

Seychelles Test Drive

Roche Caiman Phase-2 Report



Phase-1 Dates- 08th Oct 2024



Route Name: Mahe

District Name: Roche Caiman

Region: East

Island: Mahé

Drive Test Distance: 9.85 kms

Drive Test Duration: 00 hours,28 minutes,07 seconds

Phase-2 Dates- 21st Oct 2024



Route Name: Mahe

District Name: Roche Caiman

Region: East

Island: Mahé

Drive Test Distance: 10.53 kms

Drive Test Duration: 00 hours,31 minutes,77 seconds

Phase-1**Short Call Findings:**

- The Call Setup Success Rate for Airtel is (100.00%), while for Operator CWS it is (100.00%).
- The Call Setup Time for Airtel is (6.36s) , while for Operator CWS it is (7.15s)

Long Call Findings :

- The Call Retainability for Airtel is (100.00%), while for CWS it is (100.00%).
- The MOS quality observed for Airtel is (3.18), and for CWS, it is (3.57).

Phase-2**Short Call Findings:**

- The Call Setup Success Rate for Airtel is (100.00%), while for Operator CWS it is (100.00%).
- The Call Setup Time for Airtel is (6.31s), while for Operator CWS it is (7.70s)

Long Call Findings :

- The Call Retainability for Airtel is (100.00%), while for CWS it is (90.91%).
- The MOS quality observed for Airtel is (3.18), and for CWS, it is (3.45).

Phase-1

4G Preferred Data Findings:

- Airtel SFTP DL is (12.01 Mbps), while SFTP UL is (5.55 Mbps), CWS SFTP DL is (8.02 Mbps), while SFTP UL is (4.00 Mbps)
- Airtel HTTP DL is (18.33 Mbps), HTTP Capacity DL is (33.40 Mbps) ,HTTP UL is (8.04 Mbps) , and HTTP Capacity UL is (13.85 Mbps).
- CWS HTTP DL is (12.96 Mbps), HTTP Capacity DL is (26.62 Mbps) ,HTTP UL is (7.55 Mbps) , and HTTP Capacity UL is (23.81 Mbps).
- On live web page testing for browsing, www.shein.com took (7.63s), www.nbs.gov.sc took (18.00s), and www.sbc.sc took (16.44s) on Airtel.
- On live web page testing for browsing, www.shein.com took (6.53s), www.nbs.gov.sc took (15.28s), and www.sbc.sc took (13.62s) on CWS.
- On static browsing, Kepler Webpage took (3.80s), and Kepler Mobile took (1.67s) on Airtel.
- On static browsing, Kepler Webpage took (4.73s), and Kepler Mobile took (2.75s) on CWS.
- YouTube average resolution in Airtel is (1041.70) pixels.
- YouTube average resolution in CWS is (1047.17) pixels.
- Airtel scored 61.44% in Carrier Aggregation (CA).
- CWS scored 33.45% in Carrier Aggregation (CA).

Phase-2

4G Preferred Data Findings:

- Airtel SFTP DL is (9.00 Mbps), while SFTP UL is (4.67 Mbps), CWS SFTP DL is (7.39 Mbps), while SFTP UL is (4.12 Mbps)
- Airtel HTTP DL is (13.00 Mbps), HTTP Capacity DL is (29.12 Mbps) ,HTTP UL is (7.01 Mbps) , and HTTP Capacity UL is (20.18 Mbps).
- CWS HTTP DL is (8.73 Mbps), HTTP Capacity DL is (18.84 Mbps) ,HTTP UL is (7.35 Mbps) , and HTTP Capacity UL is (42.24 Mbps).
- On live web page testing for browsing, www.shein.com took (7.33s), www.nbs.gov.sc took (17.55s), and www.sbc.sc took (20.64s) on Airtel.
- On live web page testing for browsing, www.shein.com took (6.91s), www.nbs.gov.sc took (16.37s), and www.sbc.sc took (13.90s) on CWS.
- On static browsing, Kepler Webpage took (4.63s), and Kepler Mobile took (1.68s) on Airtel.
- On static browsing, Kepler Webpage took (4.93s), and Kepler Mobile took (2.97s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1080.00) pixels.
- Airtel scored 63.25% in Carrier Aggregation (CA).
- CWS scored 23.53% in Carrier Aggregation (CA).

Phase-1

3G Preferred Data Test Findings:

- Airtel SFTP DL is (5.43 Mbps), while SFTP UL is (1.93 Mbps), CWS SFTP DL is (3.56 Mbps), while SFTP UL is (1.38 Mbps)
- Airtel HTTP DL is (4.74 Mbps), HTTP Capacity DL is (2.72 Mbps) ,HTTP UL is (4.74 Mbps) , and HTTP Capacity UL is (5.39 Mbps).
- CWS HTTP DL is (1.38 Mbps), HTTP Capacity DL is (2.53 Mbps) ,HTTP UL is (3.53 Mbps) , and HTTP Capacity UL is (5.98 Mbps).
- On live web page testing for browsing, www.shein.com took (1.70s), www.nbs.gov.sc took (11.13s), and www.sbc.sc took (11.81s) on Airtel.
- On live web page testing for browsing, www.shein.com took (2.75s), www.nbs.gov.sc took (9.76s), and www.sbc.sc took (8.53s) on CWS.
- On static browsing, Kepler Webpage took (6.92s), and Kepler Mobile took (4.71s) on Airtel.
- On static browsing, Kepler Webpage took (6.62s), and Kepler Mobile took (5.97s) on CWS.
- YouTube average resolution in Airtel is (990.00) pixels.
- YouTube average resolution in CWS is (1036.36) pixels.

Phase-2

3G Preferred Data Test Findings:

- Airtel SFTP DL is (4.09 Mbps), while SFTP UL is (1.46 Mbps), CWS SFTP DL is (3.25 Mbps), while SFTP UL is (1.18 Mbps)
- Airtel HTTP DL is (5.70 Mbps), HTTP Capacity DL is (5.11 Mbps) ,HTTP UL is (2.94 Mbps) , and HTTP Capacity UL is (5.38 Mbps).
- CWS HTTP DL is (3.24 Mbps), HTTP Capacity DL is (7.94 Mbps) ,HTTP UL is (2.48 Mbps) , and HTTP Capacity UL is (5.10 Mbps).
- On live web page testing for browsing, www.shein.com took (9.83s), www.nbs.gov.sc took (11.34s), and www.sbc.sc took (16.09s) on Airtel.
- On live web page testing for browsing, www.shein.com took (8.71s), www.nbs.gov.sc took (9.96s), and www.sbc.sc took (13.84s) on CWS.
- On static browsing, Kepler Webpage took (3.28s), and Kepler Mobile took (1.68s) on Airtel.
- On static browsing, Kepler Webpage took (5.11s), and Kepler Mobile took (2.50s) on CWS.
- YouTube average resolution in Airtel is (1018.91) pixels.
- YouTube average resolution in CWS is (1080.00) pixels.

Short Call	
Call Duration	10 Seconds
Setup and Release phase	30 seconds
Minimum pause between calls	30 seconds

Long Call	
Call Duration	120 Seconds
Setup and Release phase	30 seconds
Minimum between calls	30 seconds

DATA	Test Type and Timeout	Technology 3G Preferred	Technology 4G Preferred
POP always on. ICMP PAYLOAD PING 800 BYTES			
1	FILE TRANSFER DOWNLOAD 135s	FTP DL (3MB) wait 10s	FTP DL (5MB) wait 10s
2	FILE TRANSFER UPLOAD 135s	FTP UL (1MB) wait 10s	FTP UL (3MB) wait 10s
3	FILE TRANSFER DOWNLOAD 135s	HTTP Get (3MB) wait 10s	HTTP Get (5MB) wait 10s
4	FILE TRANSFER UPLOAD 135s	HTTP Put (1MB) wait 10s	HTTP Put (3MB) wait 10s
5	ICMP PING 32 BYTES	Ping (32 bytes) *5 wait 10s	Ping (32 bytes) *5 wait 10s
6	YOUTUBE STREAMING 95 seconds	Video: YouTube 60sec wait 10s	Video: YouTube 60sec wait 10s
7	KEPLER WEB BROWSING 45s	HTTPS Browsing: Kepler wait 10s	HTTPS Browsing: Kepler wait 10s
8	LIVE WEB BROWSING 45s	www.shein.com, www.nbs.gov.sc, www.sbc.sc wait 10s	www.shein.com, www.nbs.gov.sc, www.sbc.sc wait 10s
9	KEPLER MOBILE WEB BROWSING 45s	HTTPS Browsing: Kepler Mobile wait 10s	HTTPS Browsing: Kepler Mobile wait 10s
10	ICMP PING 32 BYTES	Ping (32 bytes) 5 www.google.com wait 10s	Ping (32 bytes) 5 www.google.com wait 10s
11	FILE TRANSFER-CAPACITY DOWNLOAD 10s fixed duration	HTTP Get (500MB) Multiple files wait 10s	HTTP Get (500MB) Multiple files wait 10s
12	FILE TRANSFER-CAPACITY UPLOAD 10s fixed duration	HTTP Put (500MB)-Multiple Files wait 10s	HTTP Put (500MB)-Multiple Files wait 10s

VOICE TEST KPI STATISTICS (Short Call)

Phase-1

Short Call Statistics		
Short Call Scenario	Operator 1	Operator 2
Voice KPIs	Airtel	CWS
Call Attempt	34	33
Call Failed	0	0
Call Connected	34	33
CSSR[%]	100.00	100.00
USCSR[%]	0.00	0.00
CST [s] Alerting	6.36	7.15
CST [s]Connected	6.65	7.35

CSSR= Call Setup Success rate
 USCSR=Unsuccessful call setup ratio
 CST=Call setup time
 Call Setup Success Ratio >97%
 CRR= Call retainability ratio
 DCR=Dropped-call rate
 MOS=Mean Opinion Score
 Drop Call Ratio<2

Call Setup Time (s)	Operators		Rank	
	Airtel	CWS	Airtel	CWS
Overall CST (until ringing/alerting)	6.36	7.15	1	2
CS calls CST (until ringing/alerting)	#N/A	#N/A	#N/A	#N/A
CSFB calls CST (until ringing/alerting)	6.36	7.15	1	2
Overall CST (until Connect/Connect Acknowledge)	6.66	7.35	1	2
CS calls CST (until Connect/Connect Acknowledge)	#N/A	#N/A	#N/A	#N/A
CSFB calls CST (until Connect/Connect Acknowledge)	6.66	7.35	1	2

Phase-2

Short Call Statistics		
Short Call Scenario	Operator 1	Operator 2
Voice KPIs	Airtel	CWS
Call Attempt	41.0	39.0
Call Failed	0.0	0.0
Call Connected	41.0	39.0
CSSR[%]	100.00	100.00
USCSR[%]	0.00	0.00
CST [s] Alerting	6.31	7.70
CST [s]Connected	6.58	7.87

Call Setup Time (s)	Operators		Rank	
	Airtel	CWS	Airtel	CWS
Overall CST (until ringing/alerting)	6.31	7.70	1	2
CS calls CST (until ringing/alerting)	7.38	#N/A	#N/A	#N/A
CSFB calls CST (until ringing/alerting)	6.19	7.70	1	2
Overall CST (until Connect/Connect Acknowledge)	6.58	7.87	1	2
CS calls CST (until Connect/Connect Acknowledge)	7.73	#N/A	#N/A	#N/A
CSFB calls CST (until Connect/Connect Acknowledge)	6.46	7.87	1	2

Phase-1

Long Call Statistics				
Long Call Scenario	Operator 1		Operator 2	
Voice KPIs	Airtel	CWS		
Call Connected	10	10		
Call Dropped	0	0		
Call Completed	10	10		
CRR[%]	100.00	100.00		
DCR[%]	0.00	0.00		
MOS	3.18	3.57		
	Airtel short call	CWS short call	Airtel long call	CWS long call
CSFB Calls	34	33	10	10
CS Calls	0	0	0	0
Handover Statistics		Airtel MO	CWS MO	
Handover Attempt		16	30	
Handover Failure		2	0	
Handover Success		14	30	
HOSR %		87.50	100.00	

Phase-2

Long Call Statistics				
Long Call Scenario	Operator 1		Operator 2	
Voice KPIs	Airtel	CWS		
Call Connected	10	11		
Call Dropped	0	1		
Call Completed	10	10		
CRR[%]	100.00	90.91		
DCR[%]	0.00	9.09		
MOS	3.18	3.45		
	Airtel short call	CWS short call	Airtel long call	CWS long call
CSFB Calls	37	39	10	11
CS Calls	4	0	0	0
Handover Statistics		Airtel MO	CWS MO	
Handover Attempt		17	25	
Handover Failure		0	0	
Handover Success		17	25	
HOSR %		100.00	100.00	

DATA TEST KPI STATISTICS(4G Preferred)

DATA Scenario		Phase-1				Phase-2			
		Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
FILE TRANSFER	SFTP DL (Mbps)	12.01	8.02	1	2	9.00	7.39	1	2
	SFTP UL(Mbps)	5.55	4.00	1	2	4.67	4.12	1	2
	HTTP DL(Mbps)	18.33	12.96	1	2	13.00	8.73	1	2
	HTTP UL(Mbps)	8.04	7.55	1	2	7.01	7.35	2	1
	HTTP Capacity DL(Mbps)	33.40	26.62	1	2	29.12	18.84	1	2
	HTTP Capacity UL(Mbps)	13.85	23.81	2	1	20.18	42.24	2	1
BROWSER	Overall Browser DL Time (s)	9.50	8.58	2	1	10.56	9.01	2	1
	Kepler Webpage DL Time (s)	3.80	4.73	1	2	4.63	4.93	1	2
	Mobile Kepler Webpage DL Time (s)	1.67	2.75	1	2	1.68	2.97	1	2
	www.shein.com Webpage DL Time (s)	7.63	6.53	2	1	7.33	6.91	2	1
	www.nbs.gov.sc Webpage DL Time (s)	18.00	15.28	2	1	17.55	16.37	2	1
	www.sbc.sc Webpage DL Time (s)	16.44	13.62	2	1	20.64	13.90	2	1
LATENCY	Avg Latency (ms)	259.72	227.53	2	1	261.87	315.95	1	2
	Median Latency (ms)	142	195	1	2	142	303	1	2
YOUTUBE	YouTube Access Time (s)	5.24	1.40	2	1	5.45	1.89	2	1
	YouTube Average Resolution (pixels)	1041.70	1047.17	2	1	1080.00	1080.00	1	1
	YouTube Success Ratio [%]	100.00	83.33	1	2	100.00	100.00	1	1

Phase-1

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
SFTP DL	Success	7	6	100.00	100.00
	Failure	0	0	0.00	0.00
SFTP UL	Success	7	6	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP DL	Success	6	6	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP UL	Success	6	6	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity DL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00

Phase-2

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
SFTP DL	Success	7	7	100.00	100.00
	Failure	0	0	0.00	0.00
SFTP UL	Success	7	7	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP DL	Success	5	7	71.43	100.00
	Failure	2	0	28.57	0.00
HTTP UL	Success	7	7	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity DL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00

Phase-1

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
Kepler	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
Mobile Kepler	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
www.shein.com	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
www.nbs.gov.sc	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
www.sbc.sc	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00

Phase-2

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
Kepler	Success	5	6	83.33	100.00
	Failure	1	0	16.67	0.00
Mobile Kepler	Success	6	6	100.00	100.00
	Failure	0	0	0.00	0.00
www.shein.com	Success	6	6	100.00	100.00
	Failure	0	0	0.00	0.00
www.nbs.gov.sc	Success	6	6	100.00	100.00
	Failure	0	0	0.00	0.00
www.sbc.sc	Success	6	6	100.00	100.00
	Failure	0	0	0.00	0.00

Phase-1

	Latency KPIs	Airtel 4G	CWS 4G
Overall Latency	Sample Count [32 bytes]	11	11
	Average Latency [ms]	248.73	194.73
	Median Latency [ms]	134	191
	Ping session status: Successful	11	11
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
www.google.com	Average Latency [ms]	402.80	160.00
	Median Latency [ms]	406	154
	Ping session status: Successful	5	5
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
102.133.176.104	Average Latency [ms]	120.33	225.50
	Median Latency [ms]	118	204
	Ping session status: Successful	6	6
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00

Phase-2

	Latency KPIs	Airtel 4G	CWS 4G
Overall Latency	Sample Count [32 bytes]	12	13
	Average Latency [ms]	310.58	283.85
	Median Latency [ms]	267	310
	Ping session status: Successful	12	13
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
www.google.com	Average Latency [ms]	419.20	195.33
	Median Latency [ms]	406	163
	Ping session status: Successful	5	6
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
102.133.176.104	Average Latency [ms]	233.00	359.71
	Median Latency [ms]	129	328
	Ping session status: Successful	7	7
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00

Phase-1

LTE YOUTUBE Success Ratio		
KPIs	Airtel 4G	CWS 4G
Attempt(Count)	5	6
Success(Count)	5	5
Failure(Count)	0	1
YouTube Access Time (s)	5.24	1.40
YouTube Average Resolution (pixels)	1041.70	1047.17
YouTube Success Ratio [%]	100.00	83.33

Phase-2

LTE YOUTUBE Success Ratio		
KPIs	Airtel 4G	CWS 4G
Attempt(Count)	6	7
Success(Count)	6	7
Failure(Count)	0	0
YouTube Access Time (s)	5.45	1.89
YouTube Average Resolution (pixels)	1080.00	1080.00
YouTube Success Ratio [%]	100.00	100.00

DATA TEST KPI STATISTICS (3G Preferred)

DATA Scenario		Phase-1				Phase-2			
		Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
FILE TRANSFER	SFTP DL (Mbps)	5.43	3.56	1	2	4.09	3.25	1	2
	SFTP UL(Mbps)	1.93	1.38	1	2	1.46	1.18	1	2
	HTTP DL(Mbps)	4.74	3.53	1	2	5.70	3.24	1	2
	HTTP UL(Mbps)	2.72	2.53	1	2	2.94	2.48	1	2
	HTTP Capacity DL(Mbps)	5.39	5.98	2	1	5.11	7.94	2	1
	HTTP Capacity UL(Mbps)	4.94	4.82	1	2	5.38	5.10	1	2
BROWSER	Overall Browser DL Time (s)	10.29	9.18	2	1	8.12	7.99	2	1
	Kepler Webpage DL Time (s)	4.71	5.97	1	2	3.28	5.11	1	2
	Mobile Kepler Webpage DL Time (s)	1.70	2.75	1	2	1.68	2.50	1	2
	www.shein.com Webpage DL Time (s)	11.13	9.76	2	1	9.83	8.71	2	1
	www.nbs.gov.sc Webpage DL Time (s)	11.81	8.53	2	1	11.34	9.96	2	1
	www.sbc.sc Webpage DL Time (s)	18.68	15.04	2	1	16.09	13.84	2	1
LATENCY	Avg Latency (ms)	247.54	228.11	2	1	267.49	191.06	2	1
	Median Latency (ms)	133	210	1	2	271.00	195.50	2	1
YOUTUBE	YouTube Access Time (s)	4.10	1.95	2	1	3.36	1.88	2	1
	YouTube Average Resolution (pixels)	990.00	1036.36	2	1	1018.91	1080.00	2	1
	YouTube Success Ratio [%]	100.00	100.00	1	1	83.33	100.00	2	1

Phase-1

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
SFTP DL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
SFTP UL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP DL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP UL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity DL	Success	3	3	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	3	3	100.00	100.00
	Failure	0	0	0.00	0.00

Phase-2

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
SFTP DL	Success	7	6	100.00	100.00
	Failure	0	0	0.00	0.00
SFTP UL	Success	7	5	100.00	83.33
	Failure	0	1	0.00	16.67
HTTP DL	Success	7	6	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP UL	Success	7	5	100.00	83.33
	Failure	0	1	0.00	16.67
HTTP Capacity DL	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	5	4	100.00	100.00
	Failure	0	0	0.00	0.00

Phase-1

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Kepler	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
Mobile Kepler	Success	3	2	100.00	100.00
	Failure	0	0	0.00	0.00
www.shein.com	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
www.nbs.gov.sc	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
www.sbc.sc	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00

Phase-2

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Kepler	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
Mobile Kepler	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00
www.shein.com	Success	5	4	100.00	100.00
	Failure	0	0	0.00	0.00
www.nbs.gov.sc	Success	4	5	100.00	100.00
	Failure	0	0	0.00	0.00
www.sbc.sc	Success	5	5	100.00	100.00
	Failure	0	0	0.00	0.00

Phase-1

	Latency KPIs	Airtel 3G	CWS 3G
Overall Latency	Sample Count [32 bytes]	5	7
	Average Latency [ms]	311.40	232.71
	Median Latency [ms]	395	212
	Ping session status: Successful	5	7
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	3	0
	Packet Loss<1%	37.50	0.00
www.google.com	Average Latency [ms]	422.67	152.00
	Median Latency [ms]	407	152
	Ping session status: Successful	3	2
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
102.133.176.104	Average Latency [ms]	144.50	265.00
	Median Latency [ms]	145	219
	Ping session status: Successful	2	5
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	3	0
	Packet Loss<1%	60.00	0.00

Phase-2

	Latency KPIs	Airtel 3G	CWS 3G
Overall Latency	Sample Count [32 bytes]	11	10
	Average Latency [ms]	275.55	192.60
	Median Latency [ms]	341	177
	Ping session status: Successful	11	10
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
www.google.com	Average Latency [ms]	402.80	145.20
	Median Latency [ms]	404	140
	Ping session status: Successful	5	5
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
102.133.176.104	Average Latency [ms]	169.50	240.00
	Median Latency [ms]	137	198
	Ping session status: Successful	6	5
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00

Phase-1

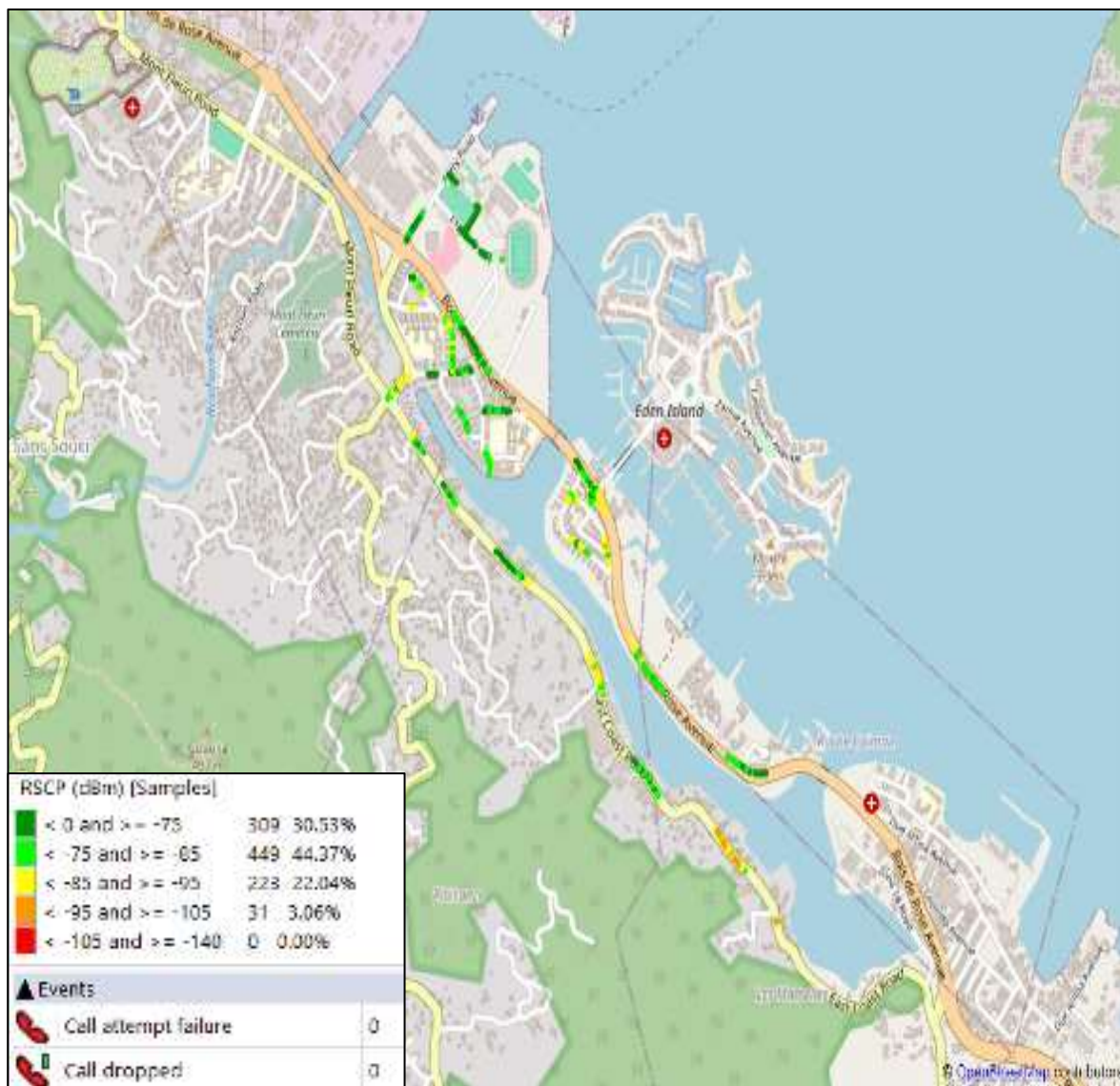
UMTS YOUTUBE Success Ratio		
KPIs	Airtel 3G	CWS 3G
Attempt(Count)	5	5
Success(Count)	5	5
Failure(Count)	0	0
YouTube Access Time (s)	4.10	1.95
YouTube Average Resolution (pixels)	990.00	1036.36
YouTube Success Ratio [%]	100.00	100.00

Phase-2

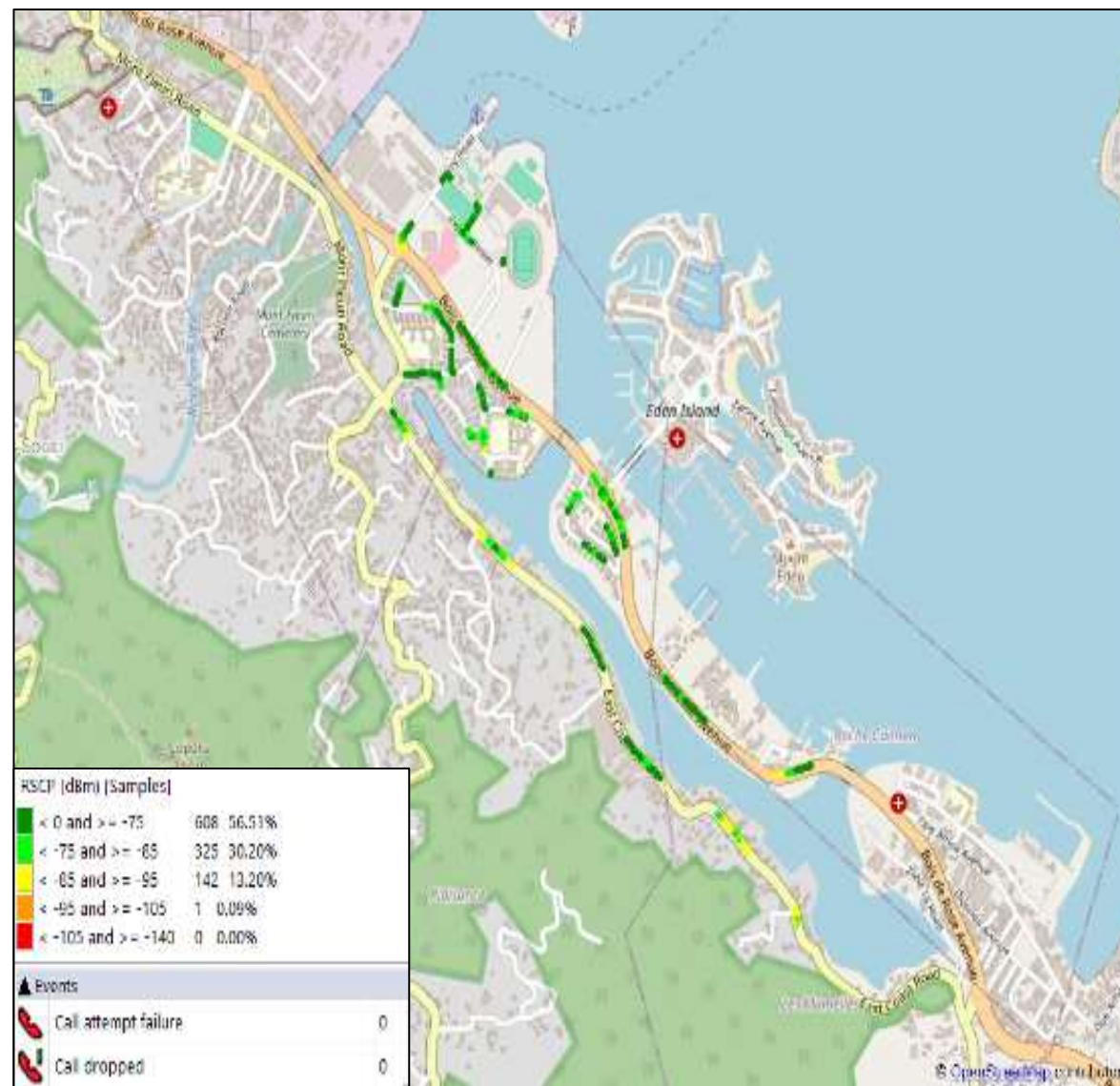
UMTS YOUTUBE Success Ratio		
KPIs	Airtel 3G	CWS 3G
Attempt(Count)	6	6
Success(Count)	5	6
Failure(Count)	1	0
YouTube Access Time (s)	3.36	1.88
YouTube Average Resolution (pixels)	1018.91	1080.00
YouTube Success Ratio [%]	83.33	100.00

Voice Call Events

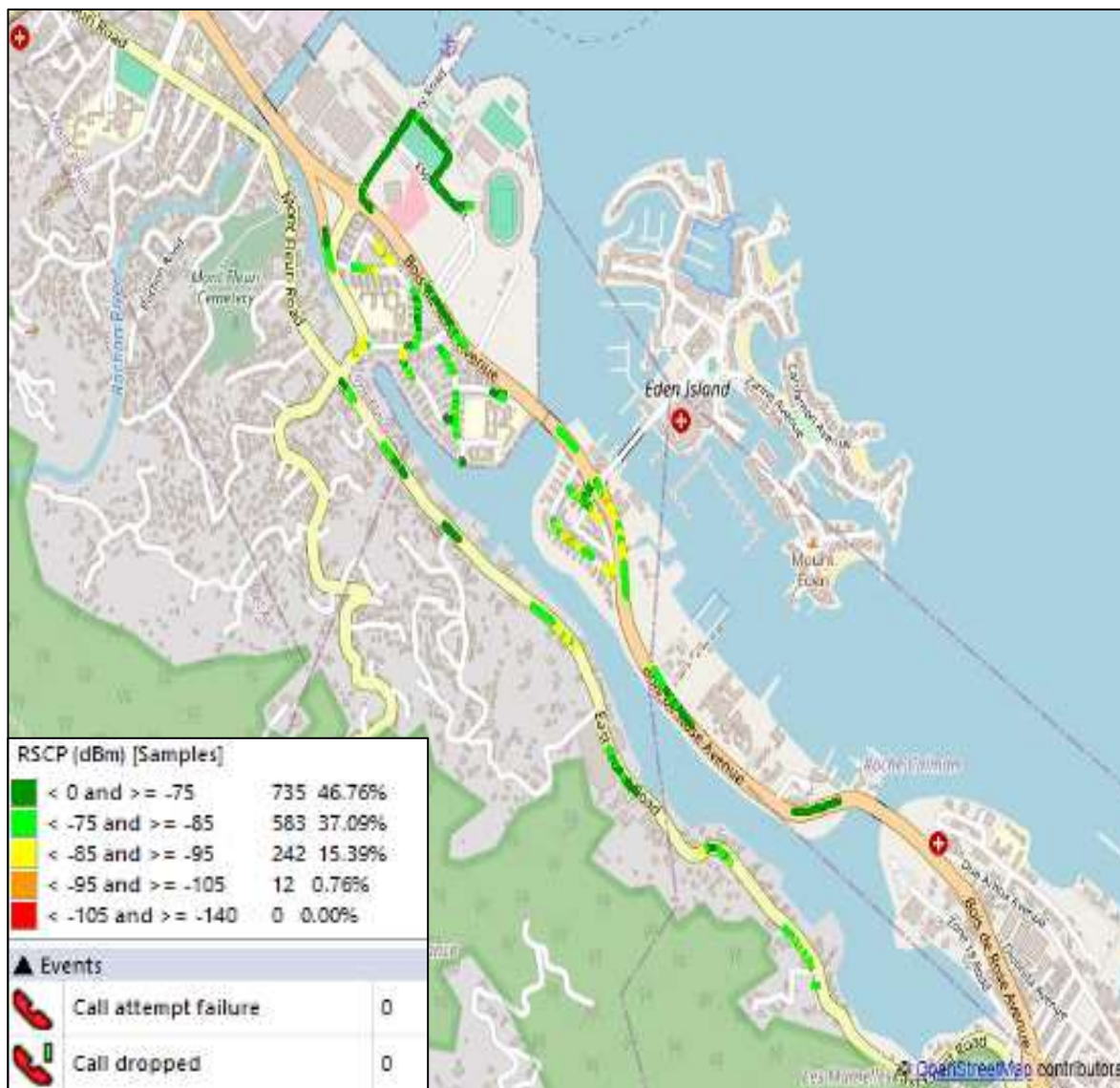
Airtel SC MO



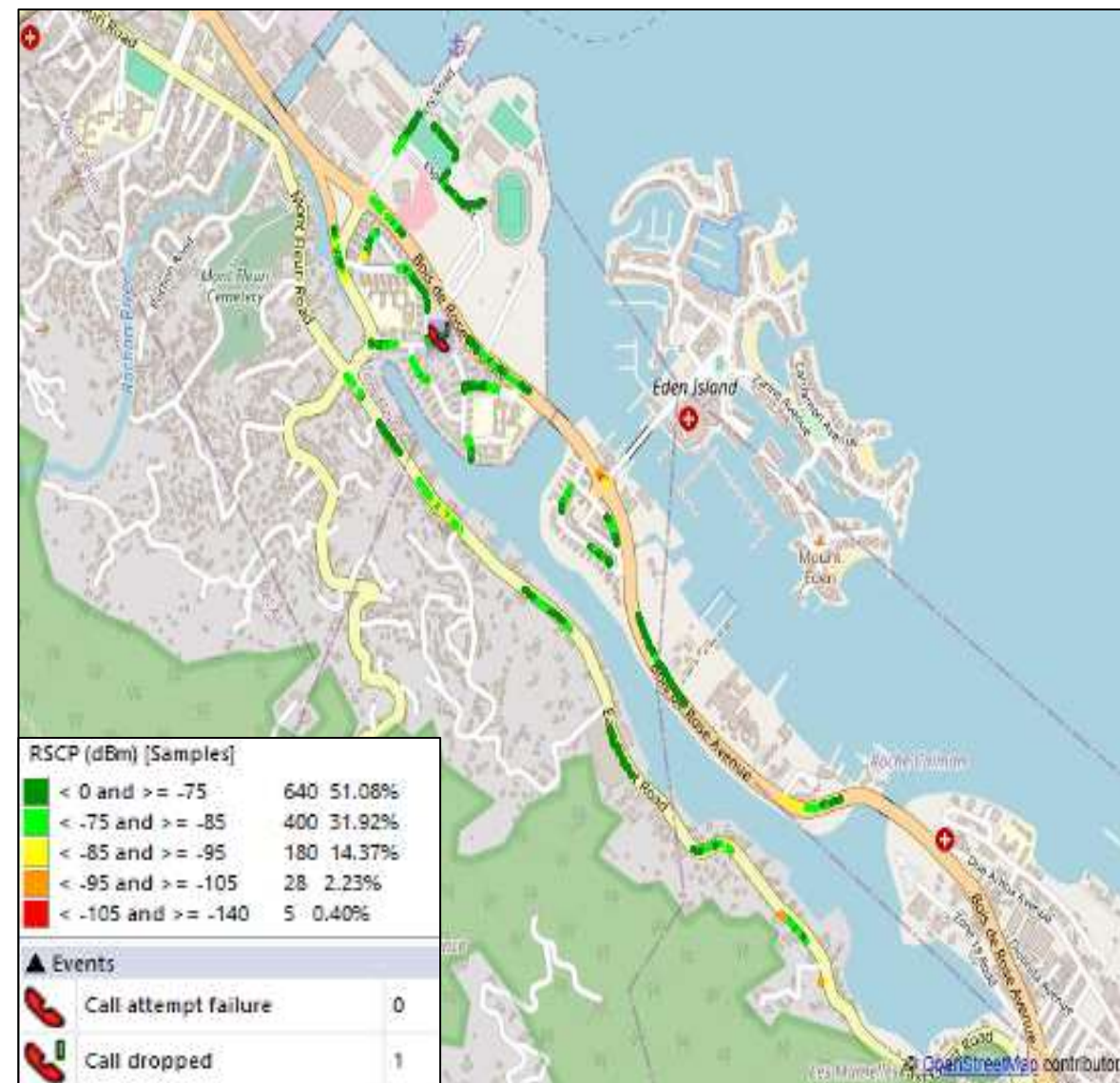
CWS SC MO



Airtel SC MO

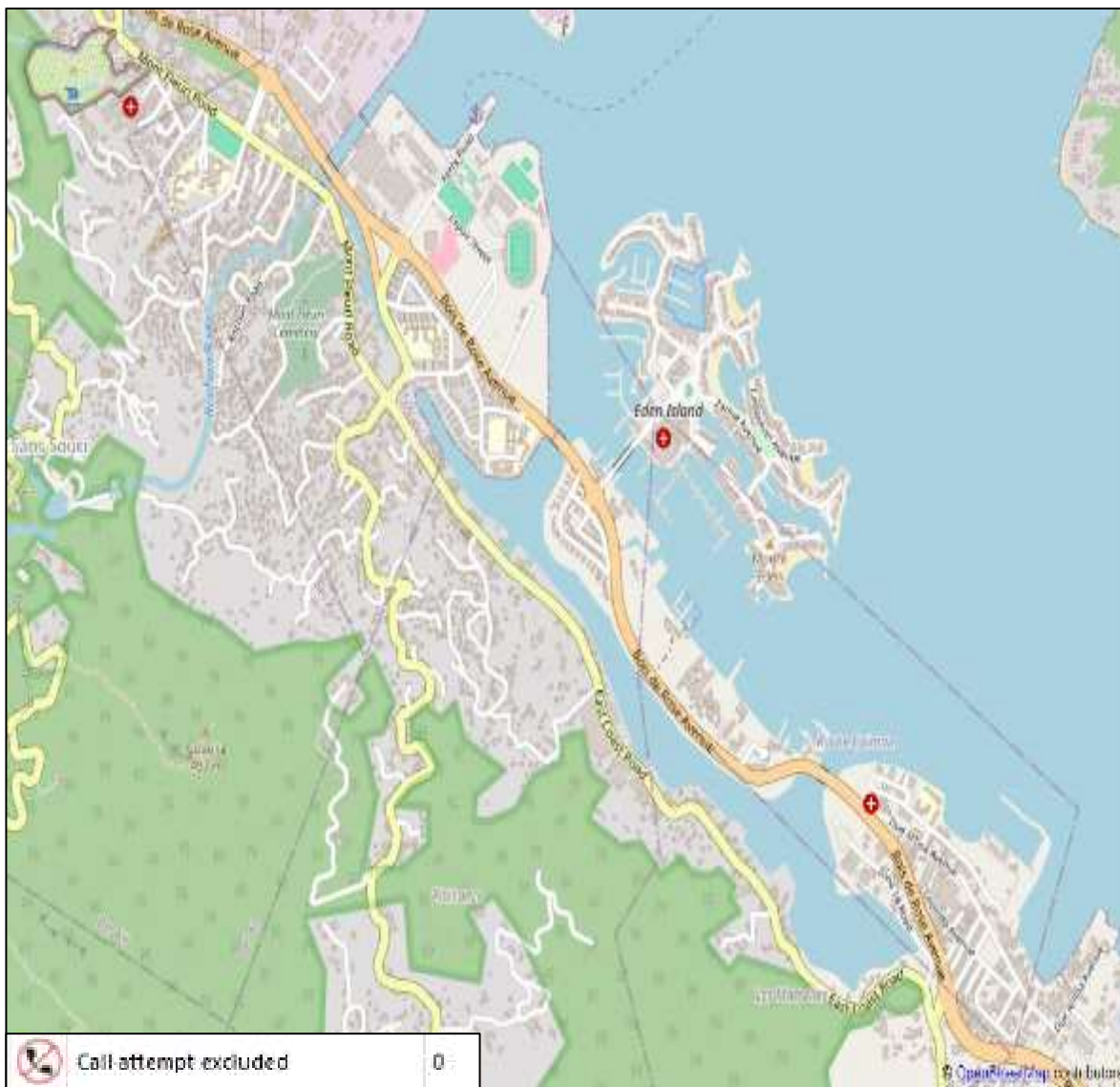


CWS SC MO

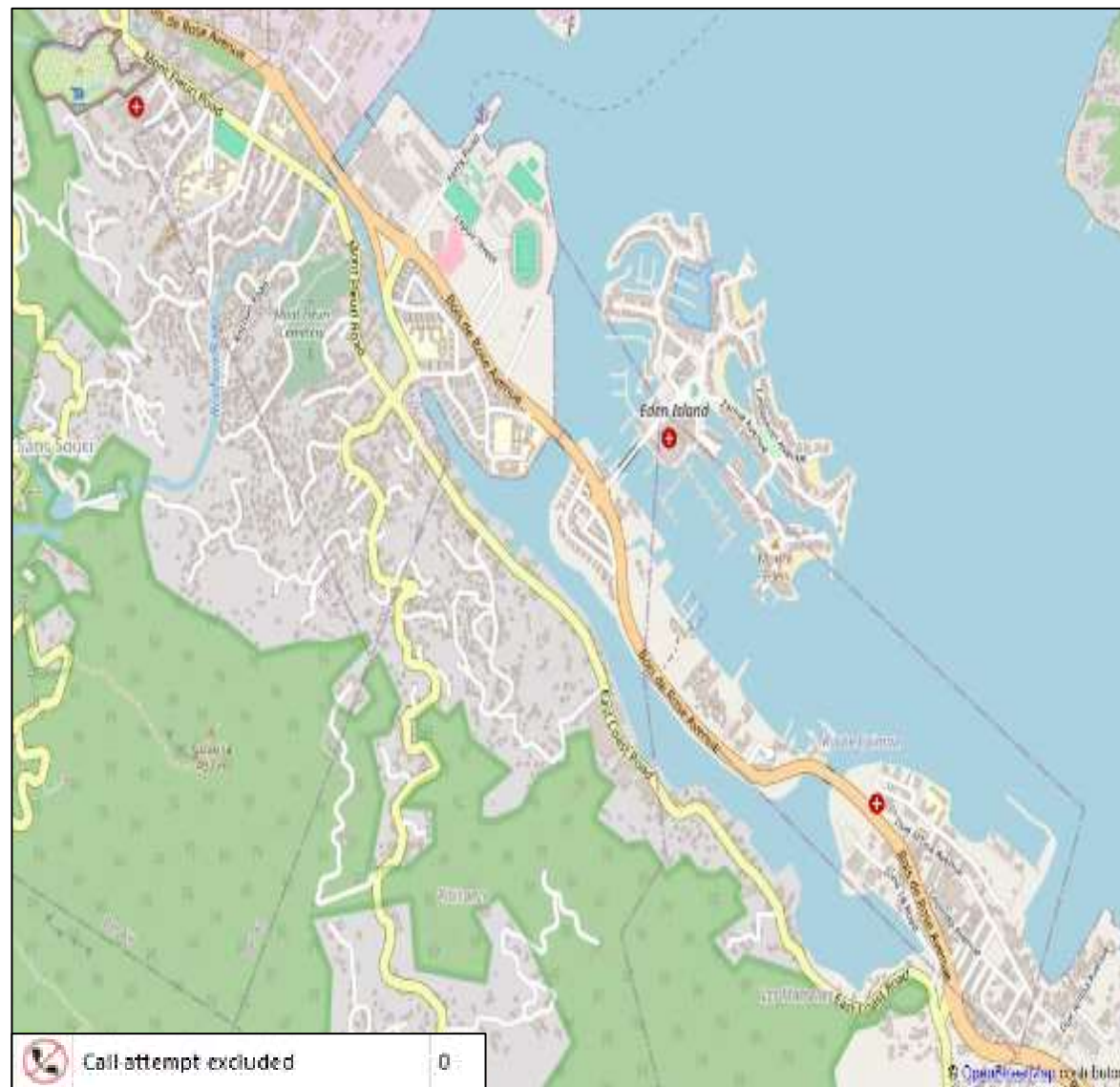


Phase-1 SHORT CALL EXCLUDED EVENTS

Airtel SC MO



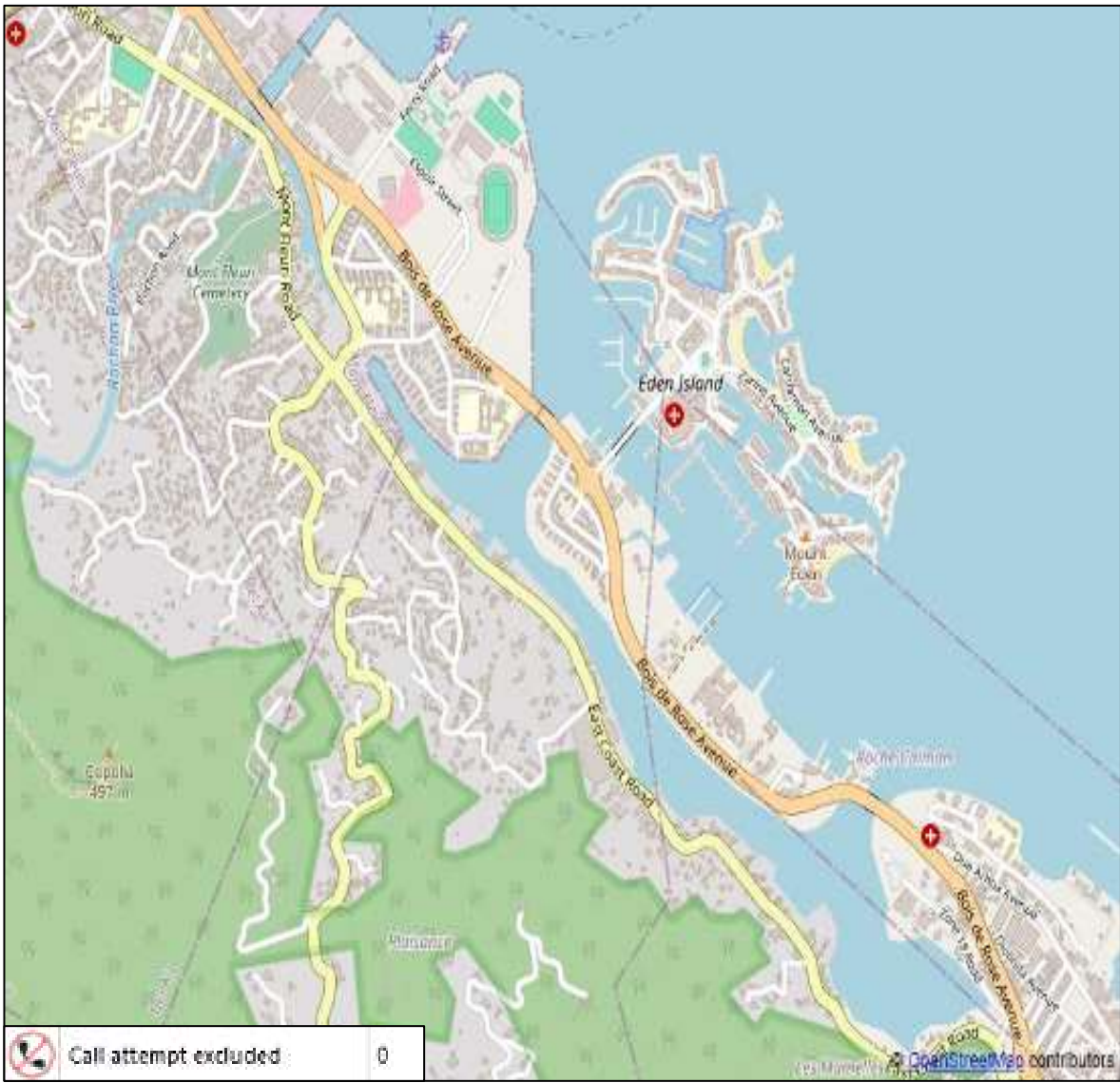
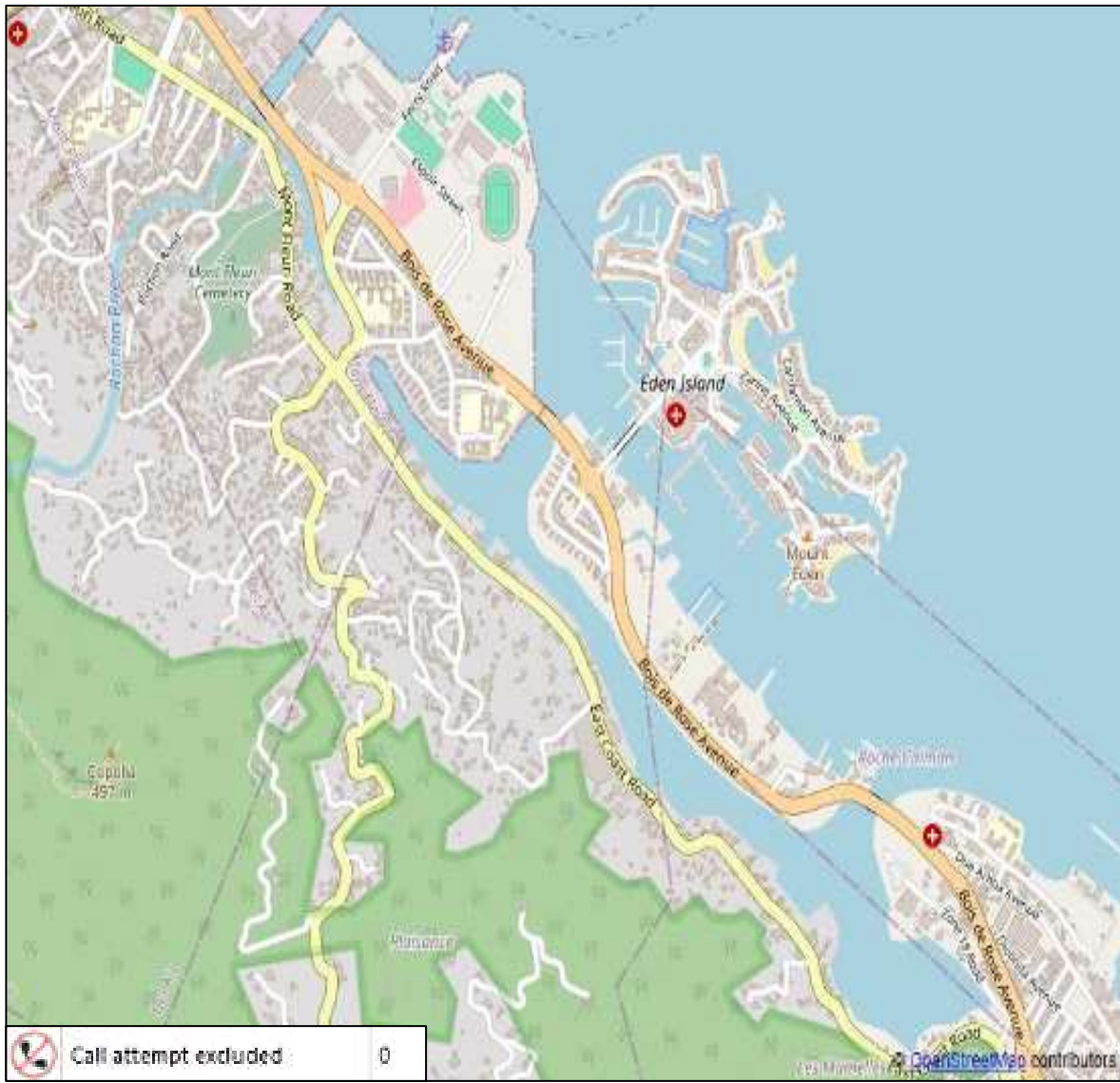
CWS SC MO



