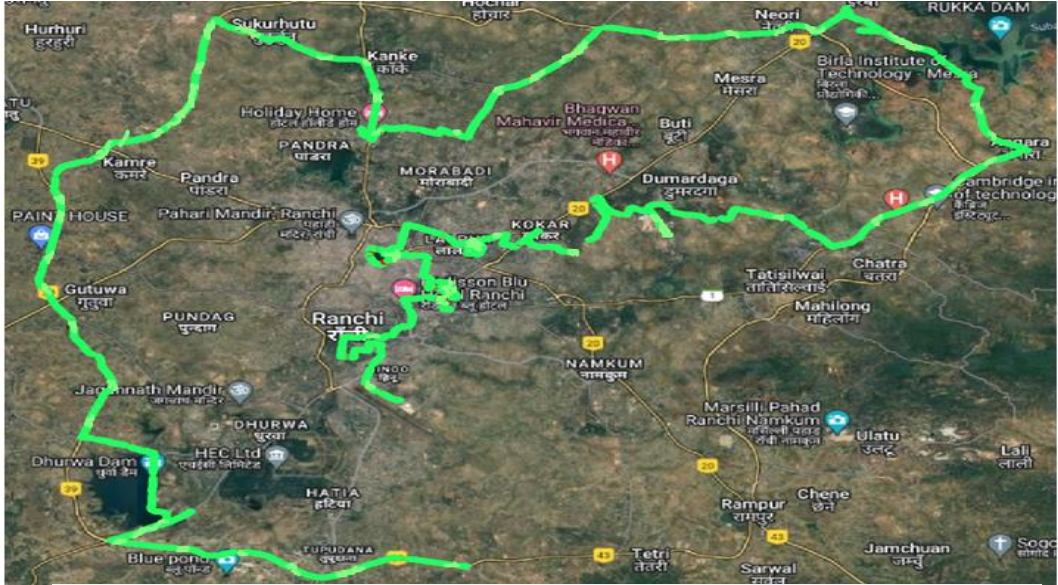
DRIVE ROUTE-DAY 2

Drive Routes: Ranchi and Lohardaga Districts

DAY-1– Ranchi Airport – Provident Fund Office – Mecon Colony – Van Bhavan – Amity University Jharkhand – Ranchi Railway Booking Office – Bethesda Women Teachers' Training College – Mission Chowk – Chhat Ghat, Jaipal Singh Town Hall –Holy Cross Balika Ucch Vidyalaya _ Institute of Technical Skill Training Center – Kilkary Park – Salhan Madhya Vidyalaya Angara – Ameliorate Public School – Shree Ram Chowk Rukka - Medanta Hospital – Gandhinagar-Jhiri Lake – Gutuwa - Sethio Post Office – Indian Institute Of Agricultural Research **DAY-2-** Ranchi High Court Gate 3 – Medi Memorial Hospital & Research Center – Tedhi Pul Toll Plaza – CHC Hospital – Kuru - Lohardaga Bus Stand – Senha Block Office – Kandra Chowk – Bhandra Block Office – Ursula Hospital – Barwatoli Chowk - Tisiya Middle School – Project Balika Uchch Vidyalaya Kuru – Block Office Bero – Semra – Indian Institute of Management Ranchi
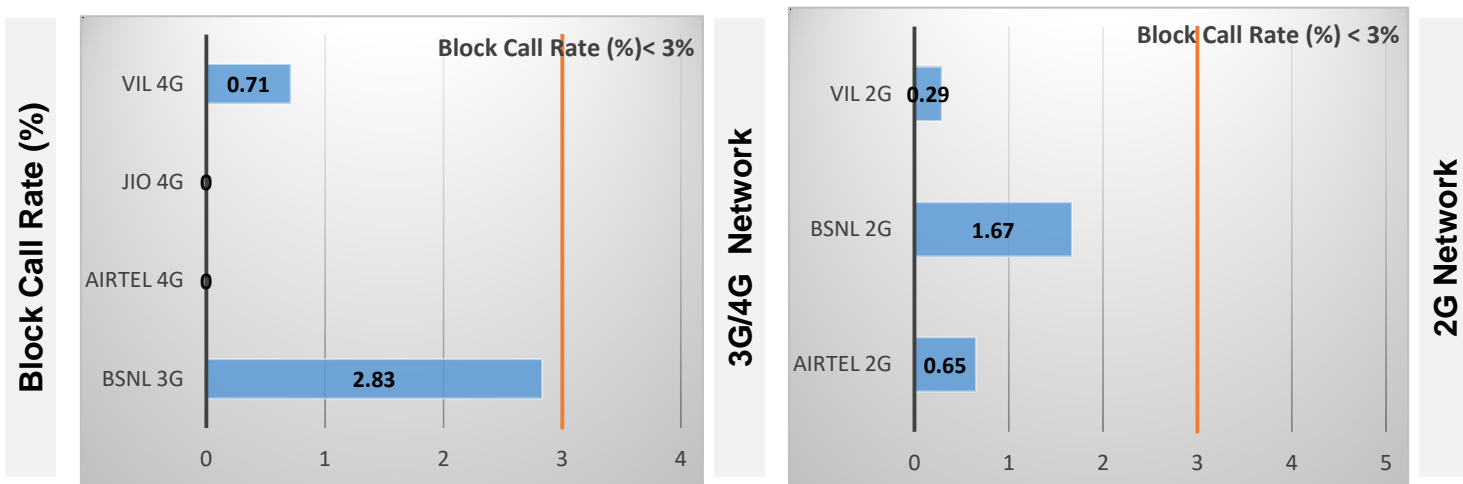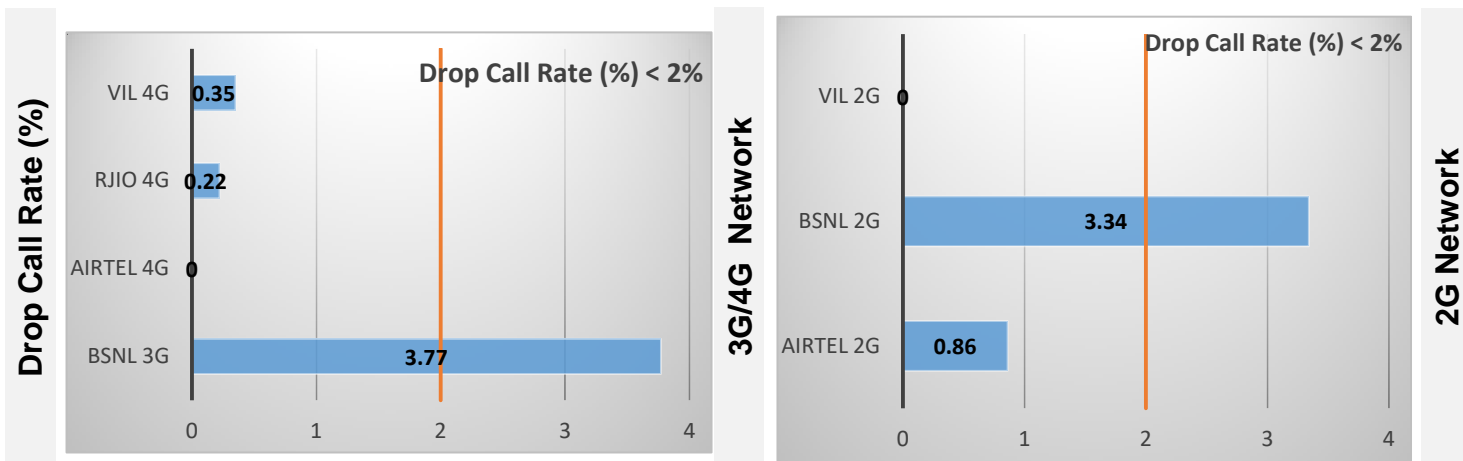
Data Service Test- Static Locations

Static Locations
Ranchi Airport
ICAR
Jharkhand High Court

Voice Calls

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

Drop Call Rate (%) — 3G/4G Network — Drop Call Rate (%) < 2%

VIL 4G	0.35
RJIO 4G	0.22
AIRTEL 4G	0
BSNL 3G	3.77

Drop Call Rate (%) — 2G Network — Drop Call Rate (%) < 2%

VIL 2G	0
BSNL 2G	3.34
AIRTEL 2G	0.86

Block Call Rate (%) — 3G/4G Network — Block Call Rate (%) < 3%

VIL 4G	0.71
JIO 4G	0
AIRTEL 4G	0
BSNL 3G	2.83

Block Call Rate (%) — 2G Network — Block Call Rate (%) < 3%

VIL 2G	0.29
BSNL 2G	1.67
AIRTEL 2G	0.65

KPIs	2G			3G	4G-VoLTE		
	AIRTEL	BSNL	VIL	BSNL	AIRTEL	RJIO	VIL
Drop Call Rate %	0.86	3.34	0.0	3.77	0.0	0.22	0.35
Block Call Rate %	0.65	1.67	0.29	2.83	0.0	0.0	0.71

a) All TSPs have met the 2% QOS benchmark of Drop Call Rate (DCR%) except BSNL (2G & 3G) network.

b) All TSPs have met the 3% QOS benchmark of Block Call Rate (BCR%).

Voice Calls

Coverage

a) **Percentage of coverage samples for 2G ≥ -85 dBm.**

TSPs	2G		
	AIRTEL	**BSNL**	**VIL**
Coverage %	88	66.55	81.29

b) **Percentage of coverage samples for 3G ≥ -90 dBm & 4G ≥ -110 dBm.**

TSPs	3G	4G		
	BSNL	**AIRTEL**	**RJIO**	**VIL**
Coverage	72.47	98	97.80	91.30

Summary

Voice Call	2G		
	AIRTEL	BSNL	VIL
Call Attempt	476	239	342
Blocked Call Rate (%)	0.65	1.67	0.29
CSSR% (Accessibility)	99.16	98.32	99.71
Drop Call Rate (%)	0.86	3.34	0.0
Mobility HOSR (%)	97.43	96.95	95.12
Rx Quality (%)	97.0	78.75	97.05

Voice Call	3G/4G			
	BSNL 3G	AIRTEL 4G	RJIO 4G	VIL 4G
Call Attempt	106	527	464	282
Blocked Call Rate (%)	2.83	0.0	0.0	0.71
CSSR% (Accessibility)	97.17	99.8	100	99.29
Drop Call Rate (%)	3.77	0.0	0.22	0.35
Mobility HOSR (%)	99.59	99.99	99.11	98.37
Rx Quality (%)	89.58	87.0	89.34	92.62

Summary-Data Services Dynamic

Dynamic Data was tested for 408 Kms. Download Throughput was tested.

Data Download Performance (Average Throughput in Mbps) - Dynamic Data Testing

4G/3G Network:

4G-Dynamic Download Throuhput (Mbps)

Operator	Throughput (Mbps)
VODAFONE	33.29
RJIO	13.76
AIRTEL	38.47
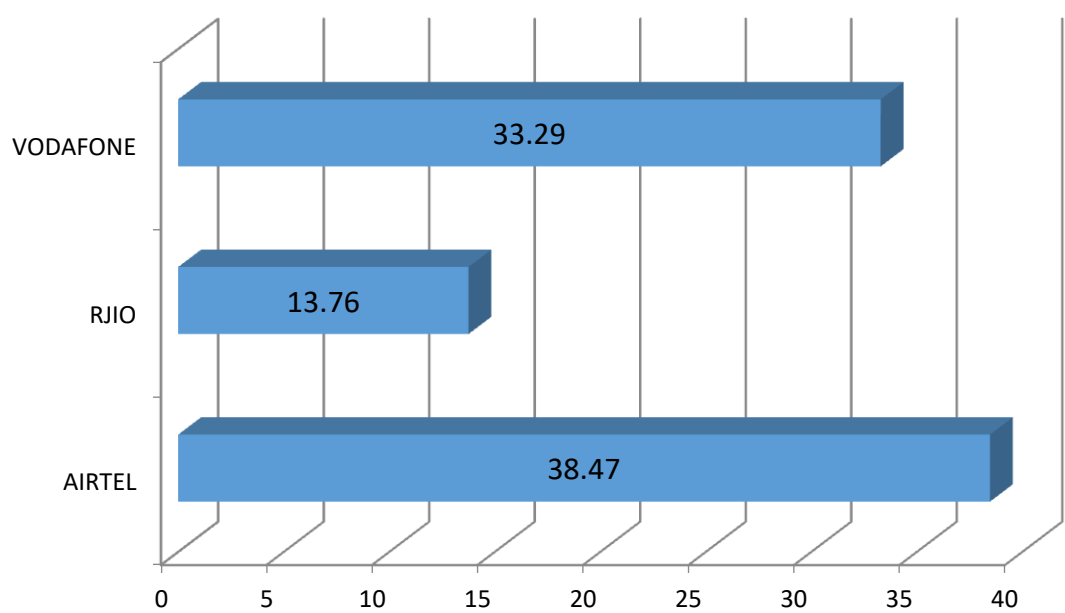
3G-Dynamic Download Throuhput (Mbps)

Operator	Throughput (Mbps)
BSNL	1.61
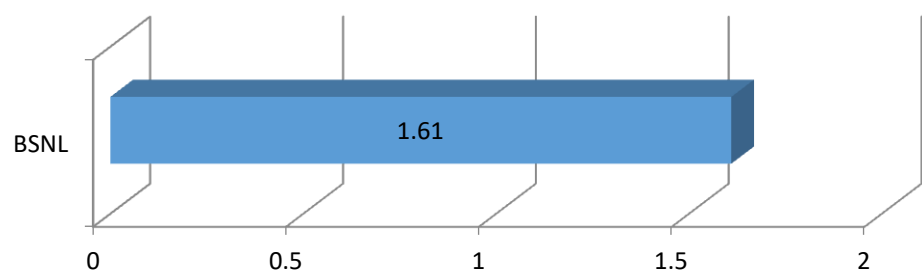
Summary-Data Services Static

Average Data Services Static	2G		
	AIRTEL	BSNL	VIL
Download Throughput (kbps)	149.54	217	125.47
Upload Throughput (kbps)	81.16	101.33	81.40
Web Browsing Delay (sec)	111.20	96.33	15.5
Latency (msec)	428.18	65.66	172

Average Data Services Static	3G/ 4G			
	BSNL 3G	AIRTEL 4G	RJIO 4G	VIL 4G
Download throughput in Mbps	5.83	33.80	36.24	26.44
Upload Throughput in Mbps	0.83	2.50	6.35	19.88
Video streaming delay (sec)	12.66	0.00	0.31	6.0
Web Browsing Delay (secs)	6.08	7.56	1.63	5.0
Latency (msec)	7.02	174.09	74.33	55

Summary-Data Services Static

Location:-Ranchi Airport	2G		
	AIRTEL	BSNL	VIL
Download Throughput (kbps)	89.68	267	139.66
Upload Throughput (kbps)	68.46	106	76.96
Web Browsing Delay (sec)	156.89	87	15
Latency (msec)	480.72	66	206

Location:-Ranchi Airport	3G/4G			
	BSNL 3G	AIRTEL 4G	RJIO 4G	VIL 4G
Download throughput in Mbps	5.83	59.1	44.00	25.14
Upload Throughput in Mbps	0.92	4	8.11	28.80
Video streaming delay (secs)	11	0	0.29	4
Web Browsing Delay (secs)	5.77	7.59	1.64	5
Latency (msec)	9.5	173.33	82	40

Location:- ICAR	2G		
	AIRTEL	BSNL	VIL
Download throughput in (kbps)	146.45	141	113.54
Upload Throughput in (kbps)	59.42	96	71
Web Browsing Delay (secs)	117.2	101	18
Latency (msec)	399.84	63	219

Location:- ICAR	4G			
	BSNL 3G	AIRTEL 4G	RJIO 4G	VIL 4G
Download throughput in (mbps)	3.19	29.4	14.91	11.83
Upload Throughput in (mbps)	0.25	1.2	3.56	10.46
Video streaming delay (secs)	15	0	0.32	4
Web Browsing Delay (secs)	7.22	9.23	1.69	3
Latency (msec)	7.5	260	81	41

Summary-Data Services Static

Location Level Summary-

| Location:-Jharkhand High Court	2G		
	AIRTEL	BSNL	VIL
Download Throughput (kbps)	212.48	243	152.43
Upload Throughput (kbps)	115.61	102	101.3
Web Browsing Delay (sec)	59.5	101	13
Latency (msec)	403.99	68	129

Location:-JharKhand High Court	3G/4G			
	BSNL 3G	AIRTEL 4G	RJIO 4G	VIL 4G
Download throughput in Mbps	8.46	12.9	49.82	18.16
Upload Throughput in Mbps	1.32	2.5	7.38	17.22
Video streaming delay (secs)	12	0	0.31	8
Web Browsing Delay (secs)	5.26	5.85	1.57	6
Latency (msec)	4.06	88.94	60	62

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 ≥ -85 dBm, RSCP is ≥ -90 dBm & RSRP ≥ -110dBm. The details are as follows.