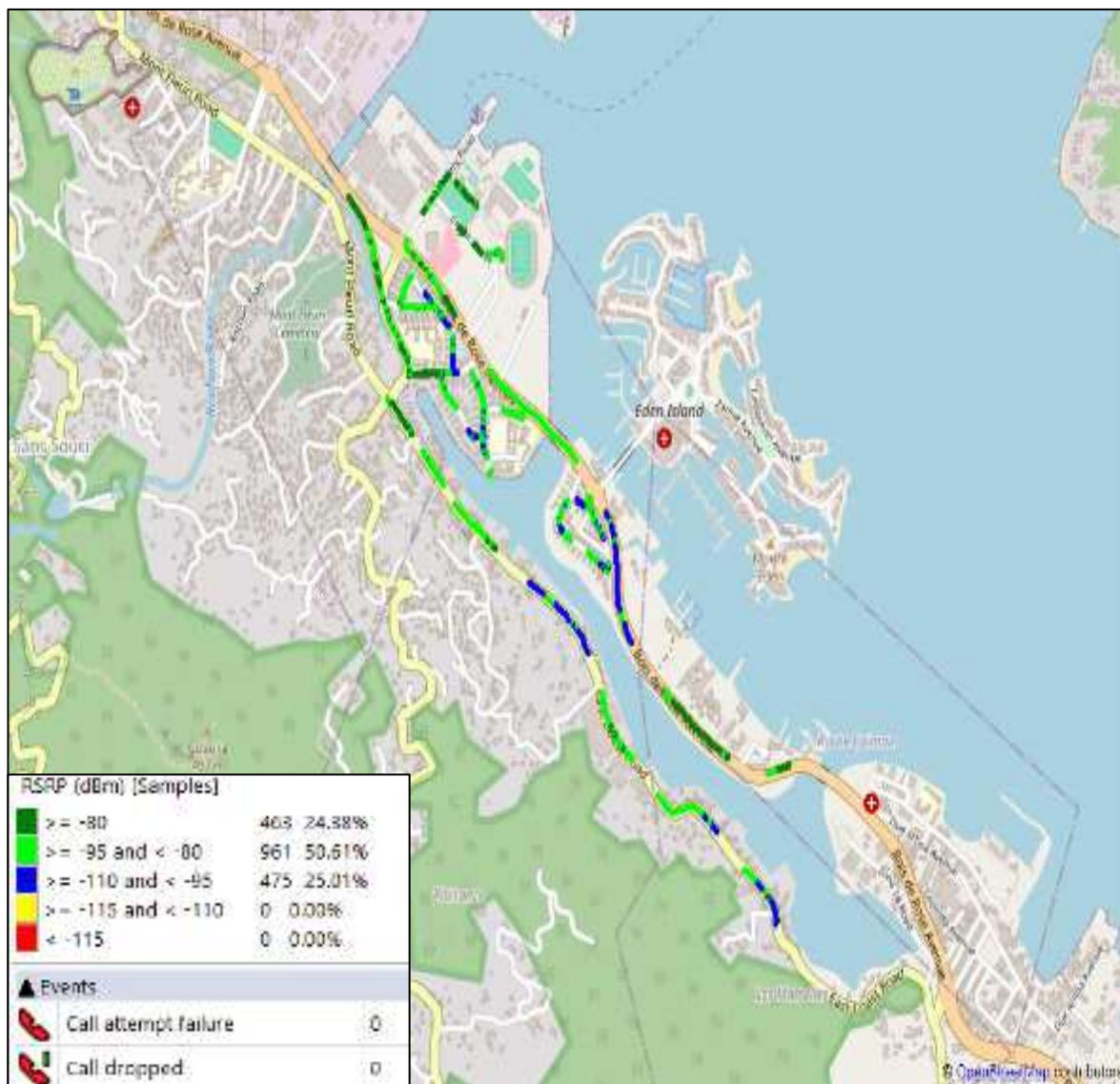
Phase-2 SHORT CALL EXCLUDED EVENTS

Airtel SC MO

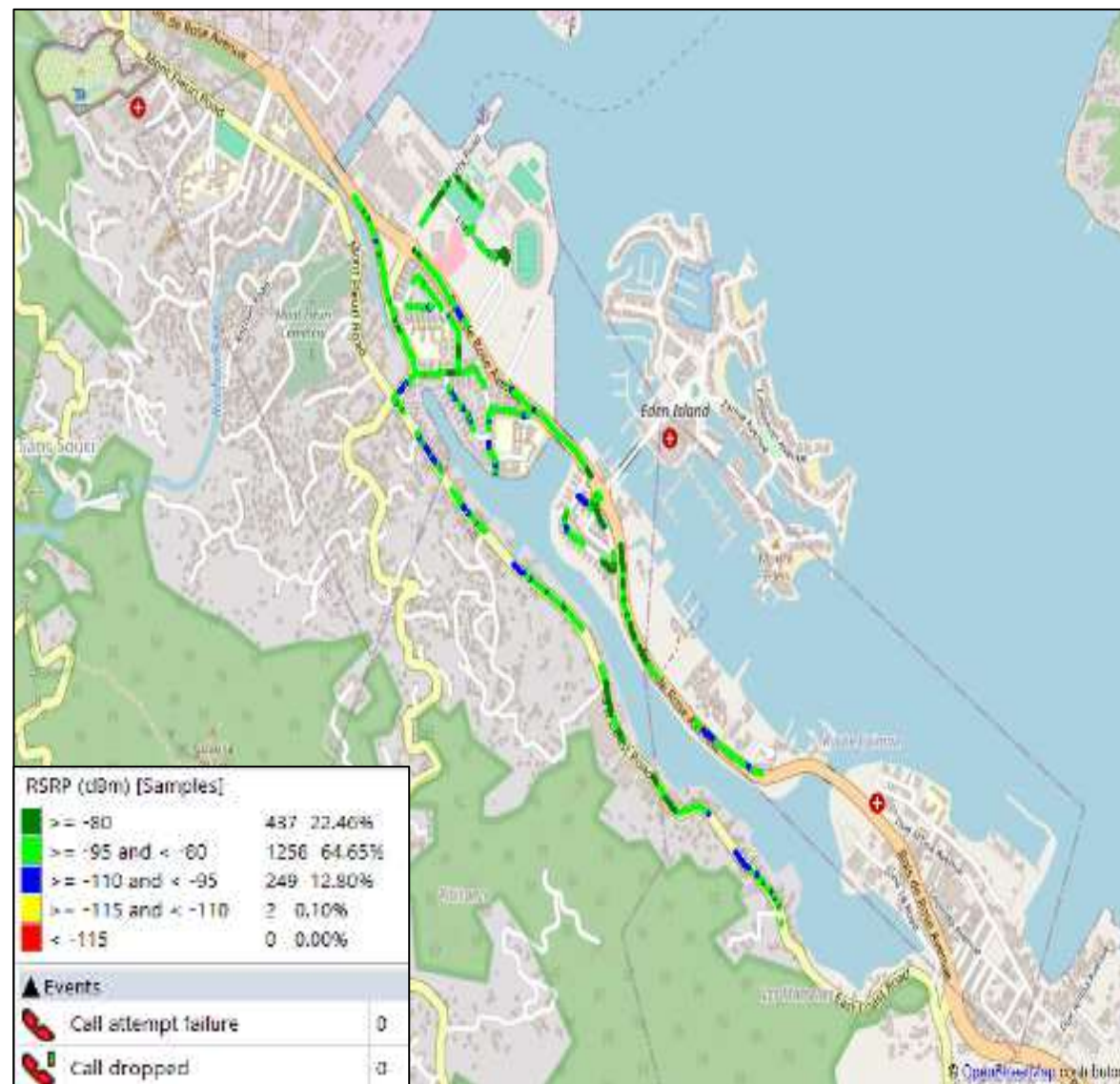
CWS SC MO



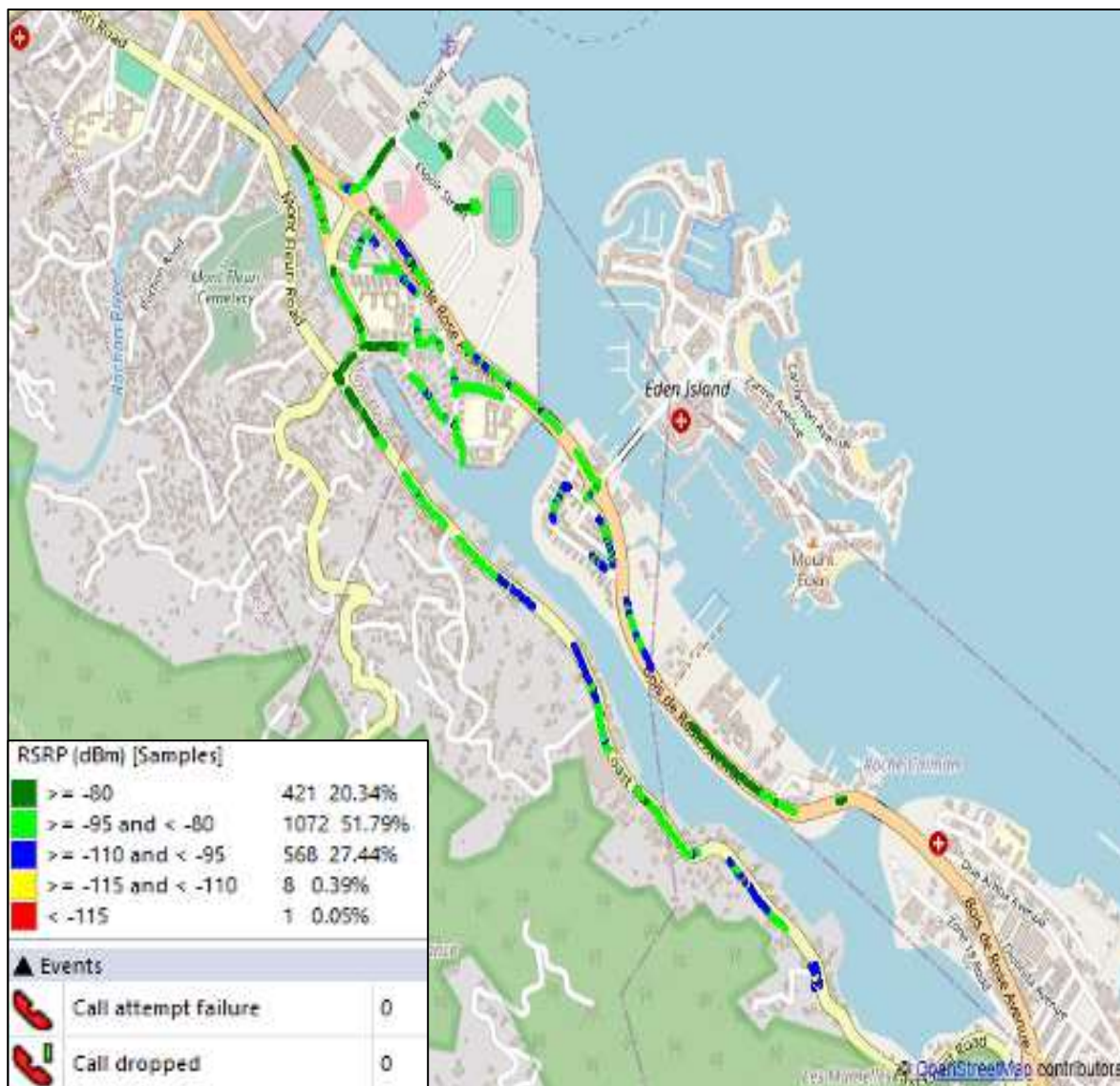
Airtel SC MO



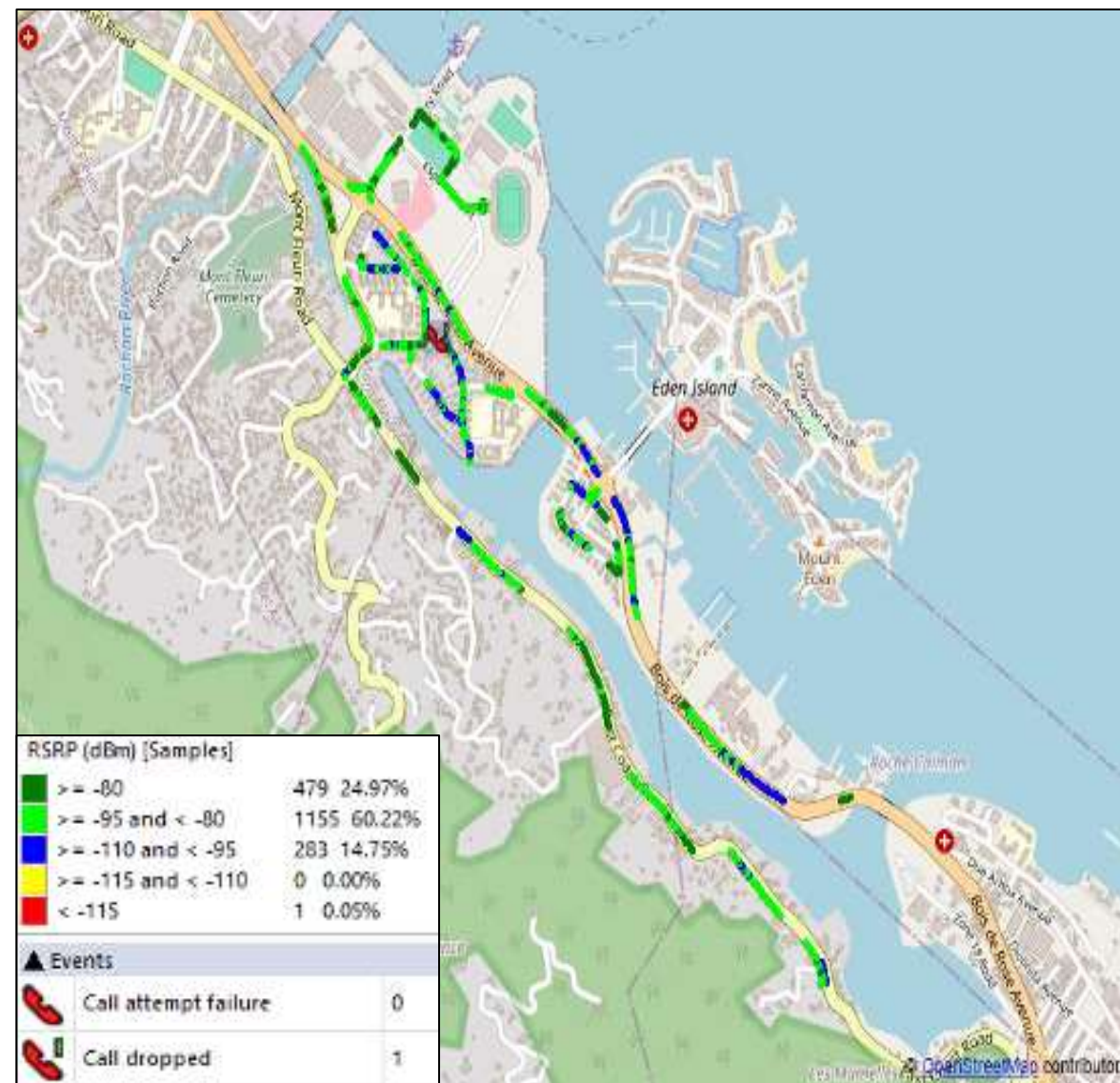
CWS SC MO



Airtel SC MO

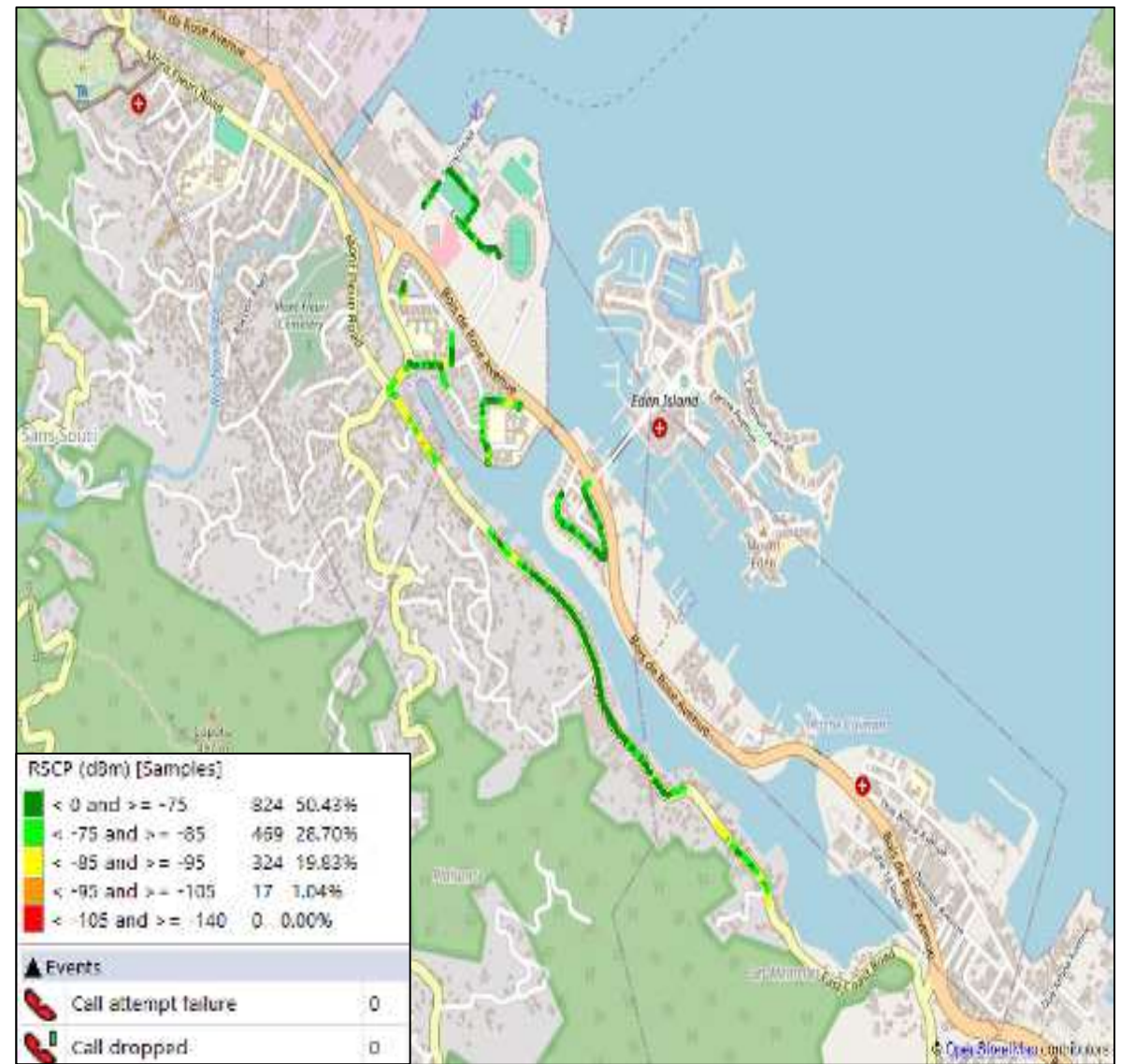
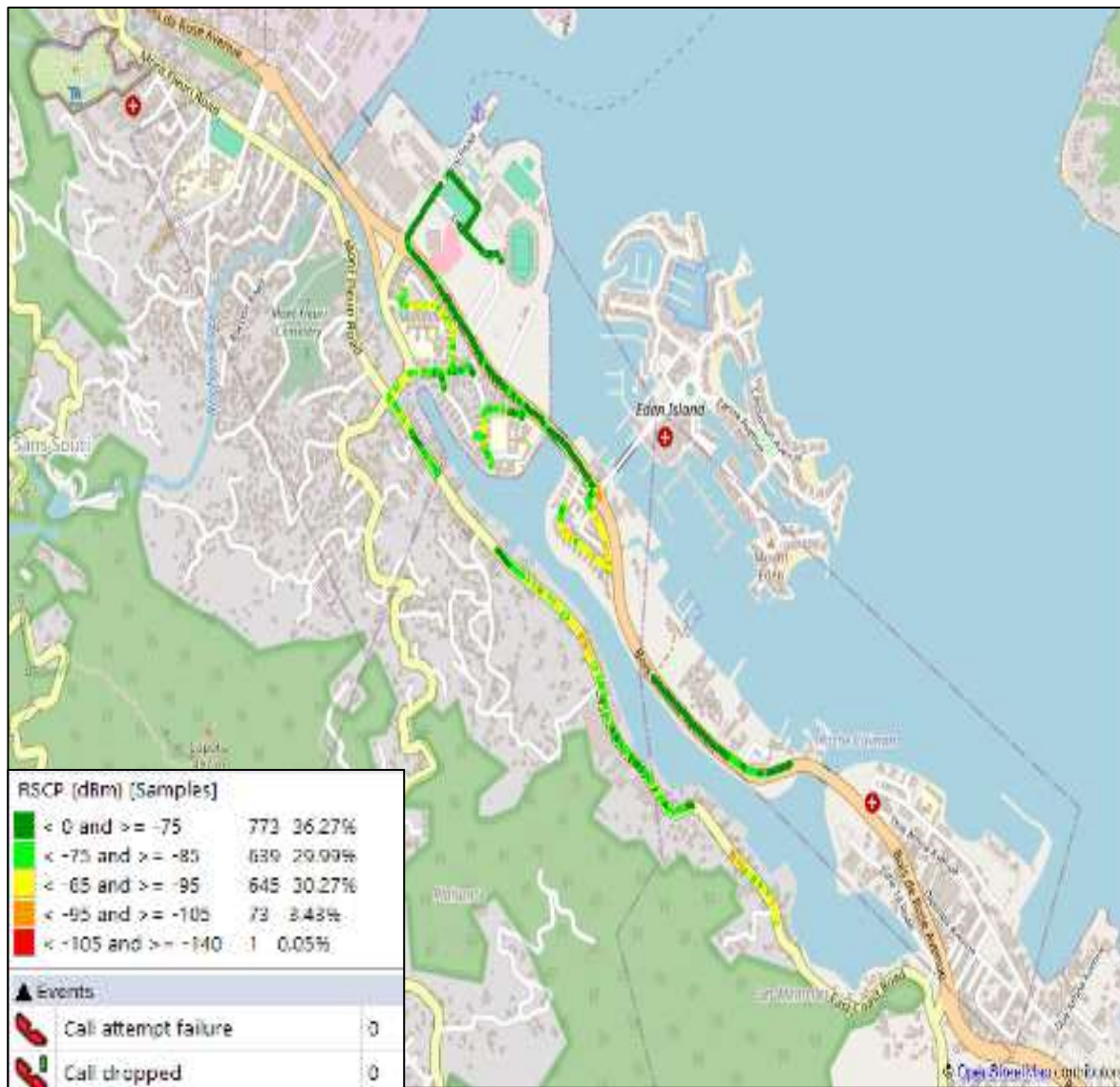


CWS SC MO

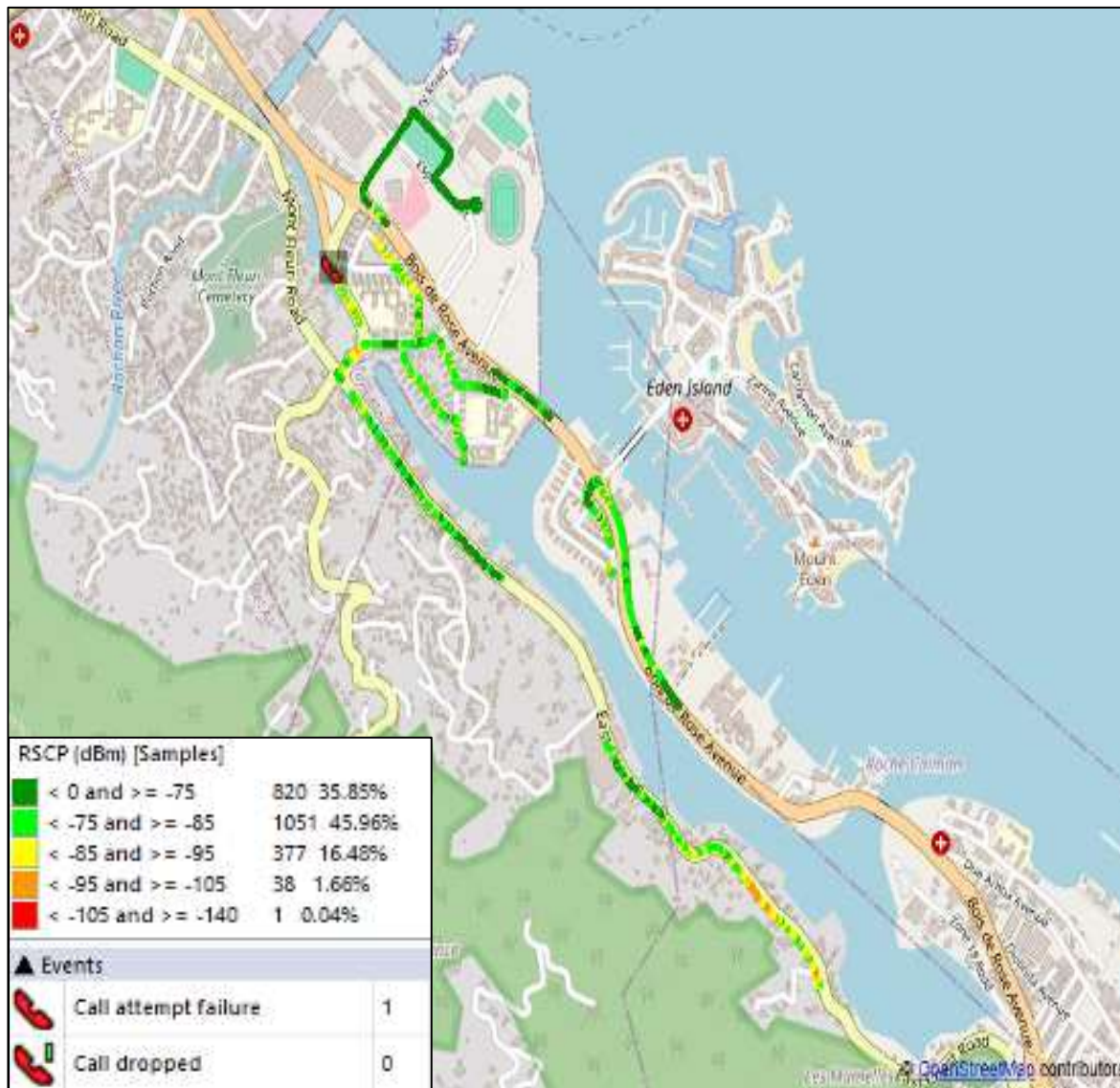


Airtel LC MO

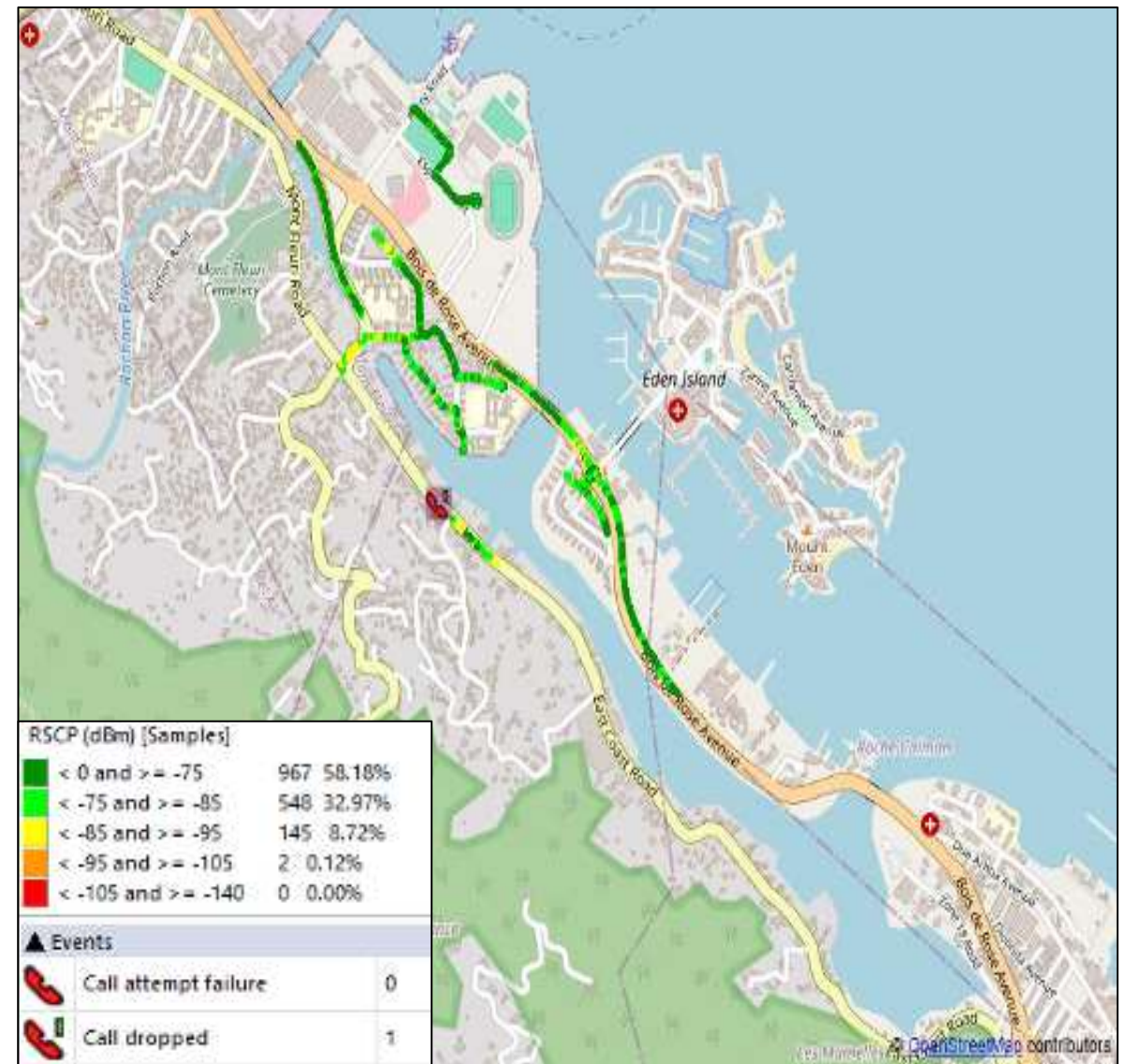
CWS LC MO



Airtel LC MO

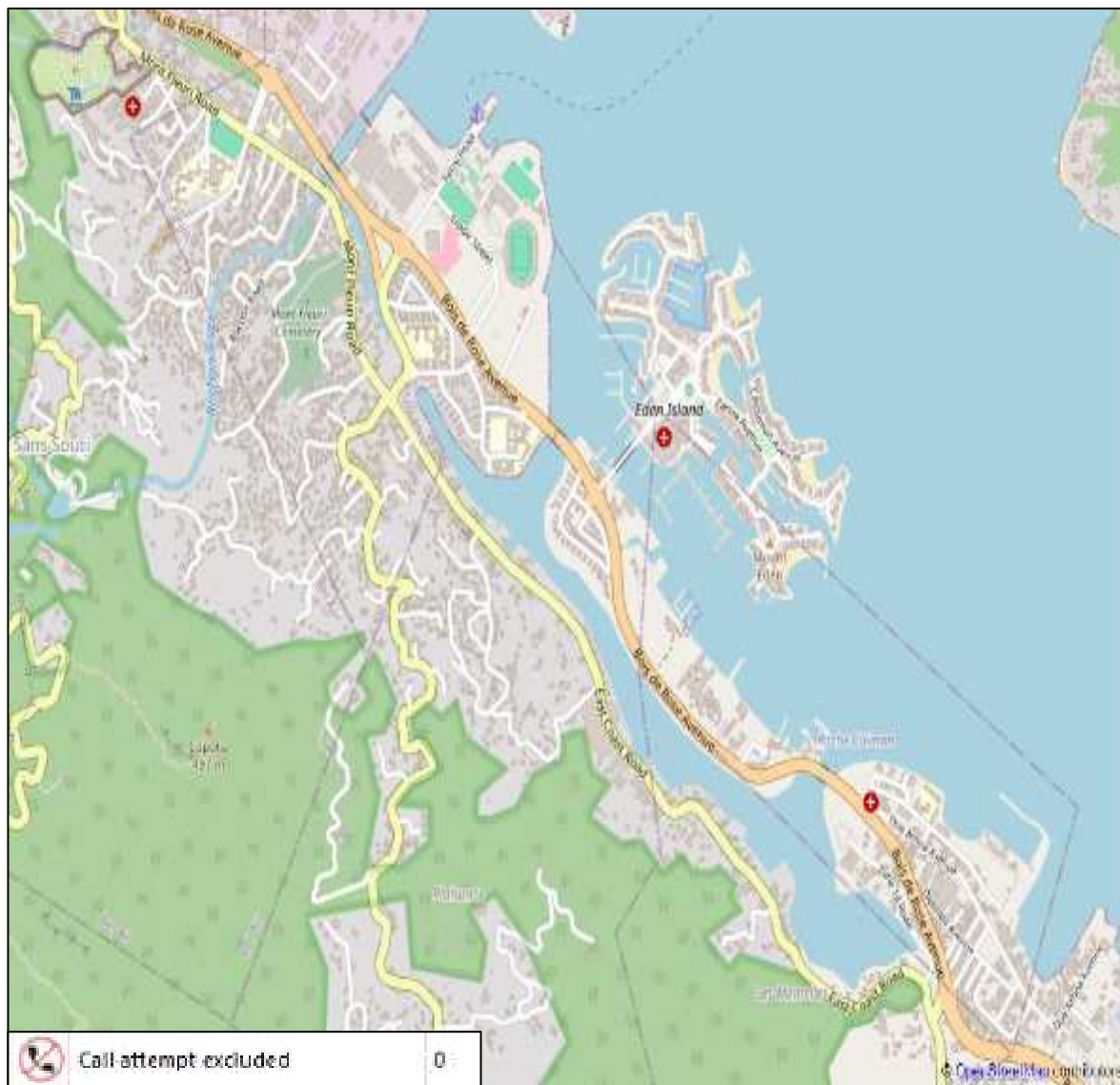


CWS LC MO

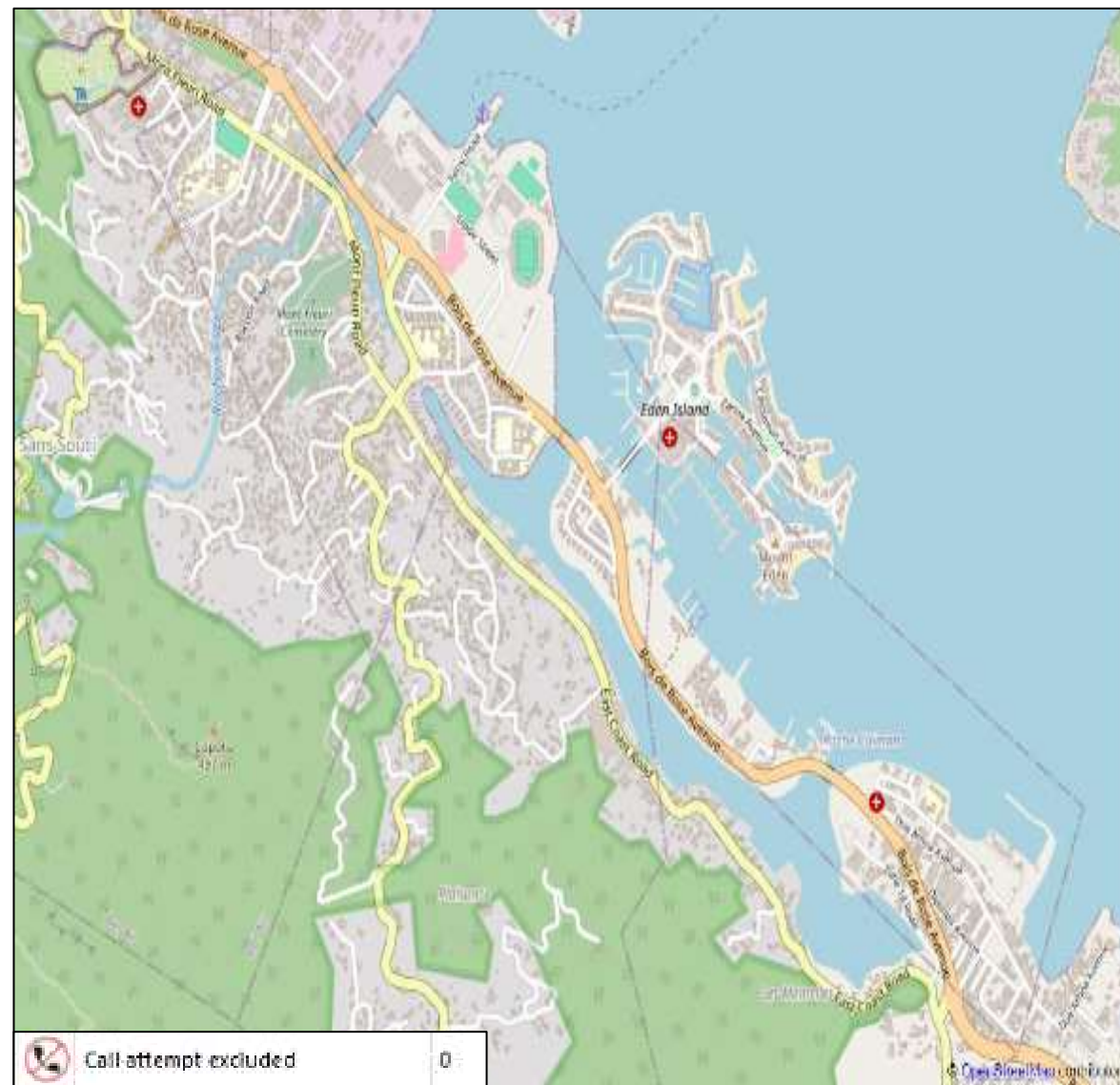


Phase-1 LONG CALL EXCLUDED EVENTS

Airtel LC MO



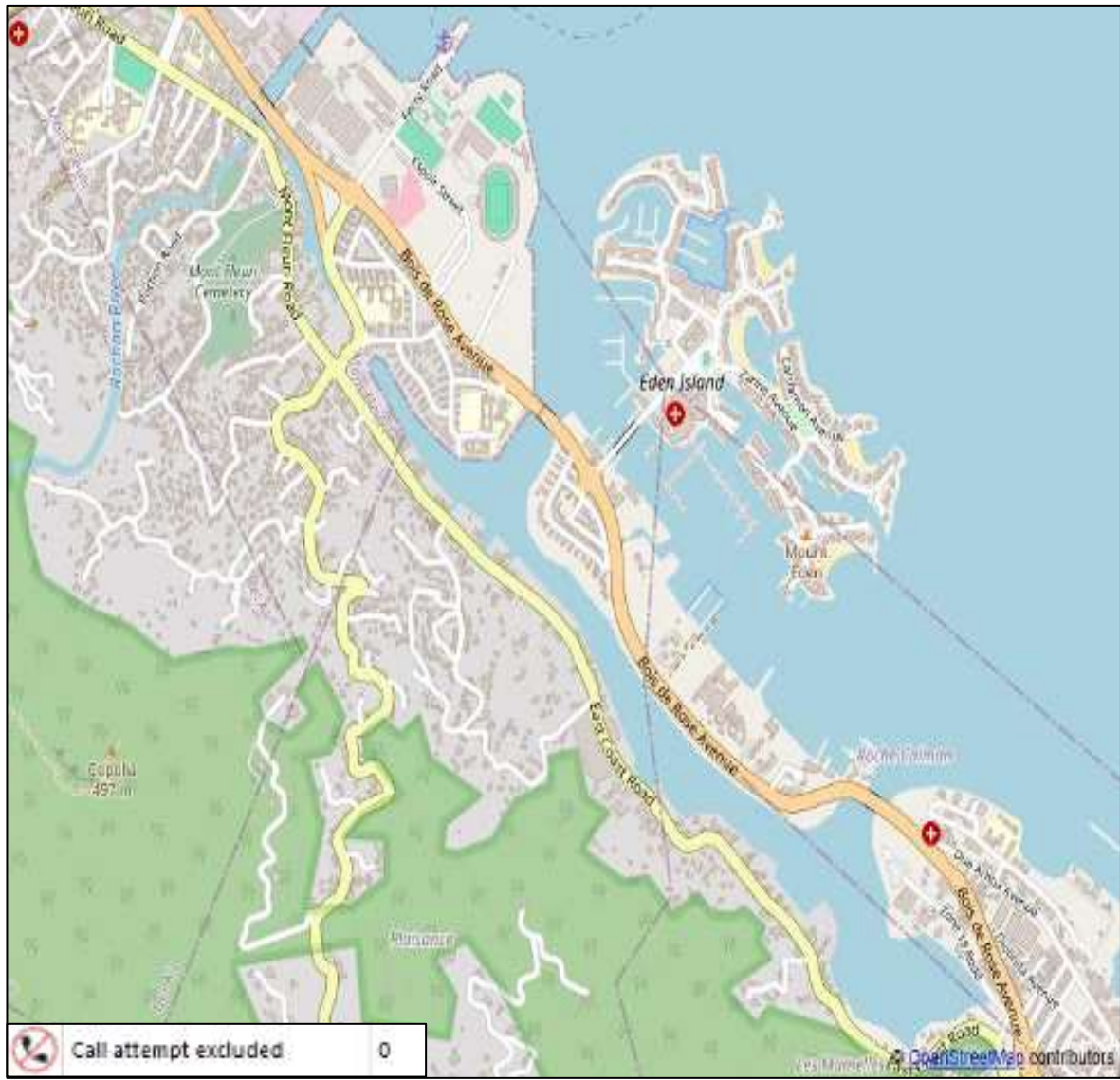
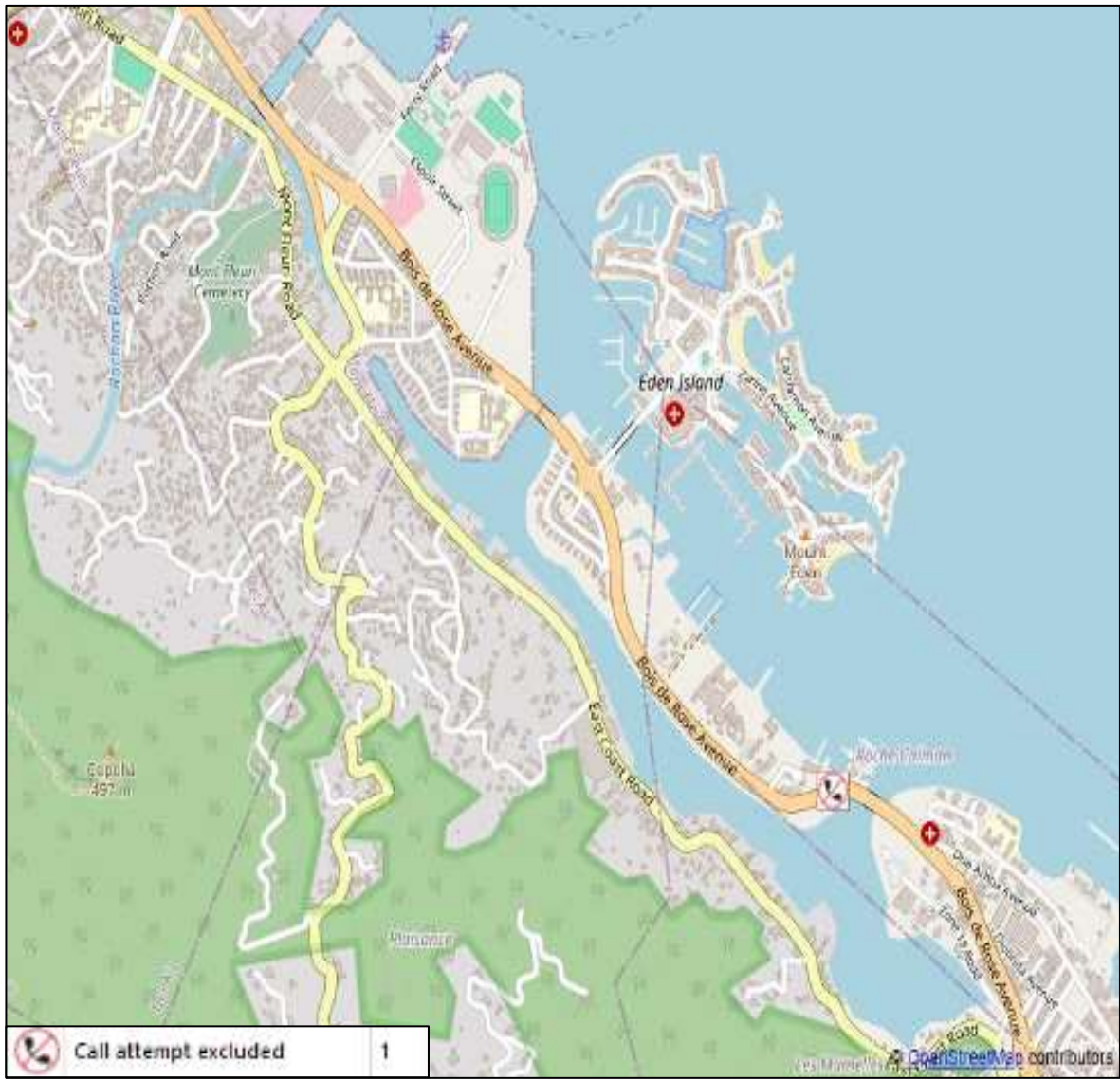
CWS LC MO



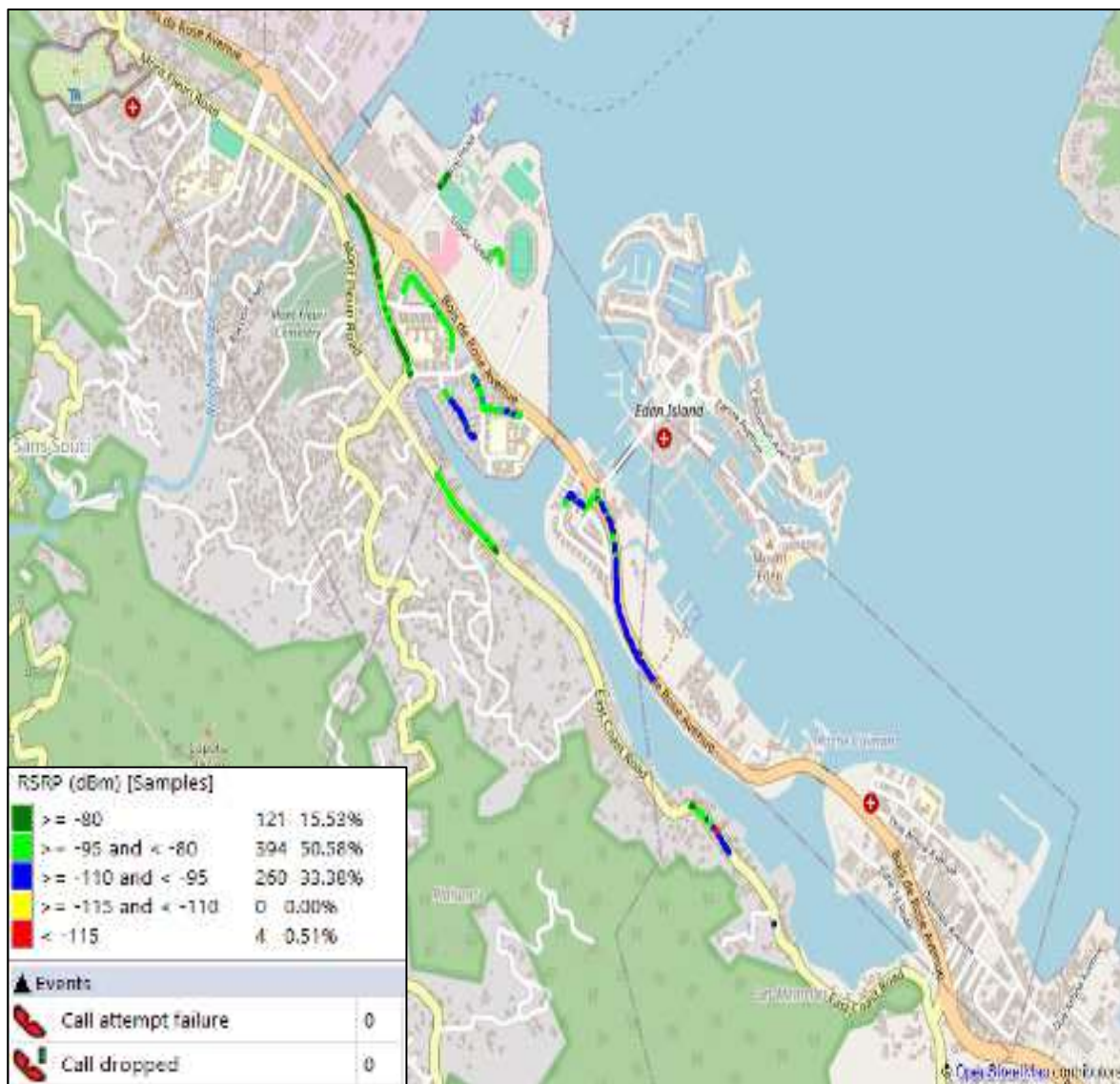
Phase-2 LONG CALL EXCLUDED EVENTS

Airtel LC MO

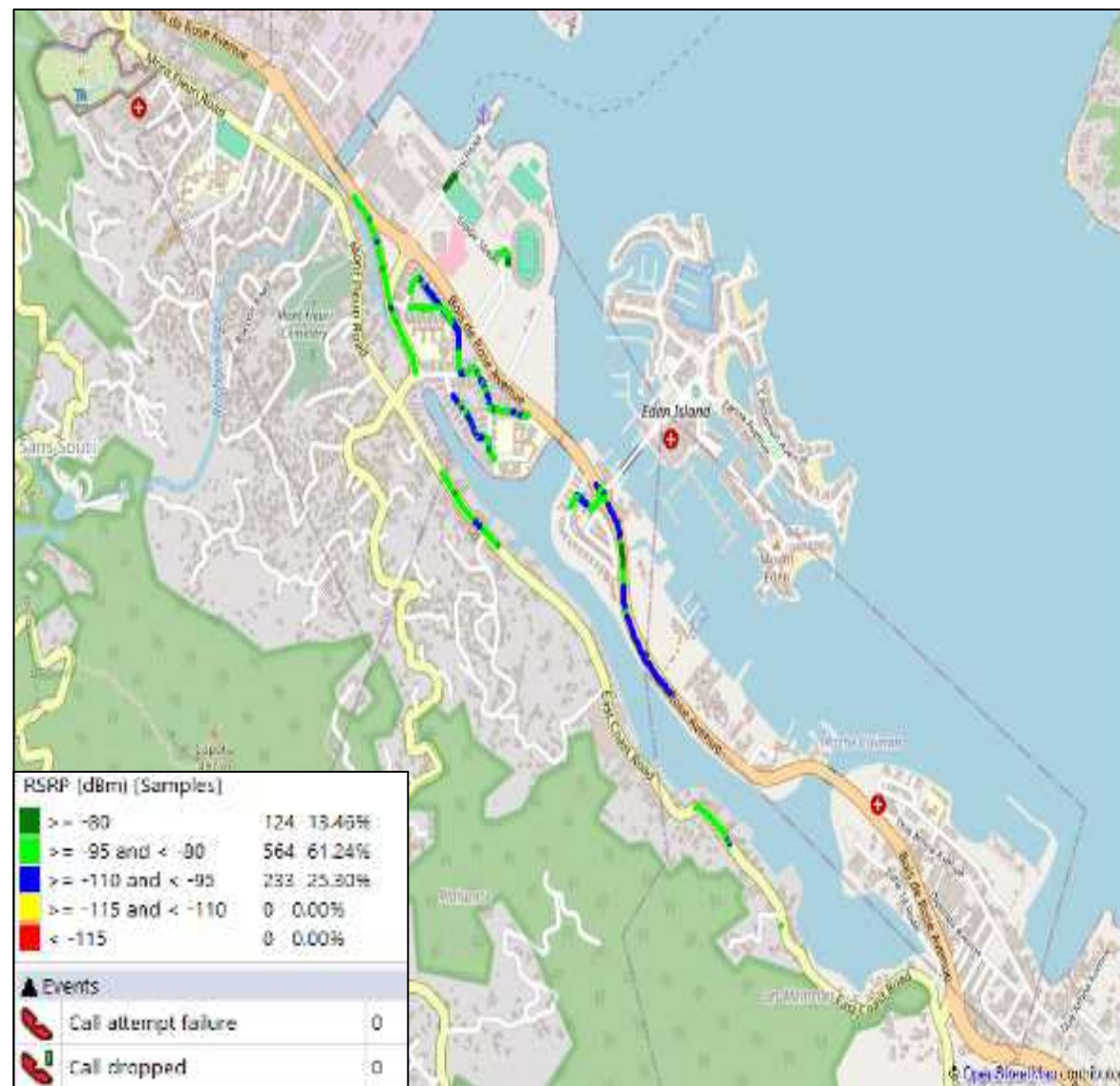
CWS LC MO



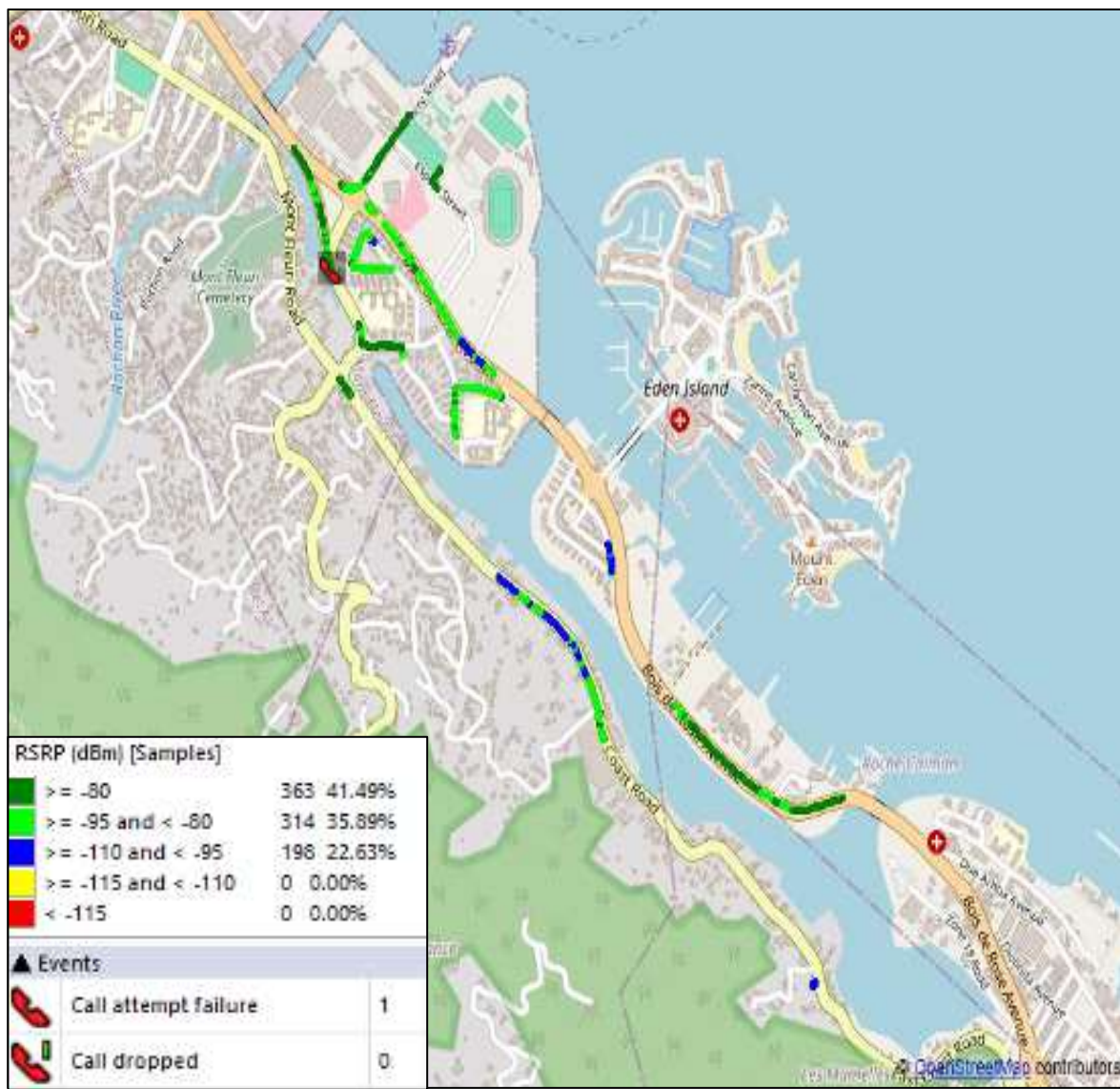
Airtel LC MO



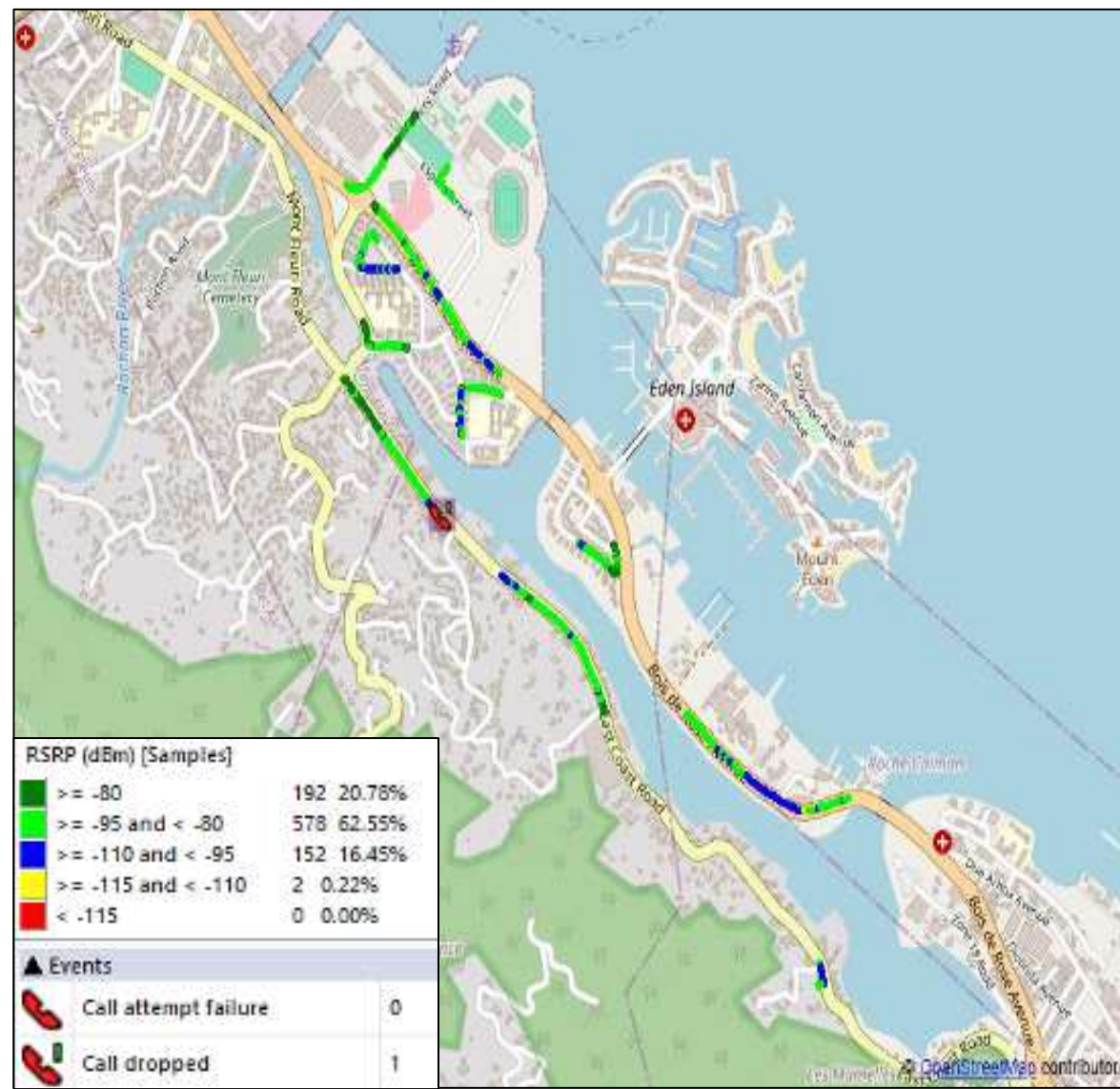
CWS LC MO



Airtel LC MO

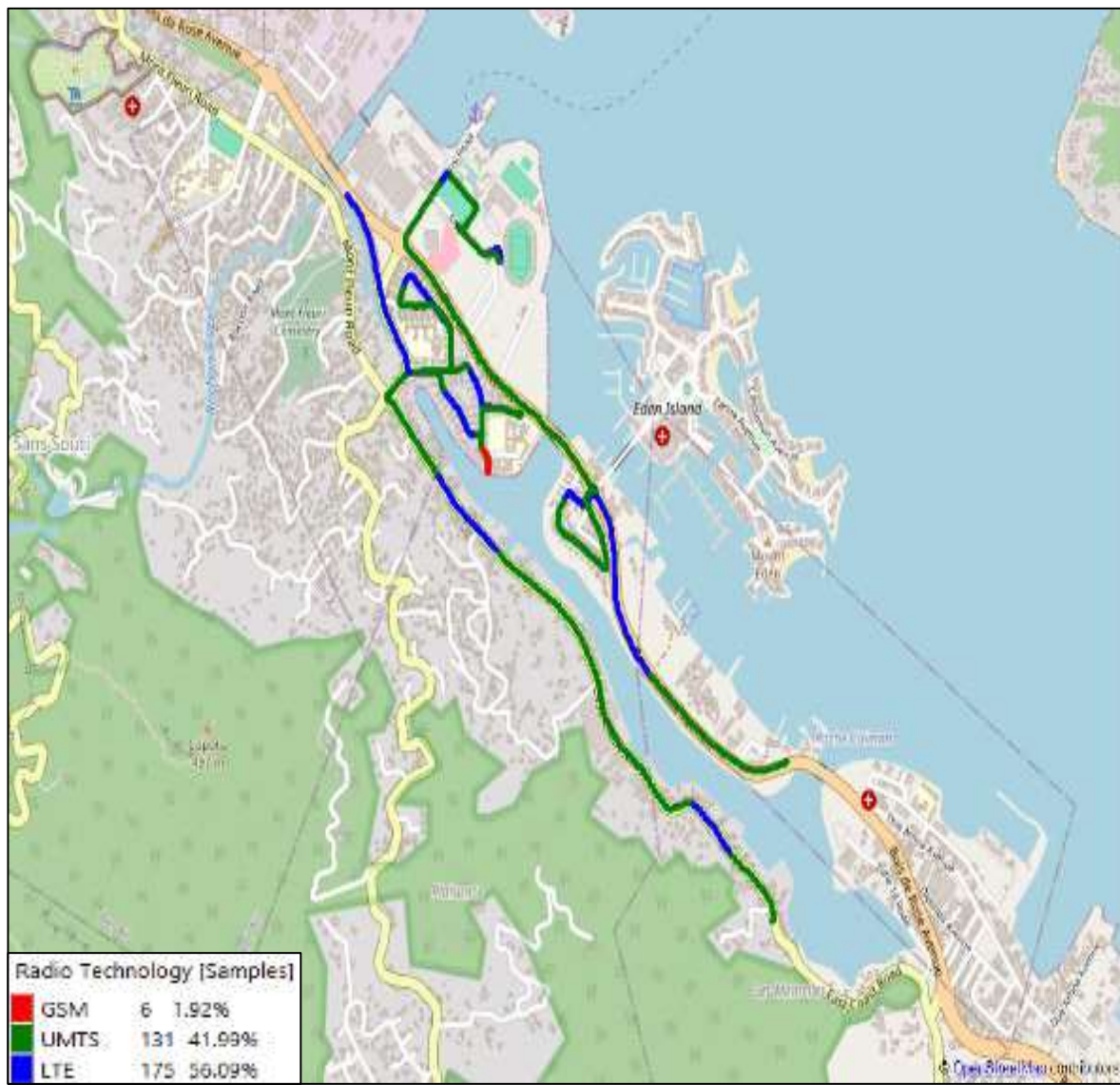


CWS LC MO

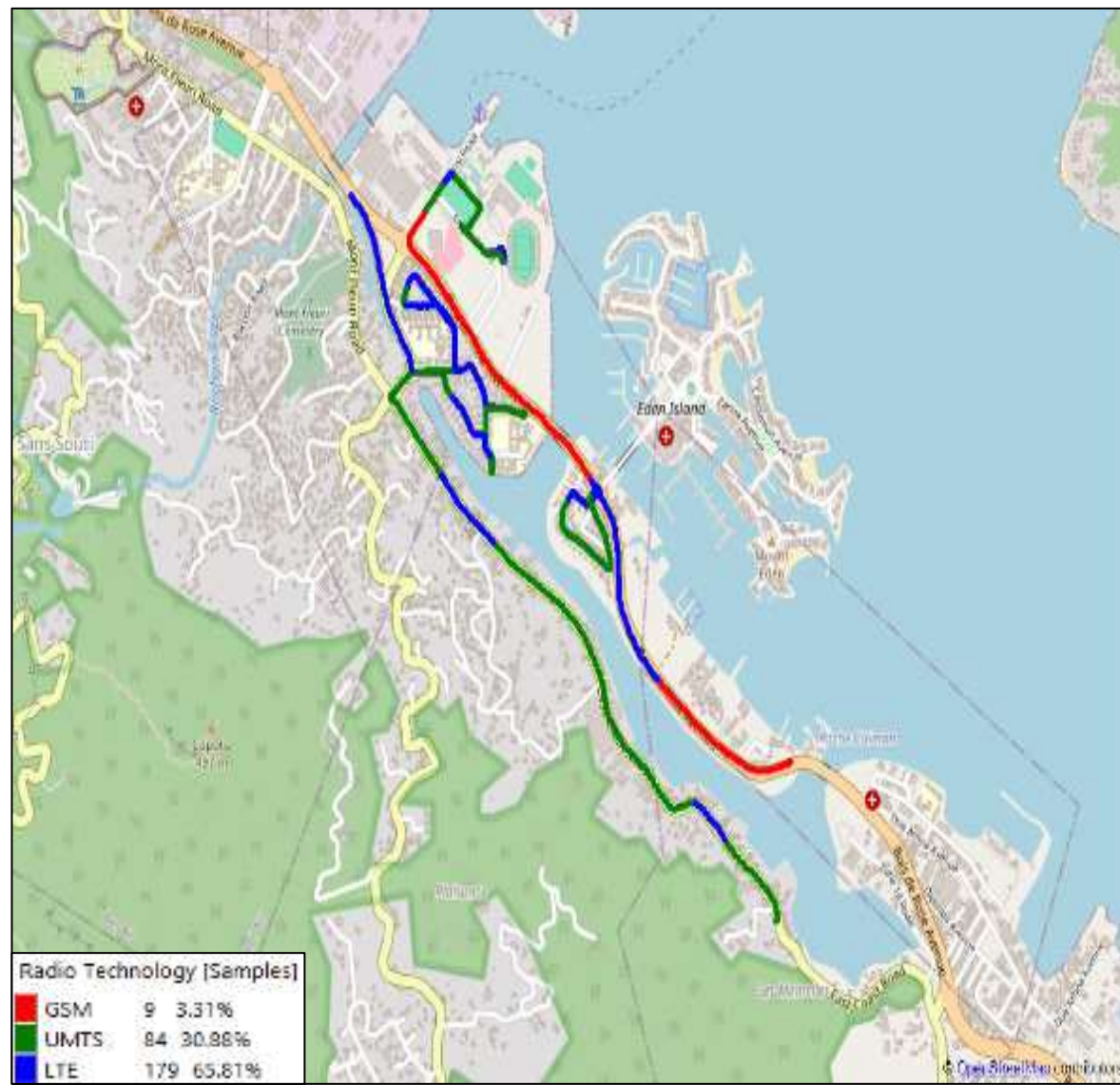


LONG CALL DRIVE PLOTS

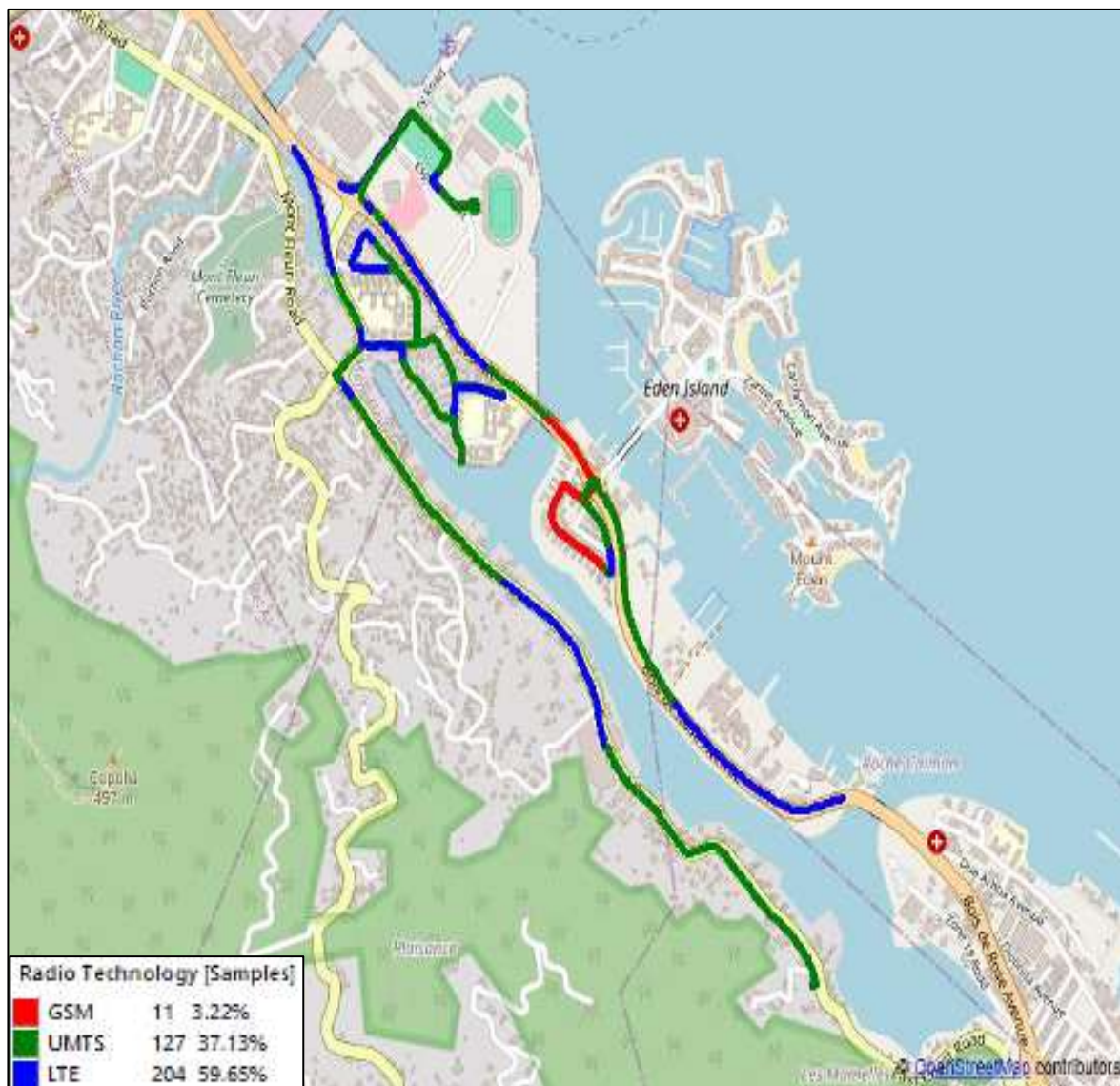
Airtel LC MO



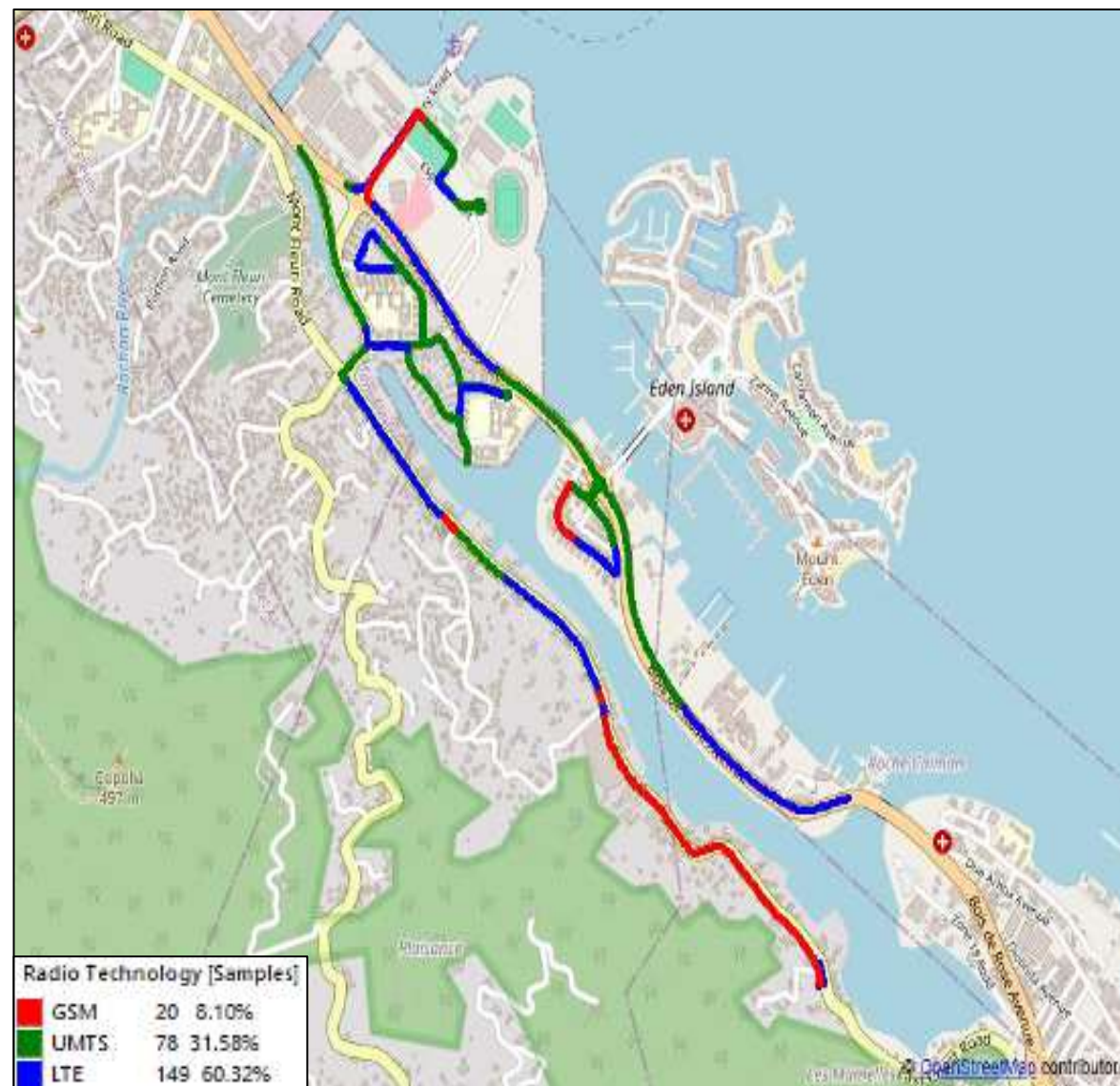
CWS LC MO



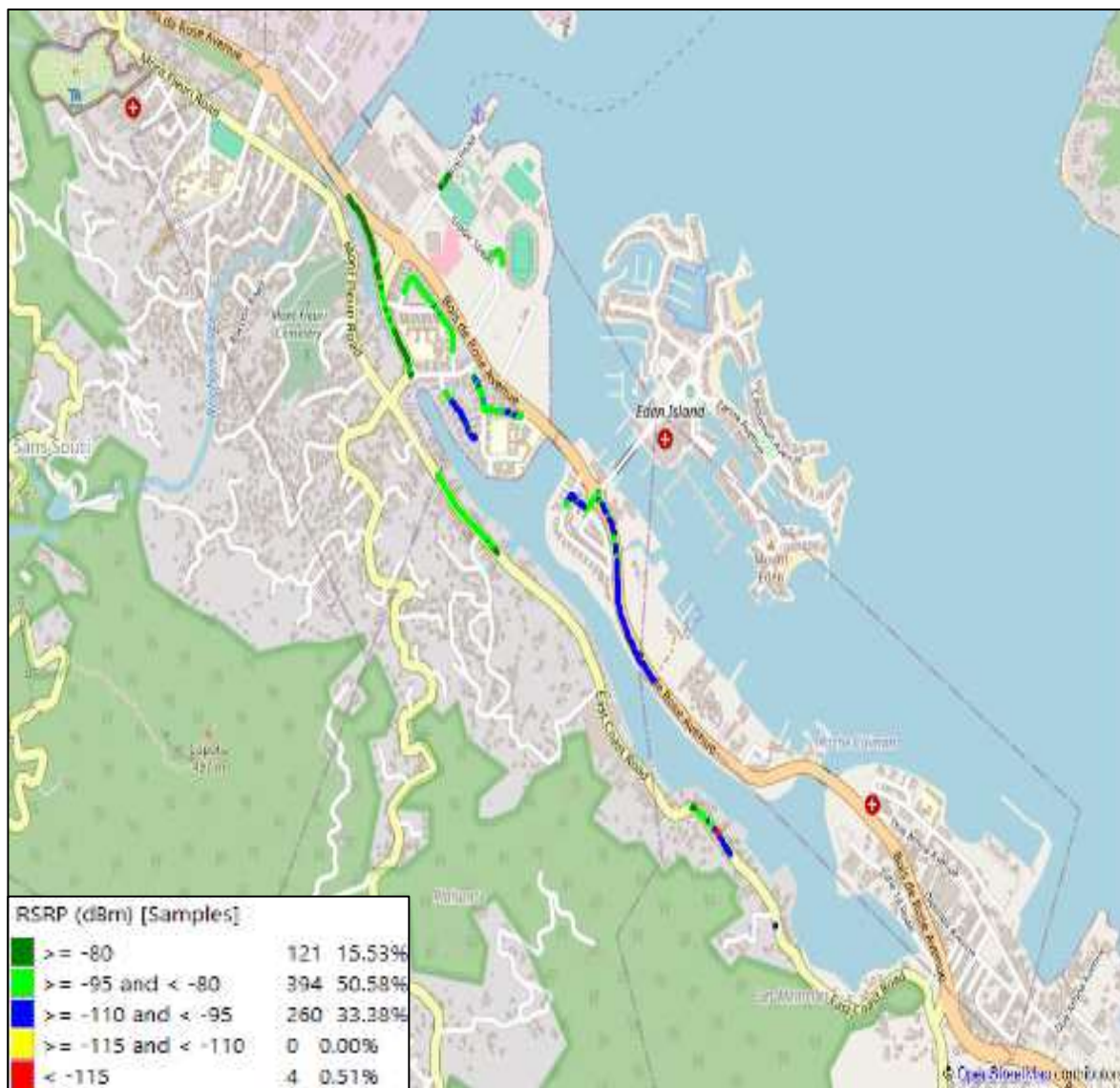
Airtel LC MO



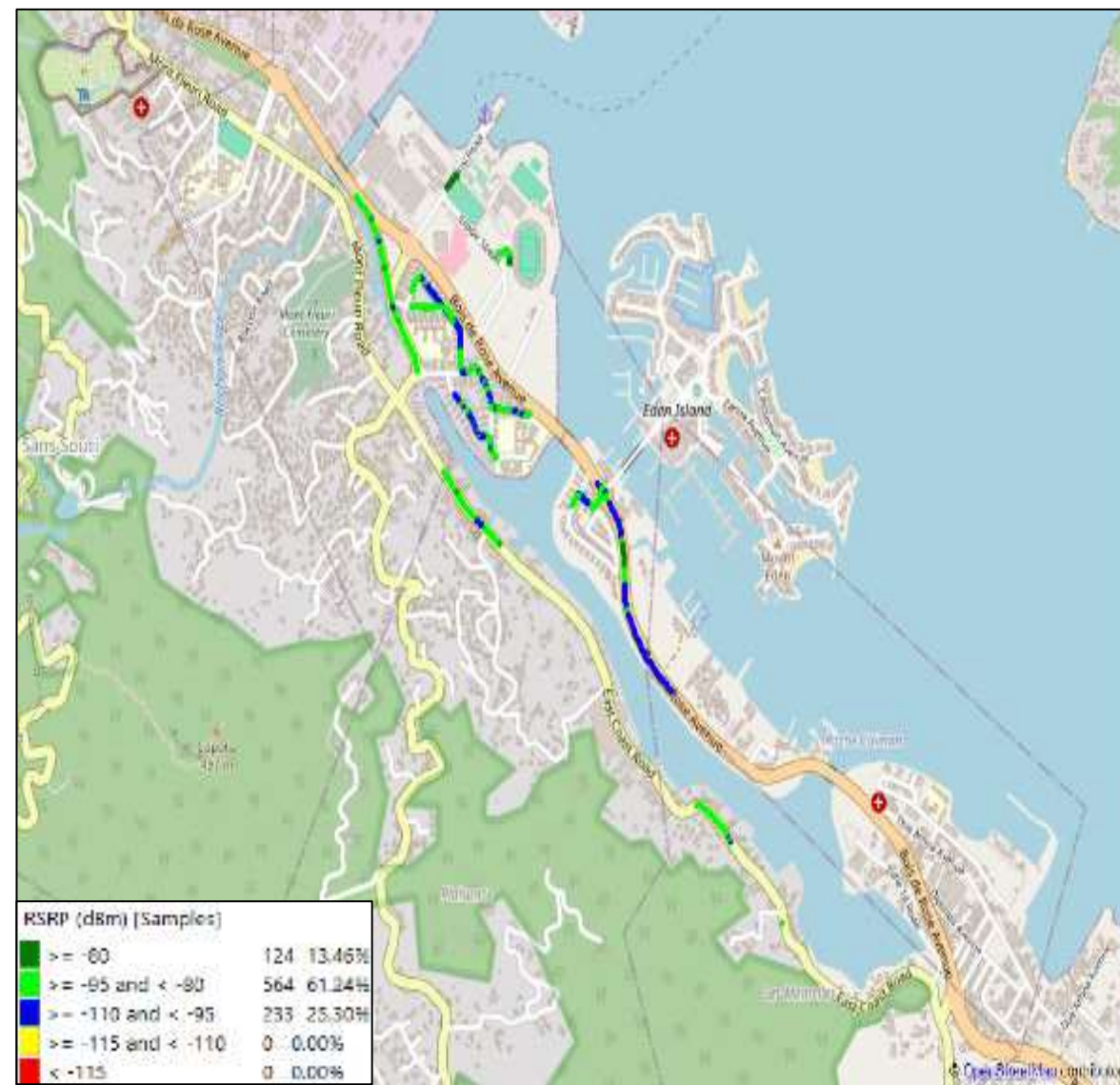
CWS LC MO



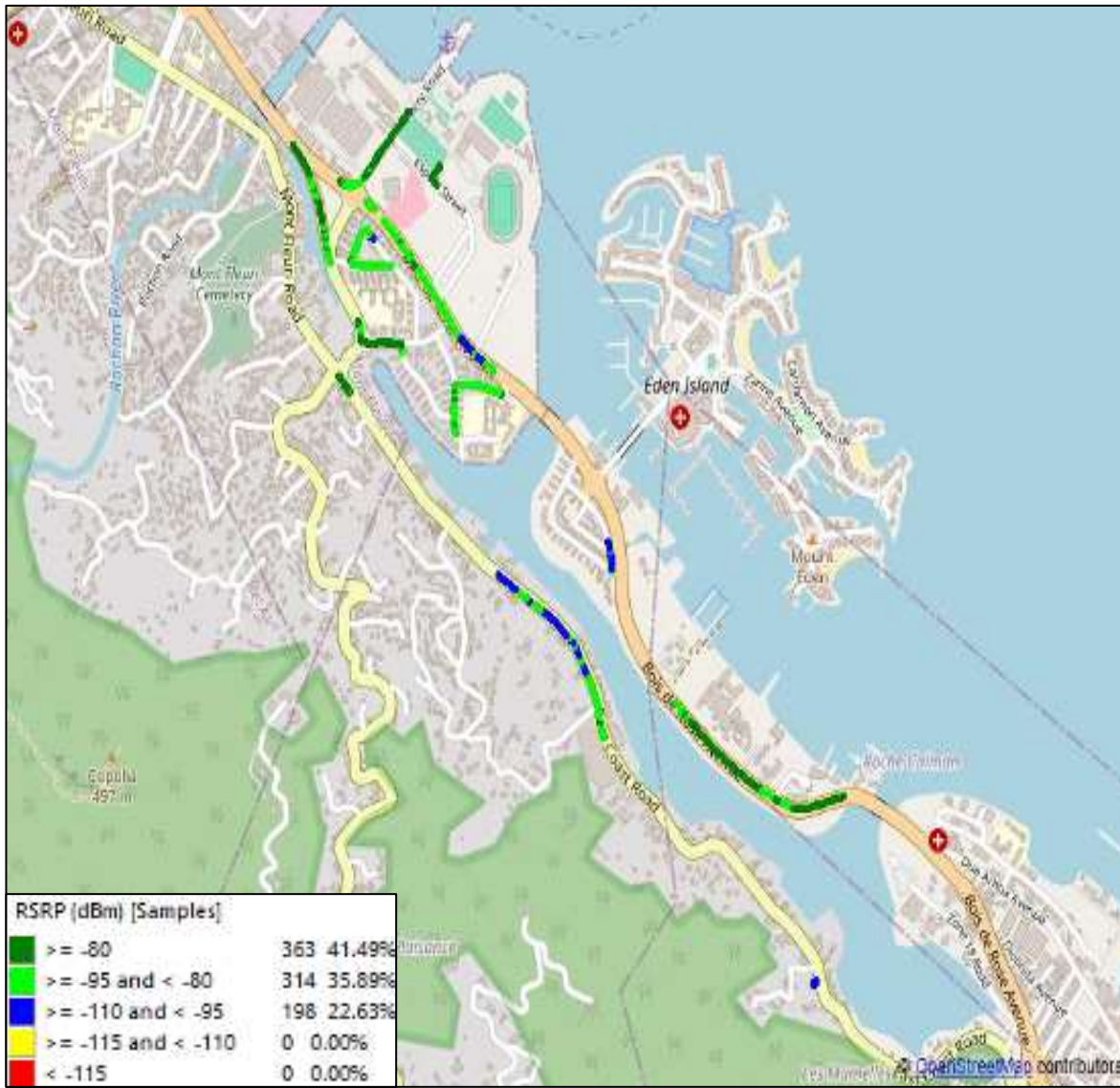
Airtel LC MO