TSP	Coverage Rate %
AIRTEL 2G	88.0
BSNL 2G	66.55
VIL 2G	81.29
BSNL 3G	72.47
AIRTEL 4G	98.0
RJIO 4G	97.80
VIL 4G	91.30

Coverage Rate %
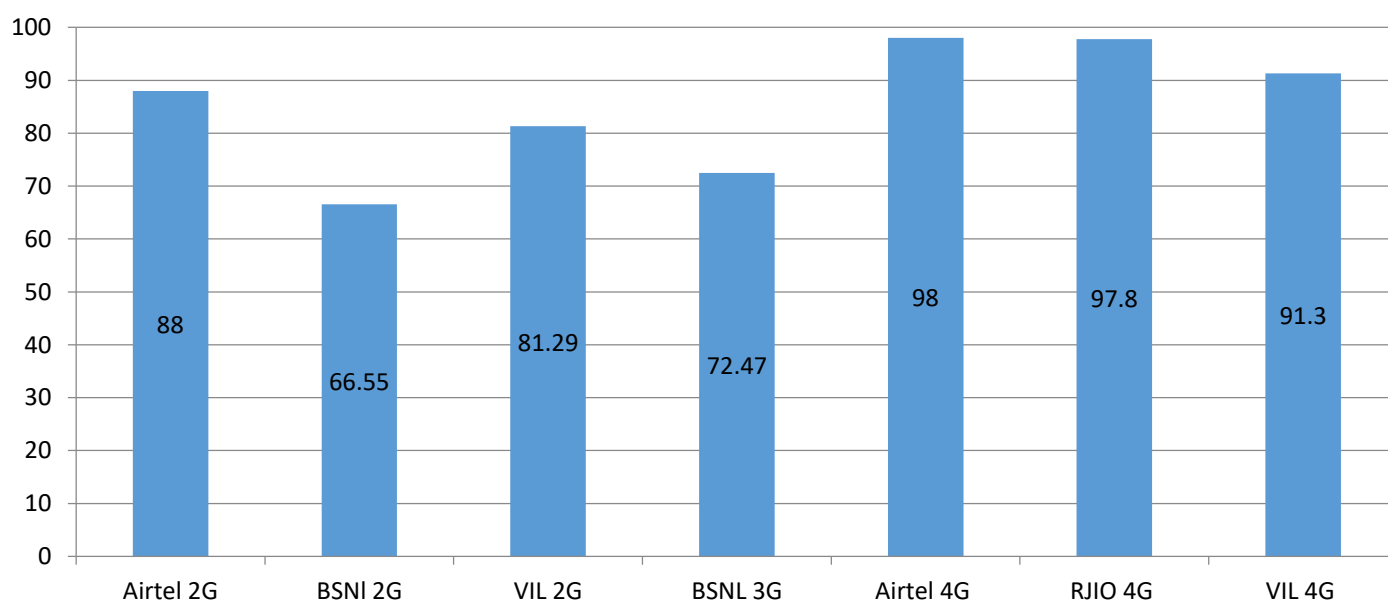
Note- Coverage is the percentage of samples having signal strength more than the threshold value (2G >= -85 dbm, 3G>= -90 dbm and 4G >= -110 dbm). However, these samples are only for the portion of the OADT routes where TSPs have coverage i.e 'no coverage' routes have been excluded.

AIRTEL

Technology	Coverage Rate %
2G	88.0
4G	98.0

2G

RX LEVEL		Samples	%
	🟩	0 to -85	22446	92.3
	🟥	"-85 to -140	1917	7.87

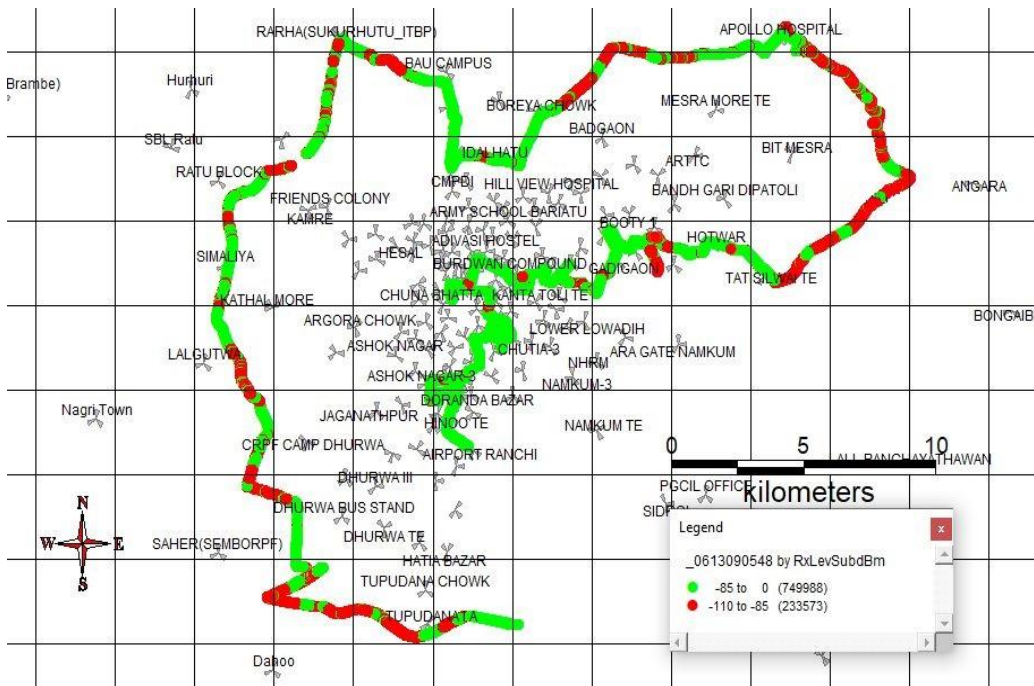| Overall Rx Level	Sample %
[Max >=-75]	52
[-75 >=-85)	36
[-85 >=-95)	11
[-95 >=Min)	1
Total	**100**

4G

RSRP		Samples	%
	🟩	0 to -110	25632	99.5
	🟥	"-110 to -140	129	0.5

Overall RSRP	Sample %
[Max >=-80]	23
[-80 >=-90)	33
[-90 >=-110)	41
[-110 >=Min)	2
Total	**100**

AIRTEL

Technology	Coverage Rate %
2G	88.0
4G	98.0

2G

RX LEVEL		Samples	%
	0 to -85	26210	83.56
	"-85 to -140	5157	16.44

Overall Rx Level	Sample %
[Max >=-75]	52
[-75 >=-85)	36
[-85 >=-95)	11
[-95 >=Min)	1
Total	100

4G

RSRP		Samples	%
	0 to -110	14547	94.97
	"-110 to -140	771	5.03

Overall RSRP	Sample %
[Max >=-80]	23
[-80 >=-90)	33
[-90 >=-110)	41
[-110 >=Min)	2
Total	100

BSNL

Technology	Coverage Rate %
2G	66.55
3G	72.47

2G

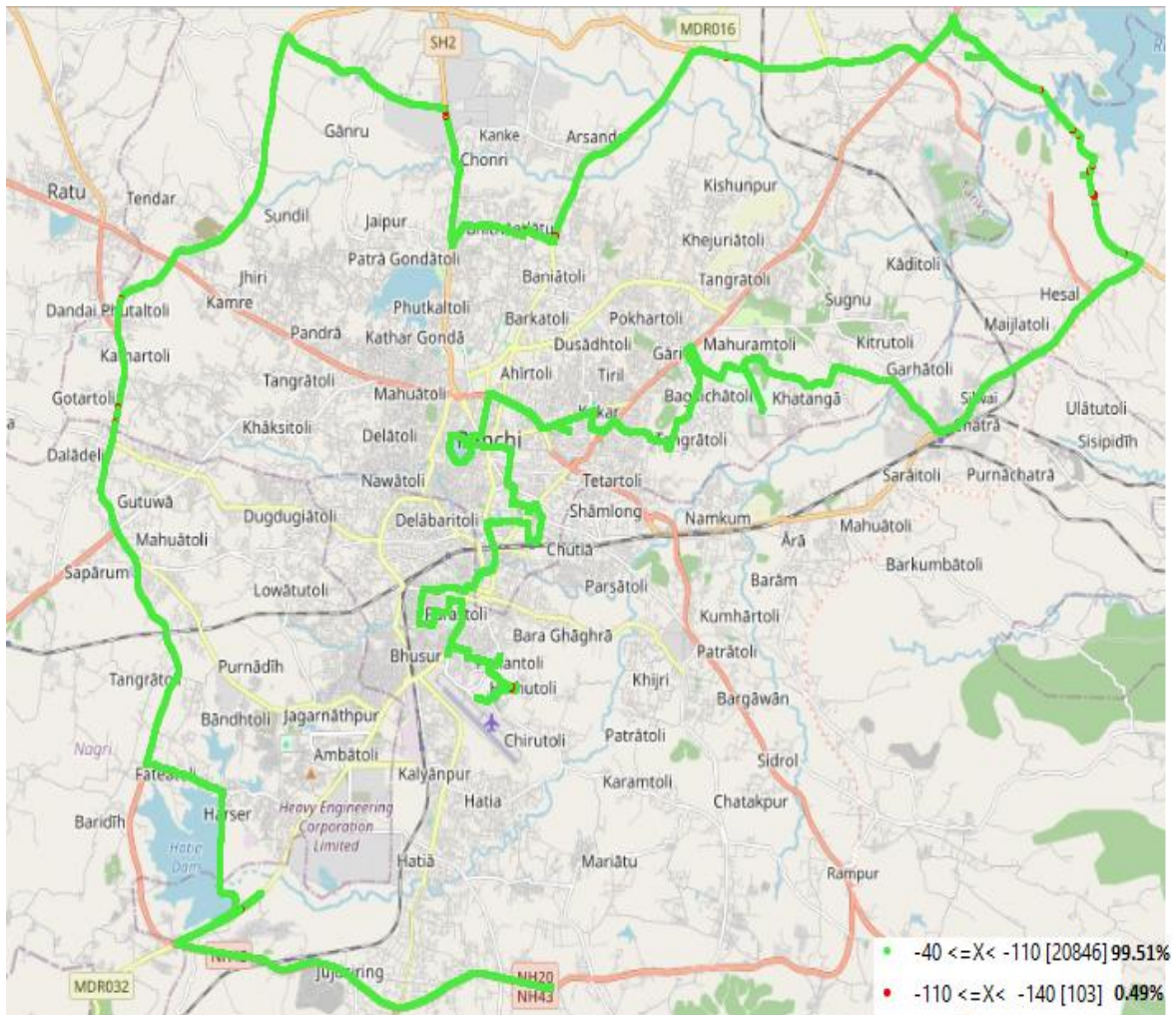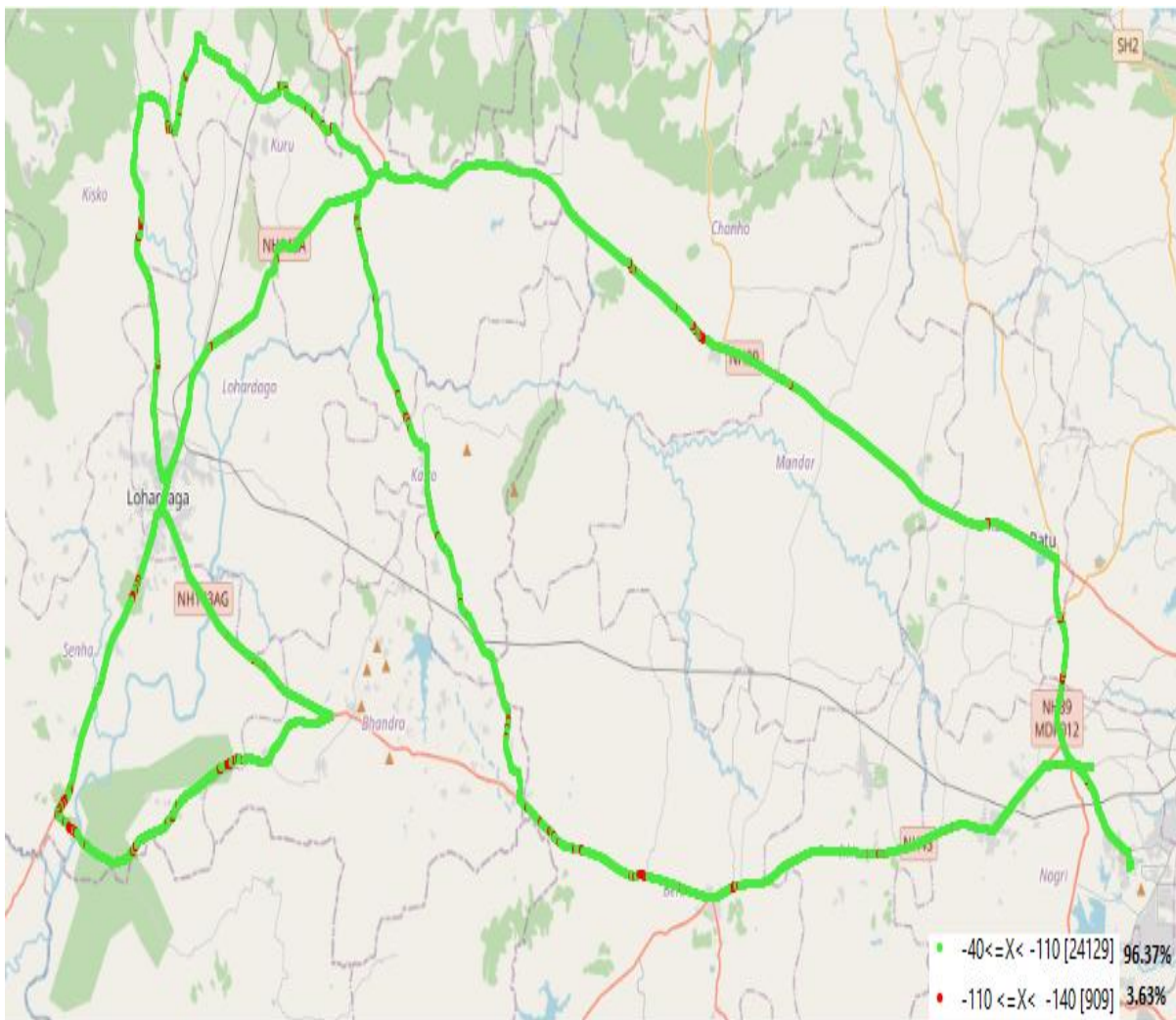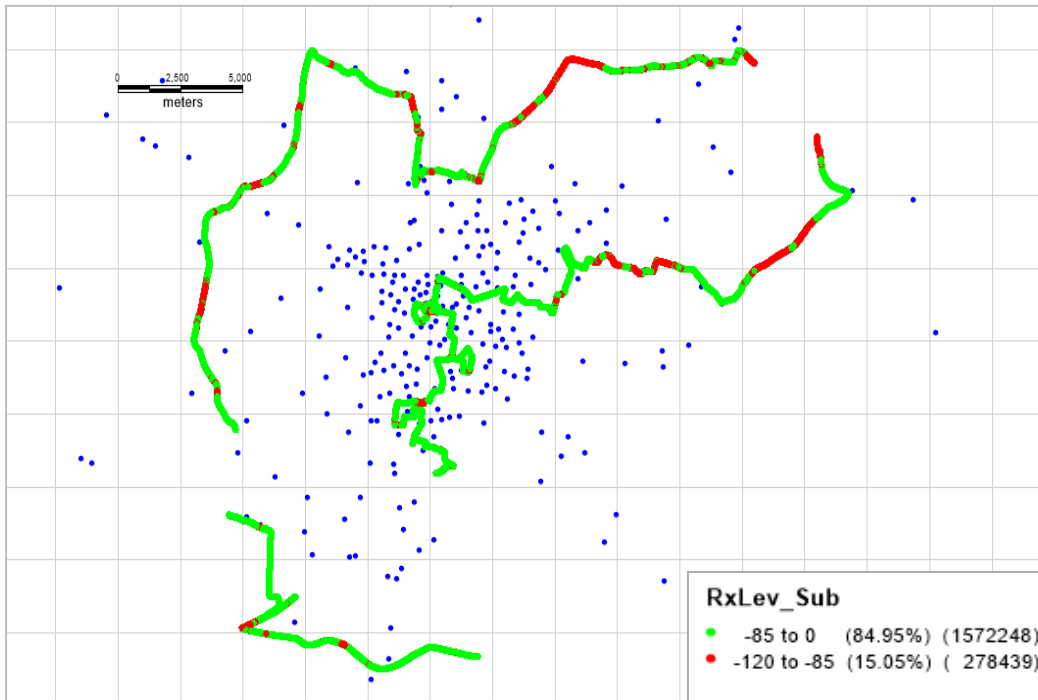| Overall RxLevel	Sample %
[Max >=-75]	37.11
[-75 >=-85)	29.44
[-85 >=-95)	27.12
[-95 >=Min)	6.33
Total	100