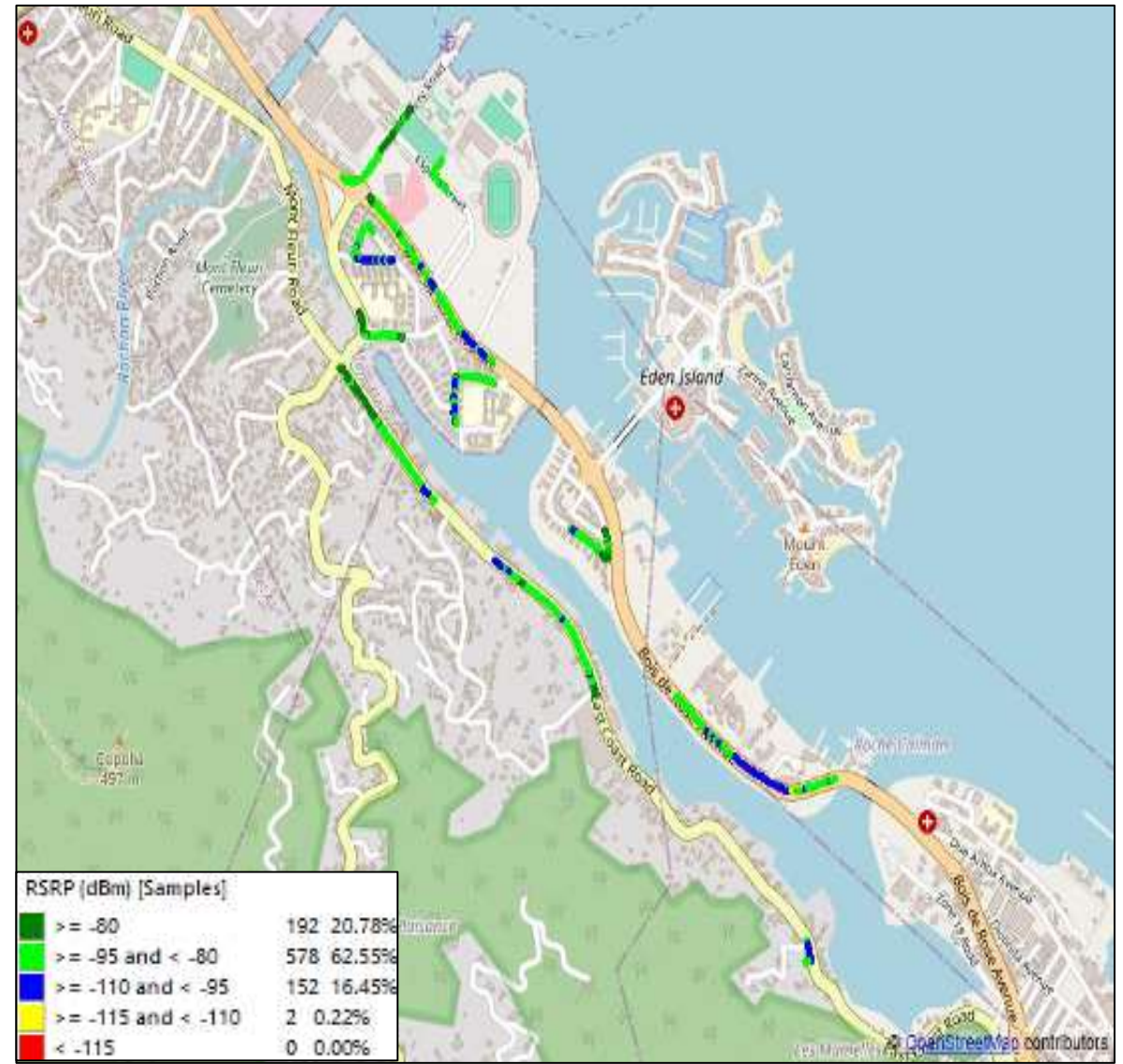
CWS LC MO



Airtel LC MO

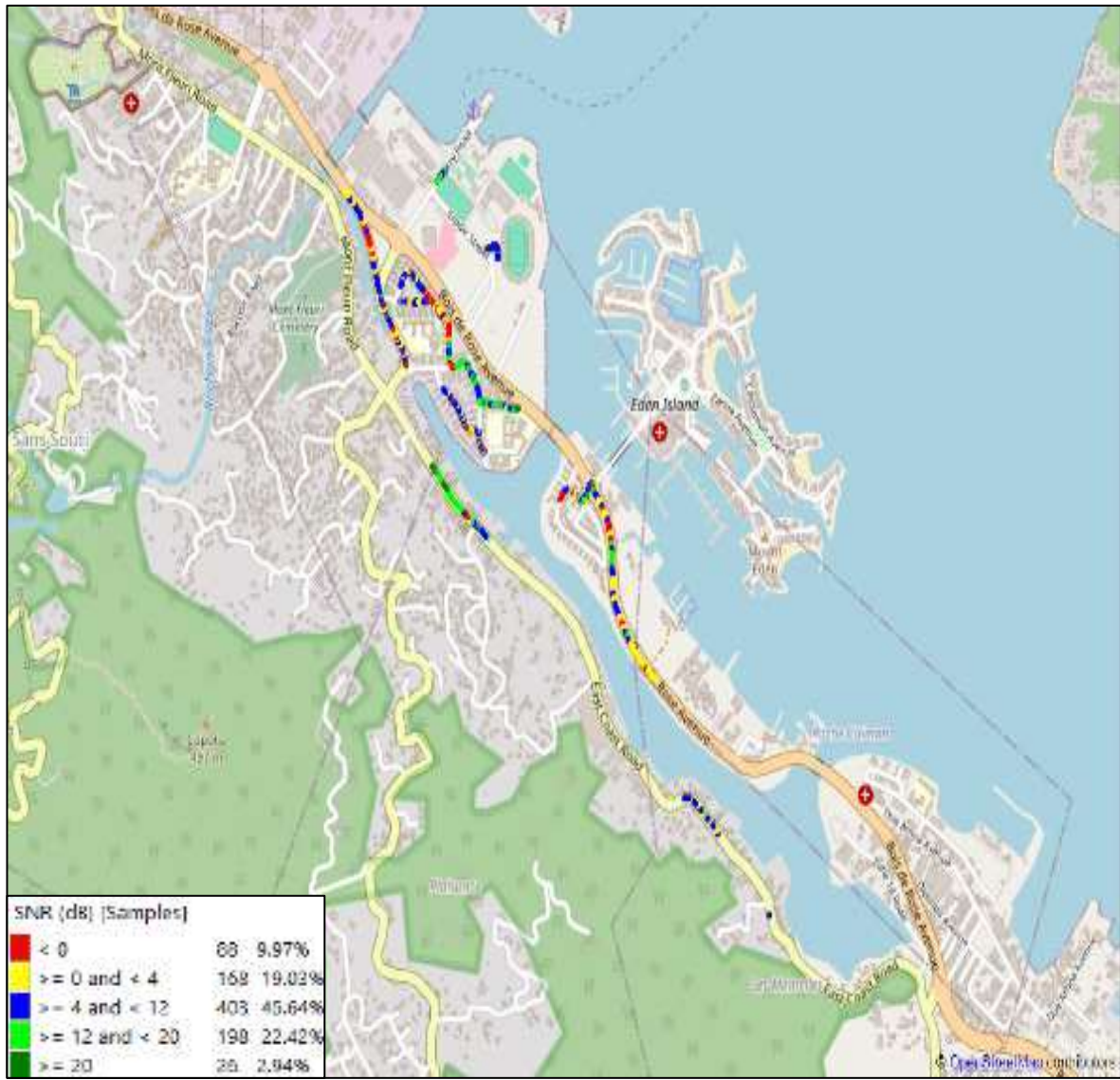
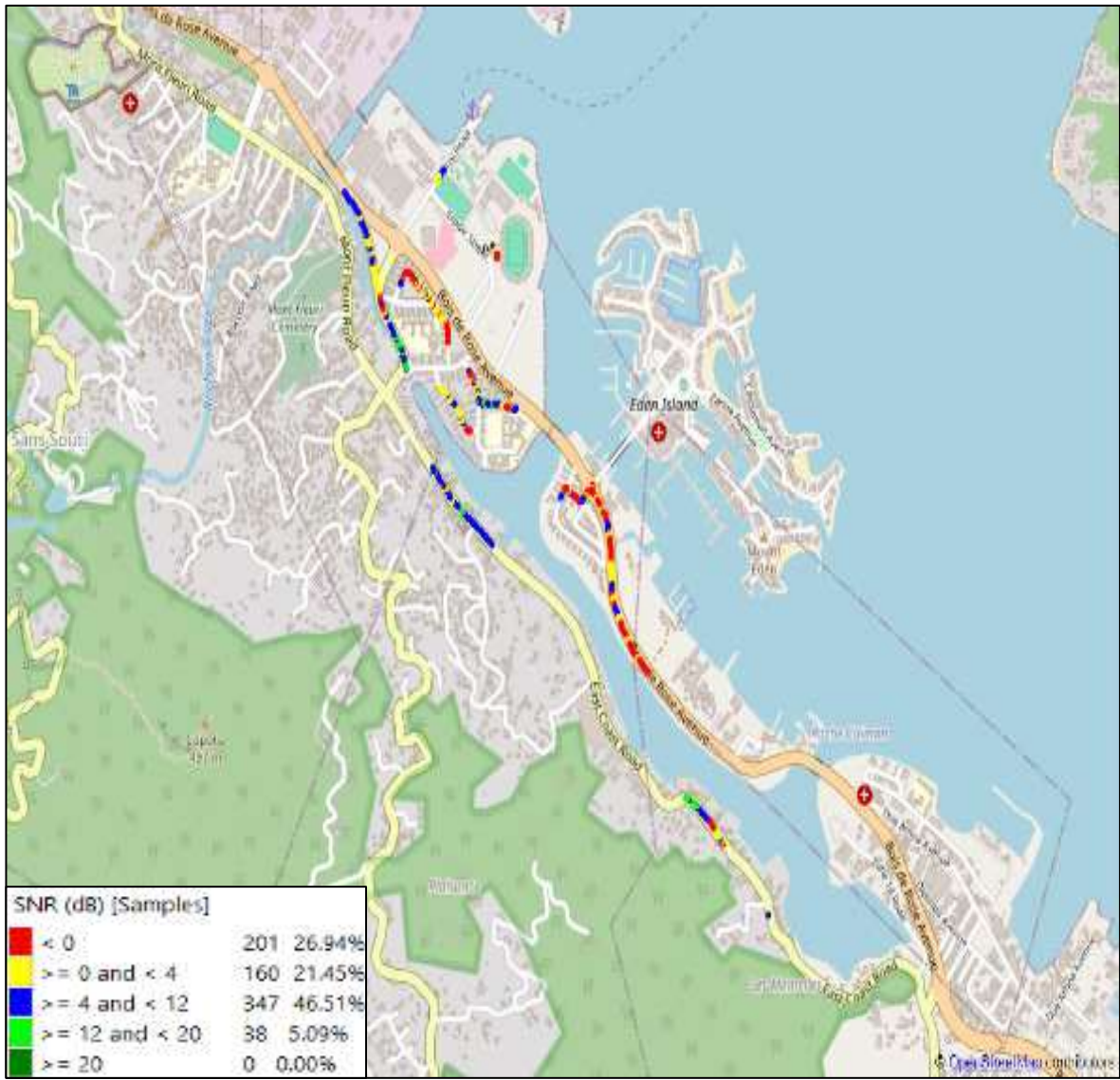


CWS LC MO



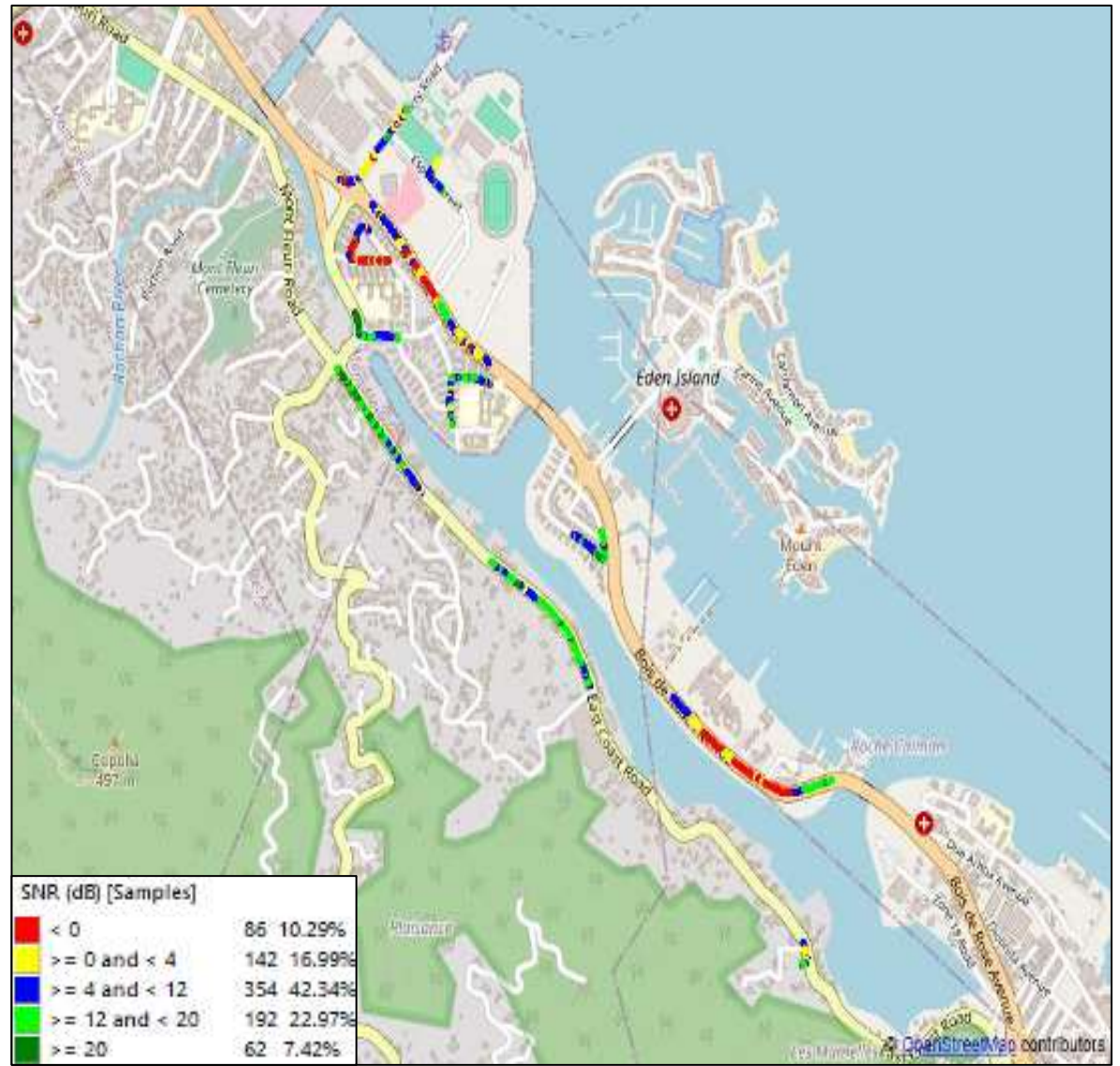
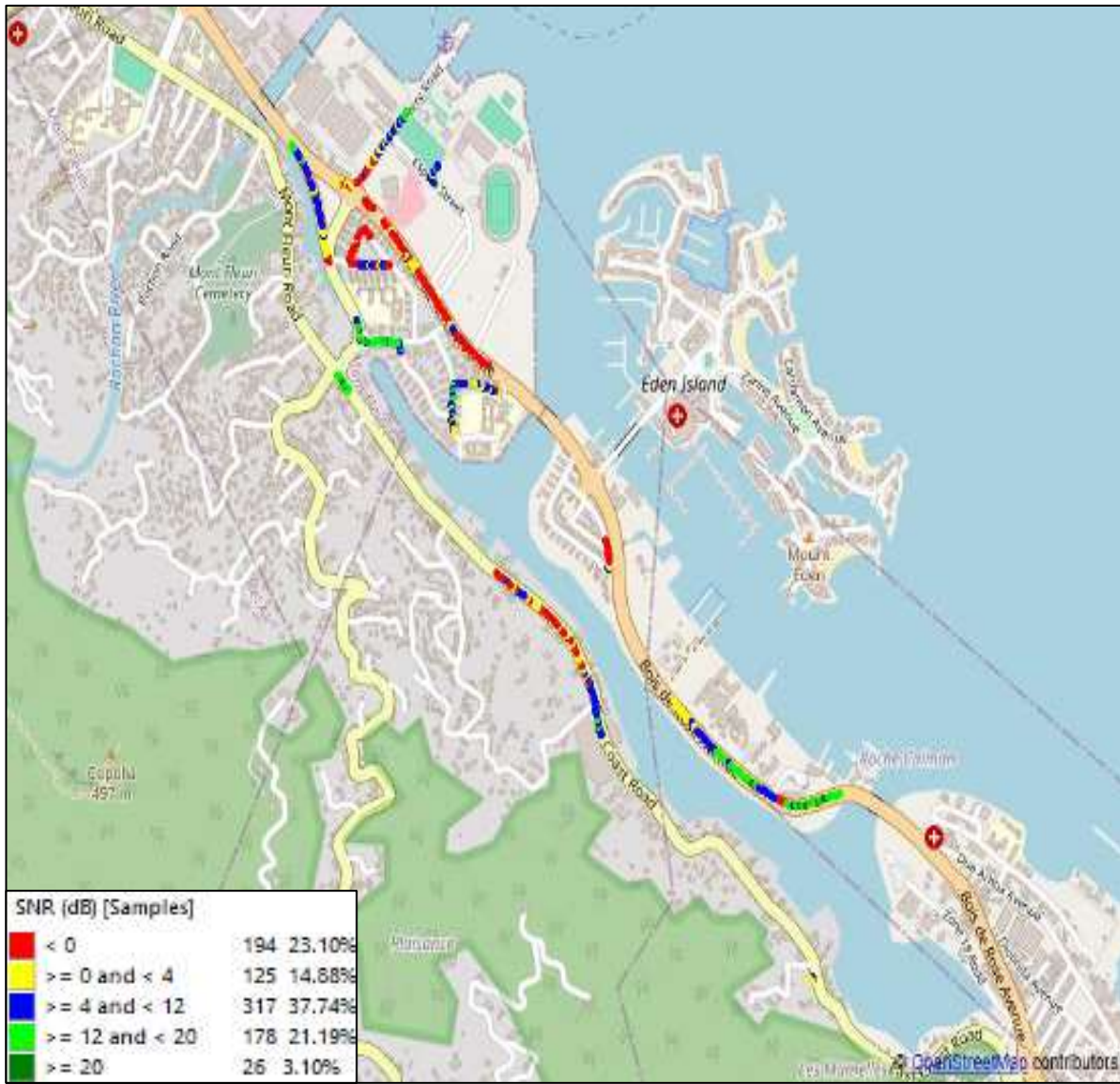
Airtel LC MO

CWS LC MO

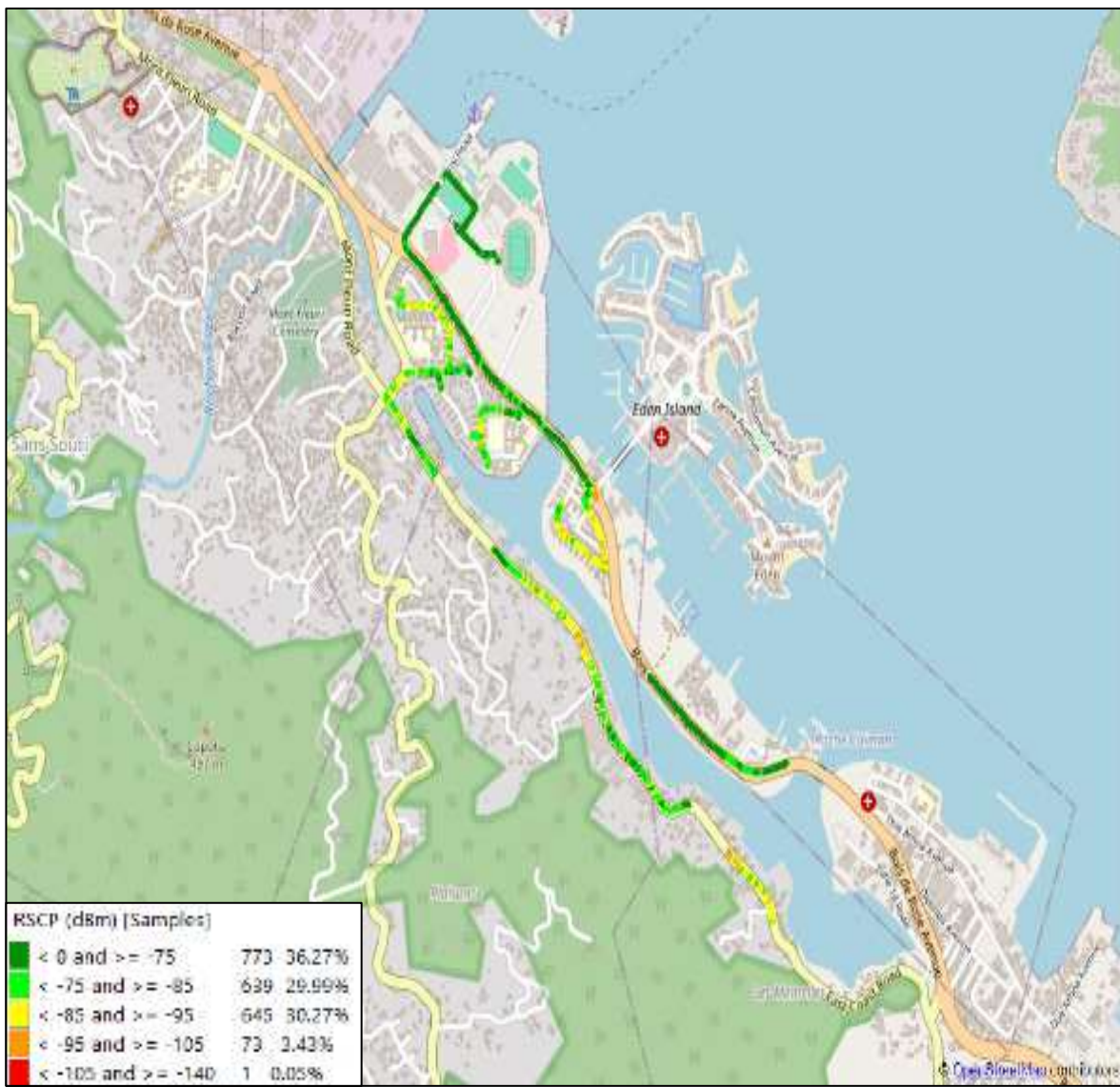


Airtel LC MO

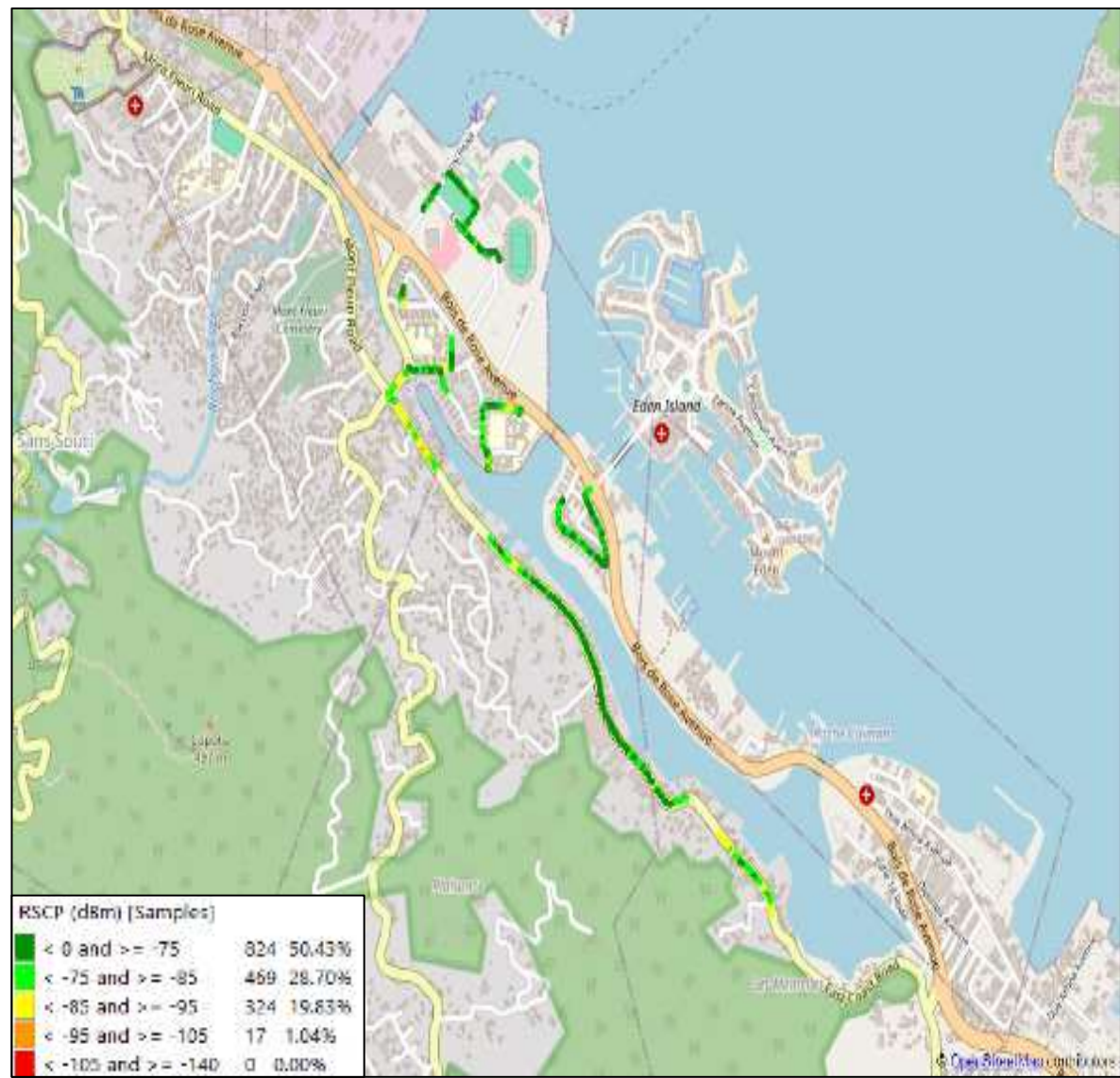
CWS LC MO



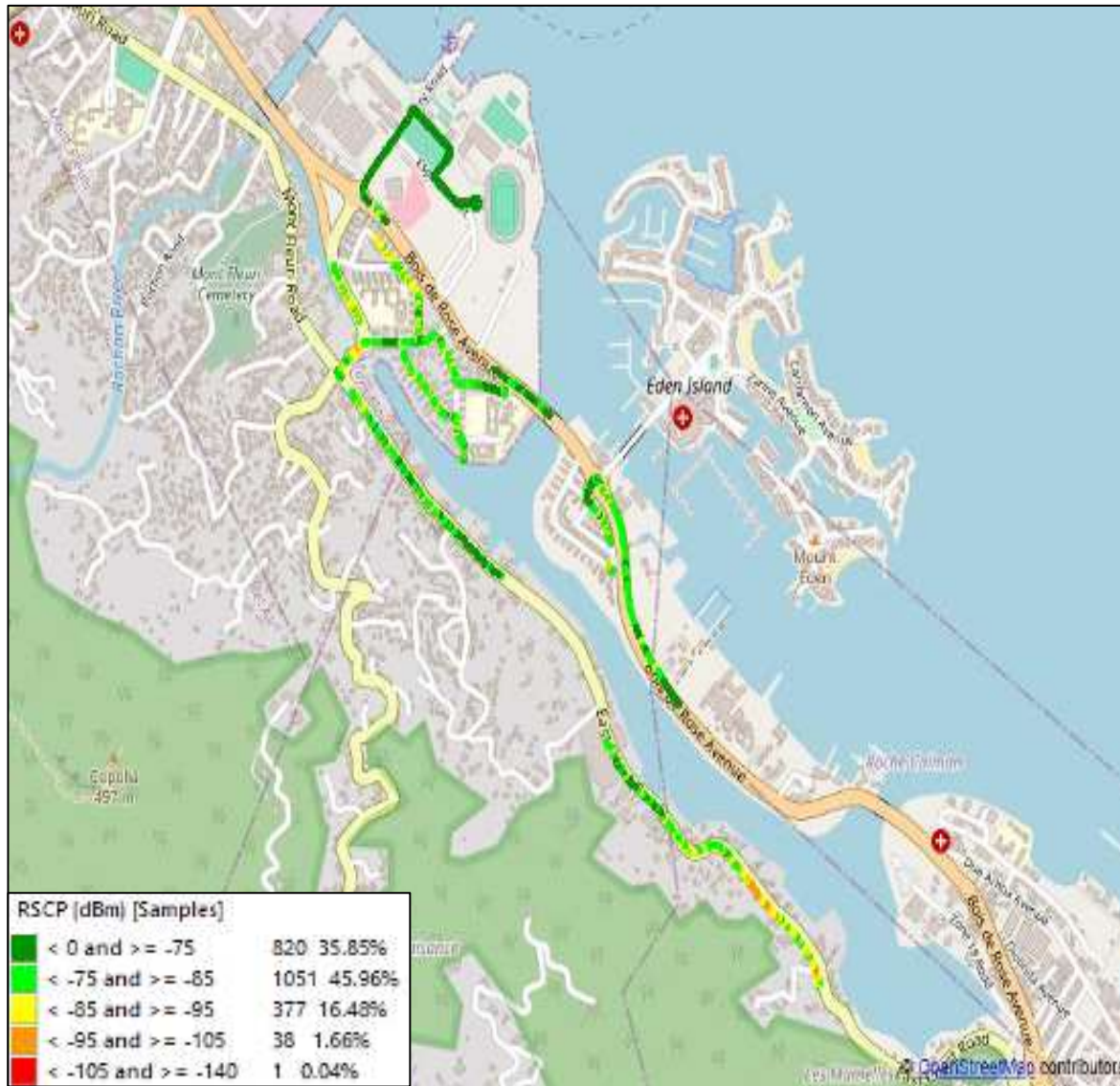
Airtel LC MO



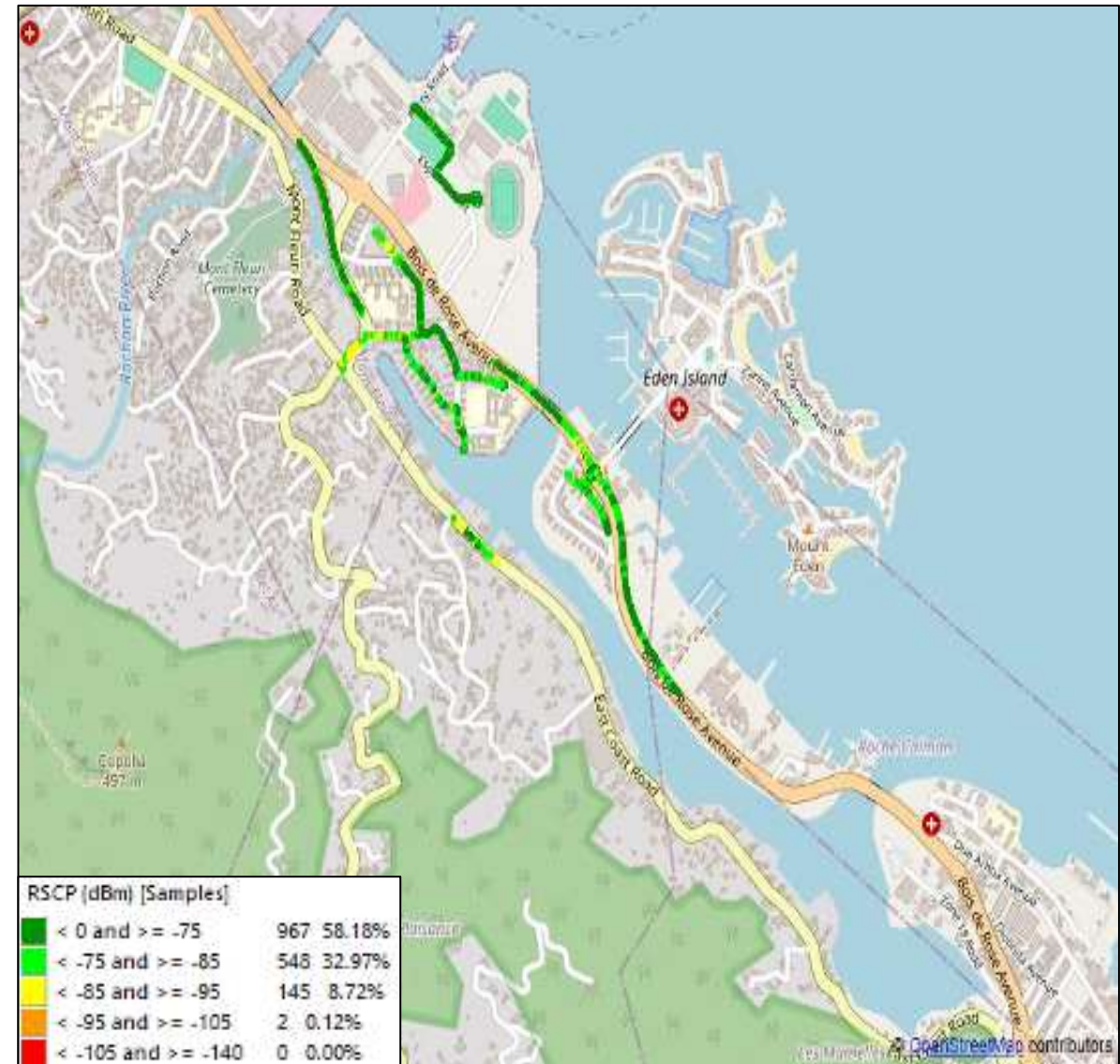
CWS LC MO



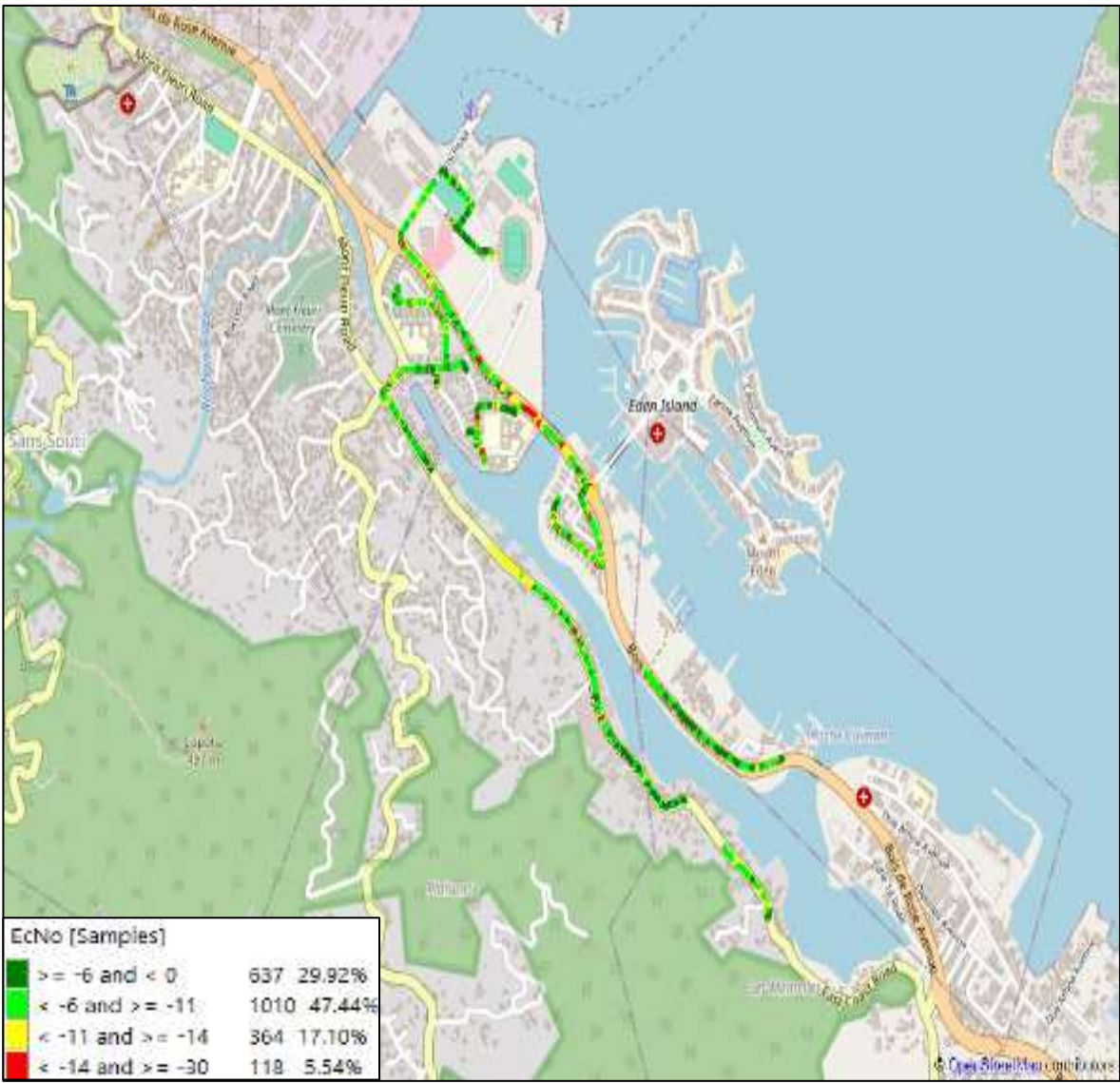
Airtel LC MO



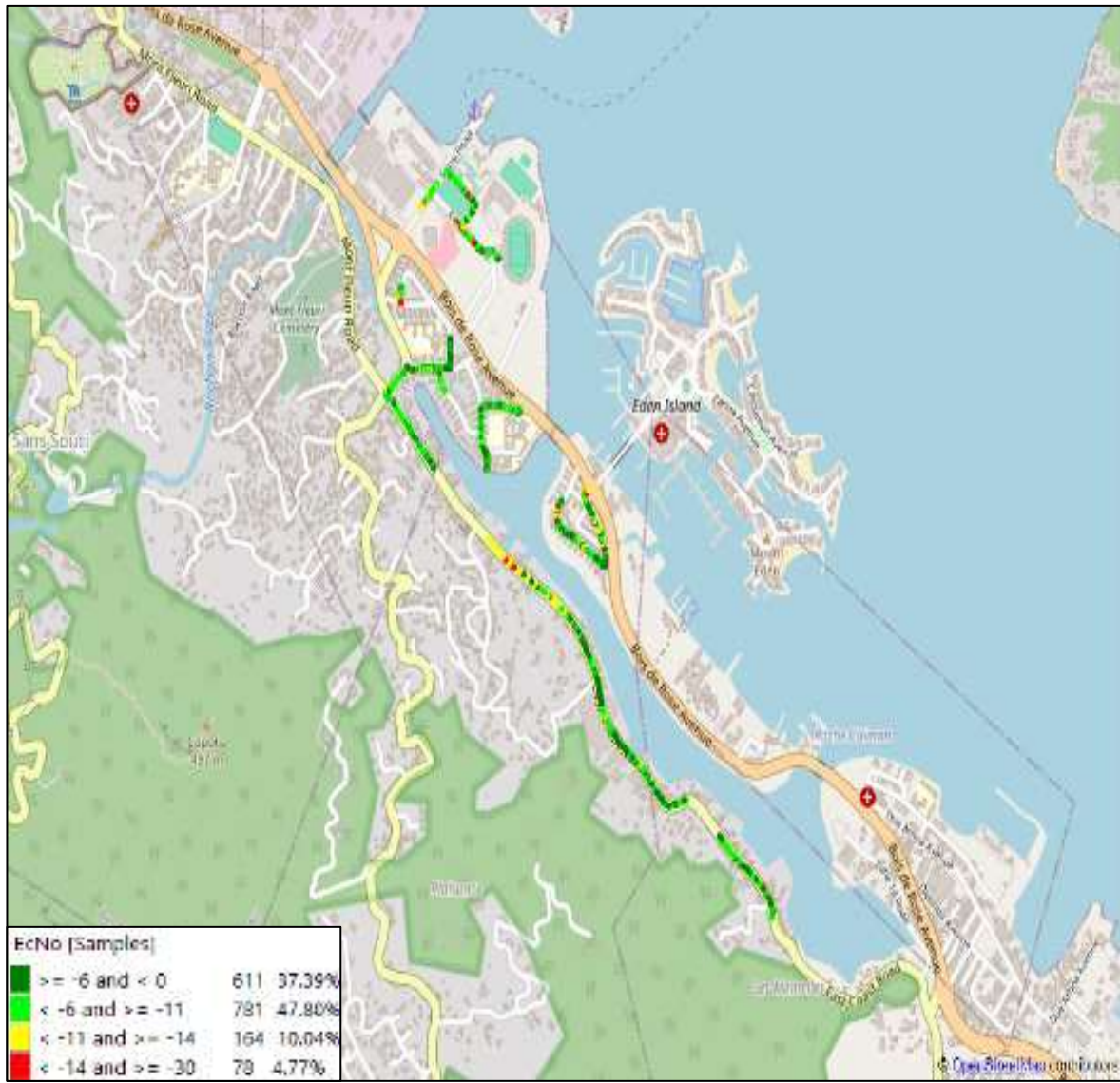
CWS LC MO



Airtel LC MO

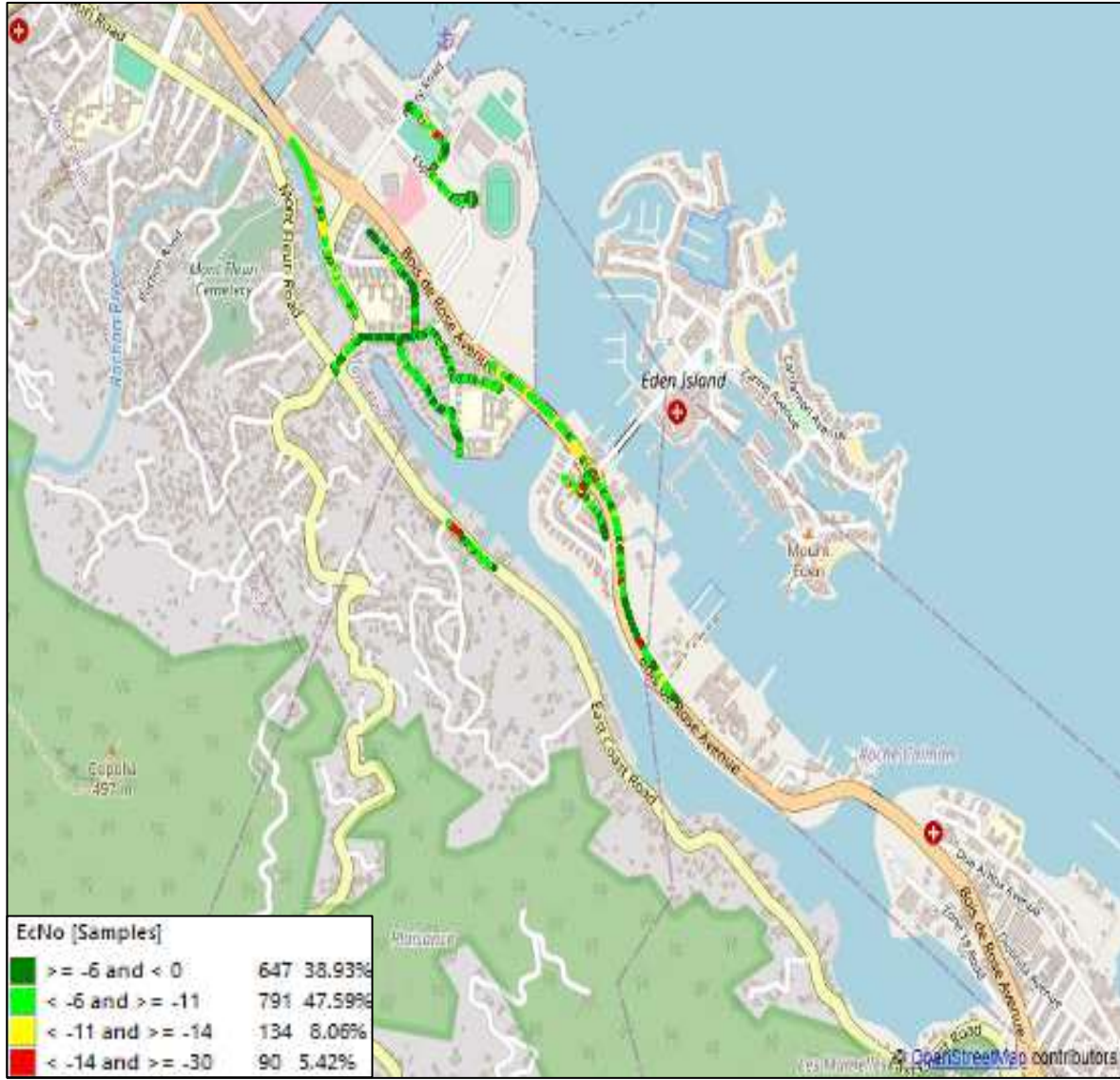
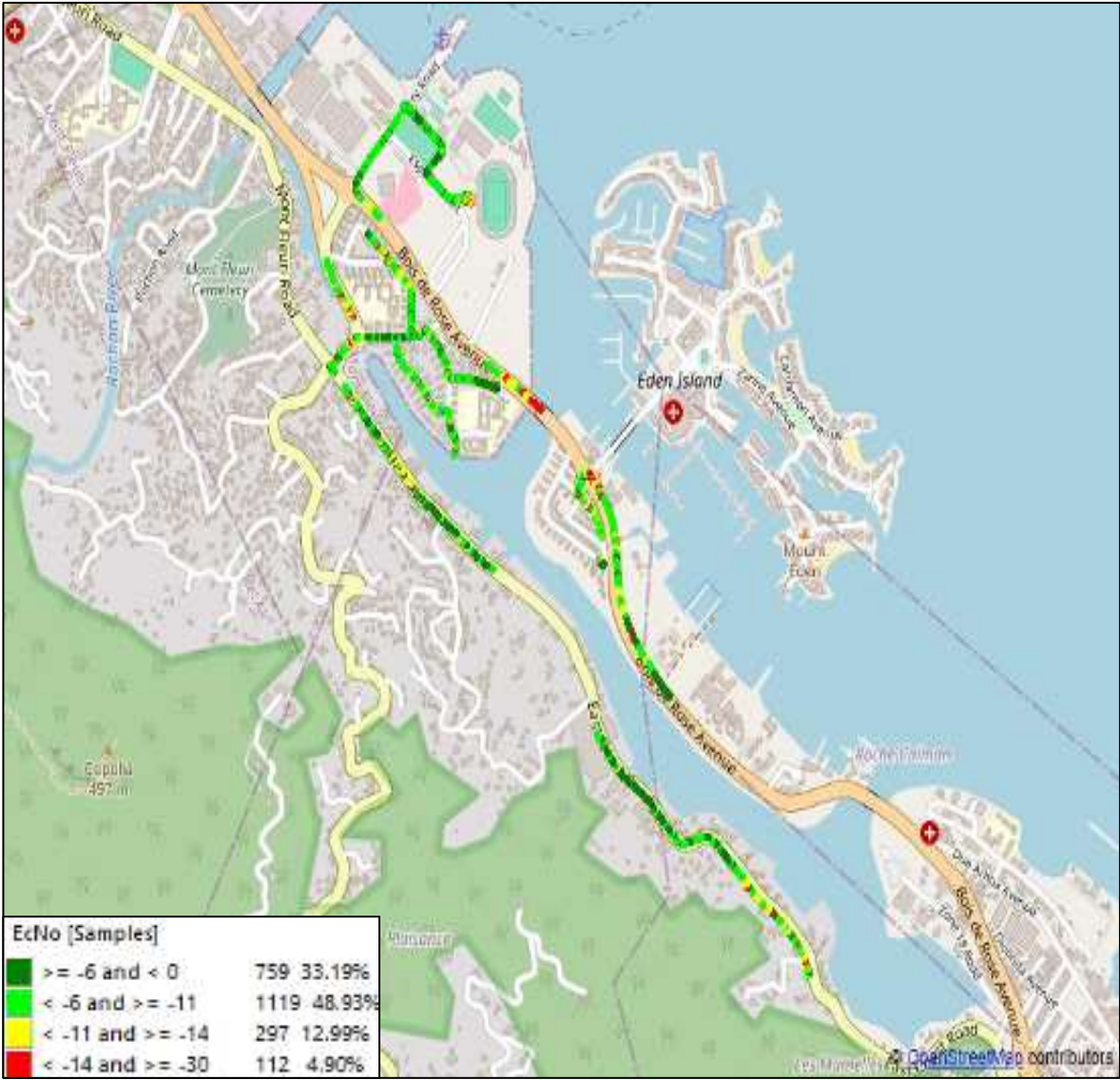