3G

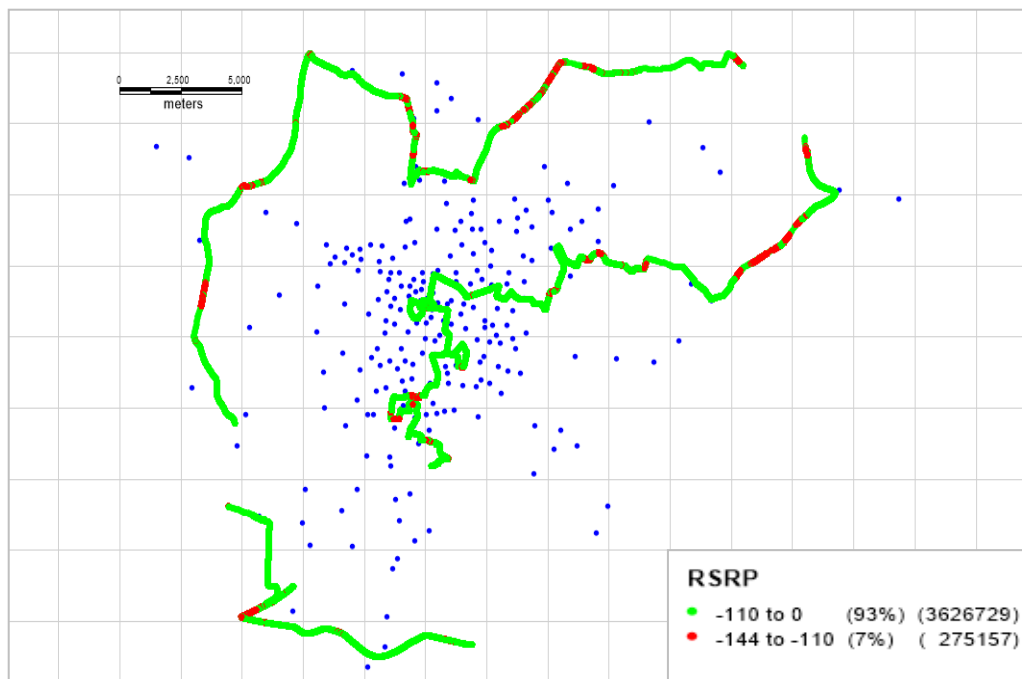| Overall RSCP	Sample %
[Max >=-70]	18.94
[-70 >=-80)	23.02
[-80 >=-90)	30.51
[-90 >=Min)	27.53
Total	100

BSNL

Technology	Coverage Rate %
2G	66.55
3G	72.47

2G

Overall RxLevel	Sample %
[Max >=-75]	37.11
[-75 >=-85)	29.44
[-85 >=-95)	27.12
[-95 >=Min)	6.33
Total	100

3G

Overall RSCP	Sample %
[Max >=-70]	18.94
[-70 >=-80)	23.02
[-80 >=-90)	30.51
[-90 >=Min)	27.53
Total	100

RJIO
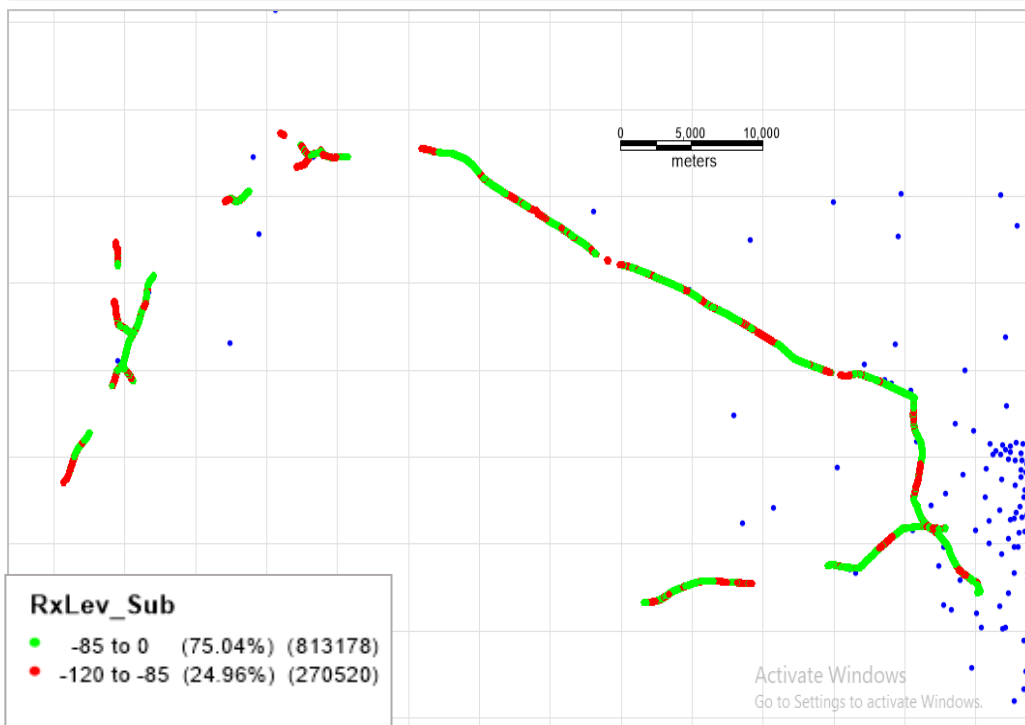
Technology	Coverage Rate %
4G	97.80
4G	

Overall RSRP	Sample %
[Max >=-80]	31.39
[-80 >=-90)	29.05
[-90>=-110)	37.36
[-110 >=Min)	2.20
Total	**100**

RJIO

Technology	Coverage Rate %
4G	97.80
4G	

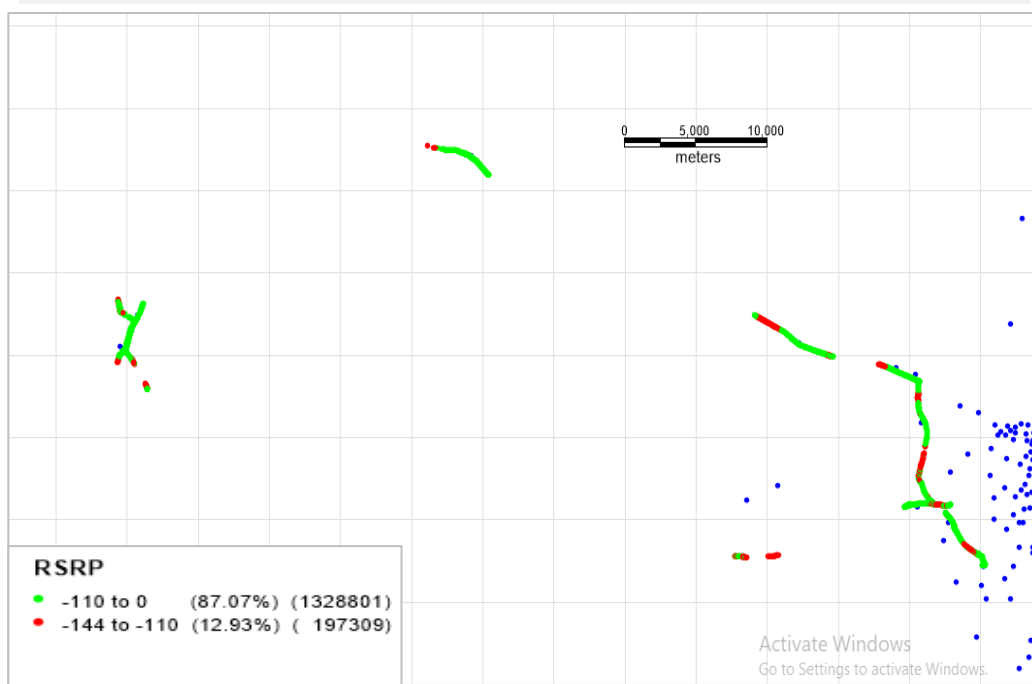| Overall RSRP	Sample %
[Max >=-80]	31.39
[-80 >=-90)	29.05
[-90>=-110)	37.36
[-110 >=Min)	2.20
Total	**100**

VIL

Technology	Coverage Rate %
2G	81.29
4G	91.30

2G

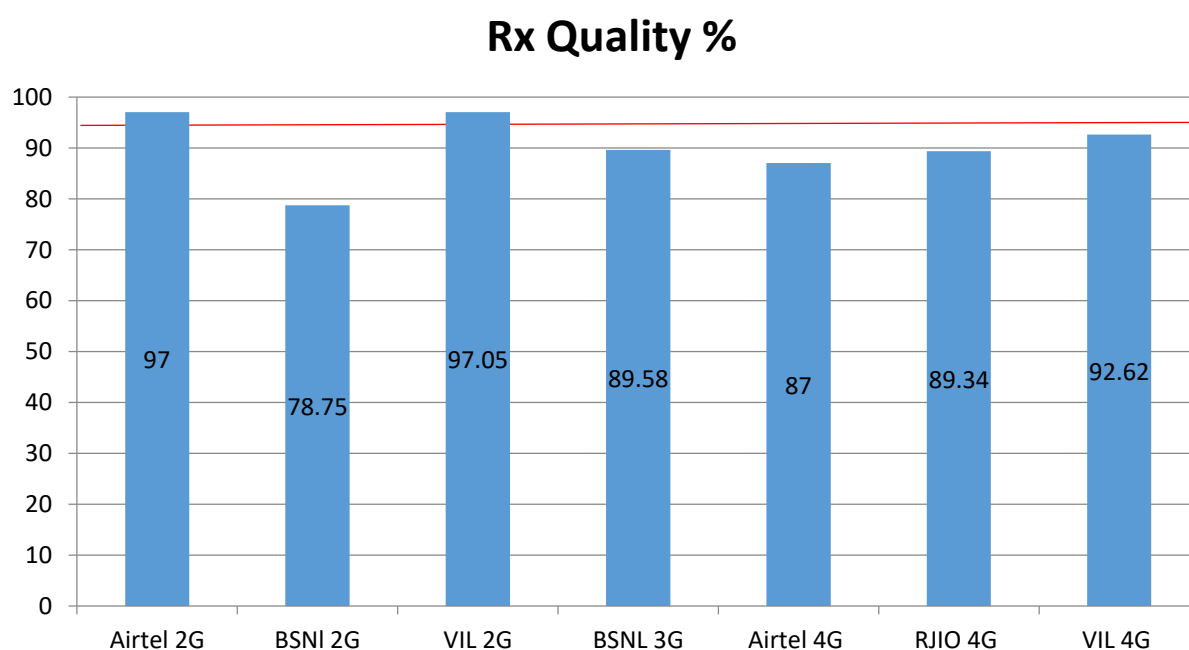| Overall RxLevel	Sample %
[Max >=-75]	48.97
[-75 >=-85)	32.32
[-85 >=-95)	15.13
[-95 =Min)	3.57
Total	**100**

4G

Overall RSRP	Sample %
[Max >=-80]	12.94
[-80 >=-90)	24.31
[-90>=-110)	54.05
[-110 >=Min)	8.70
Total	**100**

VIL

Technology	Coverage Rate %
2G	81.29
4G	91.30

2G

RxLev_Sub
- -85 to 0   (75.04%) (813178)
- -120 to -85 (24.96%) (270520)

Overall RxLevel	Sample %
[Max >=-75]	48.97
[-75 >=-85)	32.32
[-85 >=-95)	15.13
[-95 =Min)	3.57
Total	100

4G

RSRP
- -110 to 0   (87.07%) (1328801)
- -144 to -110 (12.93%) (197309)

Overall RSRP	Sample %
[Max >=-80]	12.94
[-80 >=-90)	24.31
[-90>=-110)	54.05
[-110 >=Min)	8.70
Total	100

For measuring voice quality, as per the QoS norms, Rx Quality<=5 for GSM, Ec/No >= -14 dBm for 3G 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 ≥ 95%.

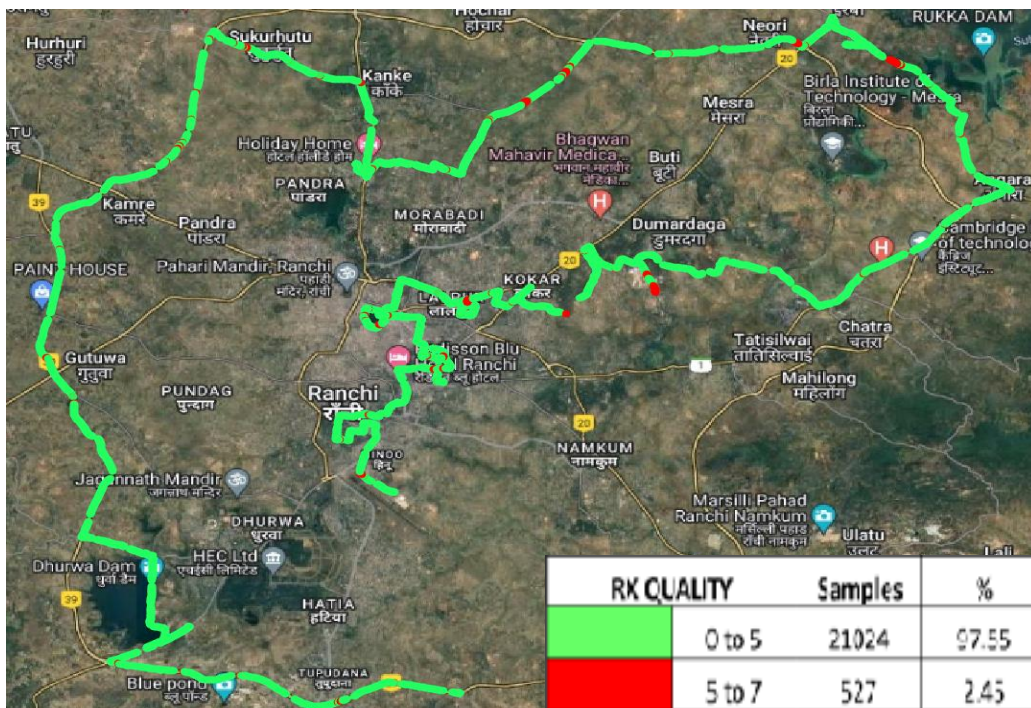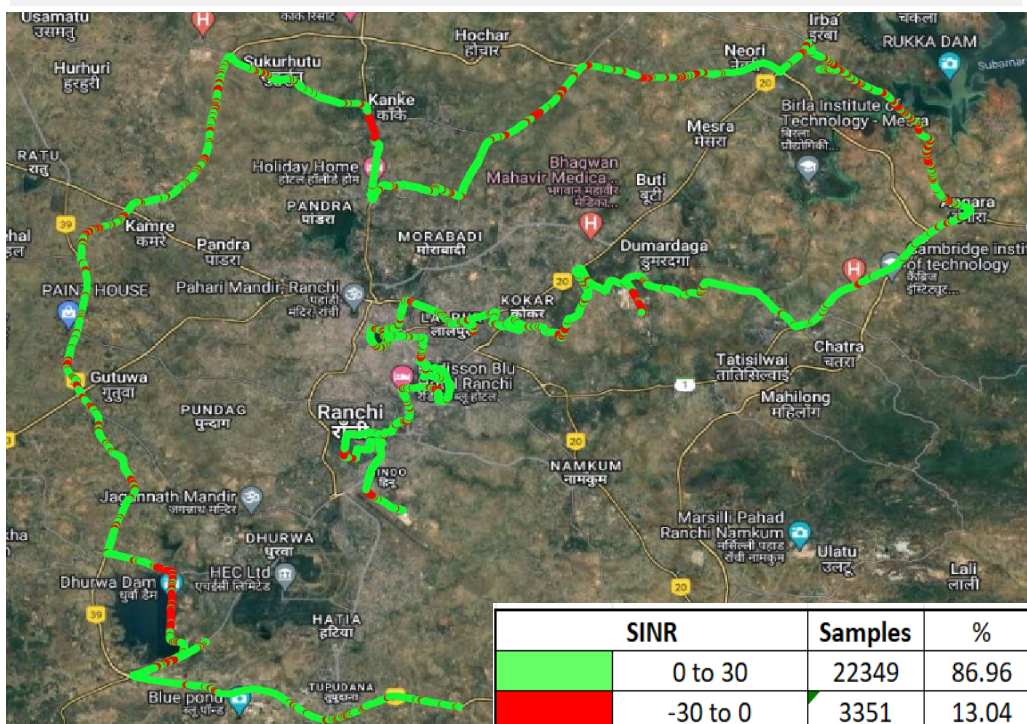| TSP	Rx Quality %
AIRTEL 2G	97.0
BSNL 2G	78.75
VIL 2G	97.05
BSNL 3G	89.58
AIRTEL 4G	87.0
RJIO 4G	89.34
VIL 4G	92.62