CWS LC MO

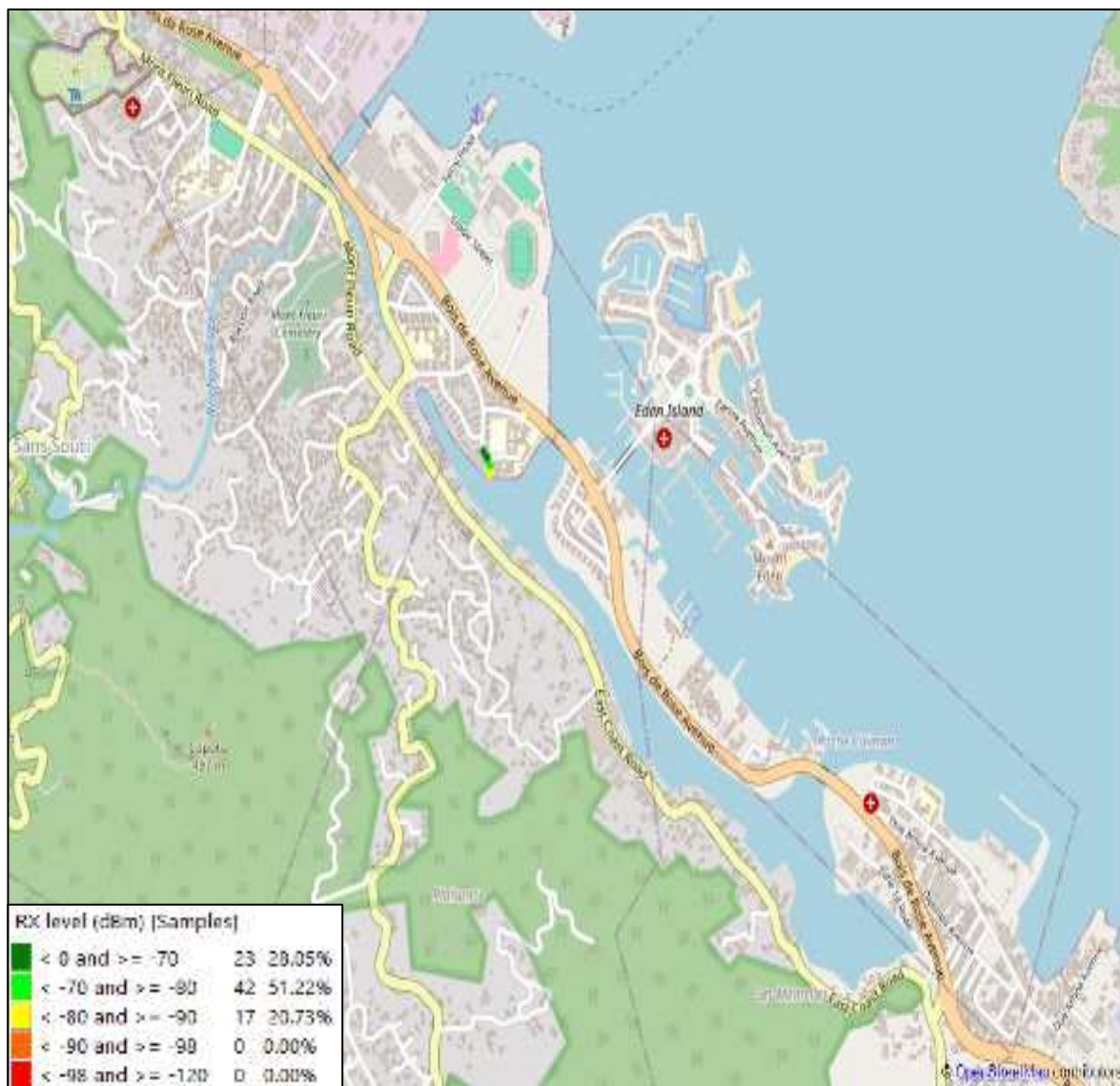


Airtel LC MO

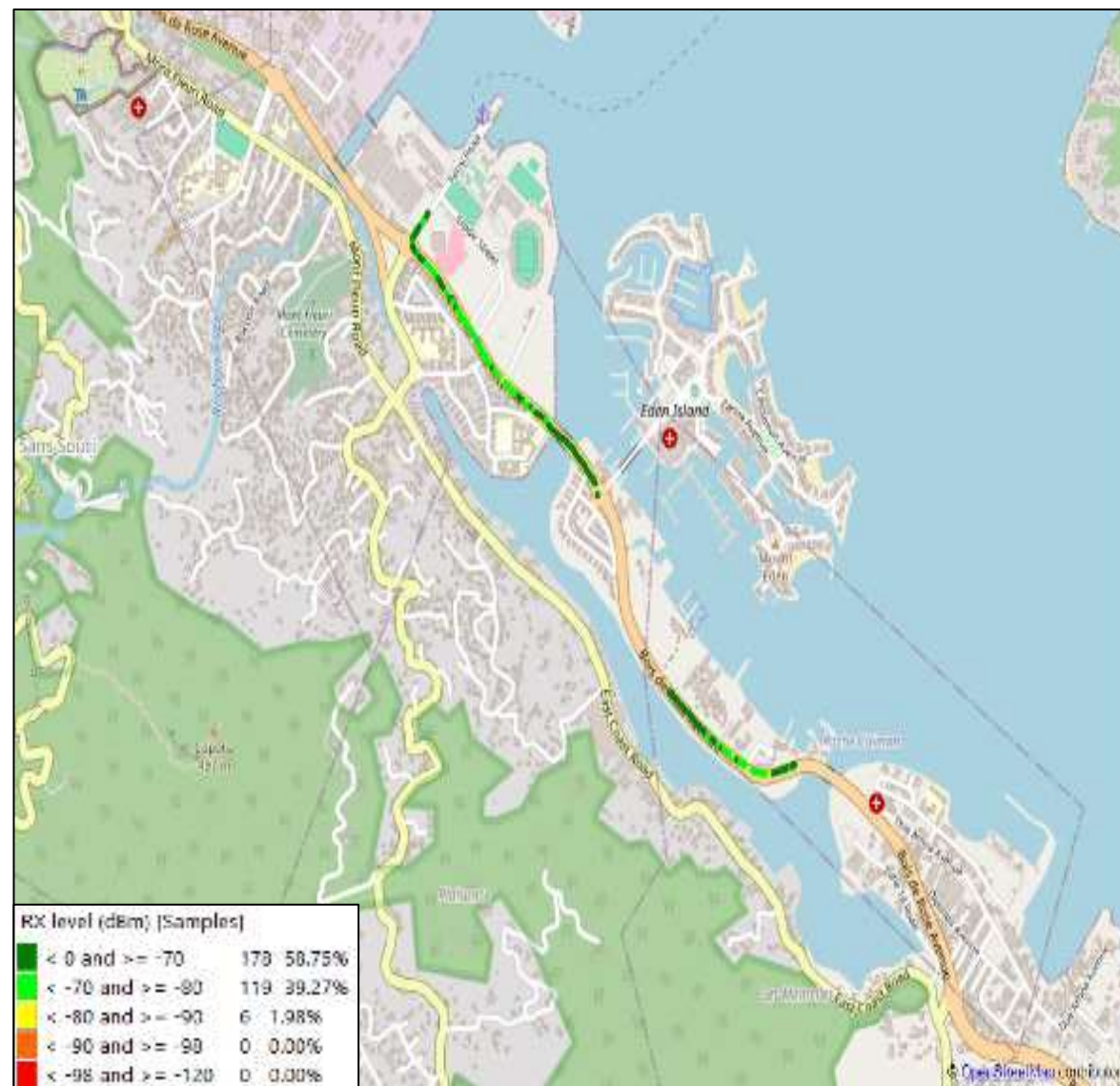
CWS LC MO



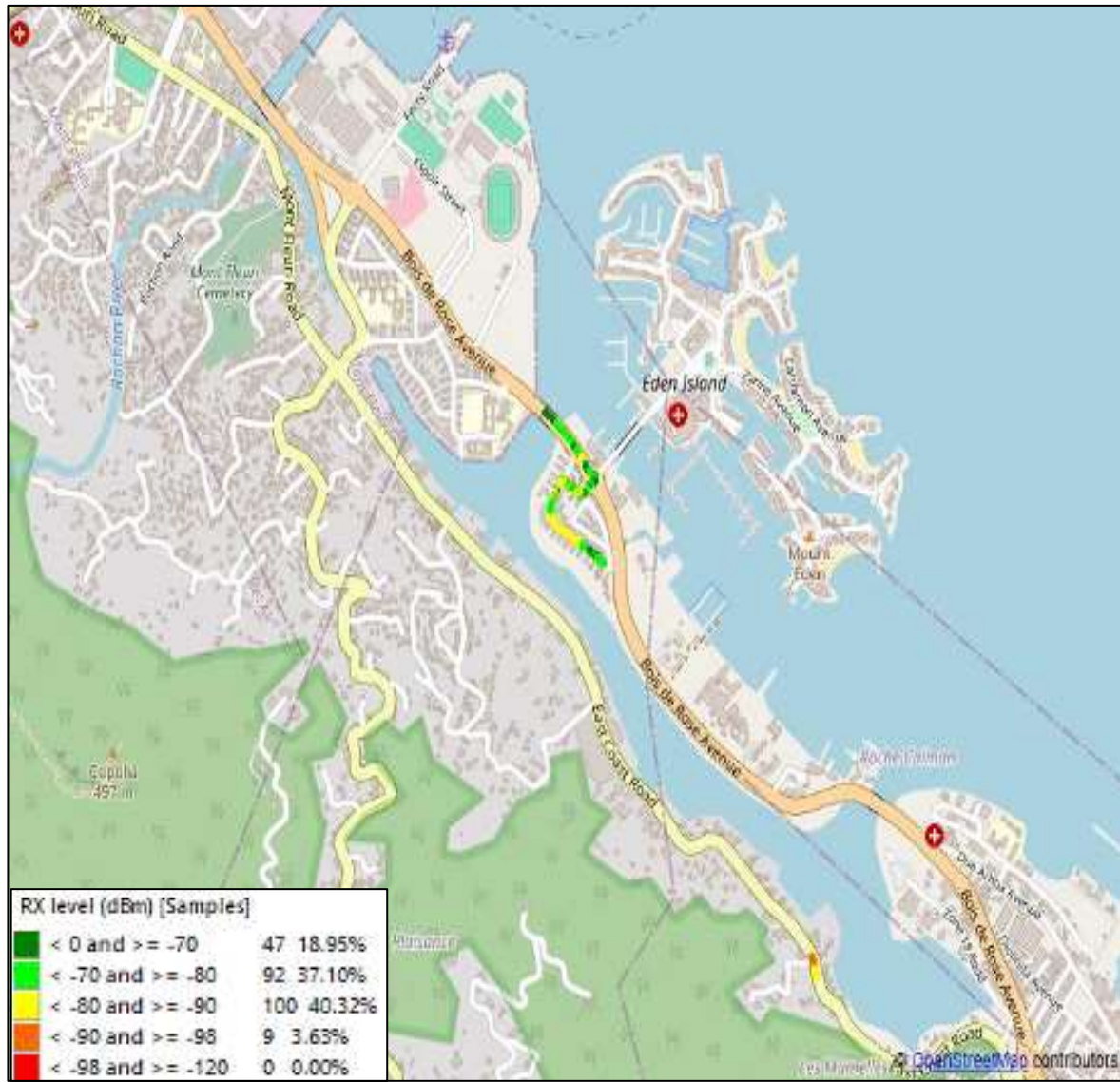
Airtel LC MO



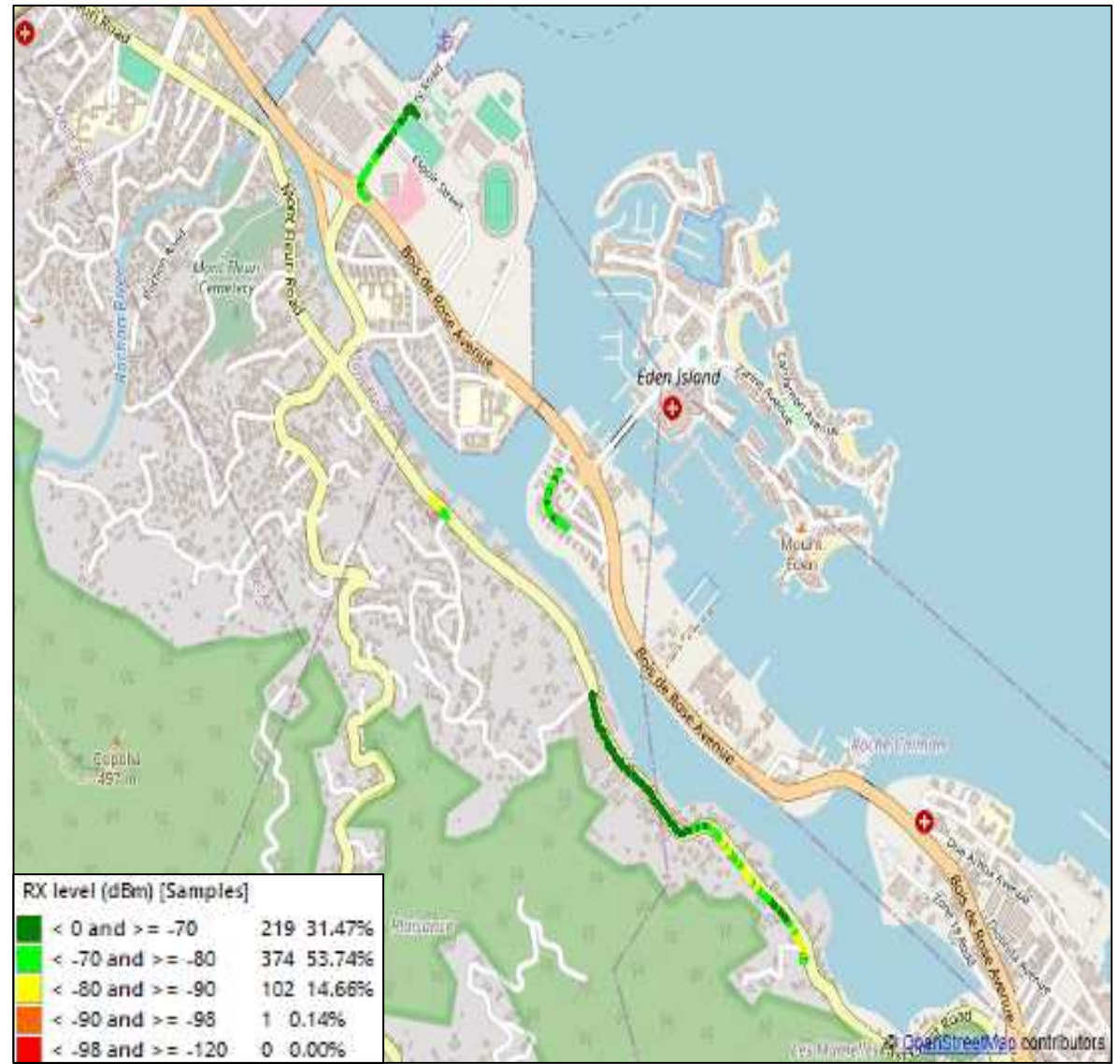
CWS LC MO



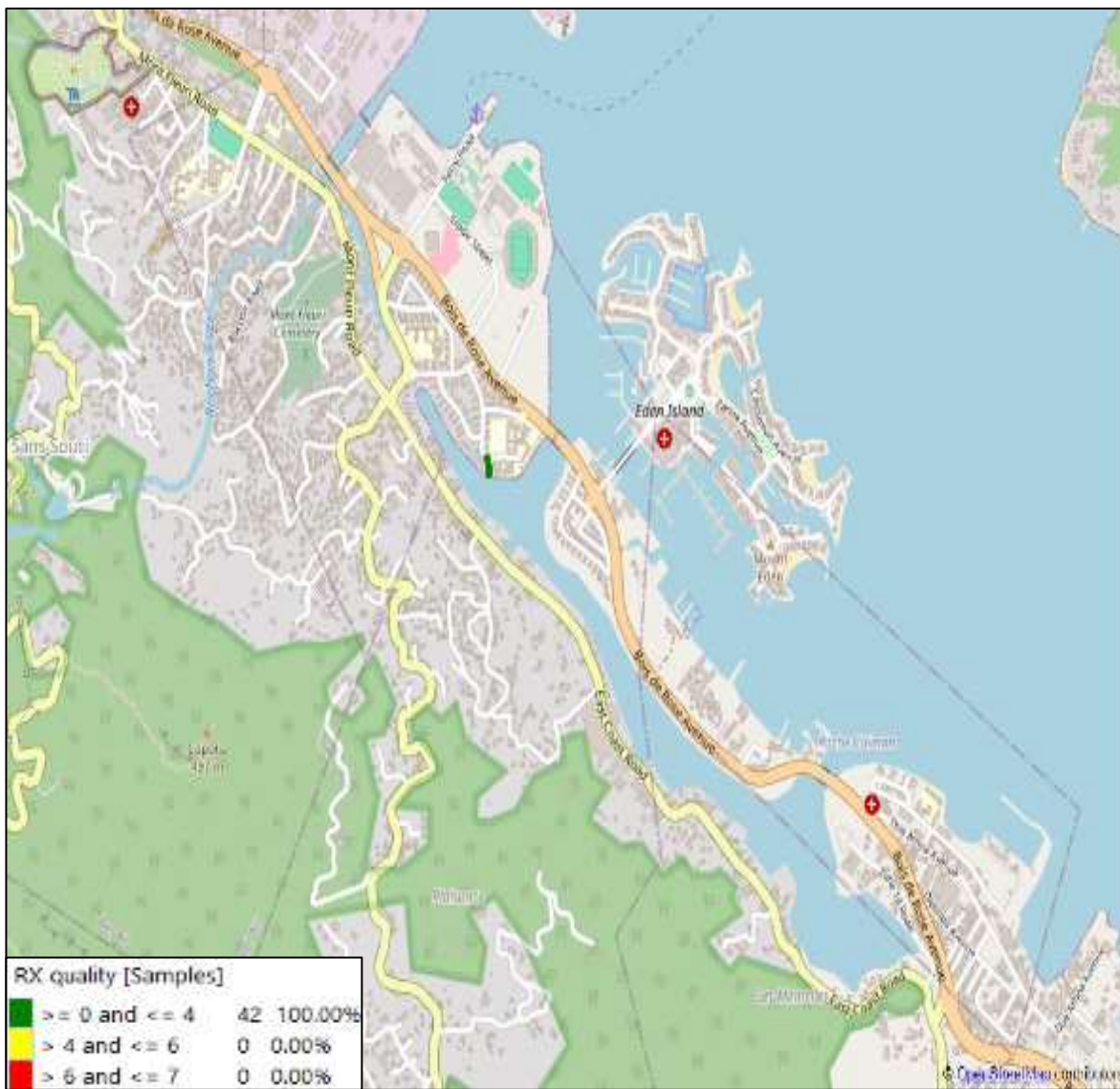
Airtel LC MO



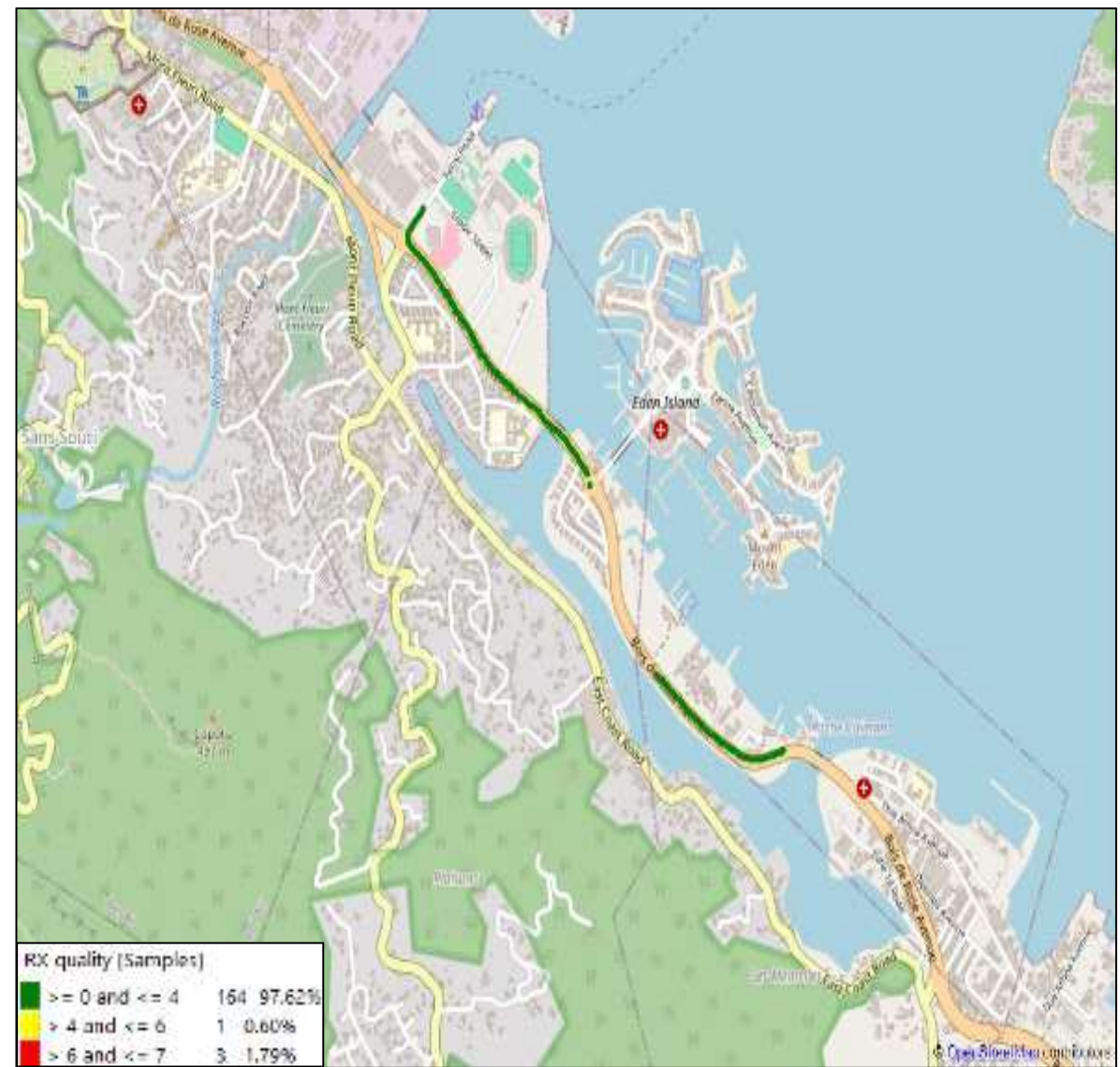
CWS LC MO



Airtel LC MO

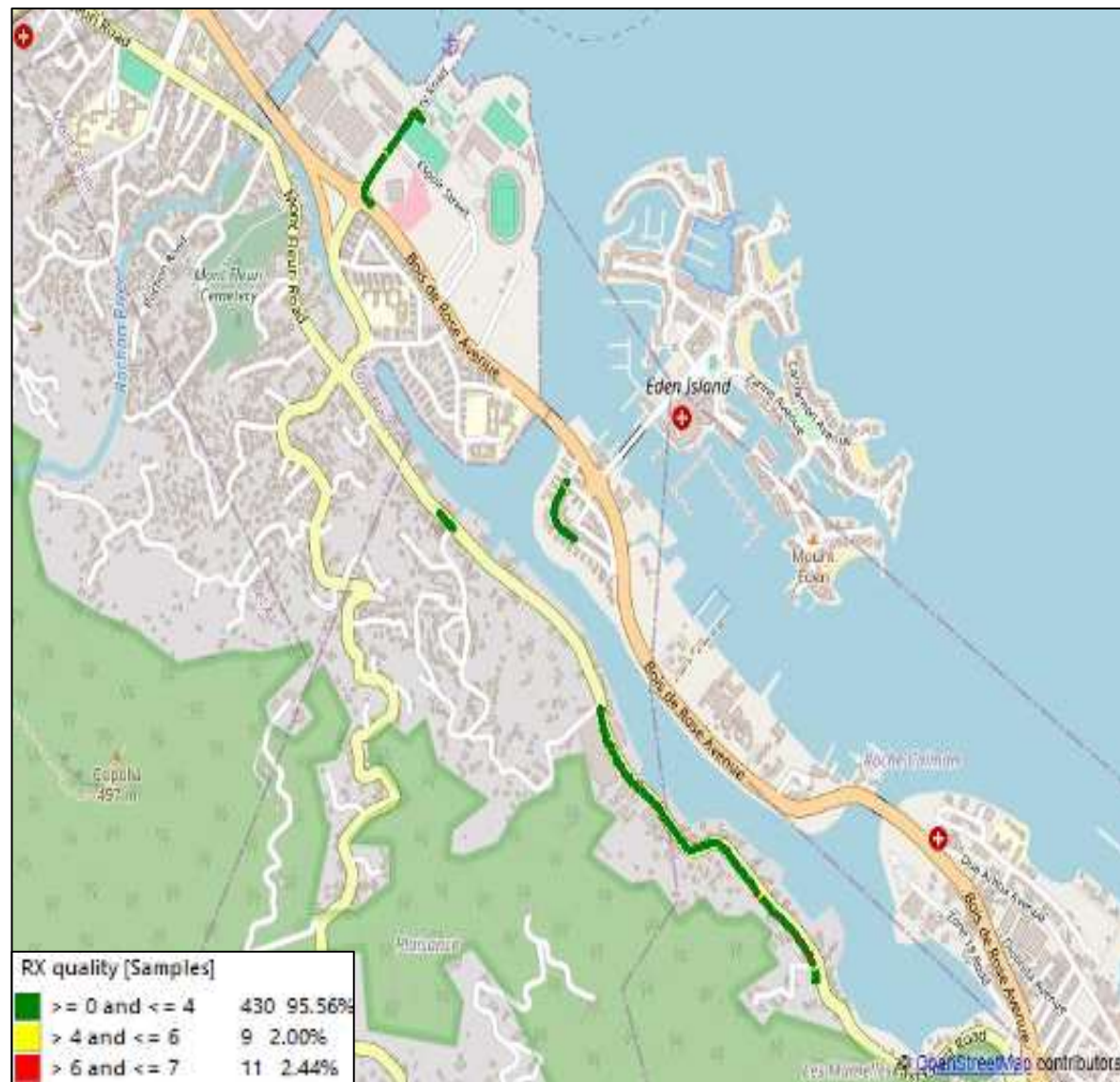


CWS LC MO



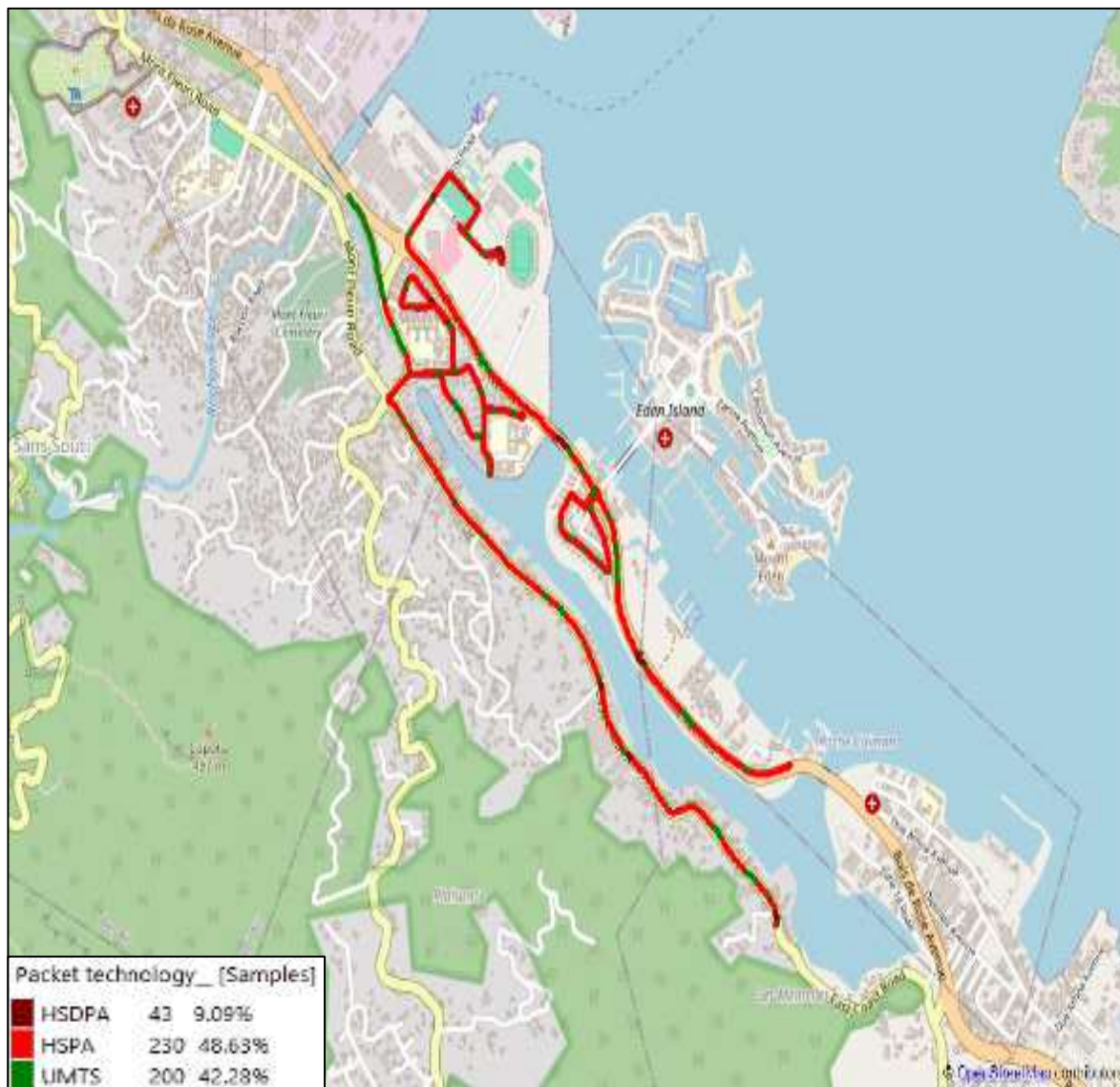
Airtel LC MO

CWS LC MO

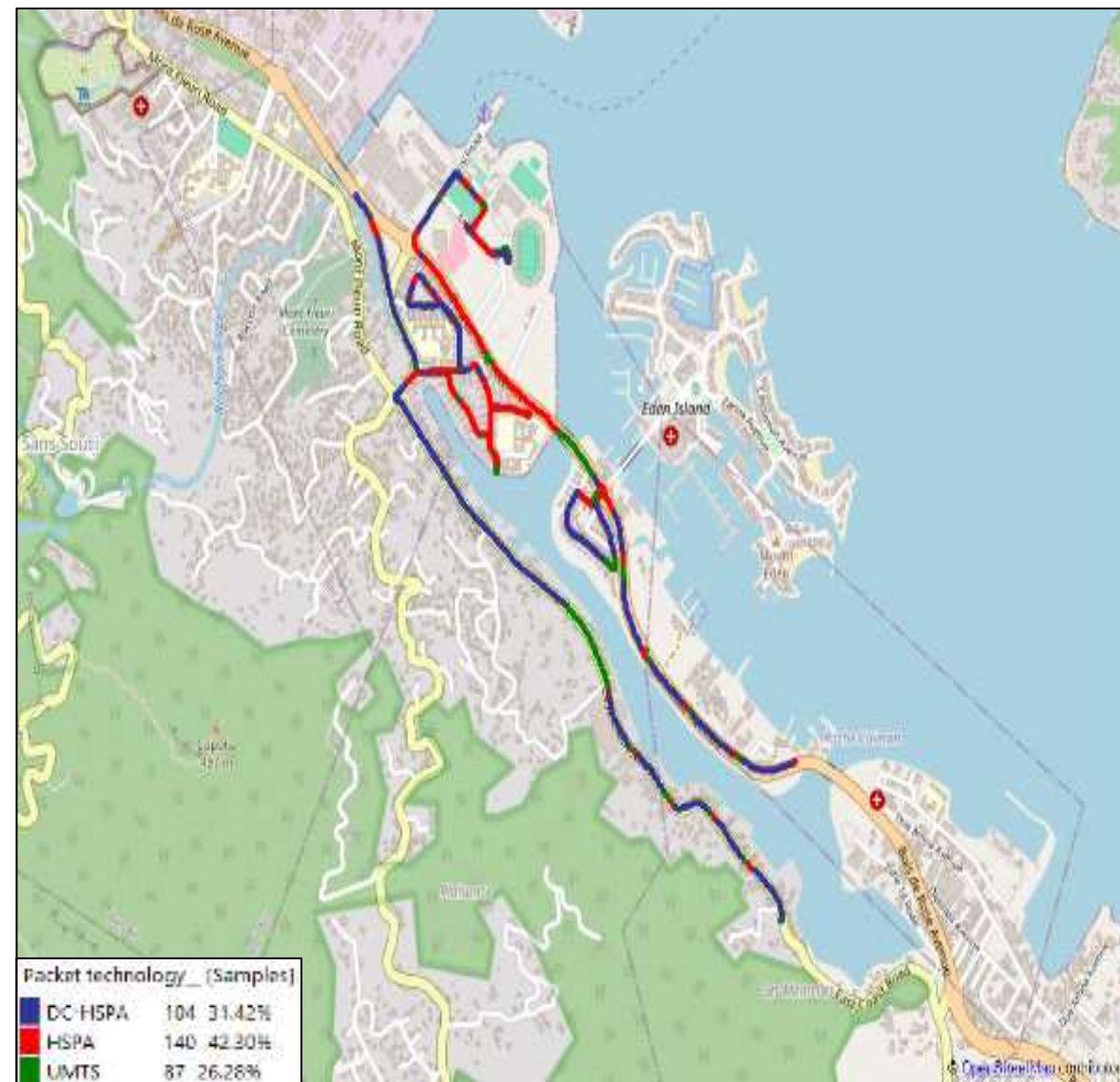


3G PREFERRED DATA DRIVE PLOTS