Rx Quality %

AIRTEL

Technology	Rx Quality %
2G	97
4G	87

2G

RX QUALITY	Samples	%
(green) 0 to 5	21024	97.55
(red) 5 to 7	527	2.45

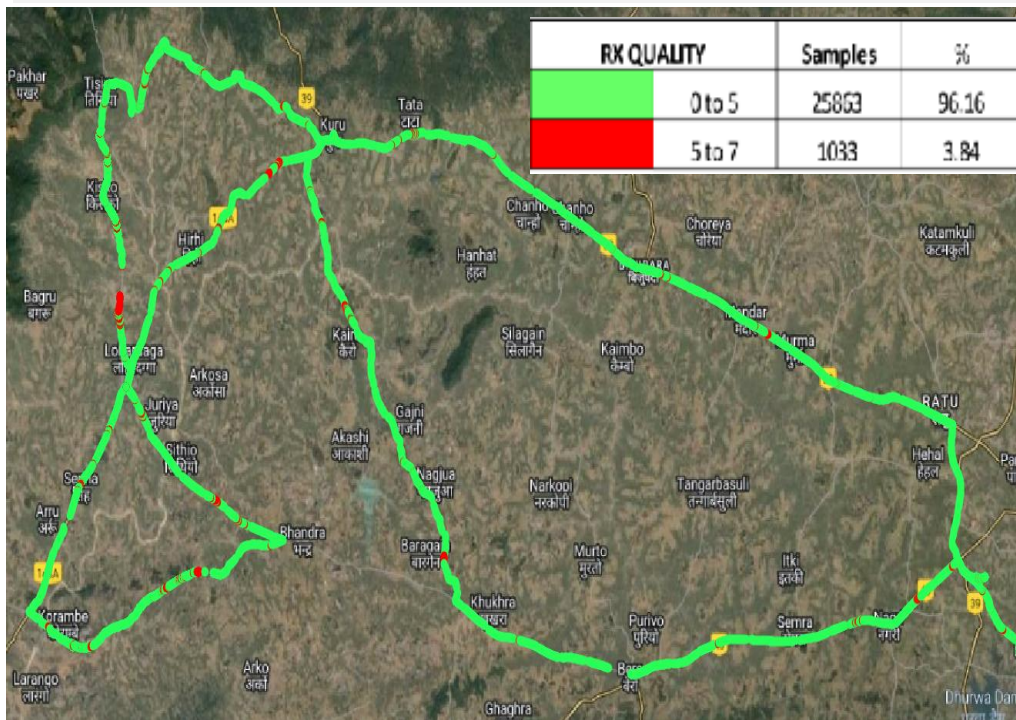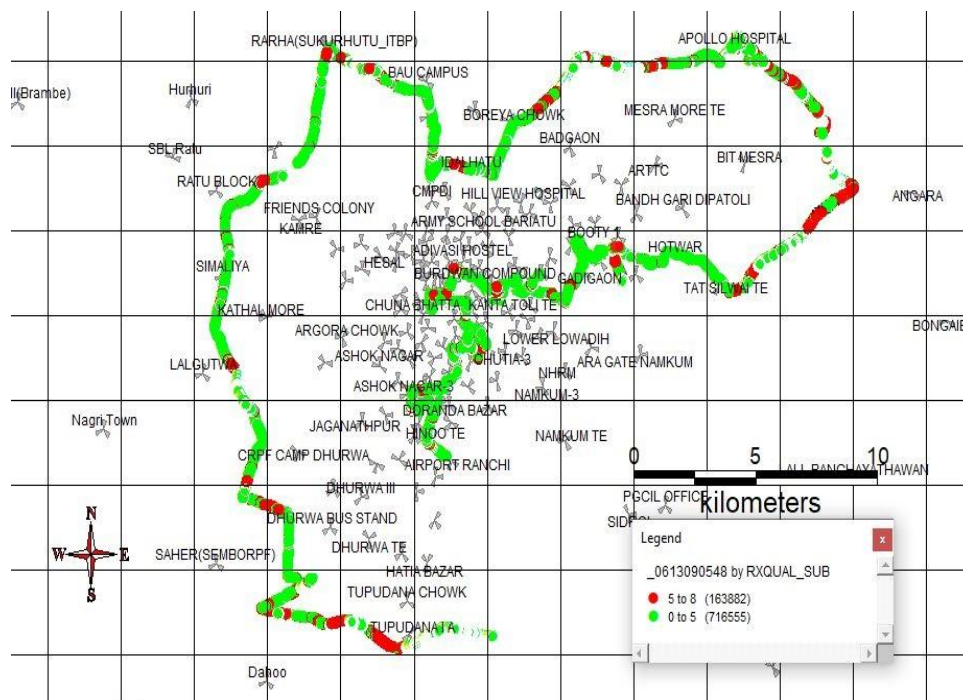| Overall Rx Quality	Sample %
(Min <=2)	84
(2 <=3)	6
(3 <=4)	4
(4 <=5)	2
(5 <=Max)	3
Total	100

4G

SINR	Samples	%
(green) 0 to 30	22349	86.96
(red) -30 to 0	3351	13.04

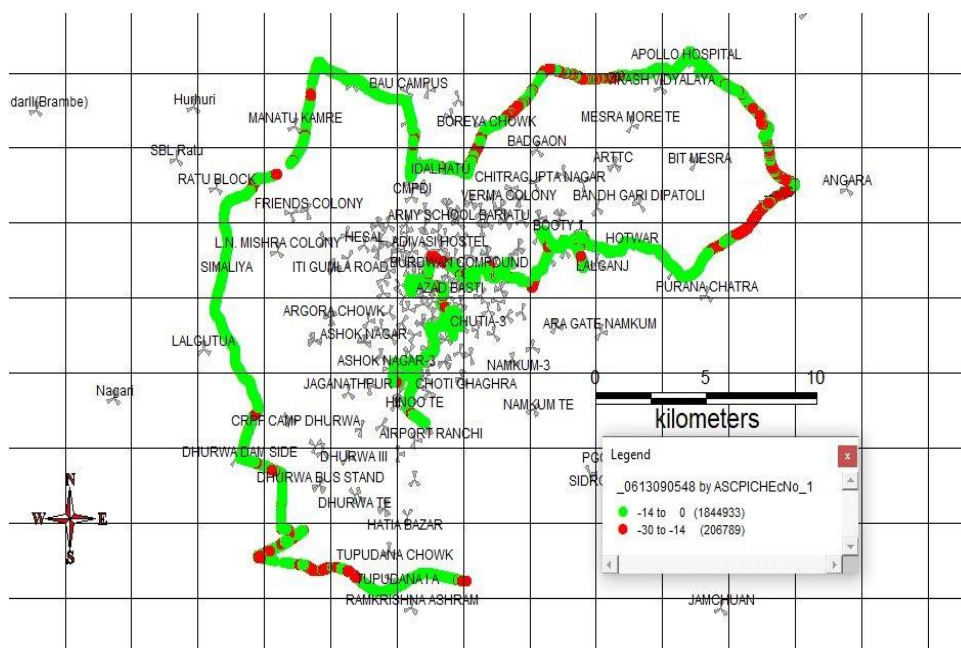| Overall SINR	Sample %
(Min <=0)	13
(0 <=5)	28
(5 <=10)	32
(10 <=15)	18
(15 <=Max)	9
Total	100

AIRTEL

Technology	Rx Quality %
2G	97
4G	87

2G

RX QUALITY		Samples	%
	0 to 5	25863	96.16
	5 to 7	1033	3.84

Overall Rx Quality	Sample %
(Min <=2)	84
(2 <=3)	6
(3 <=4)	4
(4 <=5)	2
(5 <=Max)	**3**
Total	100

4G

SINR		Samples	%
	0 to 30	13980	91.32
	-30 to 0	1329	8.68

Overall SINR	Sample %
(Min <=0)	13
(0 <=5)	28
(5 <=10)	32
(10 <=15)	18
(15 <=Max)	9
Total	**100**

BSNL

Technology	Rx Quality %
2G	78.75
3G	89.58

2G

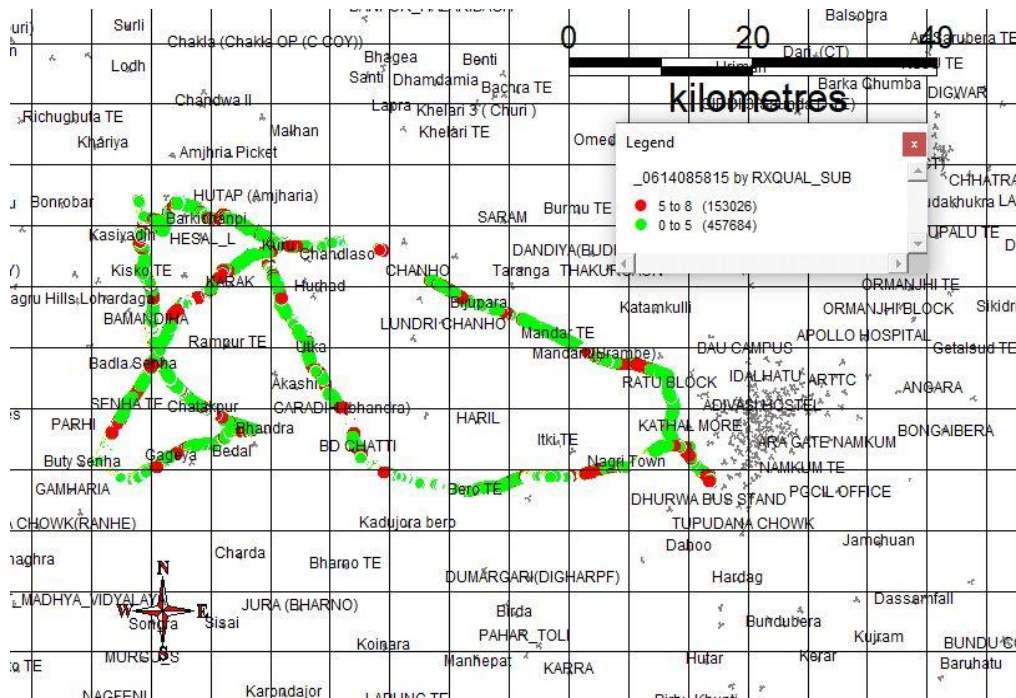| Overall Rx Quality	Sample %
(Min <=2)	63.48
(2 <=3)	4.29
(3 <=4)	5.14
(4 <=5)	5.84
(5 <=Max)	21.25
Total	100

3G

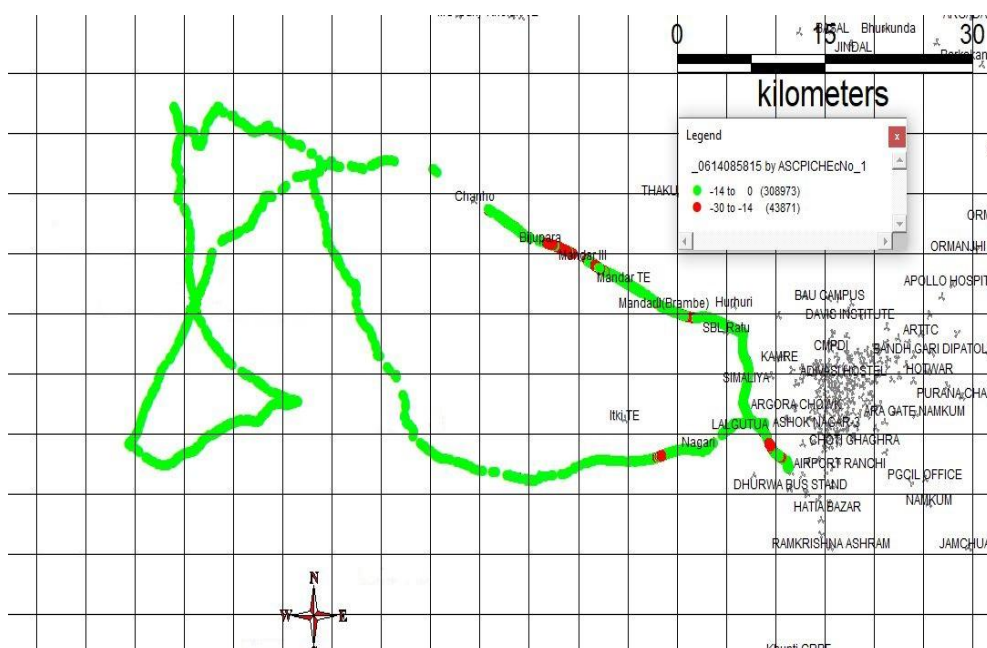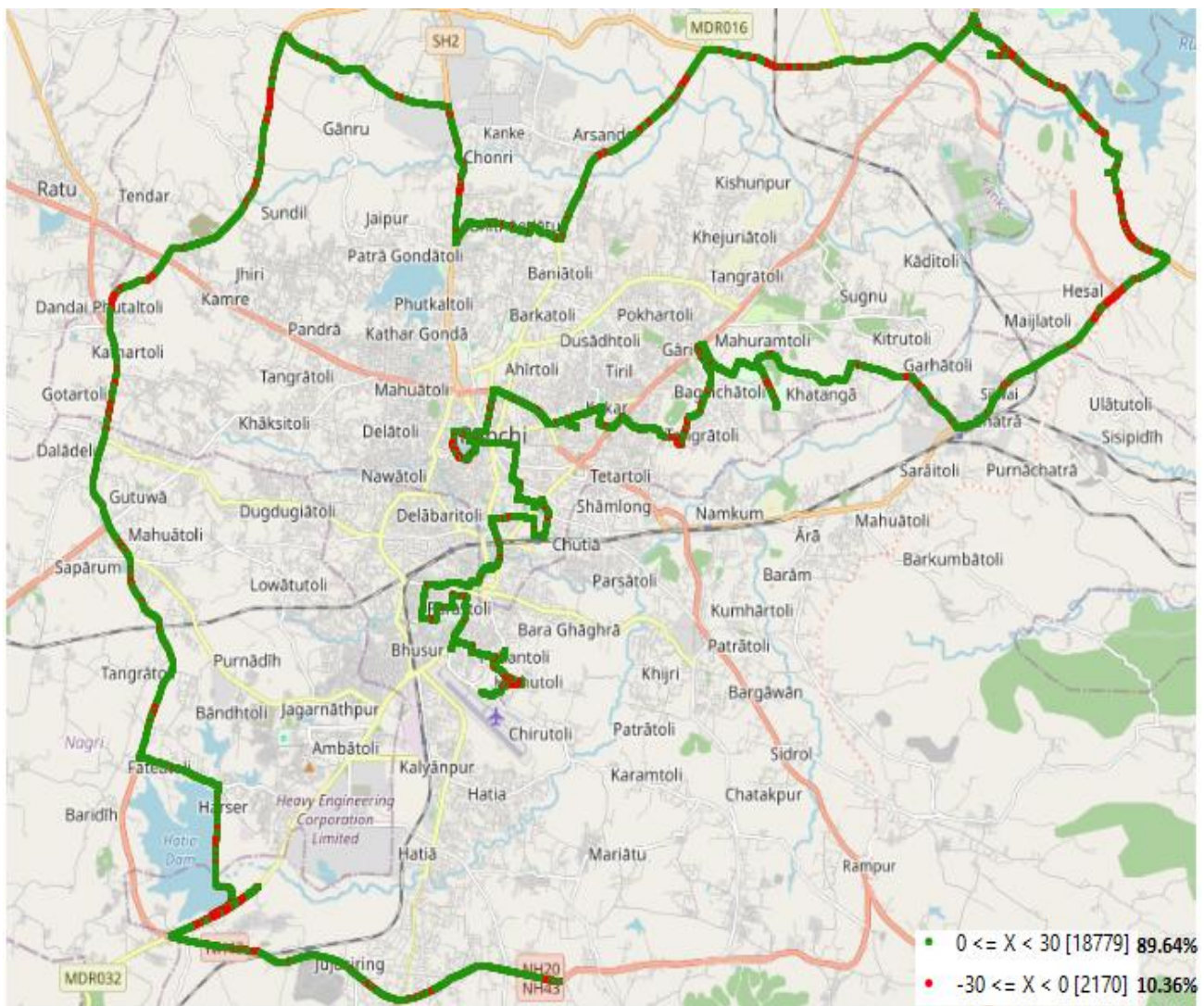| Overall EcNo	Sample %
(Max <=-6)	18.93
(-6 <=-9)	26.27
(-9 <=-11)	23.69
(-11 <=-14)	20.68
(-14 <= Min)	10.42
Total	100