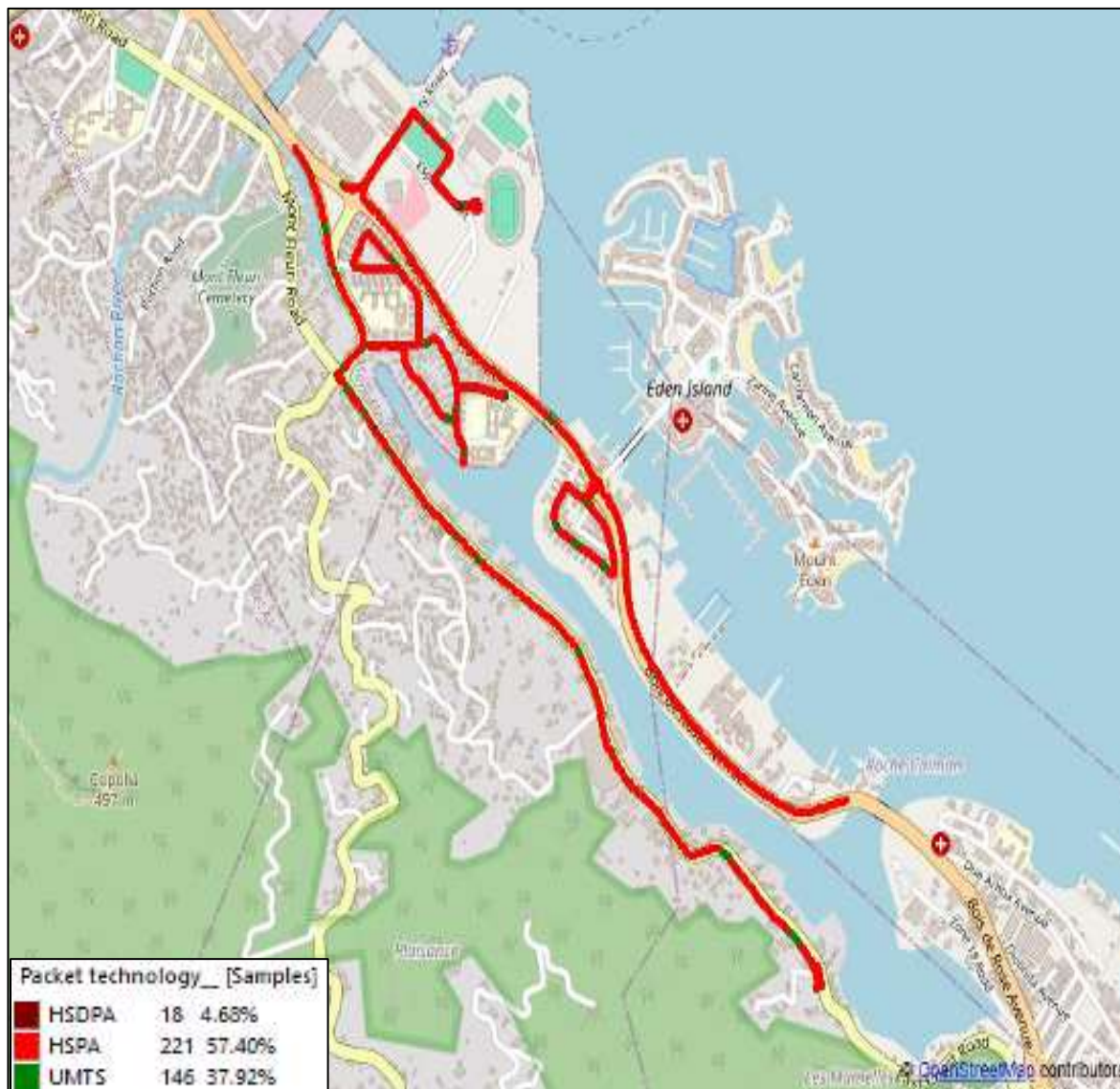
Airtel Data 3G



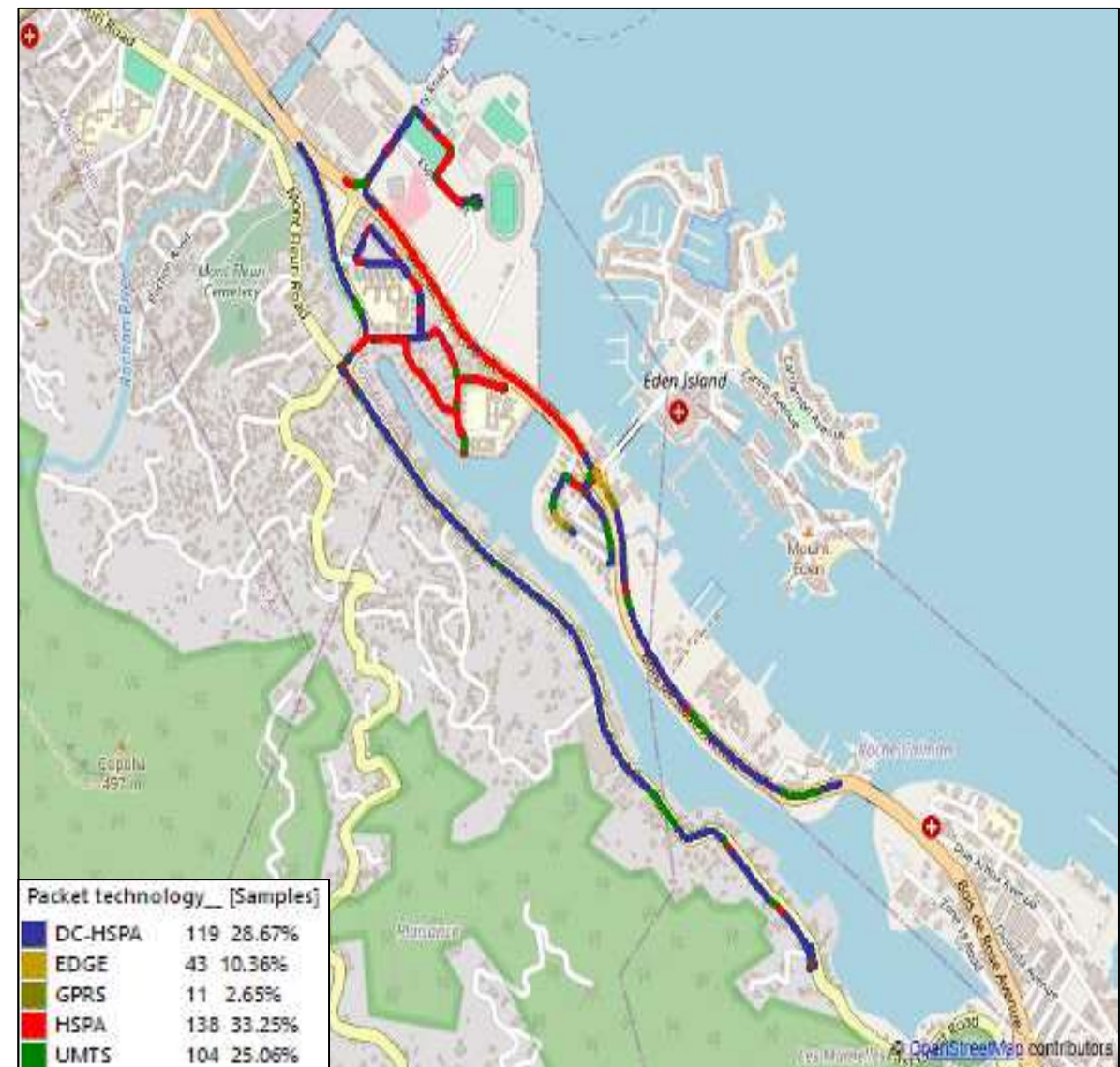
CWS Data 3G



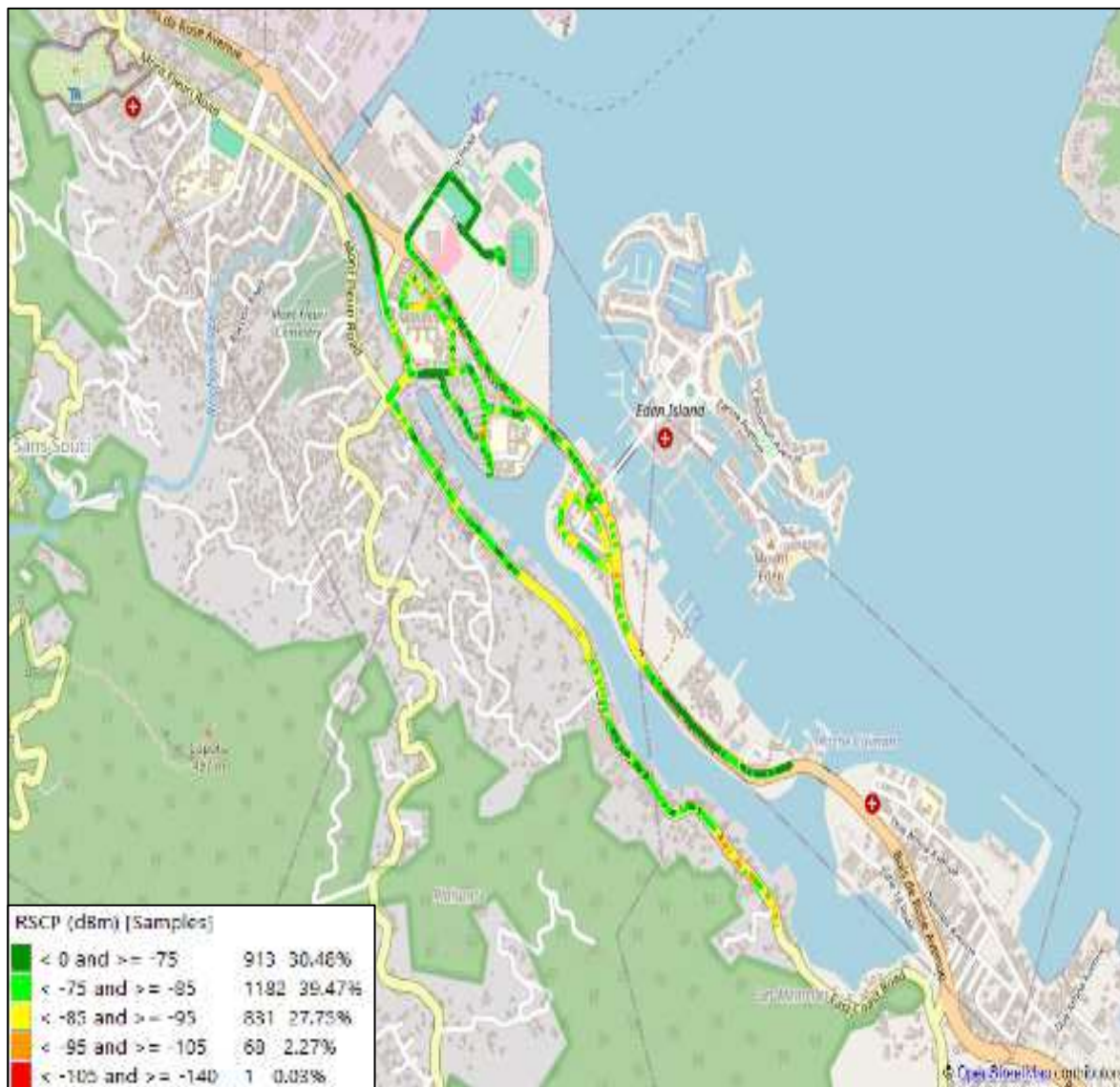
Airtel Data 3G



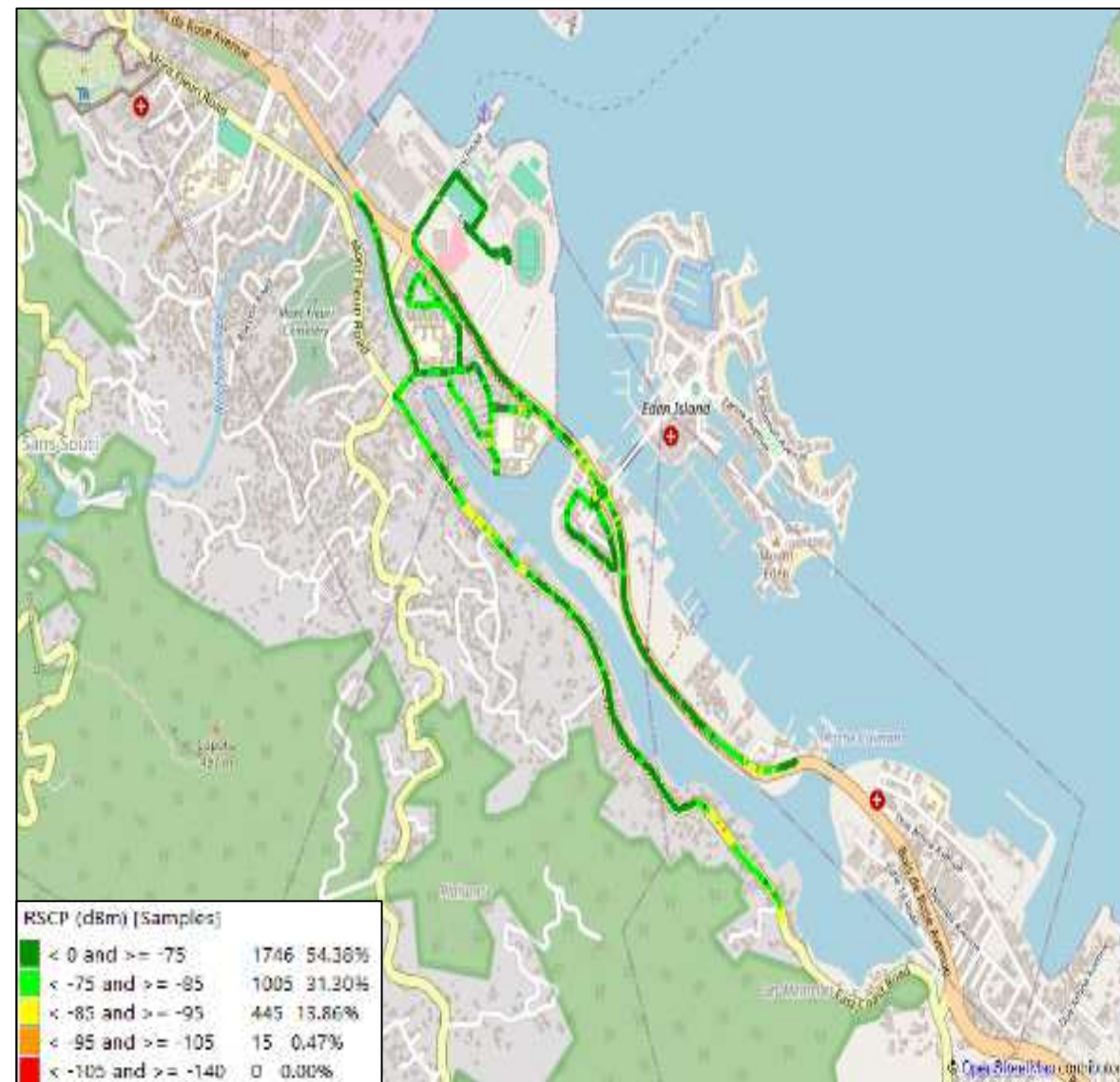
CWS Data 3G



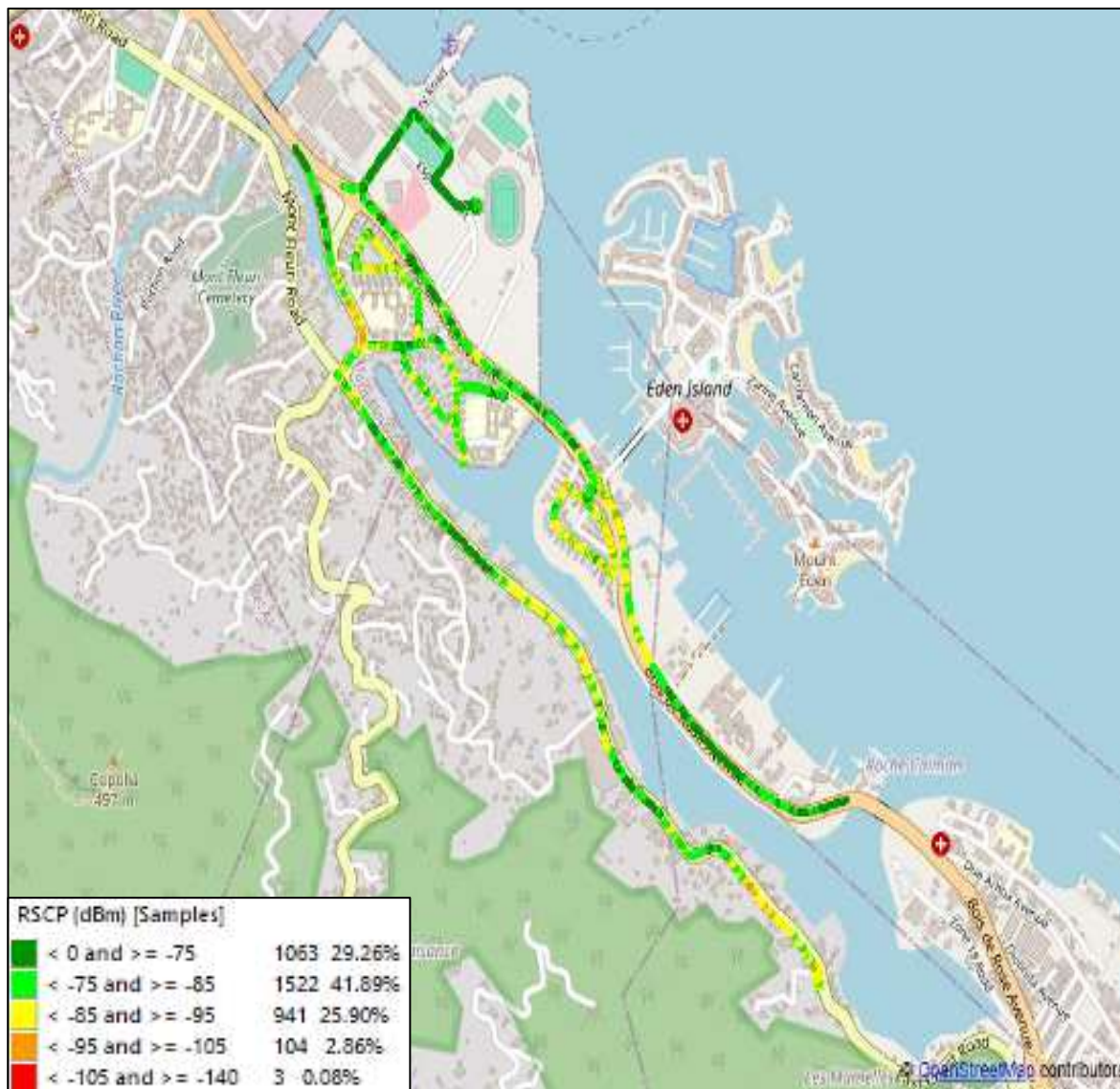
Airtel Data 3G



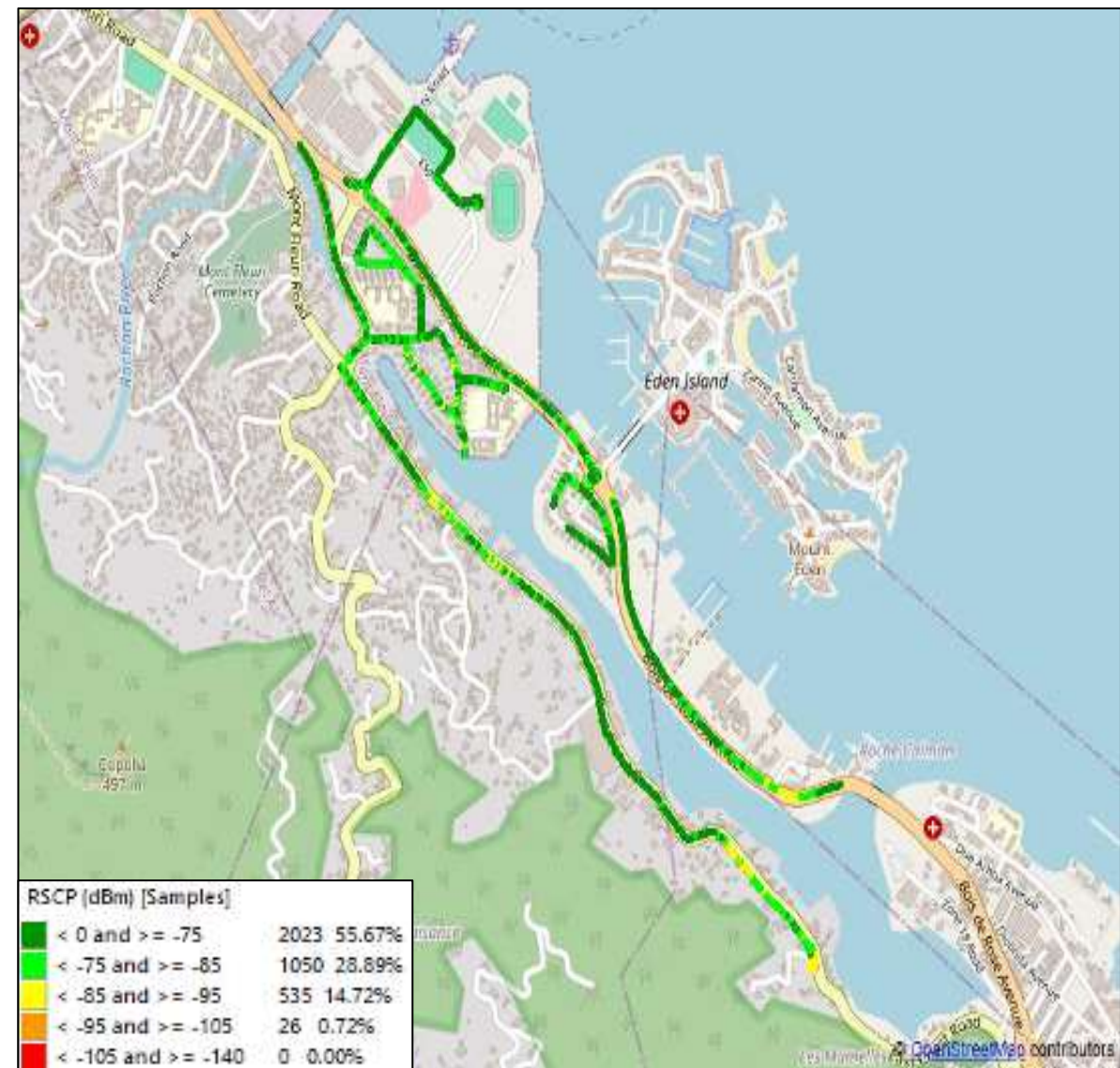
CWS Data 3G



Airtel Data 3G

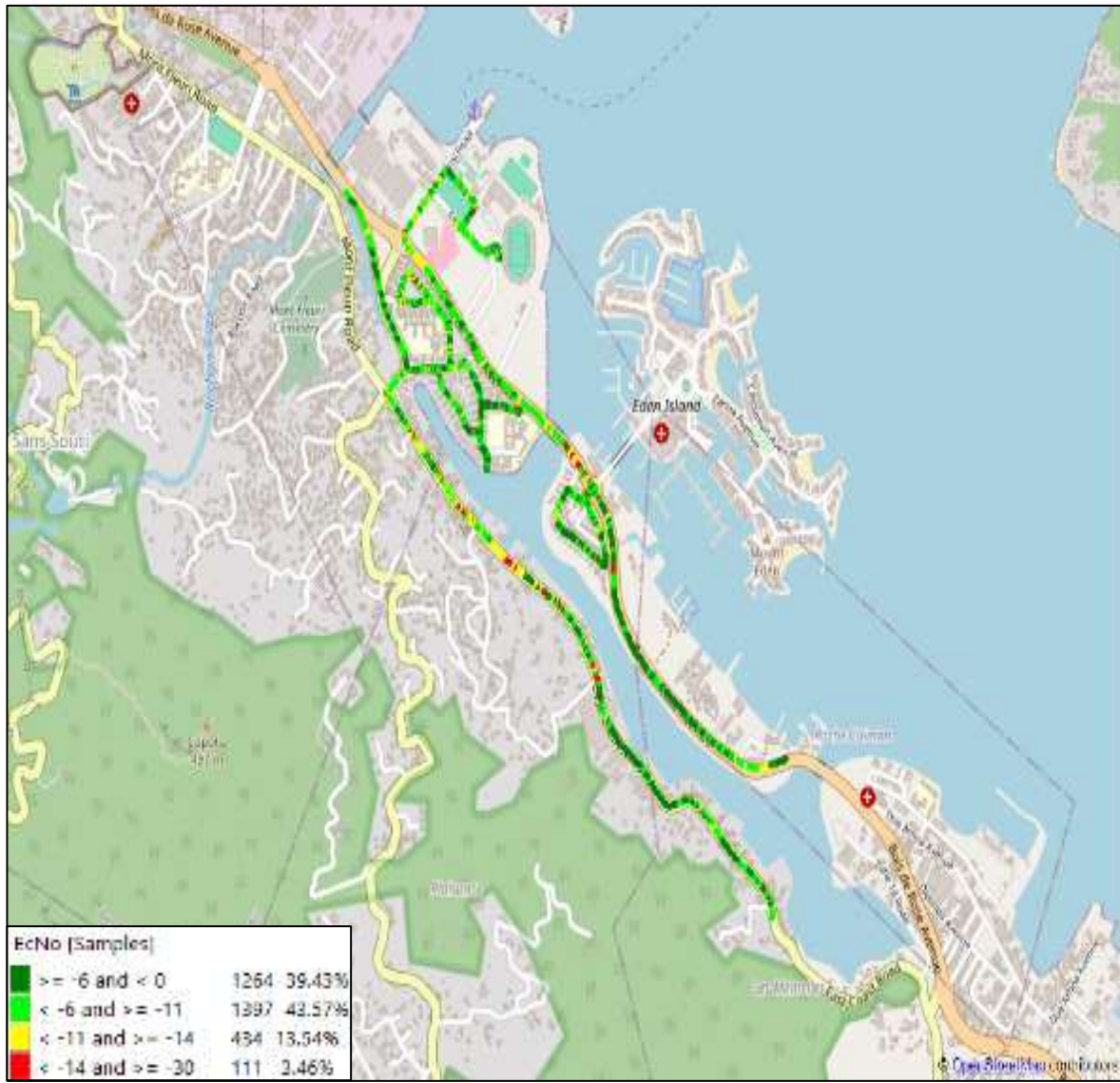
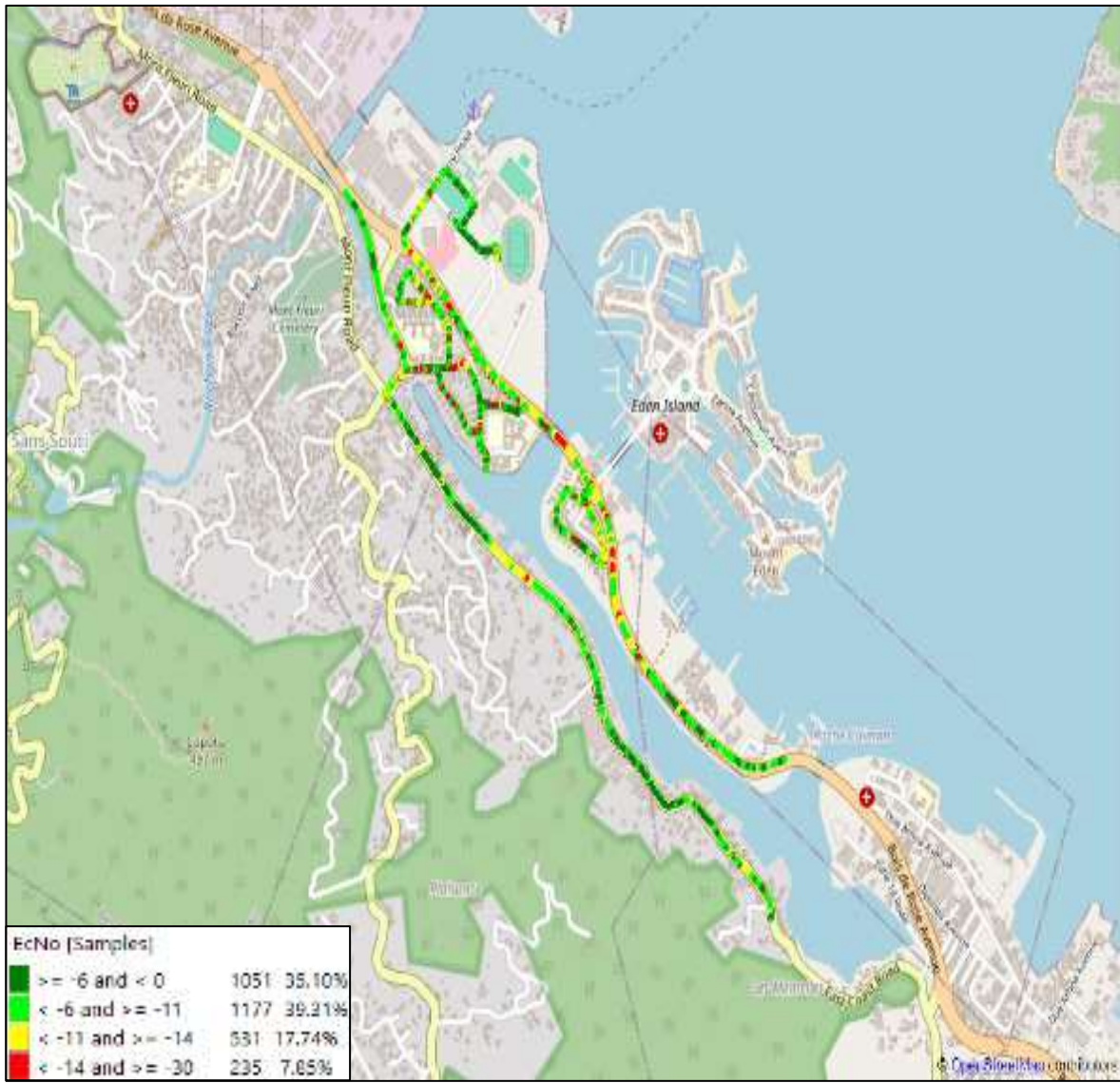


CWS Data 3G



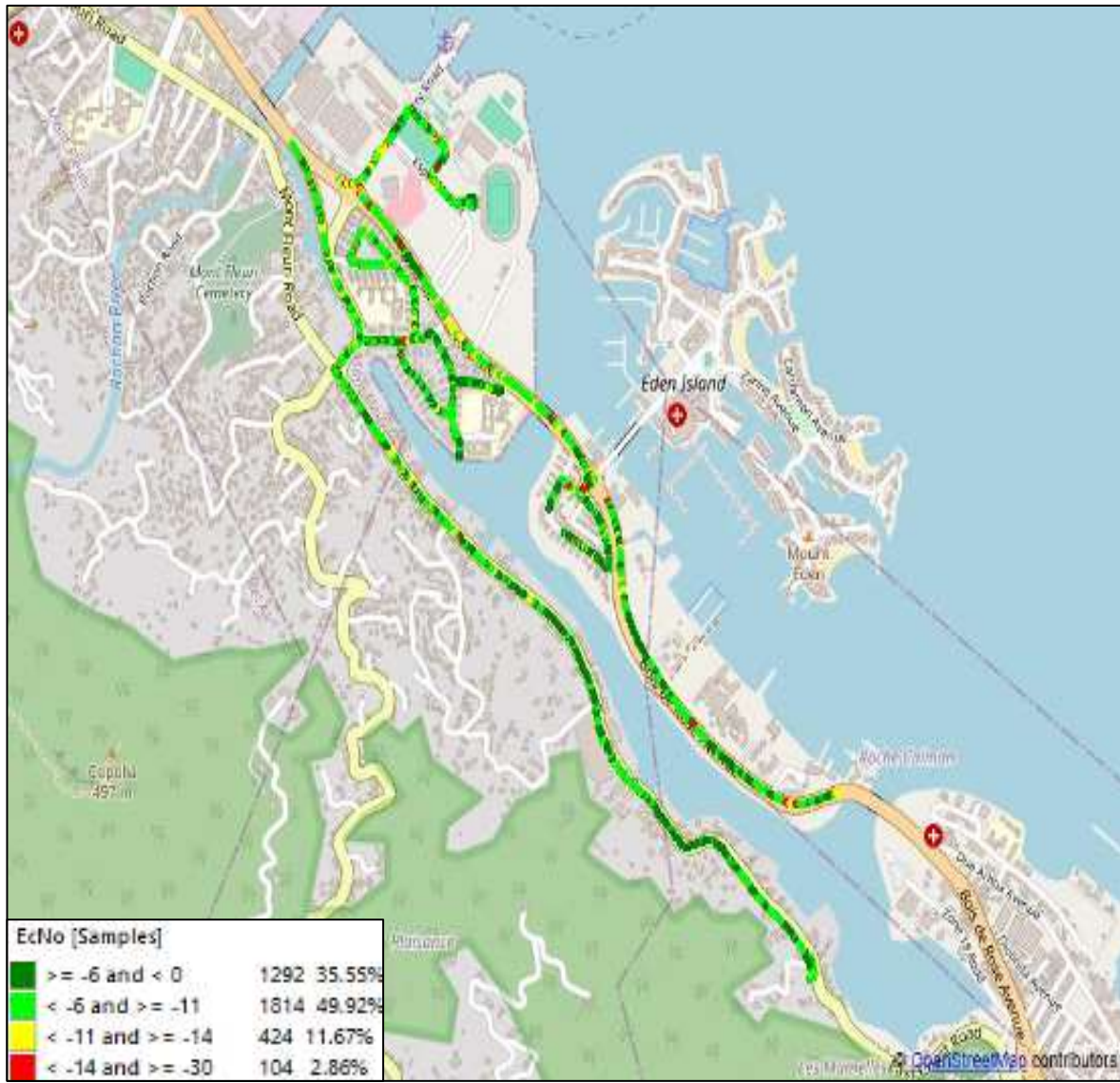
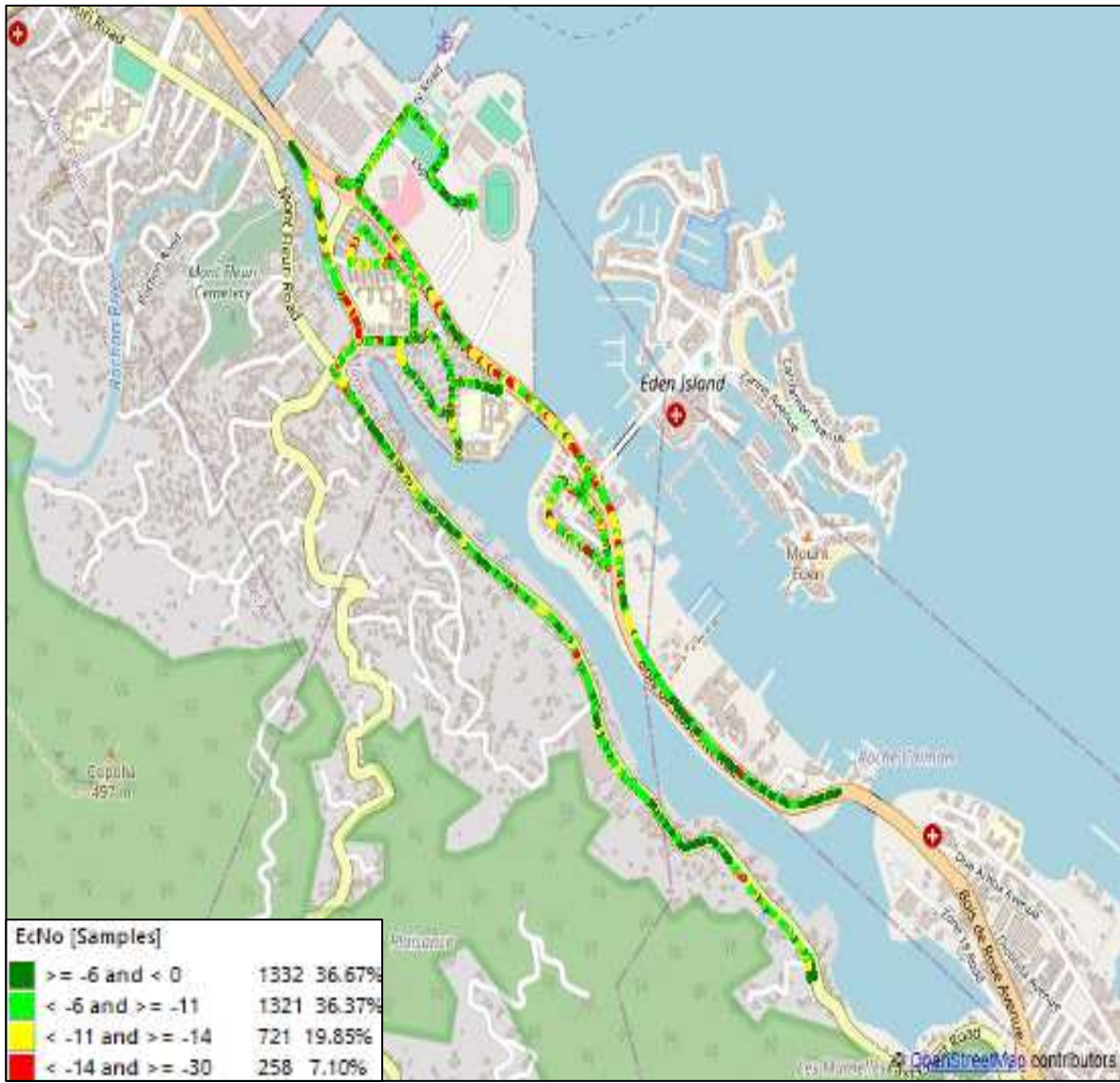
Airtel Data 3G

CWS Data 3G

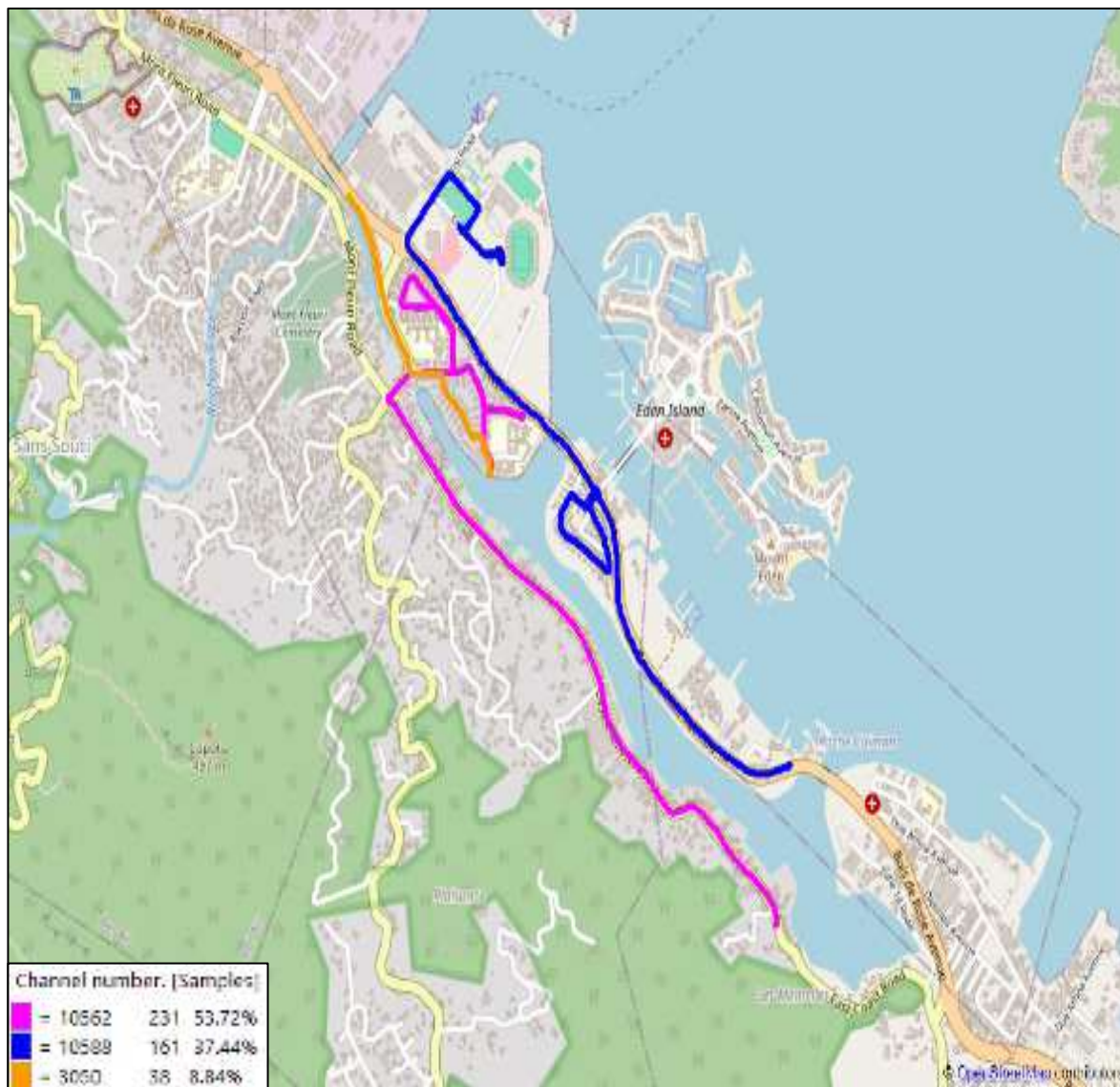


Airtel Data 3G

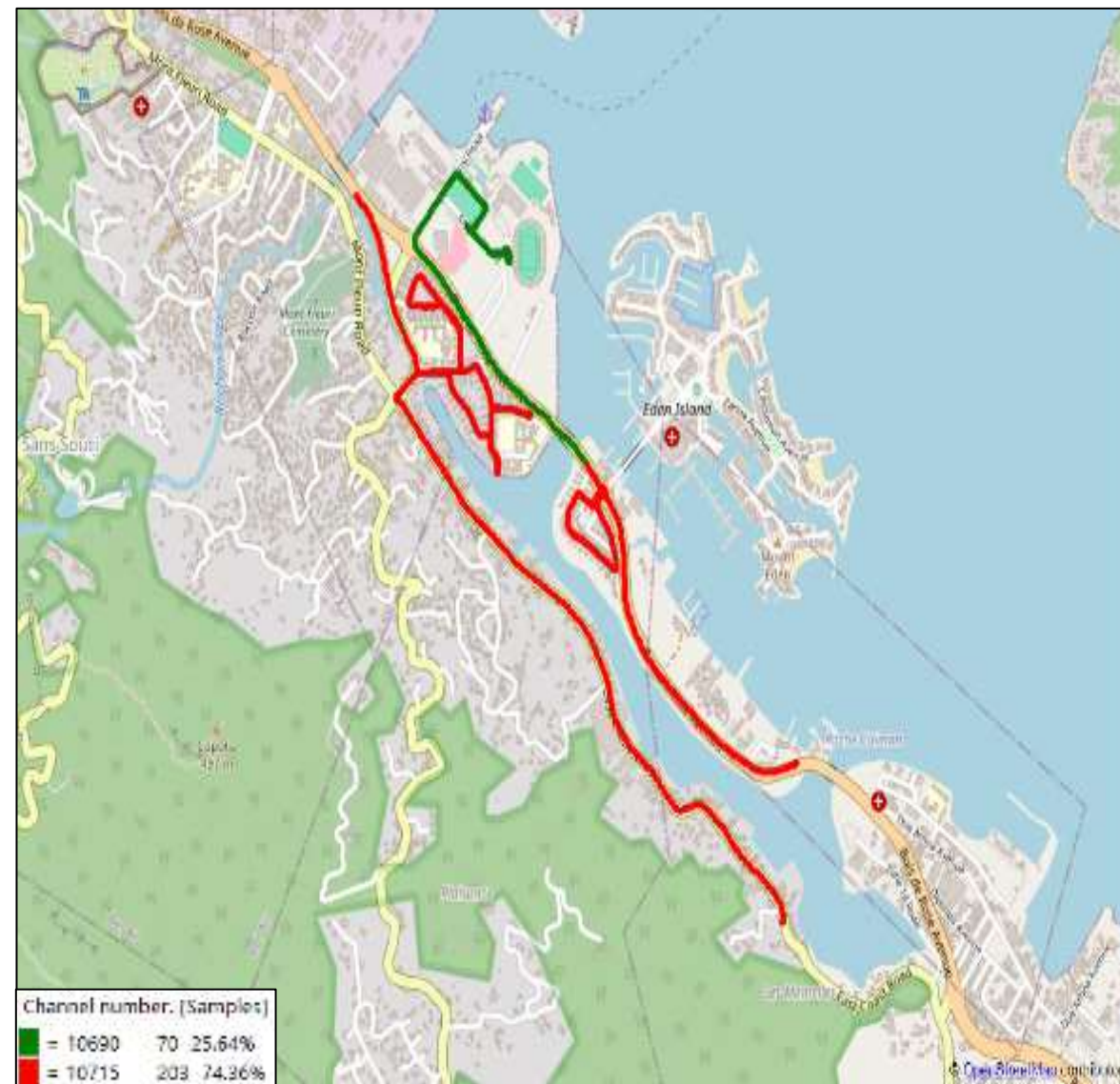
CWS Data 3G



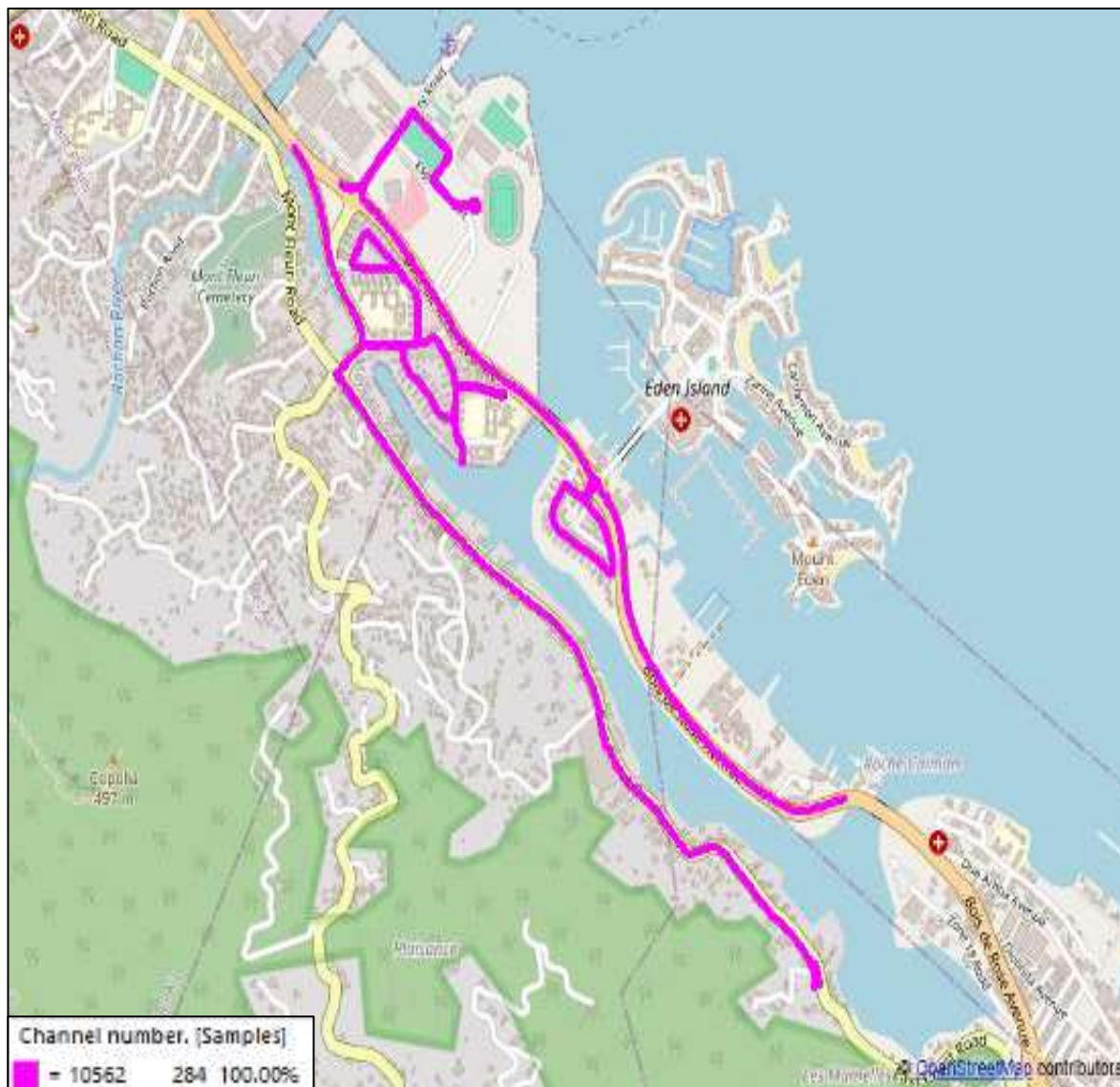
Airtel Data 3G



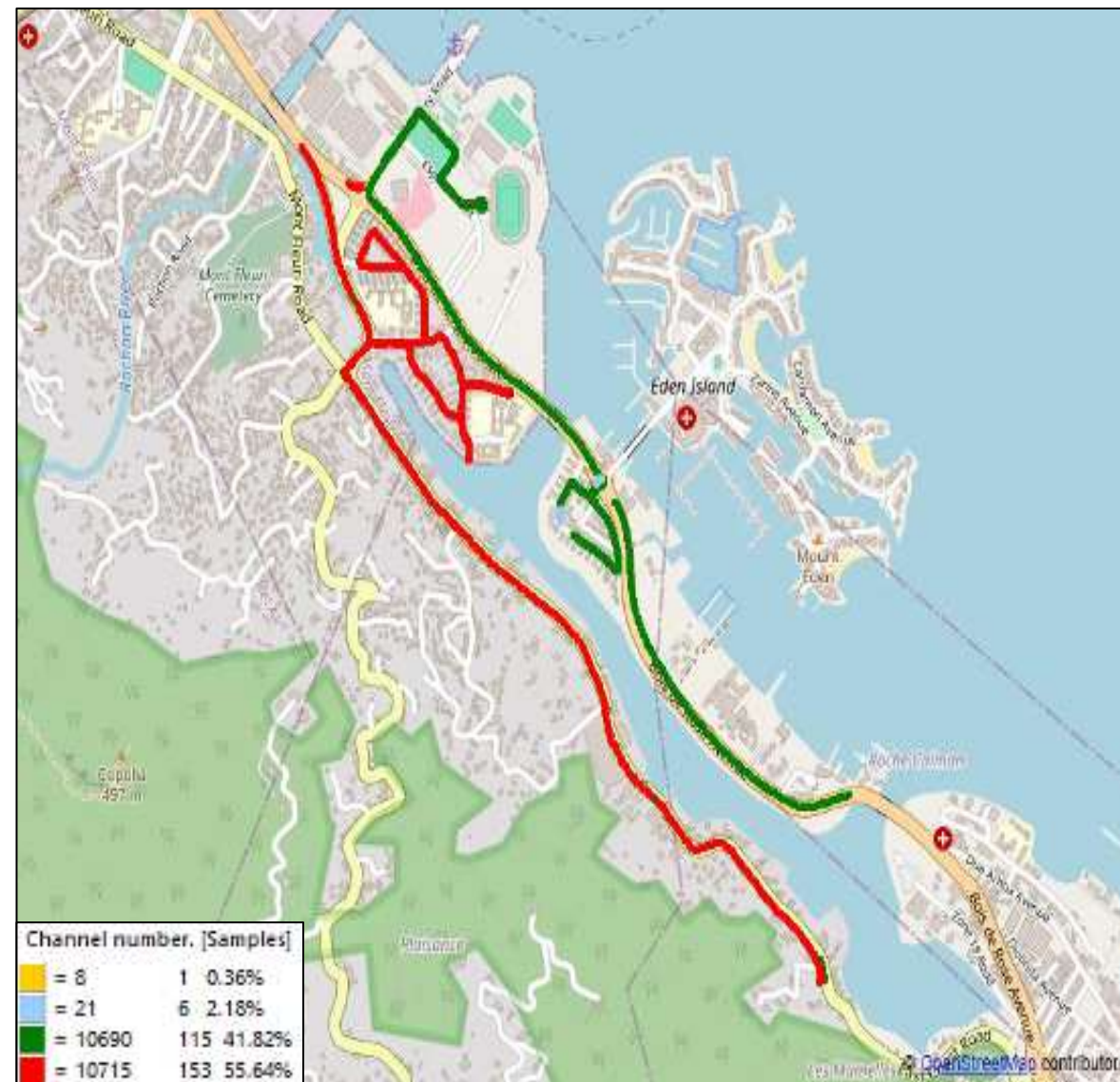
CWS Data 3G



Airtel Data 3G

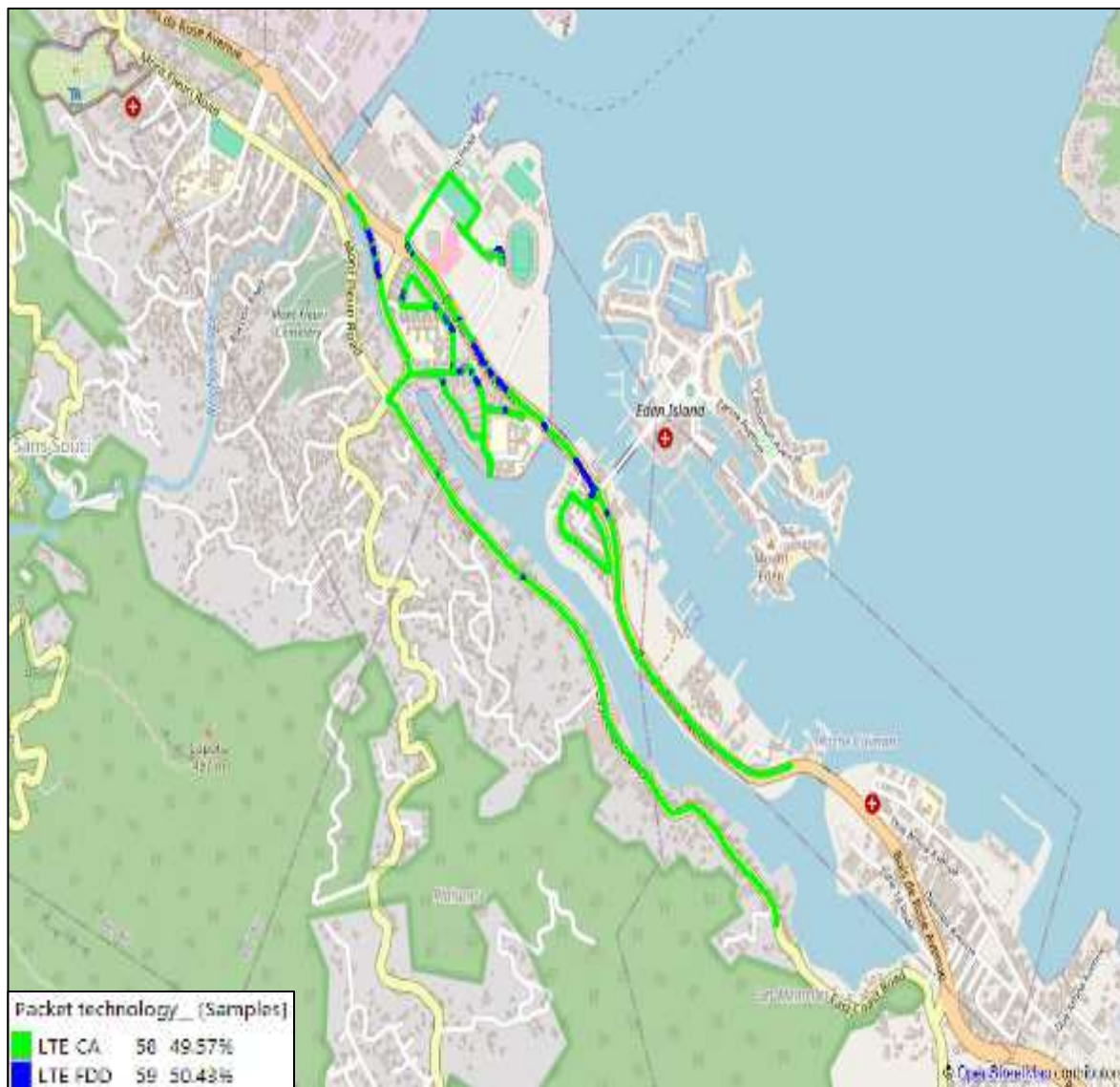


CWS Data 3G

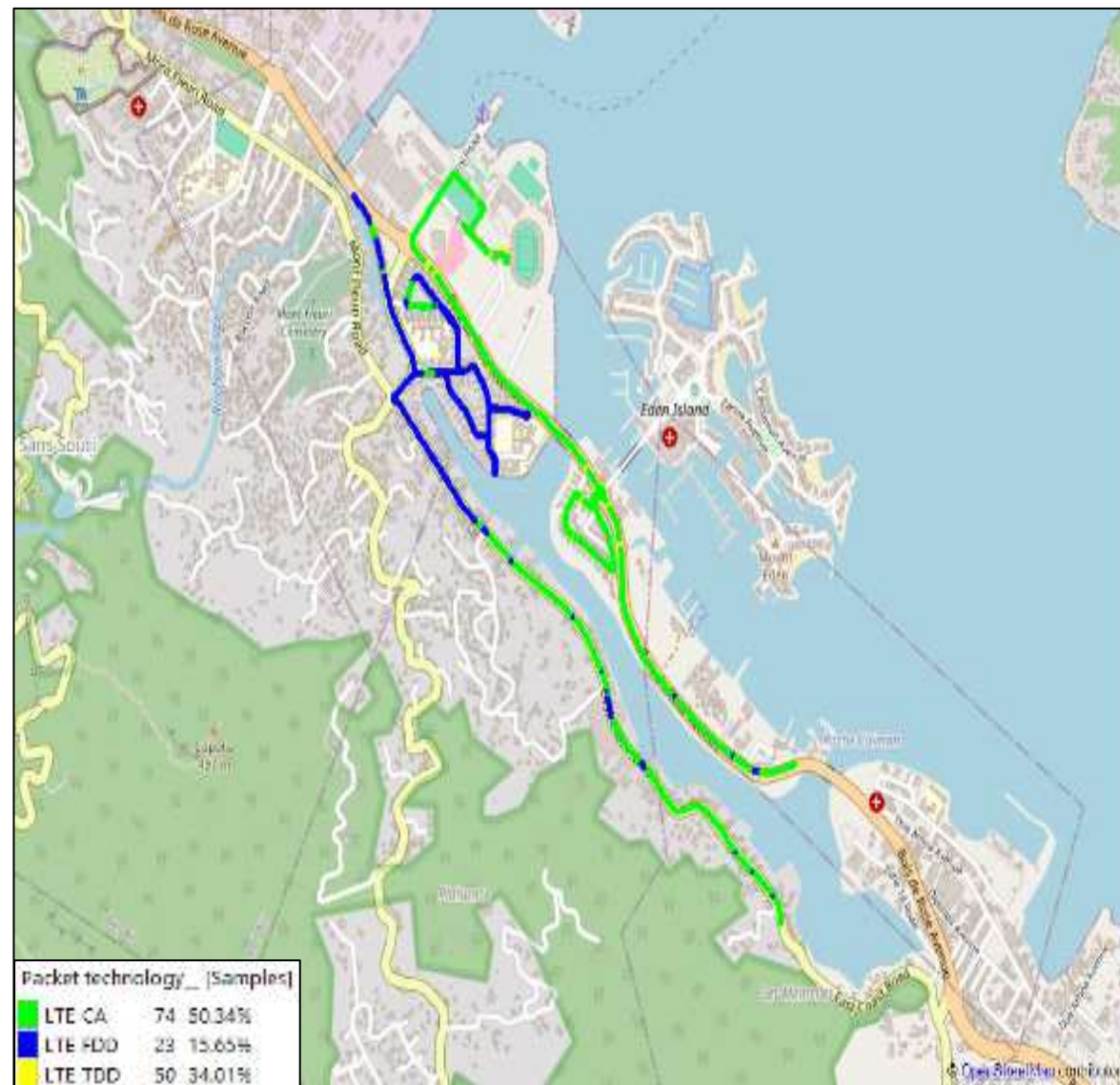


4G PREFERRED DATA DRIVE PLOTS

Airtel Data 4G

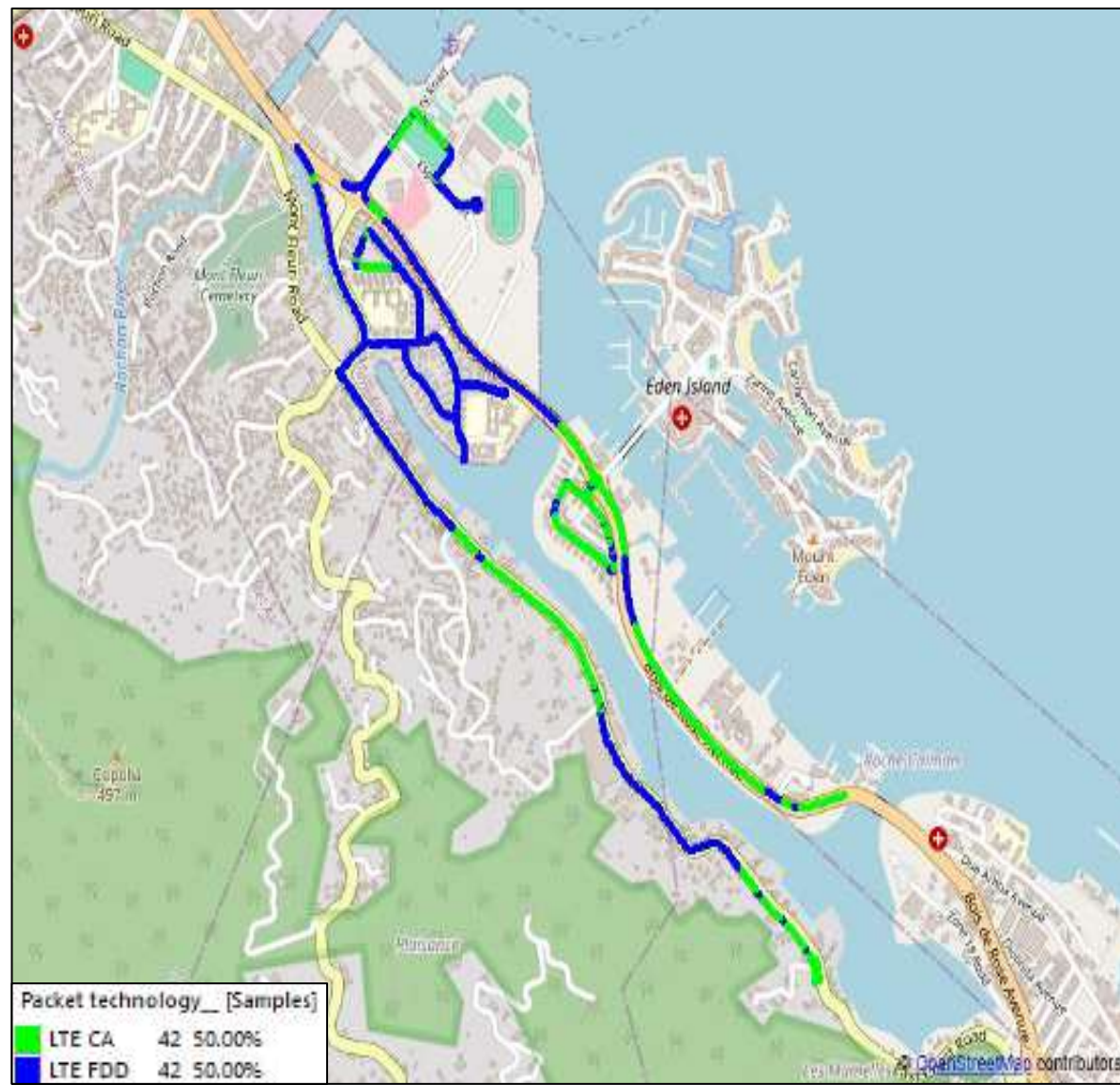
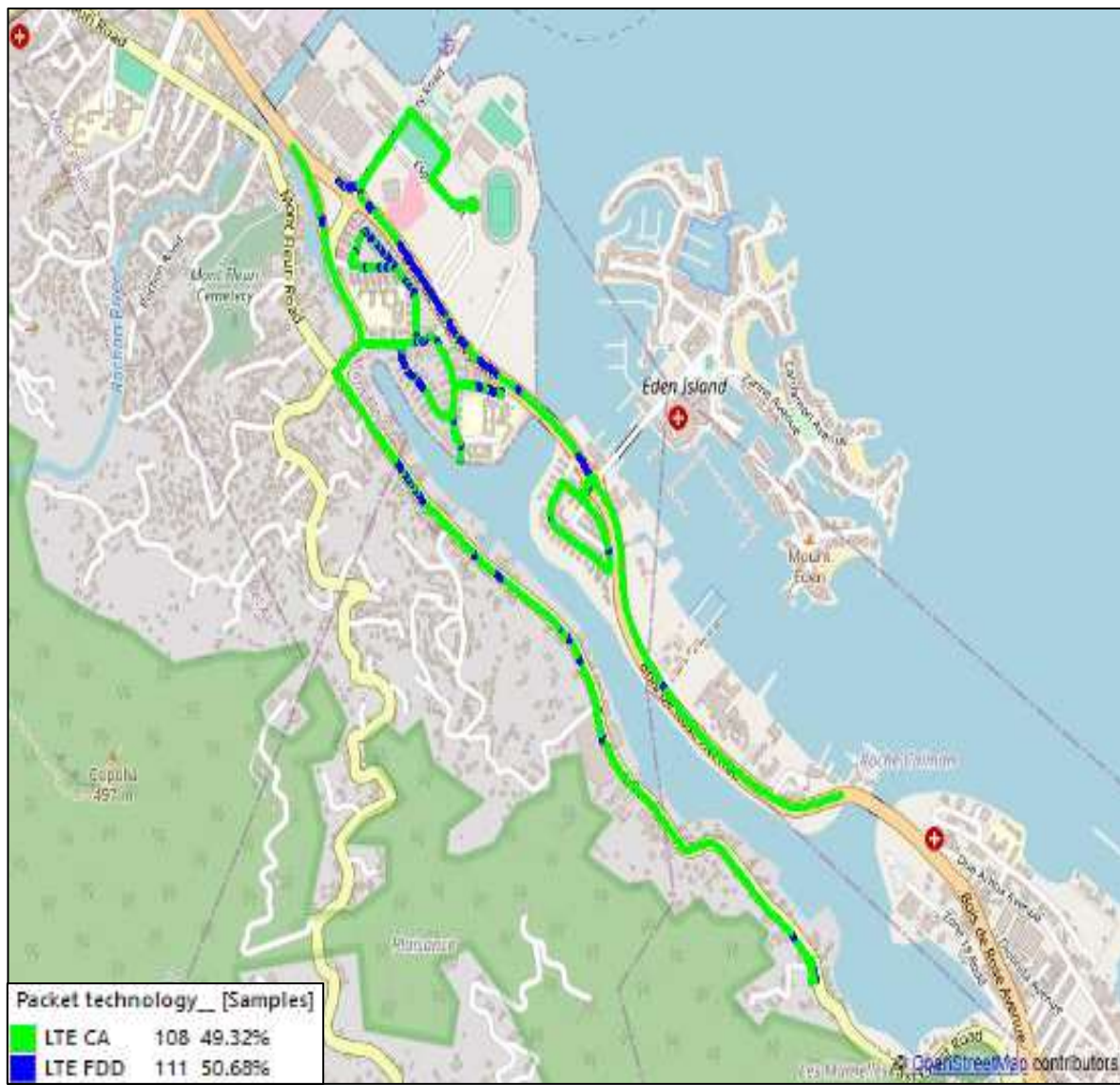


CWS Data 4G



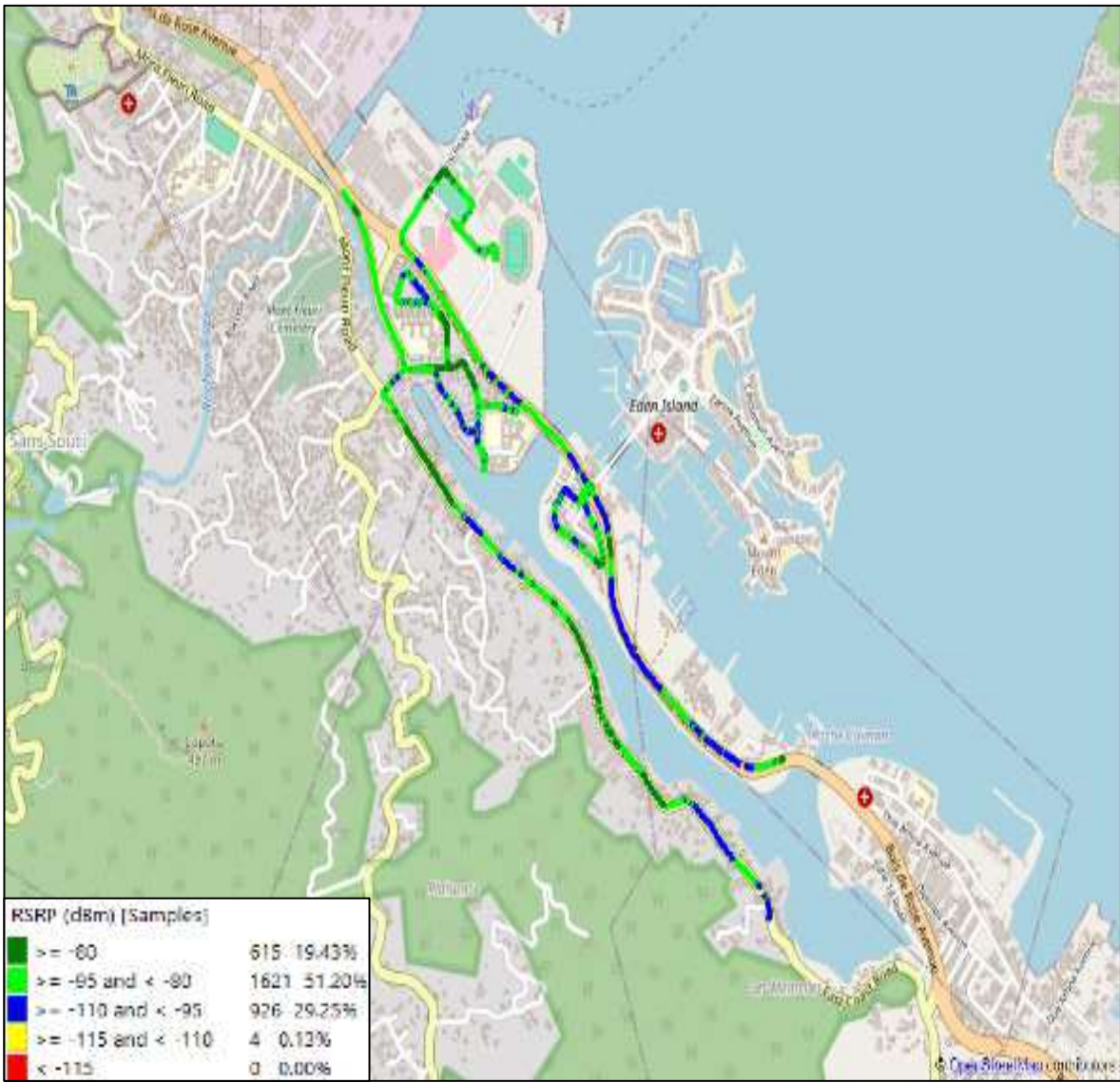
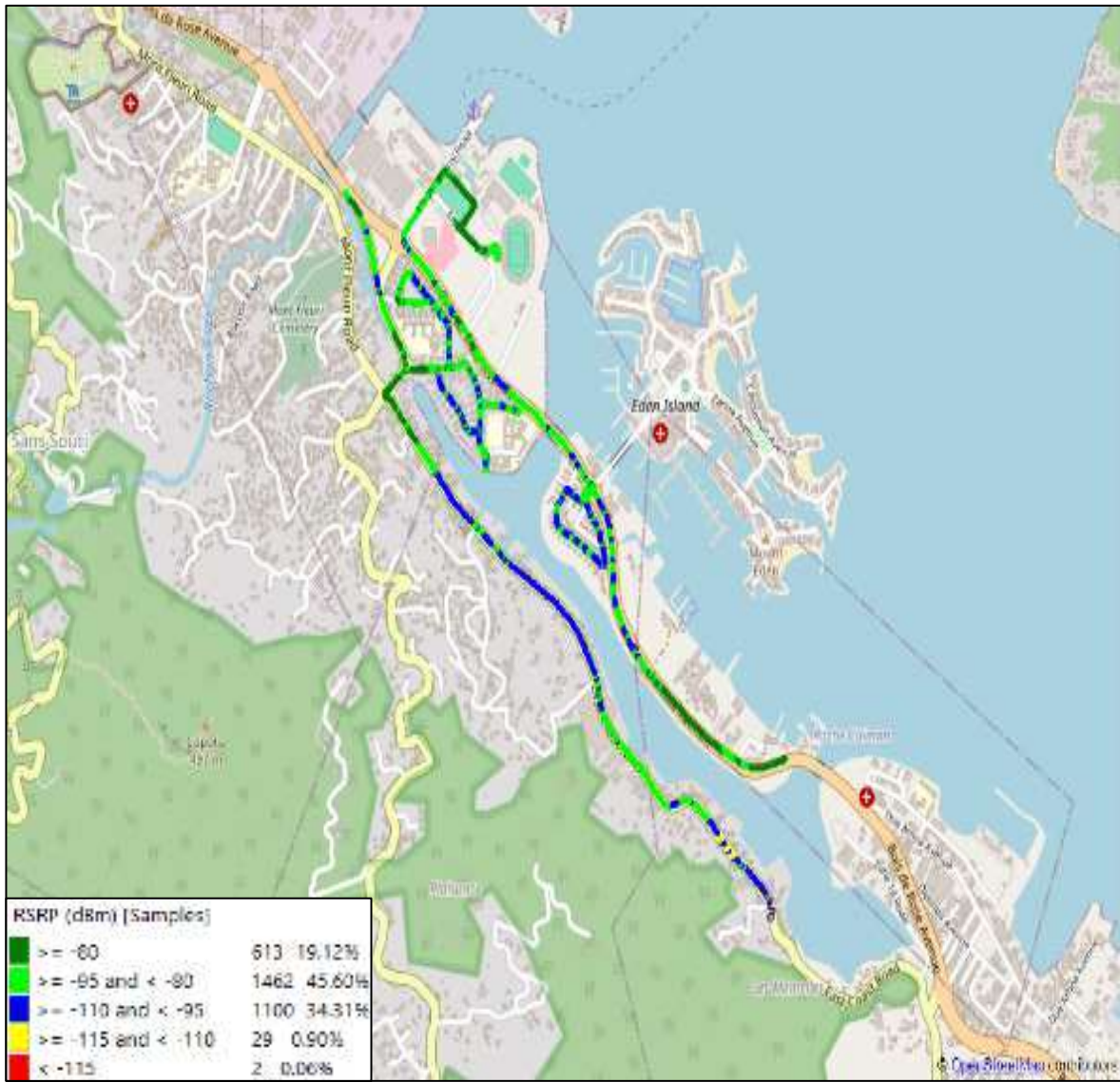
Airtel Data 4G

CWS Data 4G



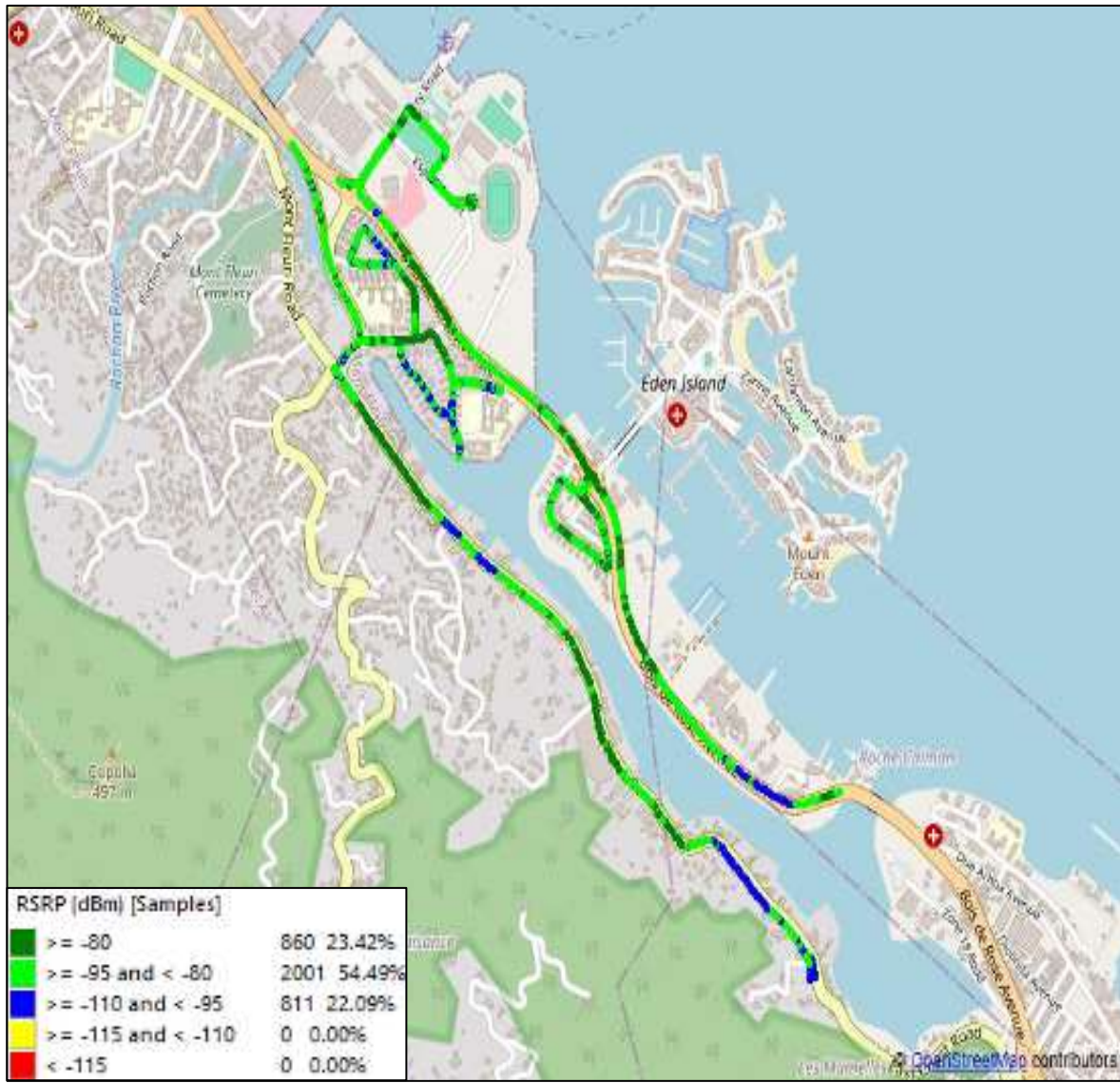
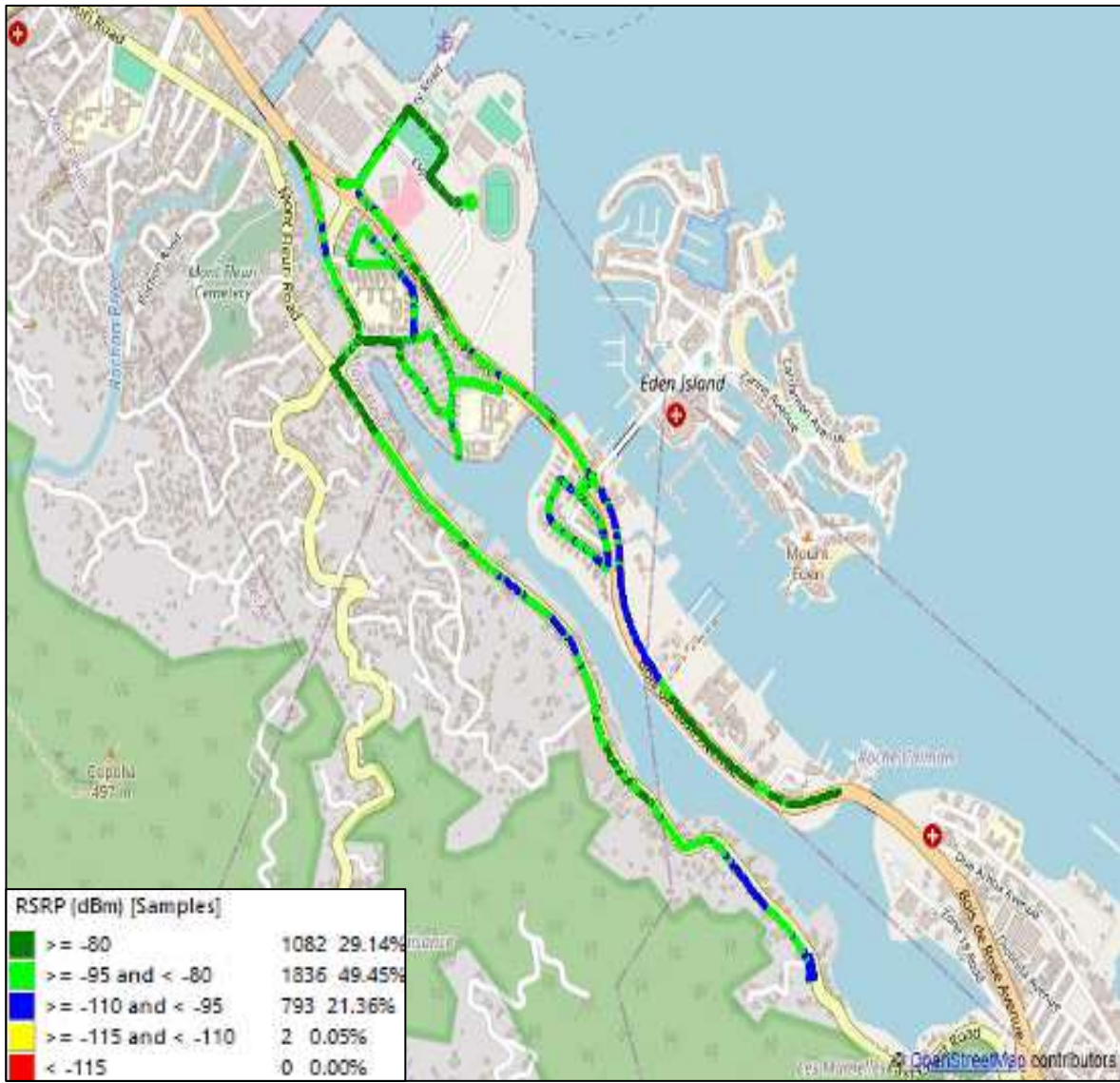
Airtel Data 4G

CWS Data 4G



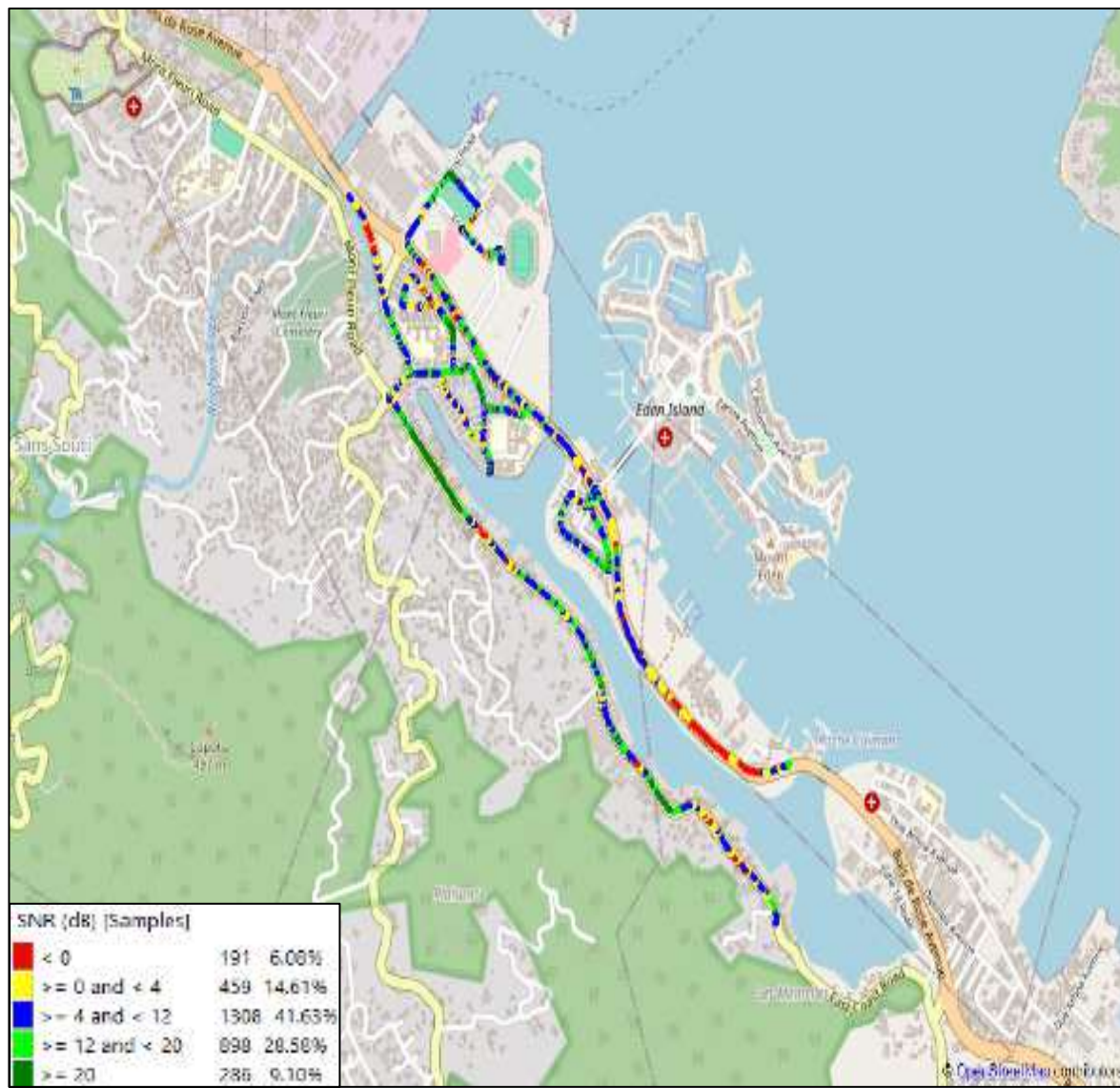
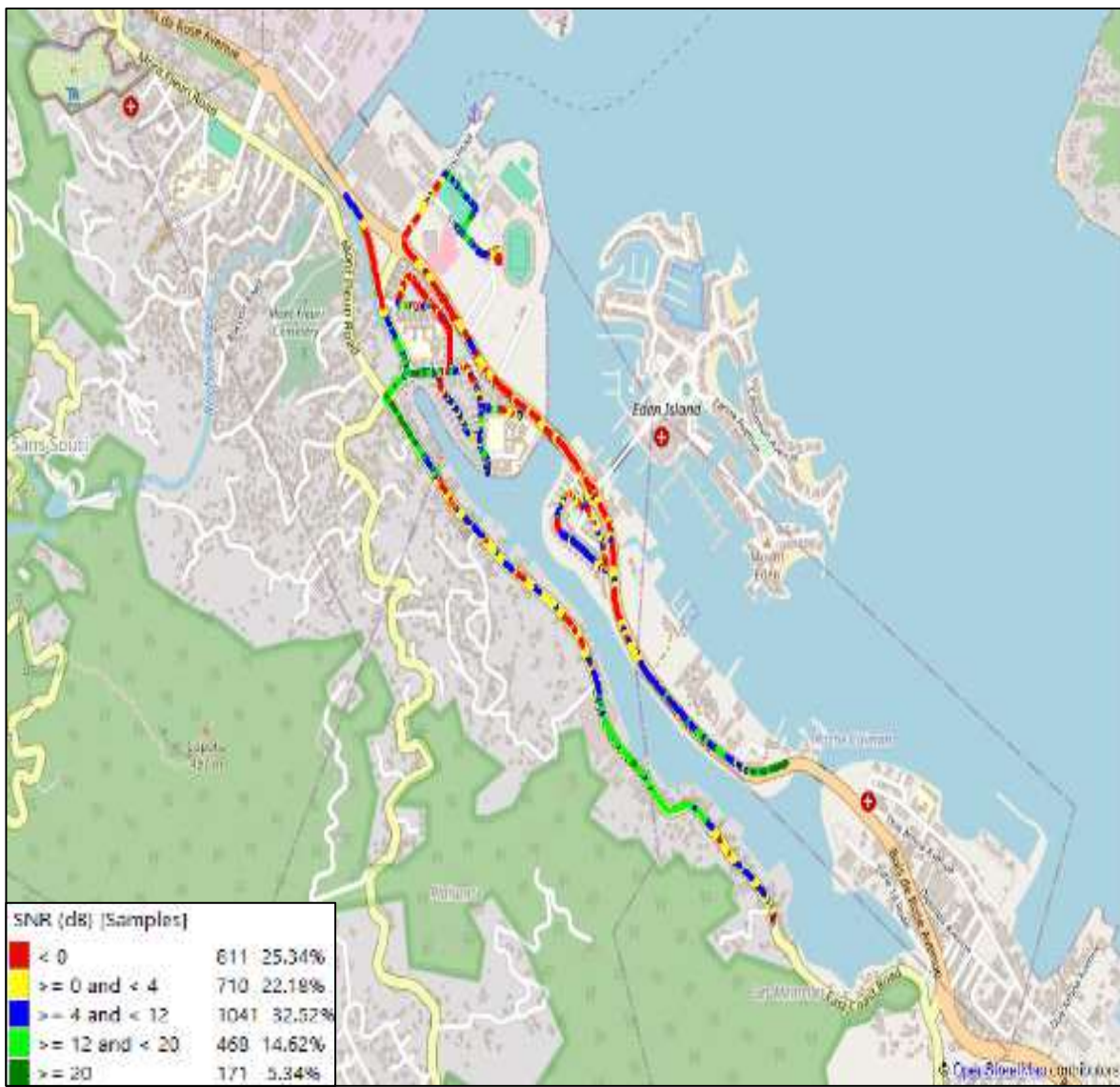
Airtel Data 4G

CWS Data 4G



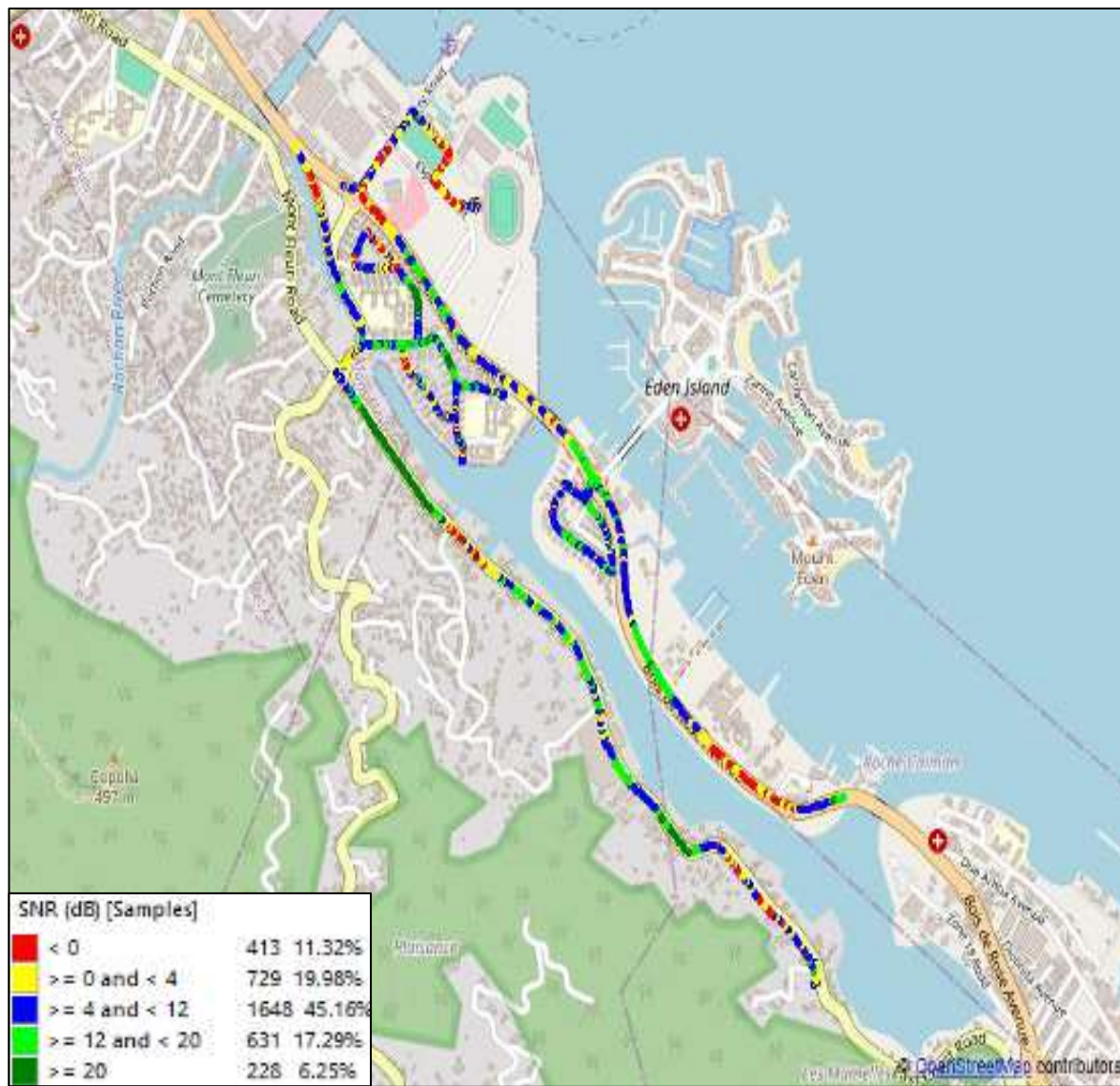
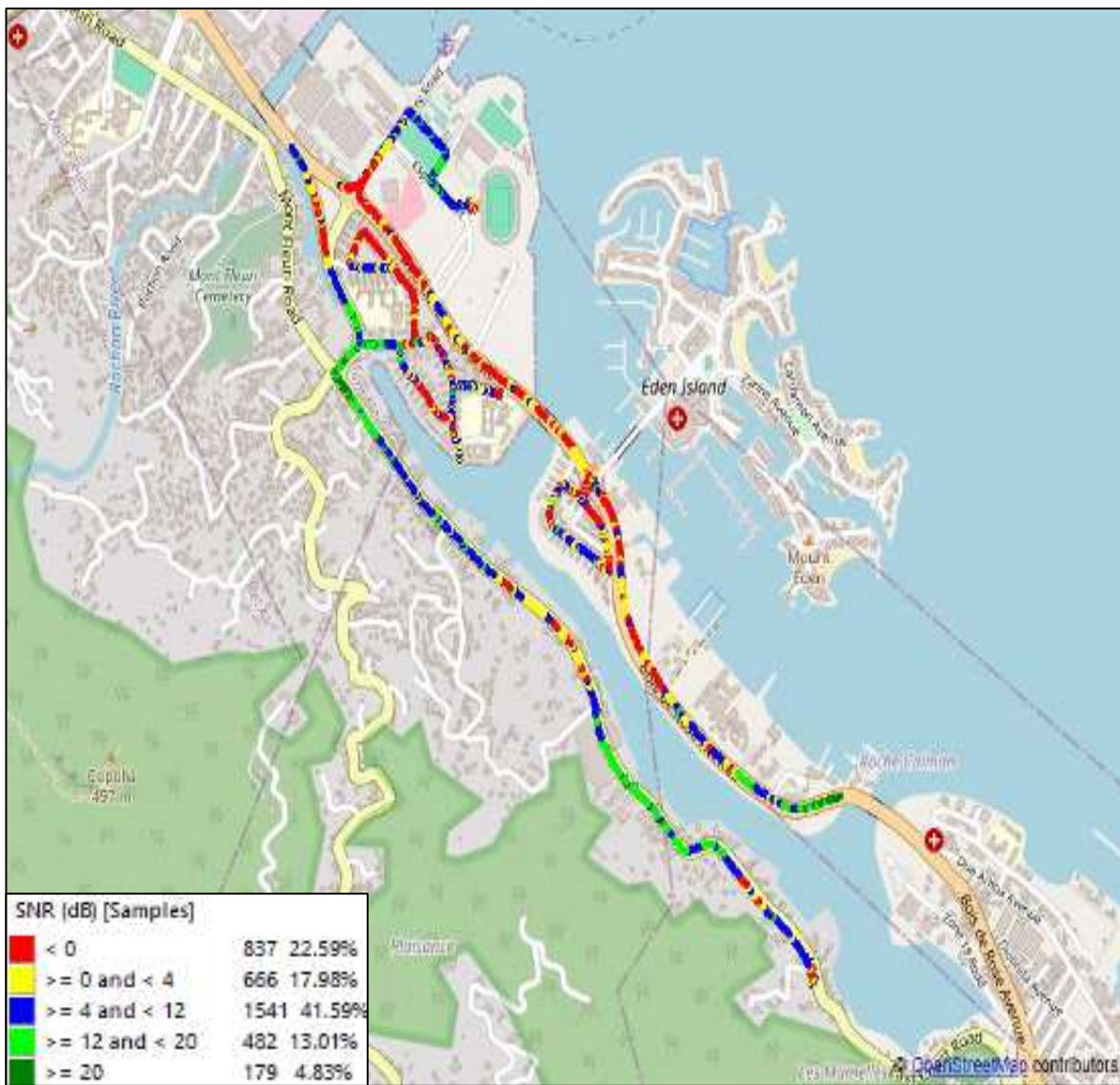
Airtel Data 4G