BSNL

Technology	Rx Quality %
2G	78.75
3G	89.58

2G

Overall Rx Quality	Sample %
(Min <=2)	63.48
(2 <=3)	4.29
(3 <=4)	5.14
(4 <=5)	5.84
(5 <=Max)	21.25
Total	**100**

3G

Overall EcNo	Sample %
(Max <=-6)	18.93
(-6 <=-9)	26.27
(-9 <=-11)	23.69
(-11 <=-14)	20.68
(-14 <= Min)	10.42
Total	**100**

RJIO

Technology	Rx Quality %
4G	89.34

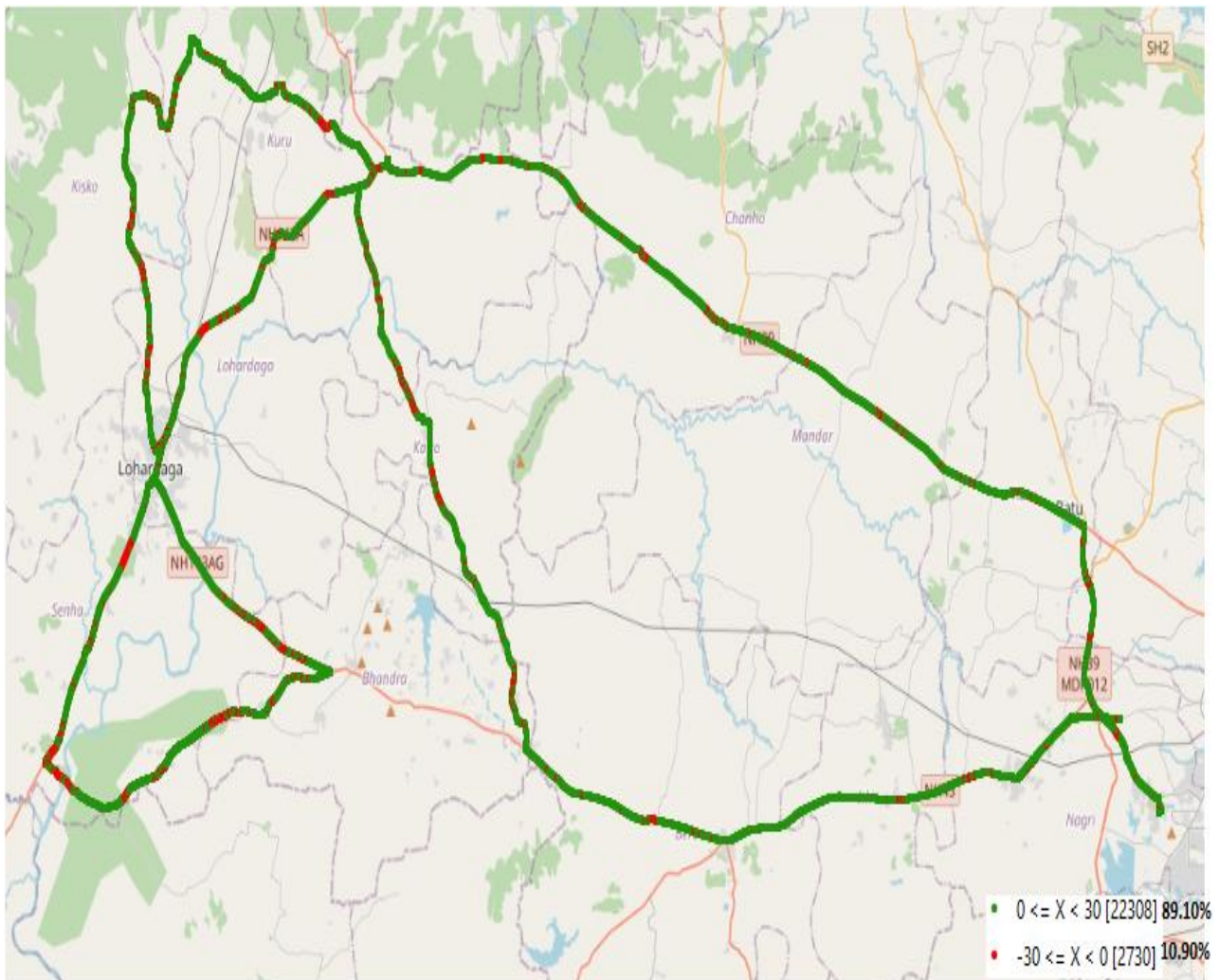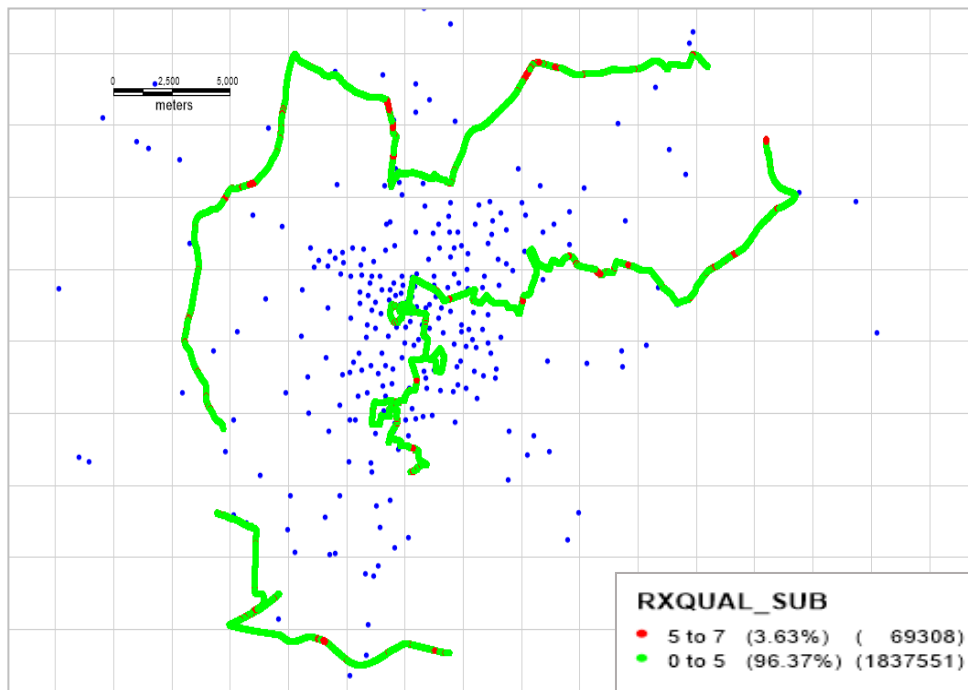| 4G |
|---|

- ● 0 <= X < 30 [18779] **89.64%**
- ● -30 <= X < 0 [2170] **10.36%**

Overall SINR	Sample %
(Min <=0)	10.66
(0 <=5)	24.17
(5 <=10)	27.57
(10 <=15)	20.26
(15 <=Max)	17.35
Total	**100**

RJIO

Technology	Rx Quality %
4G	89.34

4G

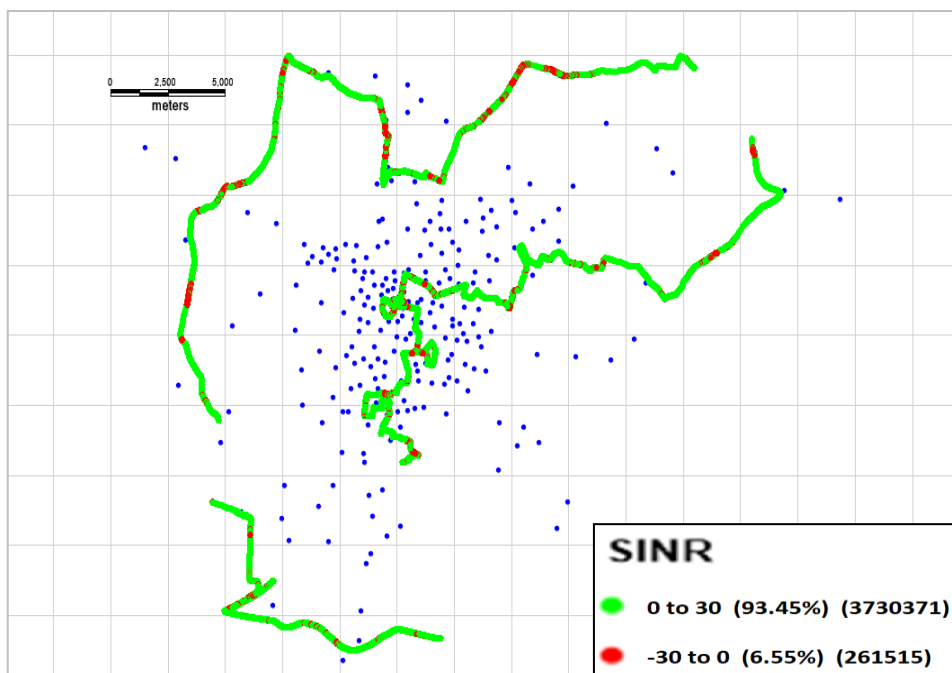| Overall SINR	Sample %
(Min <=0)	10.66
(0 <=5)	24.17
(5 <=10)	27.57
(10 <=15)	20.26
(15 <=Max)	17.35
Total	**100**

VIL

Technology	Rx Quality %
2G	97.05
4G	92.62

2G

Overall Rx Quality	Sample %
(Min <=2)	92.00
(2 <=3)	1.32
(3 <=4)	2.05
(4 <=5)	1.68
(5 <=Max)	2.95
Total	**100**

4G

Overall SINR	Sample %
(Min <=0)	7.38
(0 <=5)	12.84
(5 <=10)	23.37
(10 <=15)	21.57
(15 <=Max)	34.84
Total	**100**

VIL

Technology	Rx Quality %
2G	97.05
4G	92.62

2G

Overall Rx Quality	Sample %
(Min <=2)	92.00
(2 <=3)	1.32
(3 <=4)	2.05
(4 <=5)	1.68
(5 <=Max)	2.95
Total	**100**

4G

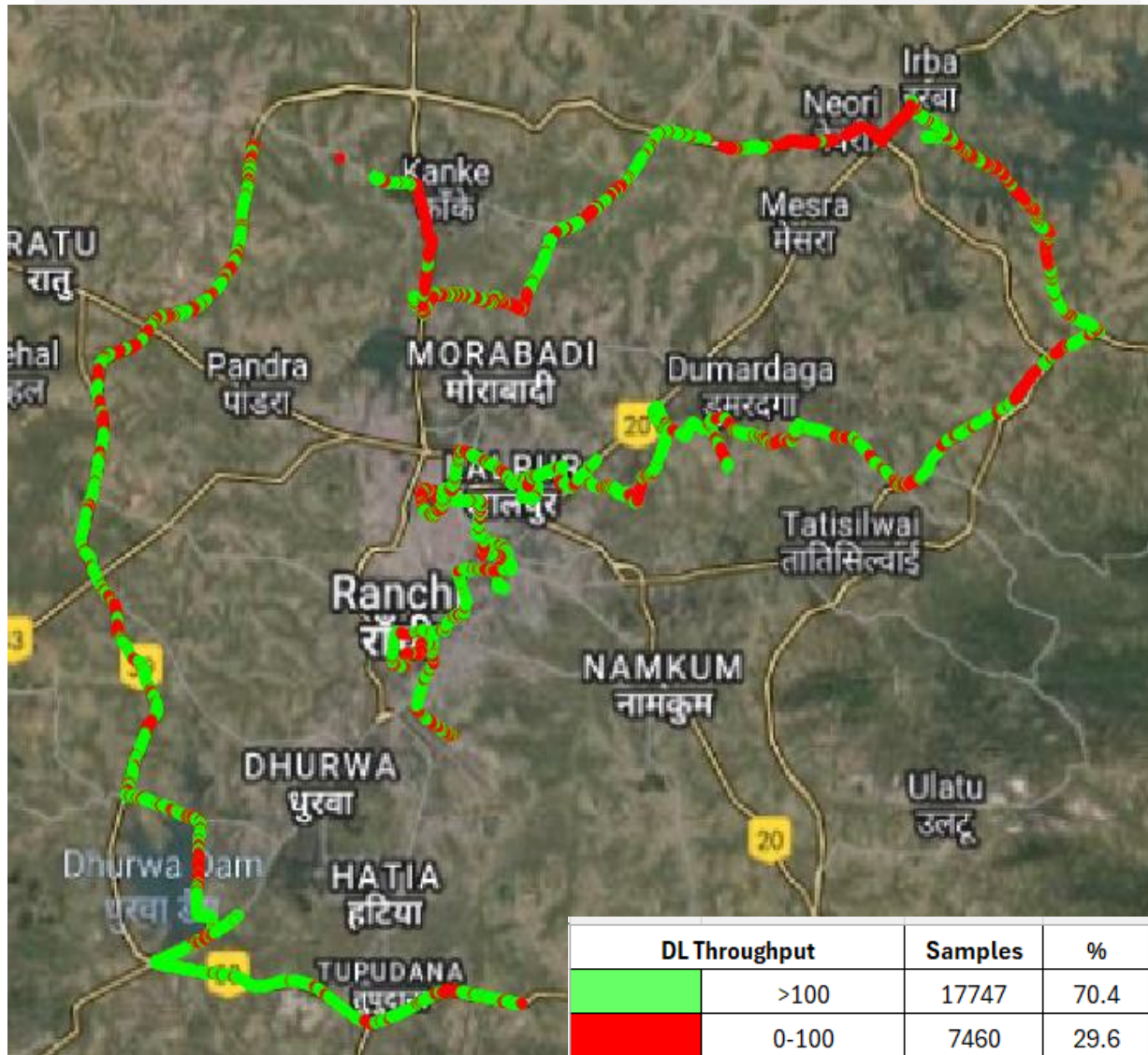| Overall SINR	Sample %
(Min <=0)	7.38
(0 <=5)	12.84
(5 <=10)	23.37
(10 <=15)	21.57
(15 <=Max)	34.84
Total	**100**

AIRTEL

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	2G
Average Download Throughput (Kbps)	139.46

2G

DL Throughput	Samples	%
>100	17747	70.4
0-100	7460	29.6

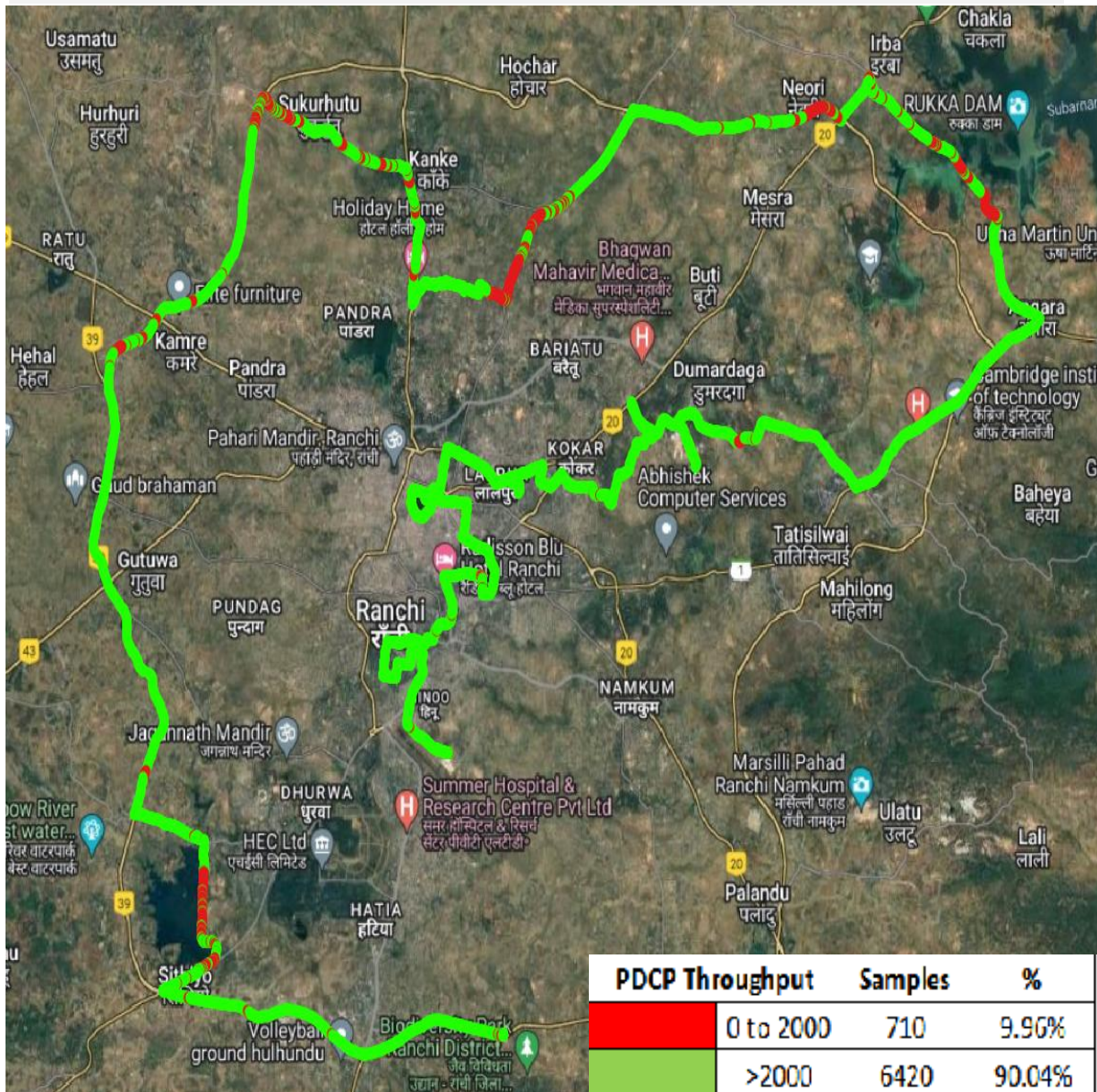| AVG. DOWNLOAD SPEED (Kbps)	139.46
% FILE TRANSFER COMPLETE	100
DL throughput	Sample %
0 to 50 Kbps	22.2
50 to 100 Kbps	12.9
100 to 200 Kbps	32.2
200 to 300 Kbps	32.3
>300 Kbps	0.4
Total	**100**

AIRTEL

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	4G
Average Download Throughput (Mbps)	38.47

4G

PDCP Throughput		Samples	%
	0 to 2000	710	9.96%
	>2000	6420	90.04%

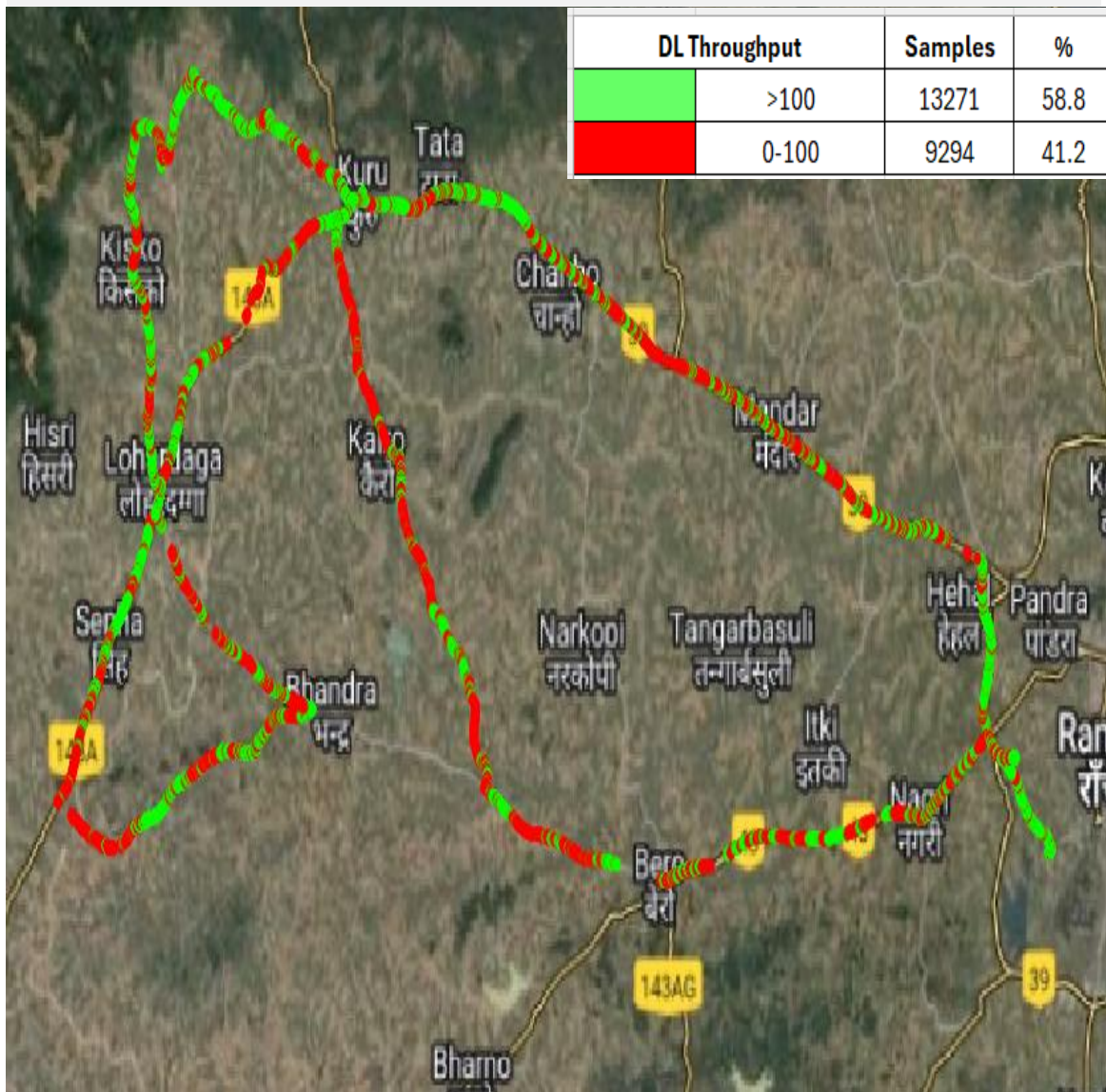| AVG. DOWNLOAD SPEED (Mbps)	38.47
% FILE TRANSFER COMPLETE	100
DL throughput	Sample %
0 to 1 Mbps	3.41
1 to 2 Mbps	4.98
2 to 5 Mbps	9.17
5 to 10 Mbps	7.29
>10 Mbps	75.15
Total	100

AIRTEL

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	2G
Average Download Throughput (Kbps)	139.46

2G

DL Throughput		Samples	%
(green)	>100	13271	58.8
(red)	0-100	9294	41.2

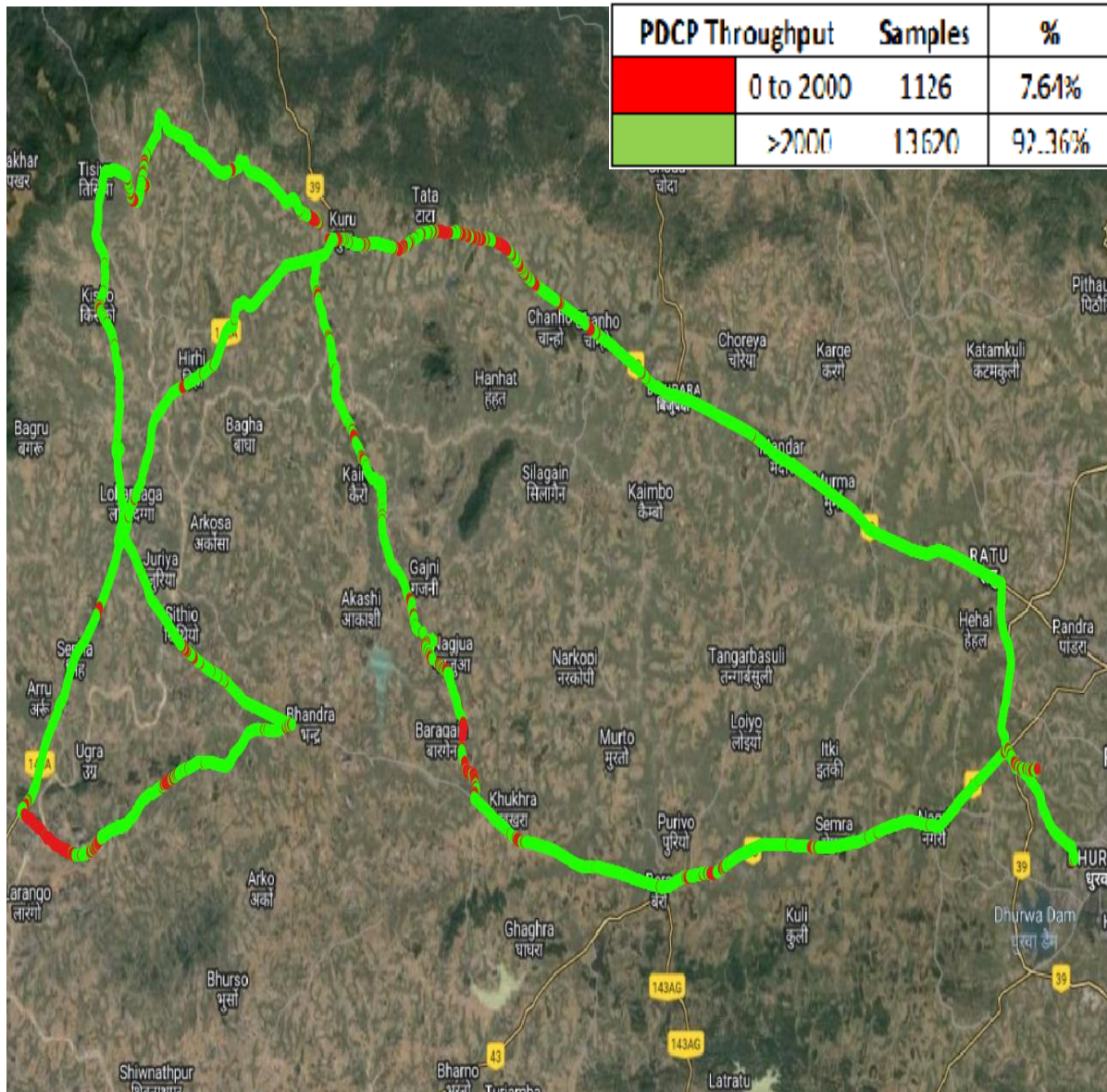| AVG. DOWNLOAD SPEED (Kbps)	139.46
% FILE TRANSFER COMPLETE	100
DL throughput	Sample %
0 to 50 Kbps	22.2
50 to 100 Kbps	12.9
100 to 200 Kbps	32.2
200 to 300 Kbps	32.3
>300 Kbps	0.4
Total	**100**

AIRTEL

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	4G
Average Download Throughput (Mbps)	38.47

4G

PDCP Throughput		Samples	%
	0 to 2000	1126	7.64%
	>2000	13620	92.36%

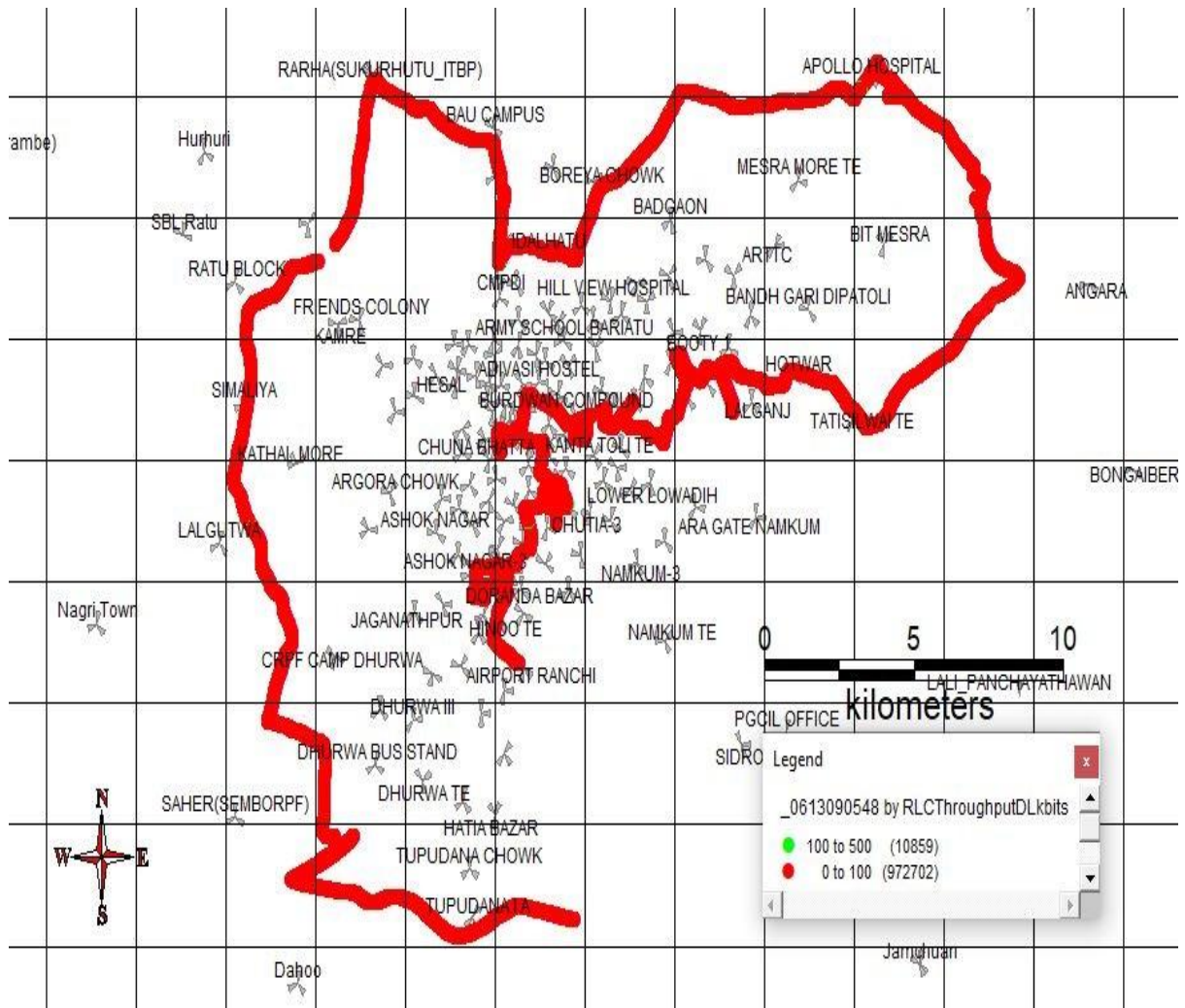| AVG. DOWNLOAD SPEED (Mbps)	38.47
% FILE TRANSFER COMPLETE	100
DL throughput	Sample %
0 to 1 Mbps	3.41
1 to 2 Mbps	4.98
2 to 5 Mbps	9.17
5 to 10 Mbps	7.29
>10 Mbps	75.15
Total	**100**

BSNL

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	2G
Average Download Throughput (Kbps)	31.46