CWS Data 4G

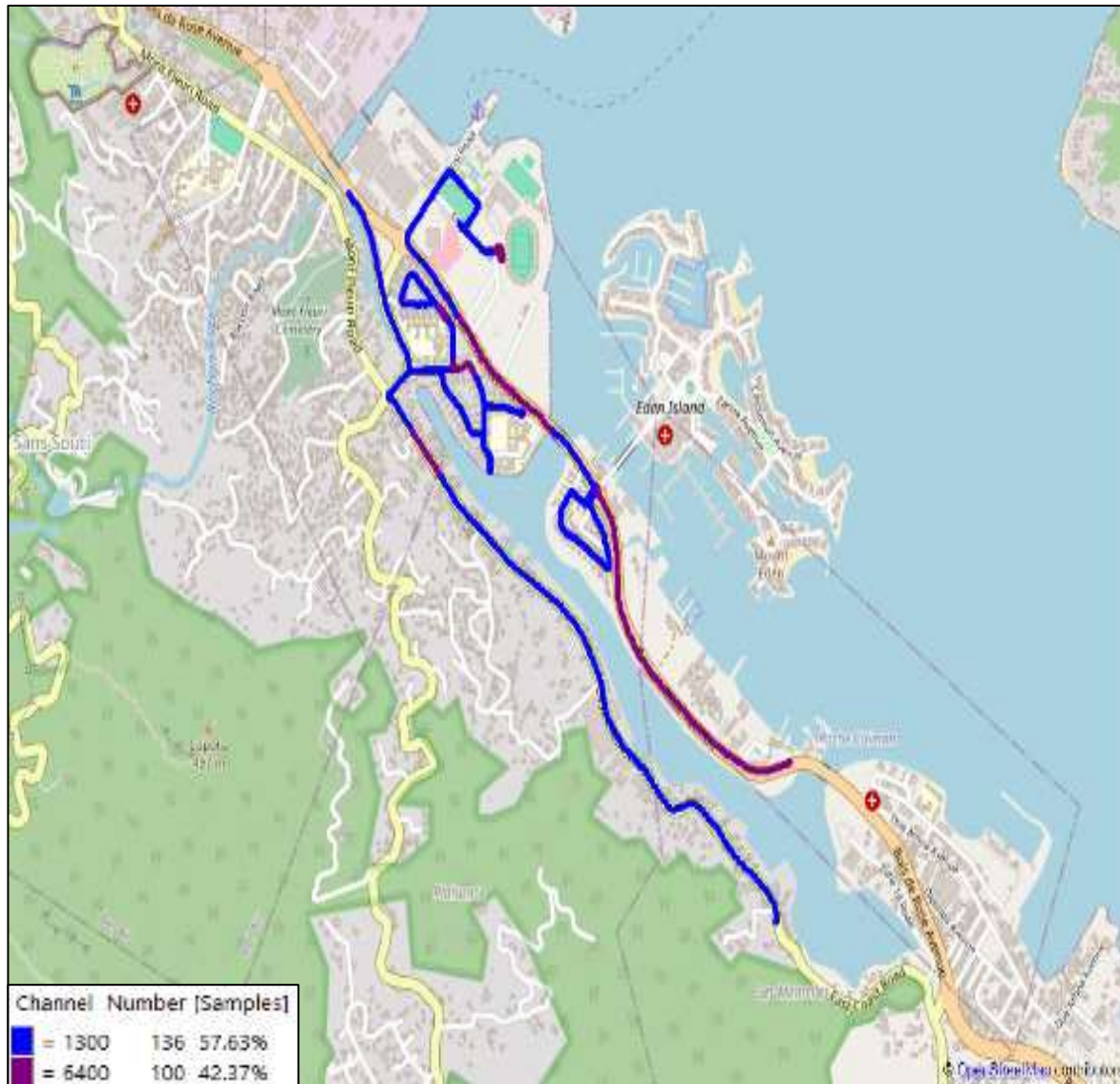


Airtel Data 4G

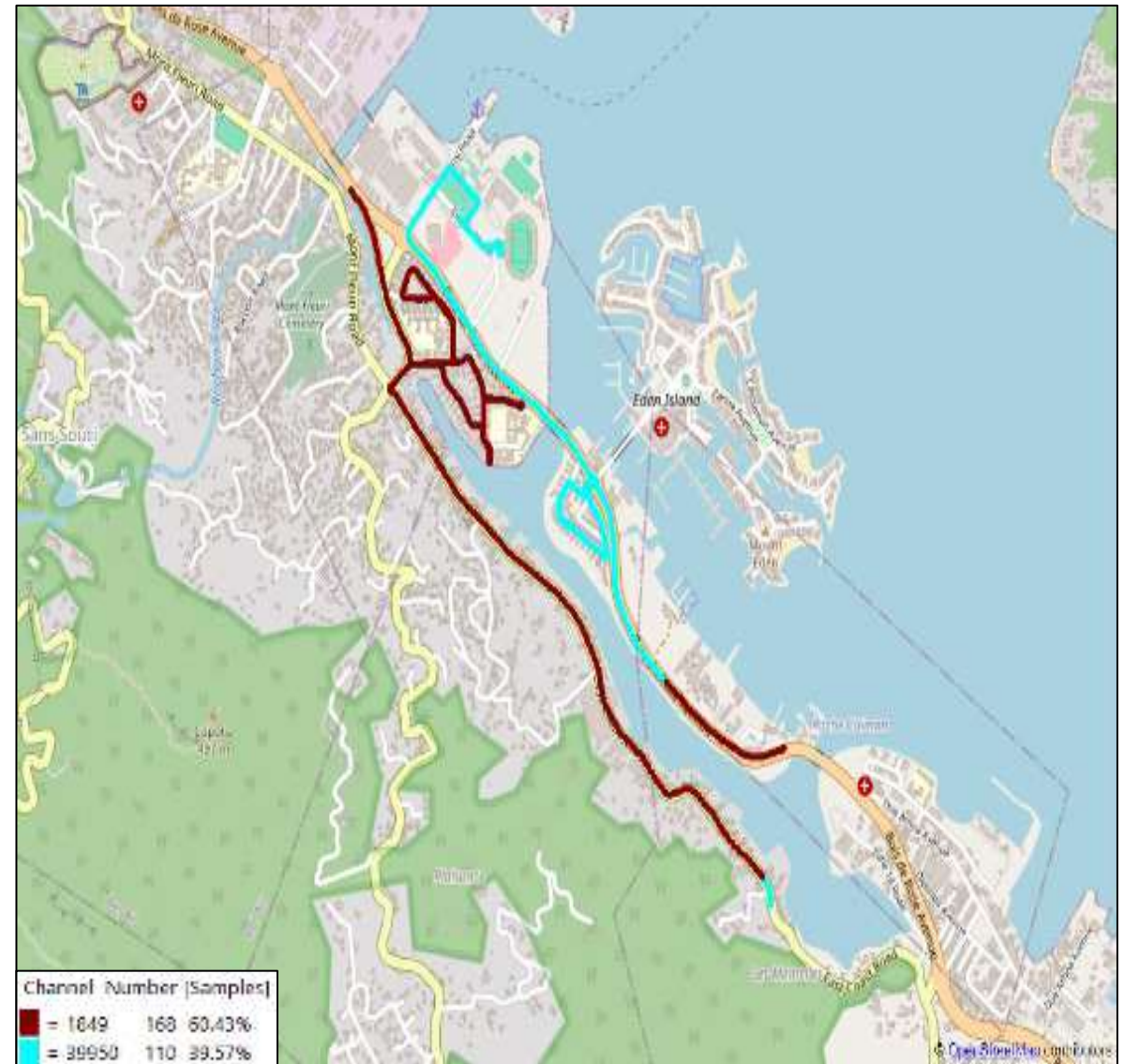
CWS Data 4G



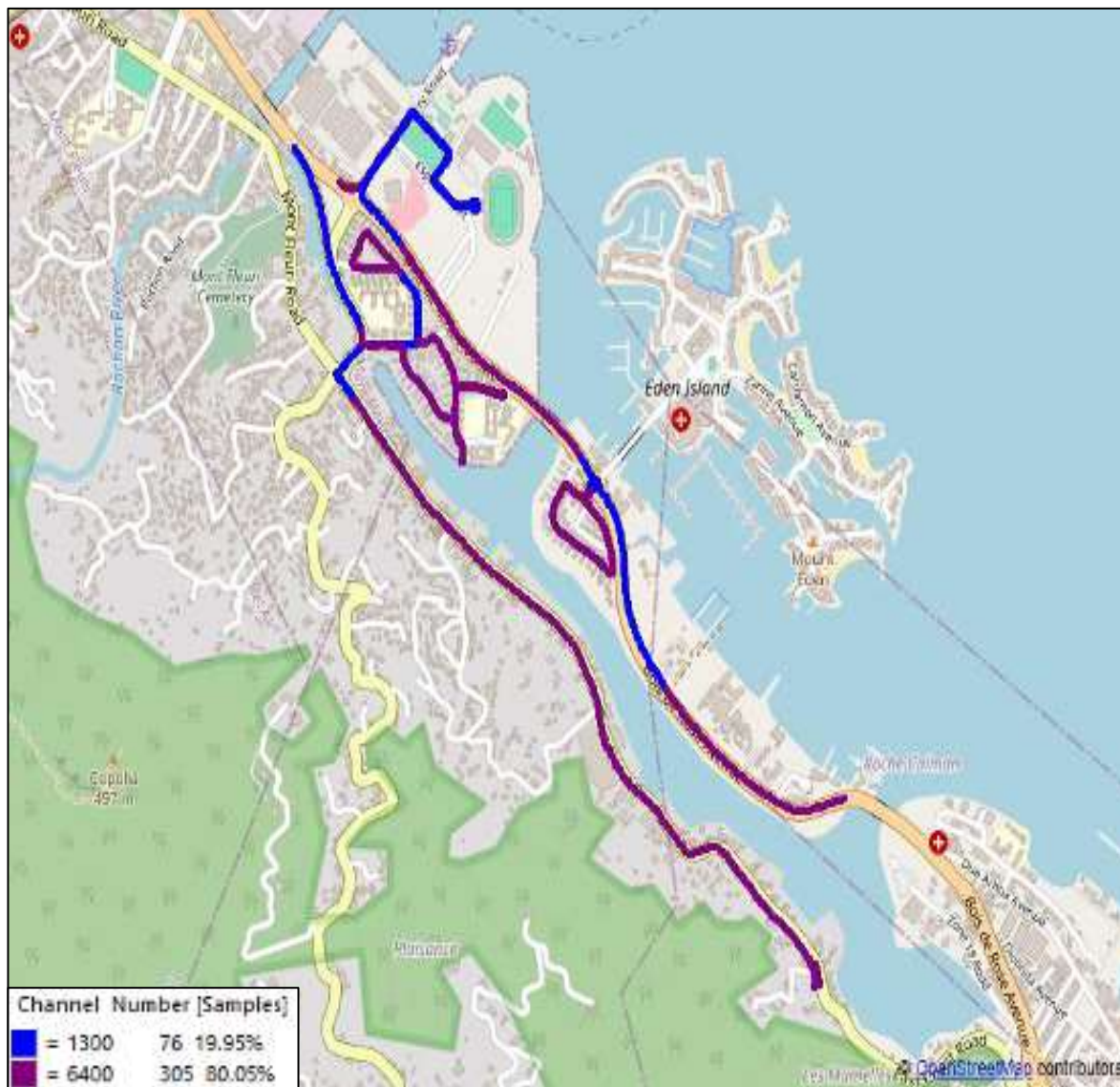
Airtel Data 4G



CWS Data 4G



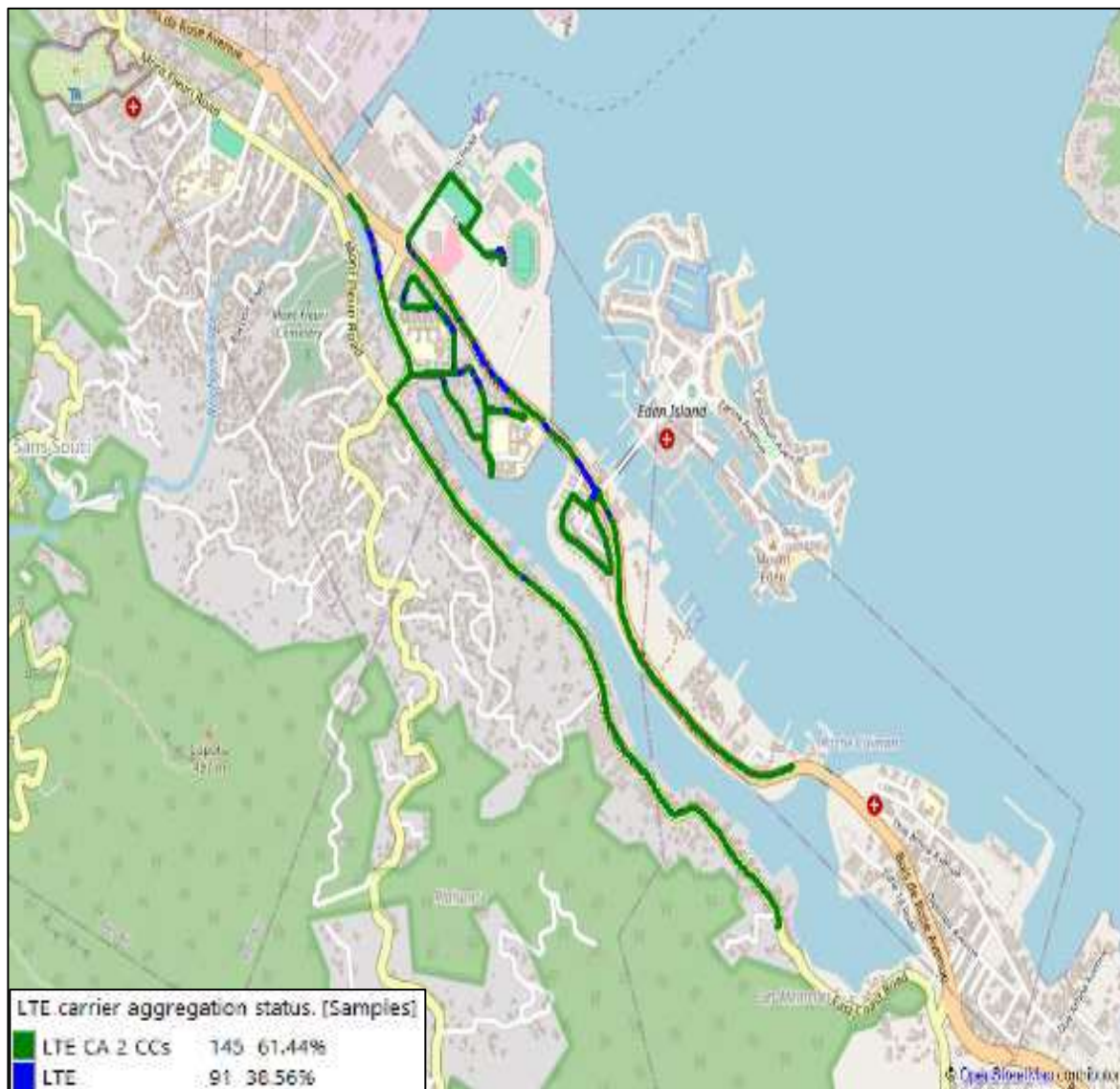
Airtel Data 4G



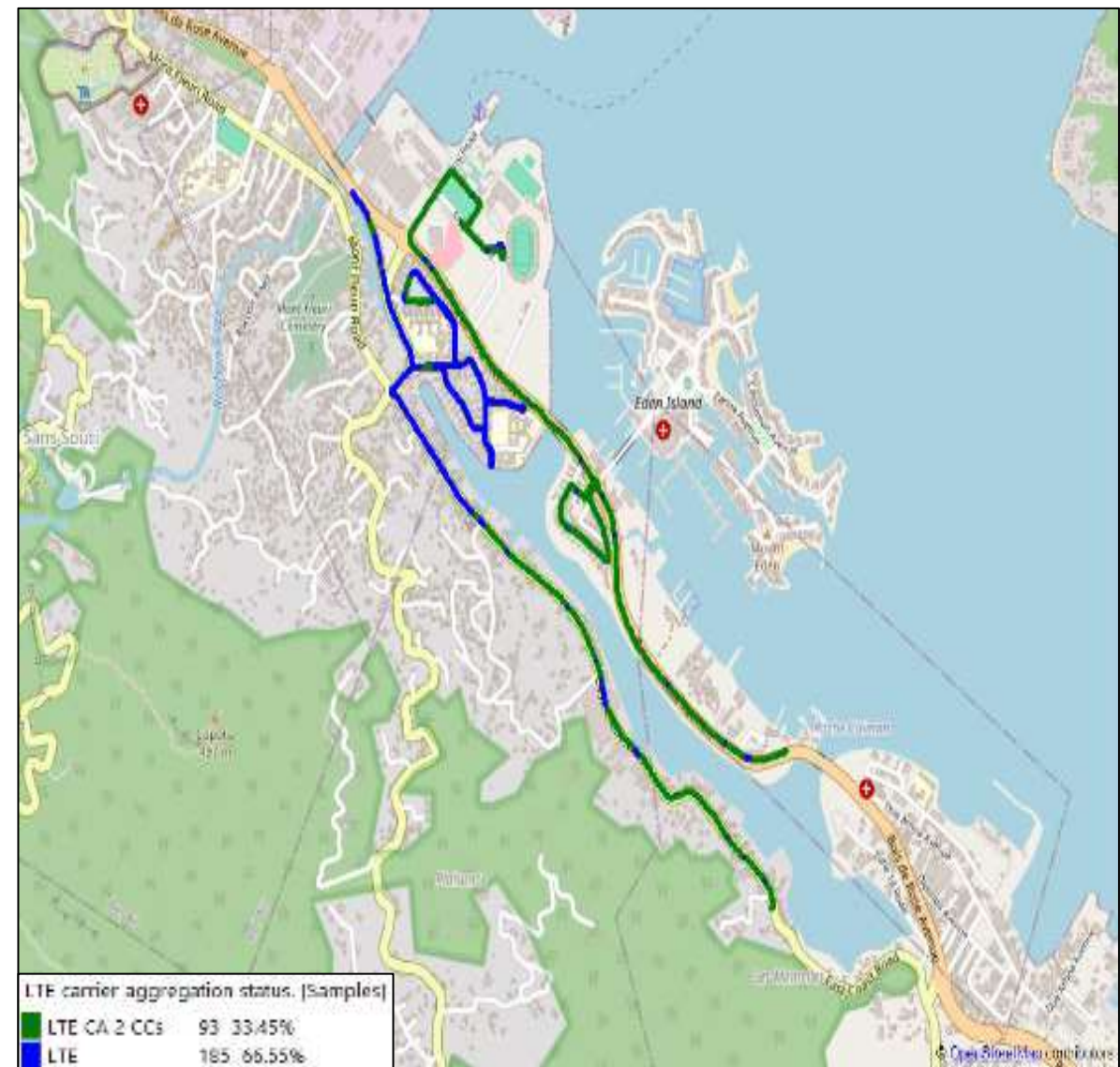
CWS Data 4G



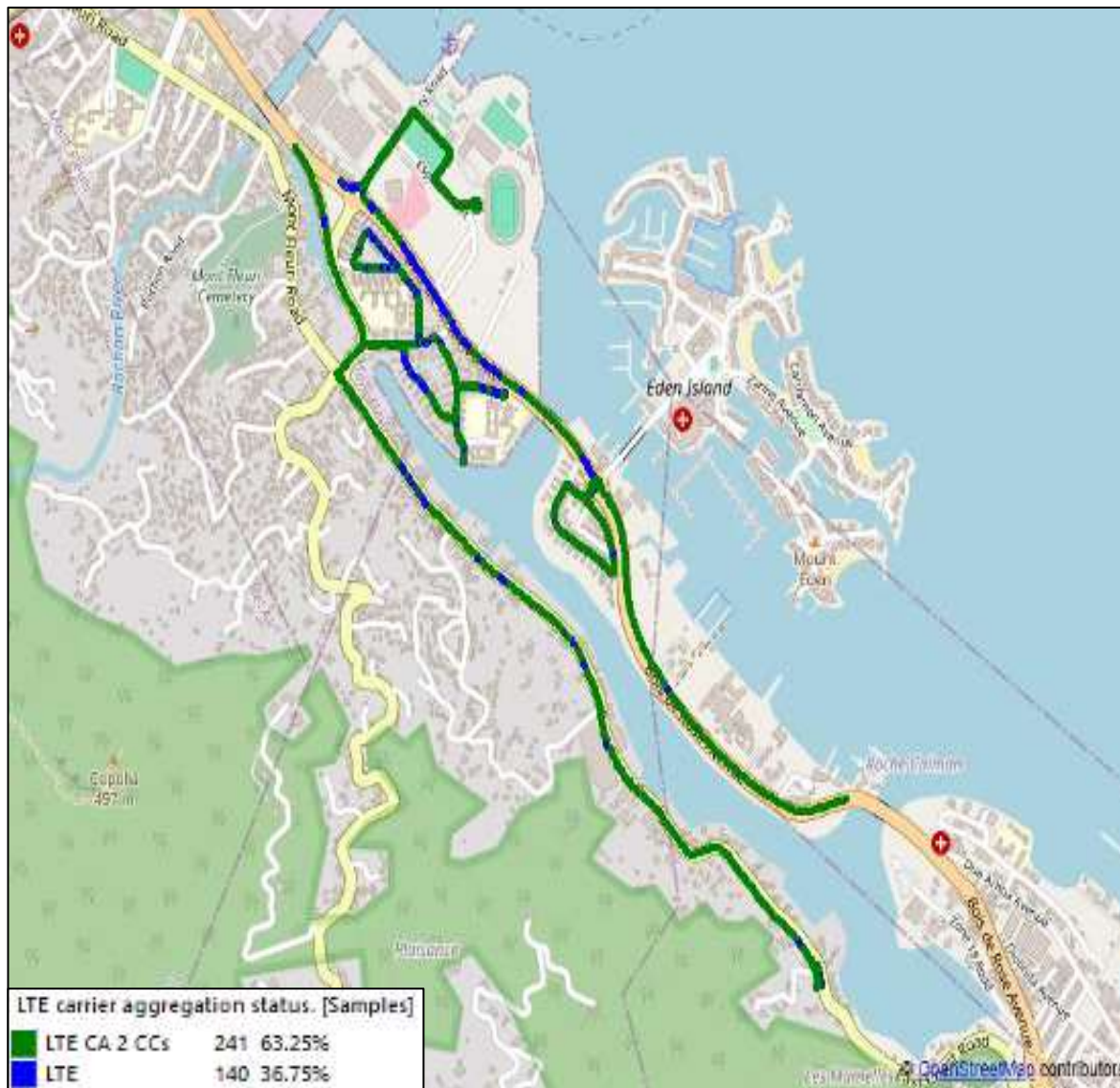
Airtel Data 4G



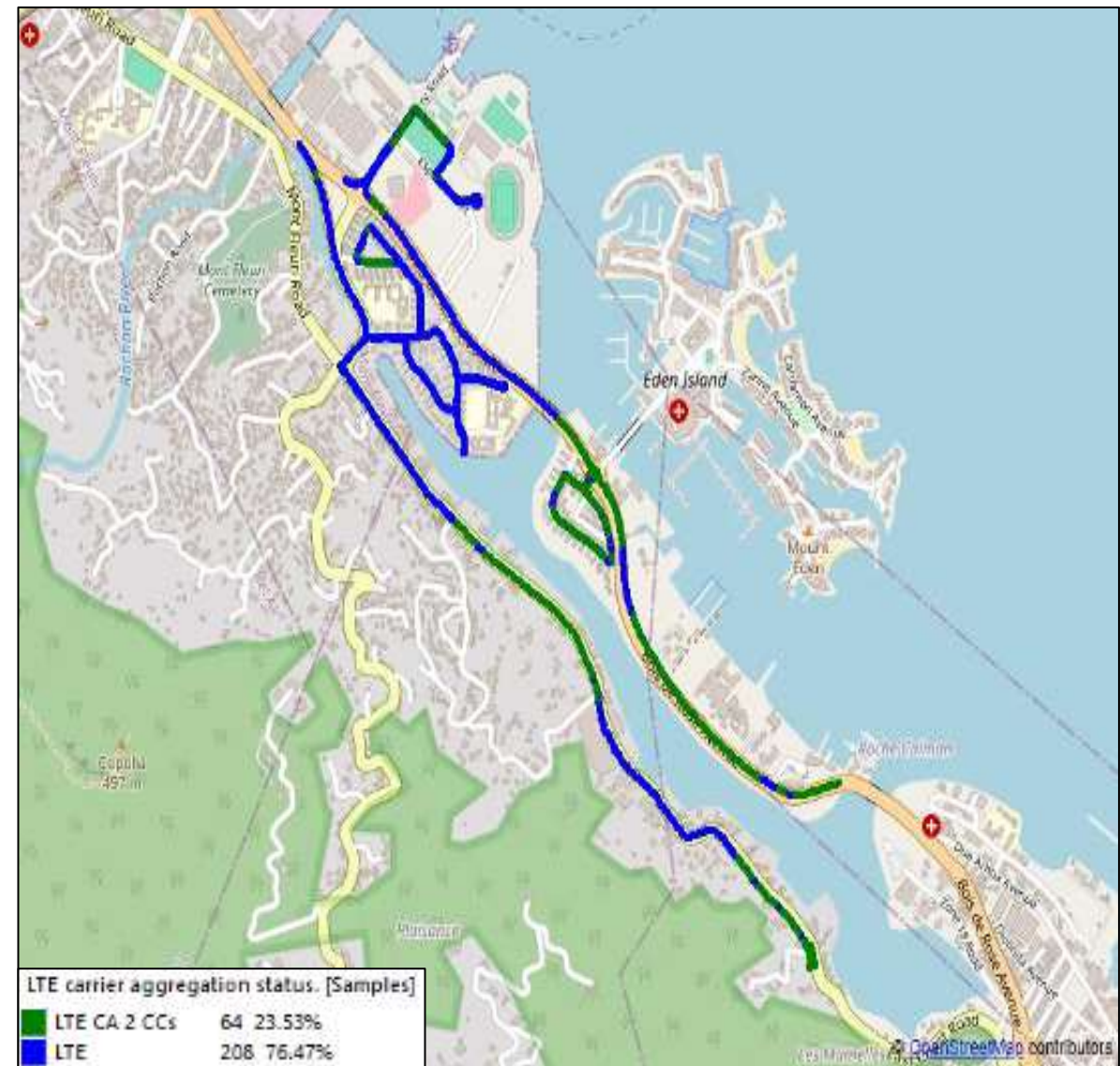
CWS Data 4G



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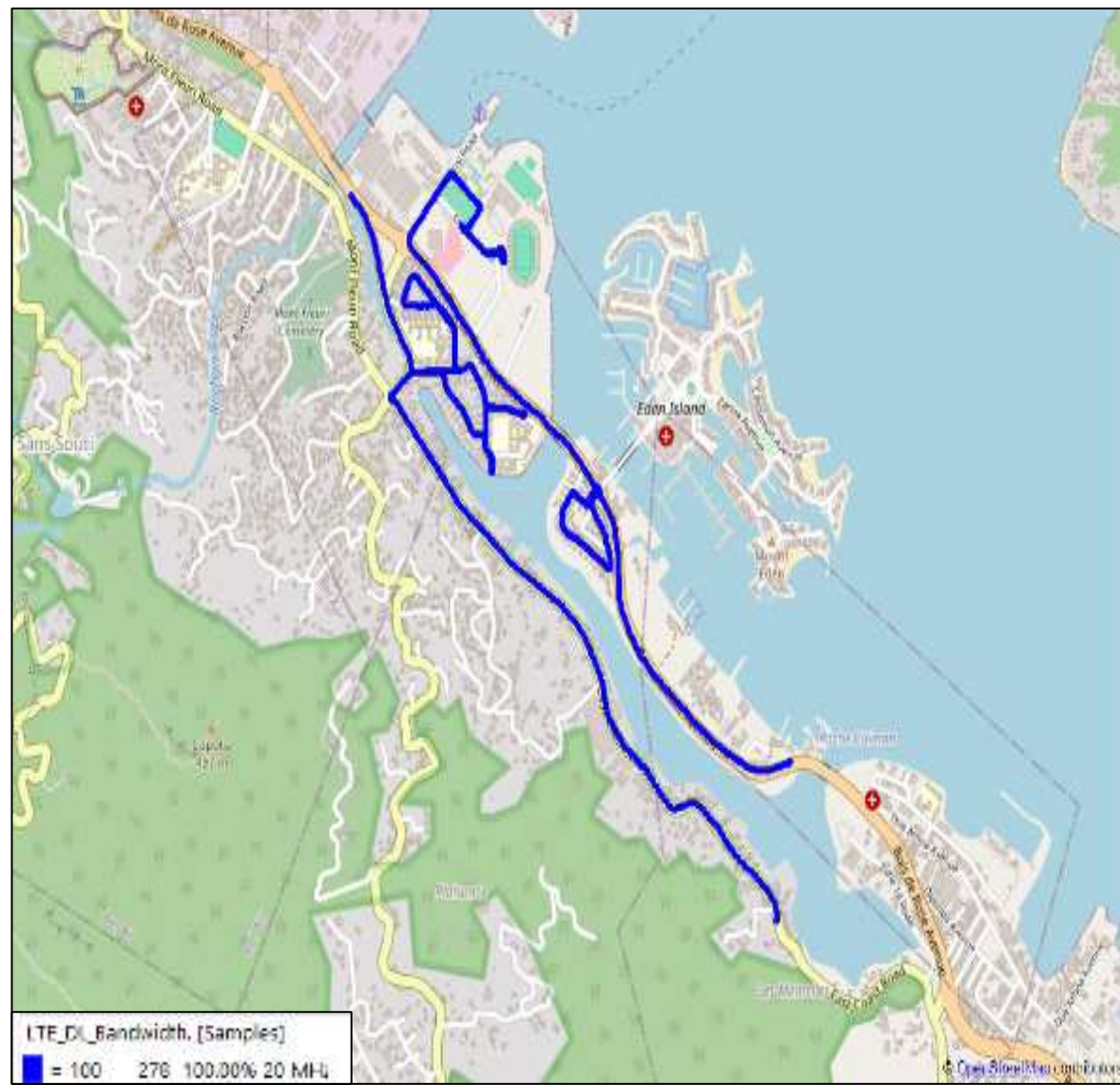
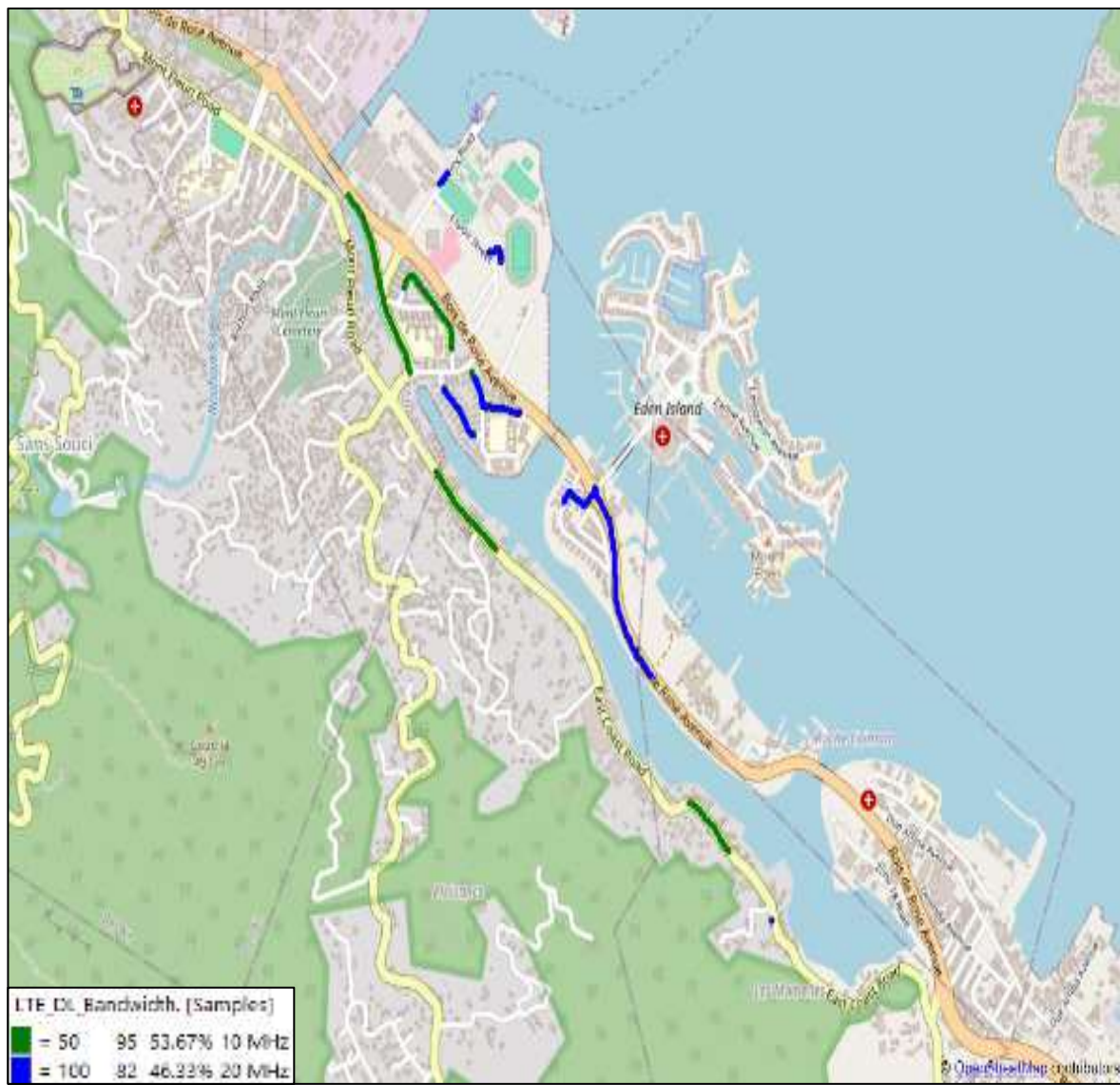


CWS Data 4G



Airtel Data 4G

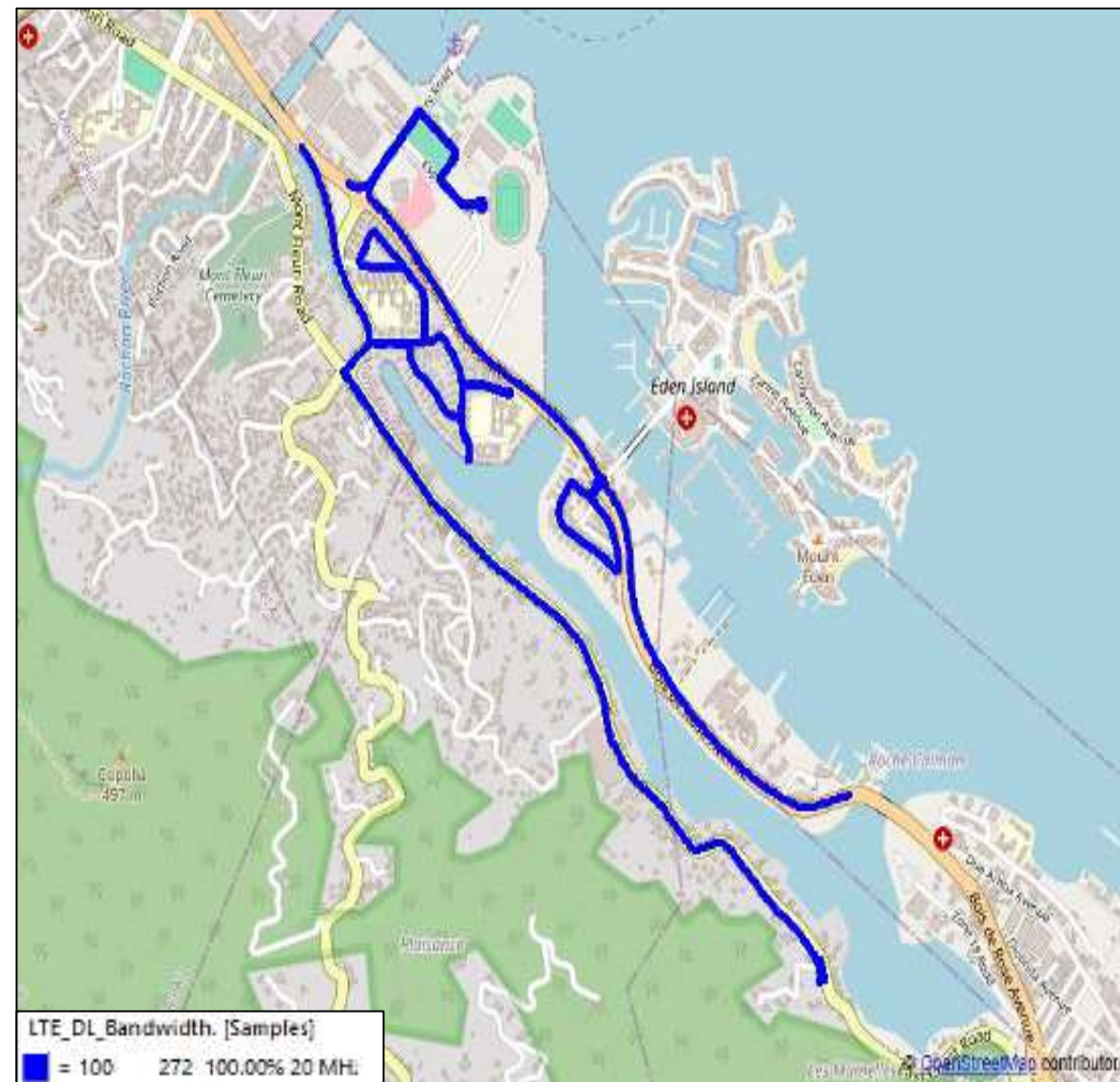
CWS Data 4G



Airtel Data 4G



CWS Data 4G



Negative Event Analysis

Phase-1 Call Drop & Call Attempt Failure Airtel , CWS Summary

Call Attempt Failure cause from Airtel	Count
Total Call Attempt Failure	0

Call Attempt Failure cause from CWS	Count
Total Call Attempt Failure	0

Call Drop cause from Airtel	Count
Total Call Drop	0

Call Drop cause from CWS	Count
Total Call Drop	0

Phase-2 Call Drop & Call Attempt Failure Airtel , CWS Summary

Call Attempt Failure cause from Airtel	Count
Total Call Attempt Failure	0

Call Attempt Failure cause from CWS	Count
Total Call Attempt Failure	0

Call Drop cause from Airtel	Count
Total Call Drop	0

Call Drop cause from CWS	Count
Total Call Drop	1
Poor quality	1

Call Drop Analysis 1 From MS11 CWS MO

	Time	System	Serving band	Call type	Cal	Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub		System	Transf. dir.	Time	Subchannel	Message name	
1.	16:19:04.964	GSM	900	Voice call	Orig	790.	16:18:59.397					0		1491.	GSM	Downlink	16:18:57.431	SACCH	MEASUREMENT_INFORMATION
						791.	16:18:59.994	-80	24	25	1	10		1492.	GSM	Uplink	16:18:57.477	SACCH	MEASUREMENT_REPORT
						792.	16:19:00.365	-81	24	25	1	10		1493.	GSM	Downlink	16:18:57.911	SACCH	MEASUREMENT_INFORMATION
						793.	16:19:00.962	-80	24	25	1	10		1494.	GSM	Uplink	16:18:57.957	SACCH	MEASUREMENT_REPORT
						794.	16:19:01.317					0		1495.	GSM	Downlink	16:18:58.391	SACCH	MEASUREMENT_INFORMATION
						795.	16:19:01.405	-79	24	25	1	10		1496.	GSM	Uplink	16:18:58.437	SACCH	MEASUREMENT_REPORT
						796.	16:19:01.797					0		1497.	GSM	Downlink	16:18:58.871	SACCH	MEASUREMENT_INFORMATION
						797.	16:19:02.065	-87	24	25	1	10		1498.	GSM	Uplink	16:18:58.917	SACCH	MEASUREMENT_REPORT
						798.	16:19:02.318	-82	24	25	1	10		1499.	GSM	Downlink	16:18:59.351	SACCH	MEASUREMENT_INFORMATION
						799.	16:19:02.996	-82	24	25	1	10		1500.	GSM	Uplink	16:18:59.397	SACCH	MEASUREMENT_REPORT
						800.	16:19:03.482	-82	24	25	1	10		1501.	GSM	Downlink	16:18:59.831	SACCH	SYSTEM_INFORMATION_TYPE_5
						801.	16:19:04.053	-82	24	25	1	10		1502.	GSM	Uplink	16:18:59.877	SACCH	MEASUREMENT_REPORT
						802.	16:19:04.418	-87	24	25	1	10		1503.	GSM	Downlink	16:19:00.311	SACCH	SYSTEM_INFORMATION_TYPE_STER
						803.	16:19:04.677					5		1504.	GSM	Uplink	16:19:00.357	SACCH	MEASUREMENT_REPORT
						804.	16:19:05.125	-91	24	25	1	10		1505.	GSM	Downlink	16:19:00.791	SACCH	SYSTEM_INFORMATION_TYPE_6
						805.	16:19:05.157					3		1506.	GSM	Uplink	16:19:00.837	SACCH	MEASUREMENT_REPORT
						806.	16:19:05.662							1507.	GSM	Downlink	16:19:01.271	SACCH	MEASUREMENT_INFORMATION
						807.	16:37:59.405					0		1508.	GSM	Uplink	16:19:01.317	SACCH	MEASUREMENT_REPORT
						808.	16:37:59.649	-63	26	21	10	10		1509.	GSM	Downlink	16:19:01.751	SACCH	MEASUREMENT_INFORMATION
						809.	16:37:59.649					0		1510.	GSM	Uplink	16:19:01.797	SACCH	MEASUREMENT_REPORT
						810.	16:38:01.133					0		1511.	GSM	Downlink	16:19:02.231	SACCH	MEASUREMENT_INFORMATION
						811.	16:38:01.134	-69	26	21	1	10		1512.	GSM	Uplink	16:19:02.277	SACCH	MEASUREMENT_REPORT
						812.	16:38:01.741	-68	26	21	1	10		1513.	GSM	Downlink	16:19:02.711	SACCH	MEASUREMENT_INFORMATION
						813.	16:38:02.383	-71	26	21	1	10		1514.	GSM	Uplink	16:19:02.757	SACCH	MEASUREMENT_REPORT
						814.	16:38:02.550					0		1515.	GSM	Downlink	16:19:03.191	SACCH	MEASUREMENT_INFORMATION
						815.	16:38:02.747	-64	26	21	1	10		1516.	GSM	Uplink	16:19:03.237	SACCH	MEASUREMENT_REPORT
						816.	16:38:03.408	-65	26	21	1	10		1517.	GSM	Downlink	16:19:03.671	SACCH	MEASUREMENT_INFORMATION
						817.	16:38:03.661					0		1518.	GSM	Uplink	16:19:03.717	SACCH	MEASUREMENT_REPORT
						818.	16:38:03.868	-66	26	21	1	10		1519.	GSM	Downlink	16:19:04.151	SACCH	SYSTEM_INFORMATION_TYPE_5
						819.	16:38:04.077					0		1520.	GSM	Uplink	16:19:04.197	SACCH	MEASUREMENT_REPORT
						820.	16:38:04.486	-72	26	21	1	10		1521.	GSM	Downlink	16:19:04.631	SACCH	SYSTEM_INFORMATION_TYPE_STER
						821.	16:38:04.488					0		1522.	GSM	Uplink	16:19:04.677	SACCH	MEASUREMENT_REPORT
						822.	16:38:04.907	-63	26	21	1	10		1523.	GSM	Downlink	16:19:04.963	DCCH	DISCONNECT
						823.	16:38:05.465					0		1524.	GSM	Uplink	16:19:04.964	DCCH	RELEASE
						824.	16:38:05.466	-68	26	21	1	10		1525.	GSM	Downlink	16:19:05.102	DCCH	RELEASE_COMPLETE
						825.	16:38:05.867	-66	26	21	1	10		1526.	GSM	Downlink	16:19:05.111	SACCH	SYSTEM_INFORMATION_TYPE_6

Analysis:

- This call drop event occurred on long call at 16:19:04:964 time when UE was latched with 2G network.
- After getting Alerting message at 16:18:32:377 time than Call drop happened.
- During the session UE was latched with ARFCN 24 and RF condition Rx lev -87 dBm is good and Rx qual 5 dB was very good.
- Need to check MT.

Call Drop Analysis 1 From MS12 CWS MT

	1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1047.	-90.5	16:18:57.189	10690	71		880.	RRCSM	UMTS FC	Uplink	16:18:44.696	DCCH	MEASUREMENT_REPORT
1048.		16:18:57.189	10690	71	-15.5	881.	RRCSM	UMTS FC	Downlink	16:18:45.058	DCCH	ACTIVE_SET_UPDATE
1049.	-84.3	16:18:57.729	10690	351		882.	RRCSM	UMTS FC	Uplink	16:18:45.070	DCCH	ACTIVE_SET_UPDATE_COMPLETE
1050.		16:18:57.729	10690	351	-10.8	883.	RRCSM	UMTS FC	Uplink	16:18:45.114	DCCH	MEASUREMENT_REPORT
1051.	-84.8	16:18:58.205	10690	351		884.	RRCSM	UMTS FC	Uplink	16:18:45.766	DCCH	MEASUREMENT_REPORT
1052.		16:18:58.205	10690	351	-11.2	885.	RRCSM	UMTS FC	Downlink	16:18:46.178	DCCH	MEASUREMENT_CONTROL
1053.	-89.4	16:18:58.880	10690	351		886.	RRCSM	UMTS FC	Uplink	16:18:47.487	DCCH	MEASUREMENT_REPORT
1054.		16:18:58.880	10690	351	-13.6	887.	RRCSM	UMTS FC	Uplink	16:18:47.698	DCCH	MEASUREMENT_REPORT
1055.	-86.1	16:18:59.212	10690	351		888.	RRCSM	UMTS FC	Uplink	16:18:51.484	DCCH	MEASUREMENT_REPORT
1056.		16:18:59.212	10690	351	-9.2	889.	RRCSM	UMTS FC	Uplink	16:18:55.506	DCCH	MEASUREMENT_REPORT
1057.	-80.9	16:18:59.878	10690	351		890.	RRCSM	UMTS FC	Uplink	16:18:56.140	DCCH	MEASUREMENT_REPORT
1058.		16:18:59.878	10690	351	-6.3	891.	RRCSM	UMTS FC	Uplink	16:18:57.229	DCCH	MEASUREMENT_REPORT
1059.	-84.6	16:19:00.198	10690	351		892.	RRCSM	UMTS FC	Uplink	16:18:57.229	DCCH	MEASUREMENT_REPORT
1060.		16:19:00.198	10690	351	-7.4	893.	RRCSM	UMTS FC	Downlink	16:18:57.498	DCCH	ACTIVE_SET_UPDATE
1061.	-82.7	16:19:00.976	10690	351		894.	RRCSM	UMTS FC	Uplink	16:18:57.531	DCCH	ACTIVE_SET_UPDATE_COMPLETE
1062.		16:19:00.976	10690	351	-7.1	895.	RRCSM	UMTS FC	Downlink	16:18:57.818	DCCH	MEASUREMENT_CONTROL
1063.	-93.9	16:19:01.196	10690	71		896.	RRCSM	UMTS FC	Uplink	16:18:58.198	DCCH	MEASUREMENT_REPORT
1064.		16:19:01.196	10690	71	-16.1	897.	RRCSM	UMTS FC	Uplink	16:19:00.105	DCCH	MEASUREMENT_REPORT
1065.	-89.5	16:19:01.977	10690	351		898.	RRCSM	UMTS FC	Uplink	16:19:00.683	DCCH	MEASUREMENT_REPORT
1066.		16:19:01.977	10690	351	-9.3	899.	RRCSM	UMTS FC	Uplink	16:19:01.902	DCCH	MEASUREMENT_REPORT
1067.	-90.7	16:19:02.311	10690	351		900.	RRCSM	UMTS FC	Downlink	16:19:02.065	DCCH	PAGING_TYPE_2
1068.		16:19:02.311	10690	351	-18.3	901.	RRCSM	UMTS FC	Uplink	16:19:02.066	DCCH	INITIAL_DIRECT_TRANSFER
1069.	-84.5	16:19:02.596	10690	351		902.	L3SM	UMTS FC	Uplink	16:19:02.066	DCCH	SERVICE_REQUEST
1070.		16:19:02.596	10690	351	-15.1	903.	RRCSM	UMTS FC	Downlink	16:19:02.503	BCCH_BCH	SYSTEM_INFORMATION_BCH
1071.	-87.8	16:19:03.252	10690	351		904.	RRCSM	UMTS FC	Downlink	16:19:02.514	BCCH_BCH	SYSTEM_INFORMATION_BCH
1072.		16:19:03.252	10690	351	-11.4	905.	RRCSM	UMTS FC	Downlink	16:19:02.514	BCCH	MASTER_INFORMATION_BLOCK
1073.	-91.6	16:19:03.756	10690	351		906.	RRCSM	UMTS FC	Downlink	16:19:02.514	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
1074.		16:19:03.756	10690	351	-19	907.	RRCSM	UMTS FC	Downlink	16:19:02.534	BCCH_BCH	SYSTEM_INFORMATION_BCH
1075.	-81.2	16:19:04.476	10690	351		908.	RRCSM	UMTS FC	Downlink	16:19:02.554	BCCH_BCH	SYSTEM_INFORMATION_BCH
1076.		16:19:04.476	10690	351	-15.4	909.	RRCSM	UMTS FC	Downlink	16:19:02.554	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_1
1077.	-88.7	16:19:05.122	10690	351		910.	RRCSM	UMTS FC	Downlink	16:19:02.574	BCCH_BCH	SYSTEM_INFORMATION_BCH
1078.		16:19:05.122	10690	351	-19.9	911.	RRCSM	UMTS FC	Downlink	16:19:02.574	BCCH	SCHEDULING_BLOCK_1
1079.	-90.3	16:19:05.664	10690	351		912.	RRCSM	UMTS FC	Downlink	16:19:02.594	BCCH_BCH	SYSTEM_INFORMATION_BCH
1080.		16:19:05.664	10690	351	-18.8	913.	RRCSM	UMTS FC	Downlink	16:19:02.594	BCCH	MASTER_INFORMATION_BLOCK
1081.	-84.6	16:19:05.988	10690	351		914.	RRCSM	UMTS FC	Downlink	16:19:02.594	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
1082.		16:19:05.988	10690	351	-14.5	915.	RRCSM	UMTS FC	Downlink	16:19:02.614	BCCH_BCH	SYSTEM_INFORMATION_BCH

Analysis:

- On MT End, UE was latched with PSC 351 and RF condition RSRP -90.7 dBm is and EC/NO 18.3 which is poor.
- Call failed at the MT end due to poor network quality. The terminating device experienced low signal strength, leading to call drop.

THANKS