2G

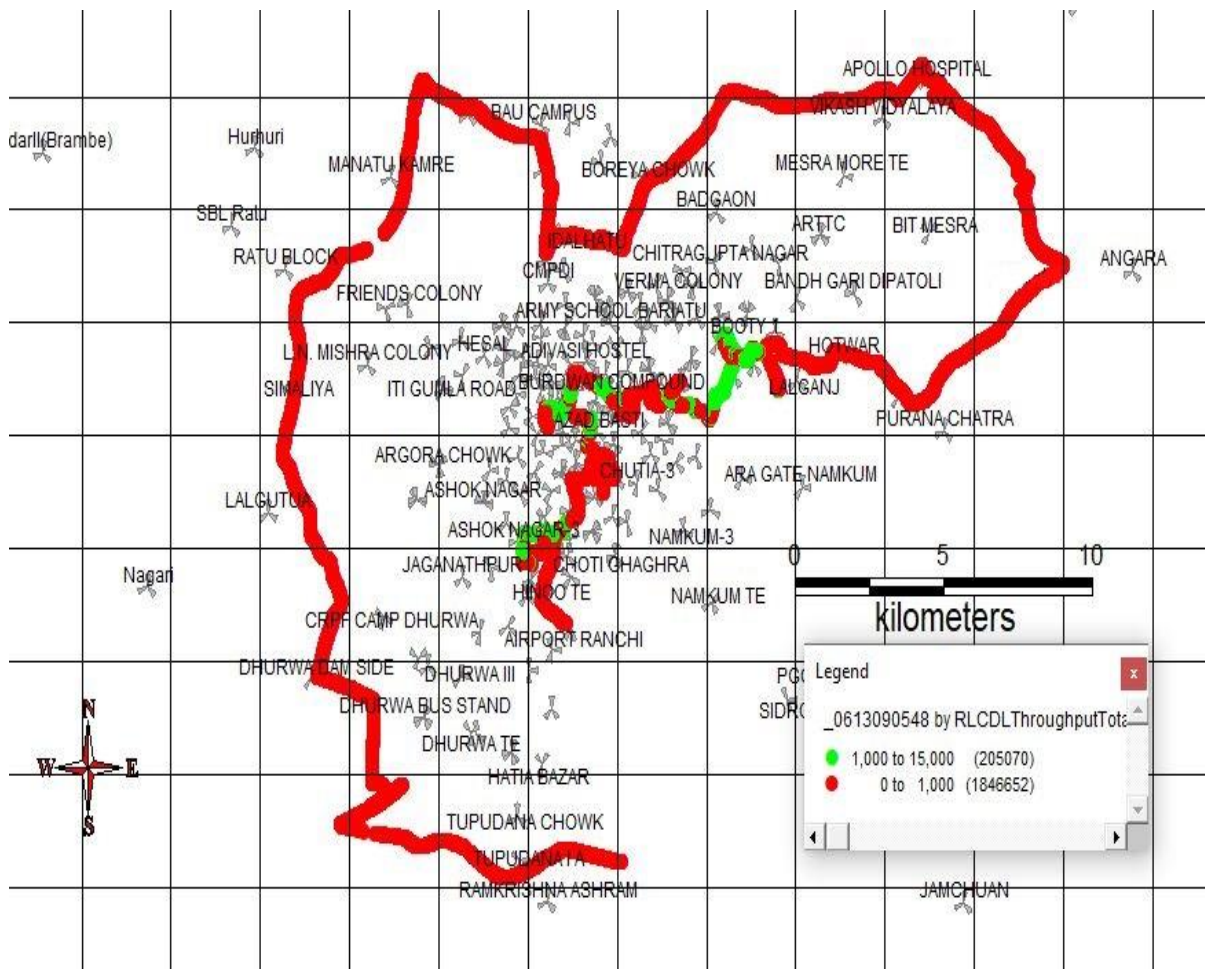| AVG. DOWNLOAD SPEED (Kbps)	31.46
% FILE TRANSFER COMPLETE	92.38
DL throughput	Sample %
0 to 50 Kbps	92.88
50 to 100 Kbps	5.64
100 to 200 Kbps	1.35
200 to 300 Kbps	0.12
>300 Kbps	0.00
Total	100

BSNL

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	3G
Average Download Throughput (Mbps)	1.61

3G

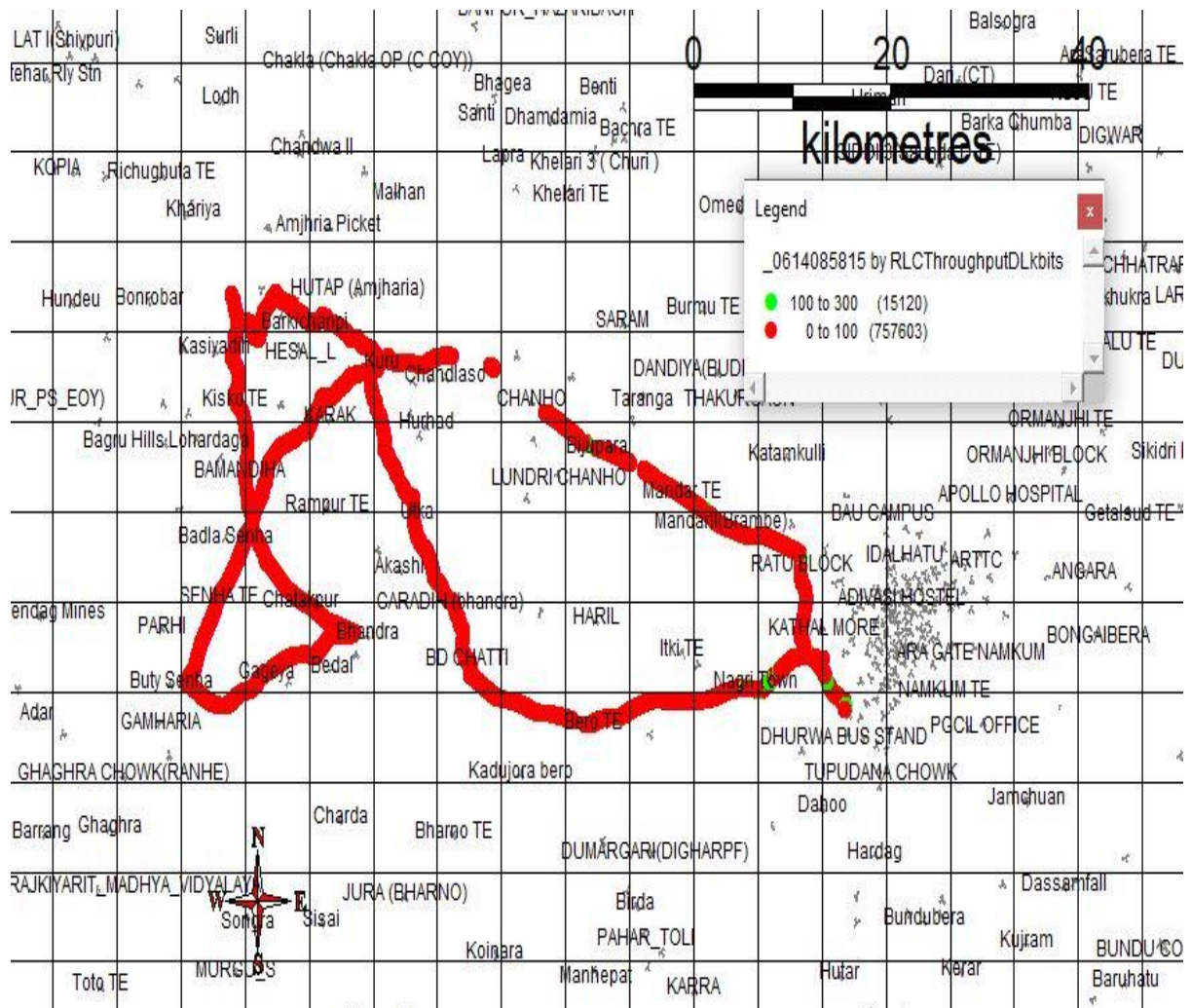| AVG. DOWNLOAD SPEED (Mbps)	1.61
% FILE TRANSFER COMPLETE	93.75
DL throughput	Sample %
0 to 0.5 Mbps	85.76
0.5 to 1 Mbps	3.97
1 to 2 Mbps	4.41
2 to 5 Mbps	4.80
>5 Mbps	1.07
Total	100

BSNL

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	2G
Average Download Throughput (Kbps)	31.46

2G

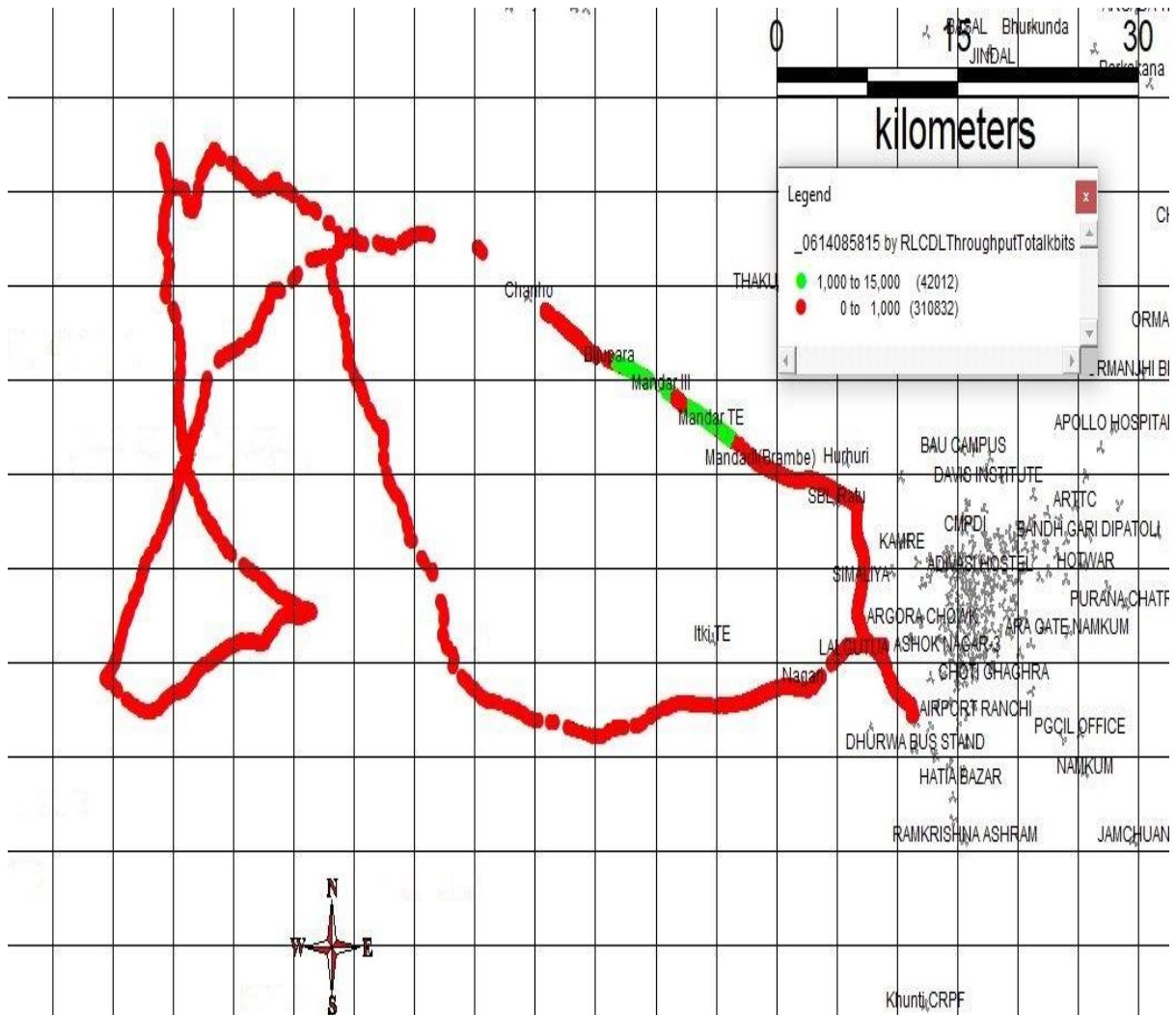|	
AVG. DOWNLOAD SPEED (Mbps)	31.46
% FILE TRANSFER COMPLETE	92.38
DL throughput	Sample %
0 to 50 Kbps	92.88
50 to 100 Kbps	5.64
100 to 200 Kbps	1.35
200 to 300 Kbps	0.12
>300 Kbps	0.00
Total	**100**

BSNL

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	3G
Average Download Throughput (Mbps)	1.61

3G

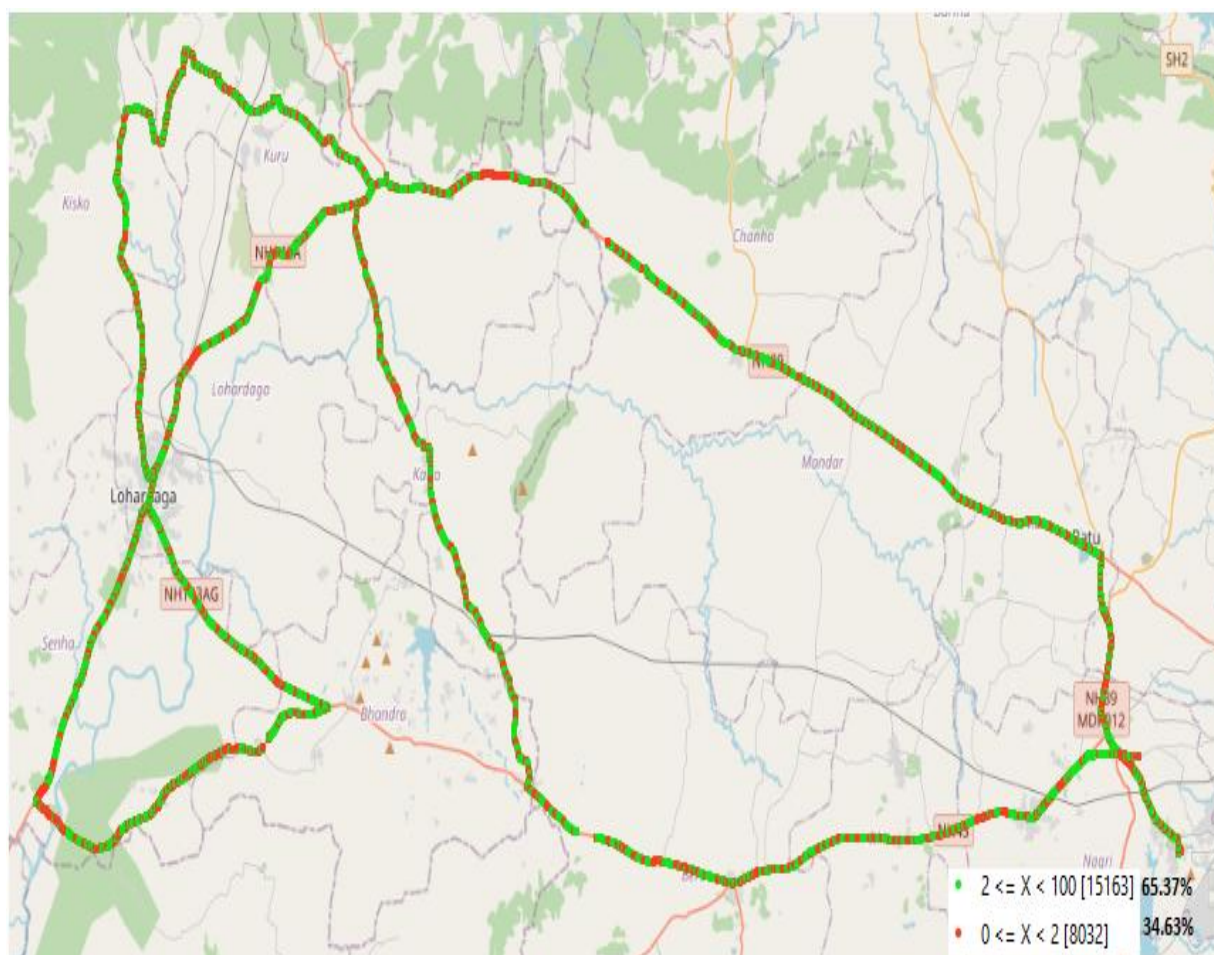| AVG. DOWNLOAD SPEED (Mbps)	1.61
% FILE TRANSFER COMPLETE	93.75
DL throughput	Sample %
0 to 0.5 Mbps	85.76
0.5 to 1 Mbps	3.97
1 to 2 Mbps	4.41
2 to 5 Mbps	4.80
>5 Mbps	1.07
Total	100

RJIO

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	4G
Average Download Throughput (Mbps)	13.76

4G

Legend:
- 2 < X < 100 [12431] 61.88%
- 0 <= X < 2 [7657] 38.12%

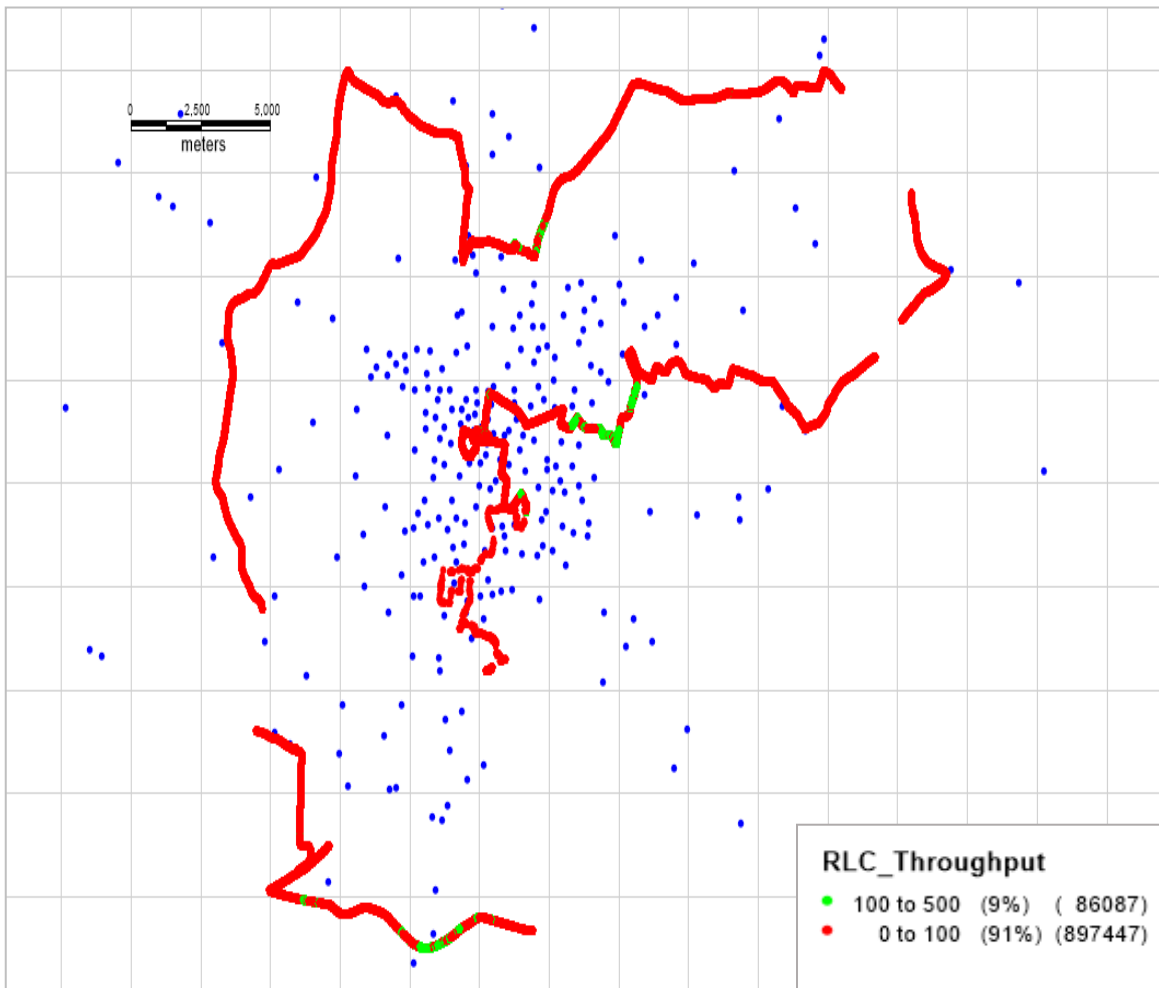| AVG. DOWNLOAD SPEED (Mbps)	13.76
% FILE TRANSFER COMPLETE	100.00
DL throughput	Sample %
0 to 1 Mbps	29.37
1 to 2 Mbps	6.89
2 to 5 Mbps	16.12
5 to 10 Mbps	14.91
>10 Mbps	32.71
Total	100

RJIO

Dynamic Data Testing Complete 408 Kms

Data KPIs - Overall	4G
Average Download Throughput (Mbps)	13.76

4G

	2 <= X < 100 [15163]	65.37%
	0 <= X < 2 [8032]	34.63%

AVG. DOWNLOAD SPEED (Mbps)	13.76
% FILE TRANSFER COMPLETE	100.00
DL throughput	**Sample %**
0 to 1 Mbps	29.37
1 to 2 Mbps	6.89
2 to 5 Mbps	16.12
5 to 10 Mbps	14.91
>10 Mbps	32.71
Total	**100**

VIL

Dynamic Data Testing Complete 408 Kms

Data KPIs – Overall	2G
Average Download Throughput (Kbps)	80.23

2G

RLC_Throughput
- 100 to 500 (9%) (86087)
- 0 to 100 (91%) (897447)

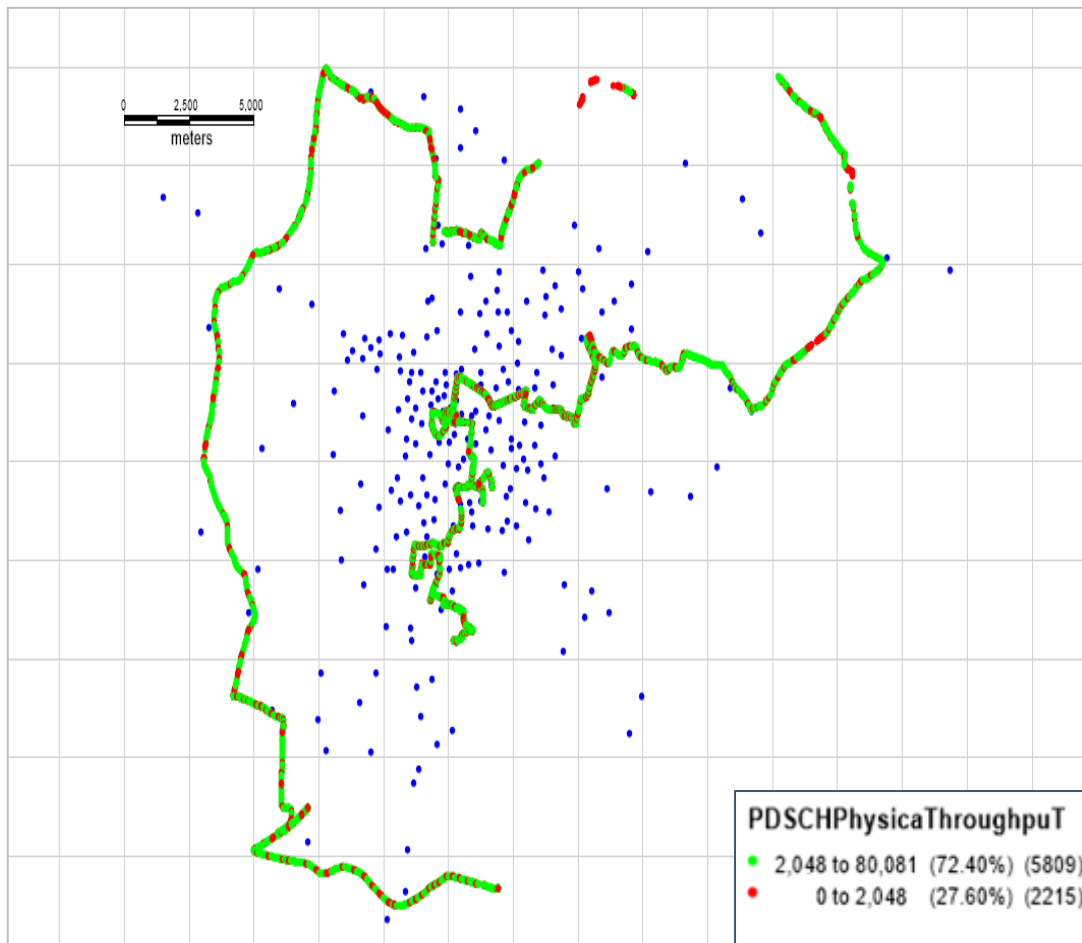| AVG. DOWNLOAD SPEED (Kbps)	80.23
% FILE TRANSFER COMPLETE	97.08
DL throughput	**Sample %**
0 to 50 Kbps	82.59
50 to 100 Kbps	7.22
100 to 200 Kbps	8.02
200 to 300 Kbps	2.16
>300 Kbps	0.01
Total	**100**

VIL

Dynamic Data Testing Complete 408 Kms

Data KPIs – Overall	4G
Average Download Throughput (Mbps)	33.29

4G

PDSCHPhysicaThroughpuT
- 2,048 to 80,081 (72.40%) (5809)
- 0 to 2,048 (27.60%) (2215)

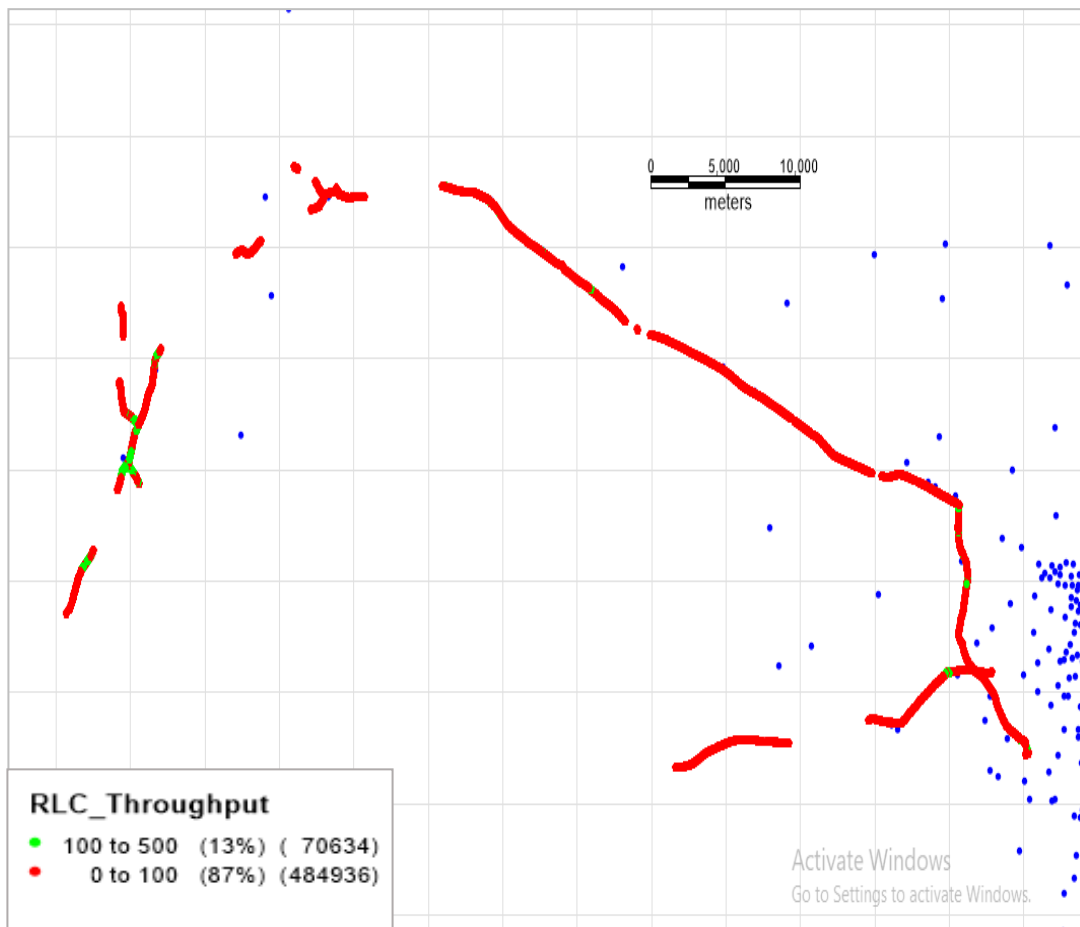| AVG. DOWNLOAD SPEED (Mbps)	33.29
% FILE TRANSFER COMPLETE	99.47
DL throughput	**Sample %**
0 to 1 Mbps	21.67
1 to 2 Mbps	2.88
2 to 5 Mbps	8.15
5 to 10 Mbps	11.45
>10 Mbps	55.84
Total	**100**

VIL

Dynamic Data Testing Complete 408 Kms

Data KPIs – Overall	2G
Average Download Throughput (Kbps)	80.23

2G

RLC_Throughput
- 100 to 500 (13%) (70634)
- 0 to 100 (87%) (484936)

Activate Windows
Go to Settings to activate Windows.

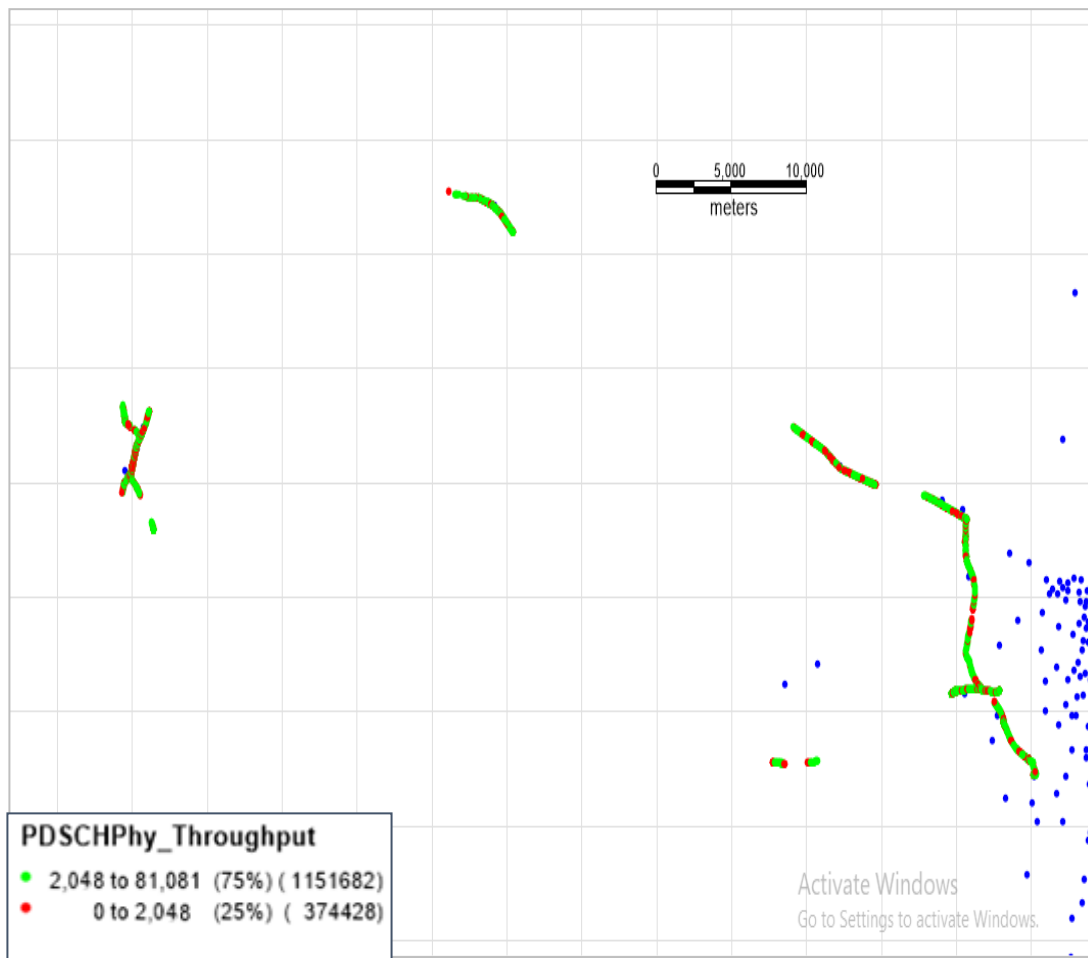| AVG. DOWNLOAD SPEED (Kbps)	80.23
% FILE TRANSFER COMPLETE	97.08
DL throughput	Sample %
0 to 50 Kbps	82.59
50 to 100 Kbps	7.22
100 to 200 Kbps	8.02
200 to 300 Kbps	2.16
>300 Kbps	0.01
Total	100

VIL

Dynamic Data Testing Complete 408 Kms

Data KPIs – Overall	4G
Average Download Throughput (Mbps)	33.29

4G

PDSCHPhy_Throughput
- 2,048 to 81,081 (75%) (1151682)
- 0 to 2,048 (25%) (374428)

Activate Windows
Go to Settings to activate Windows.

AVG. DOWNLOAD SPEED (Mbps)	33.29
% FILE TRANSFER COMPLETE	99.47
DL throughput	**Sample %**
0 to 1 Mbps	21.67
1 to 2 Mbps	2.88
2 to 5 Mbps	8.15
5 to 10 Mbps	11.45
>10 Mbps	55.84
Total	**100**