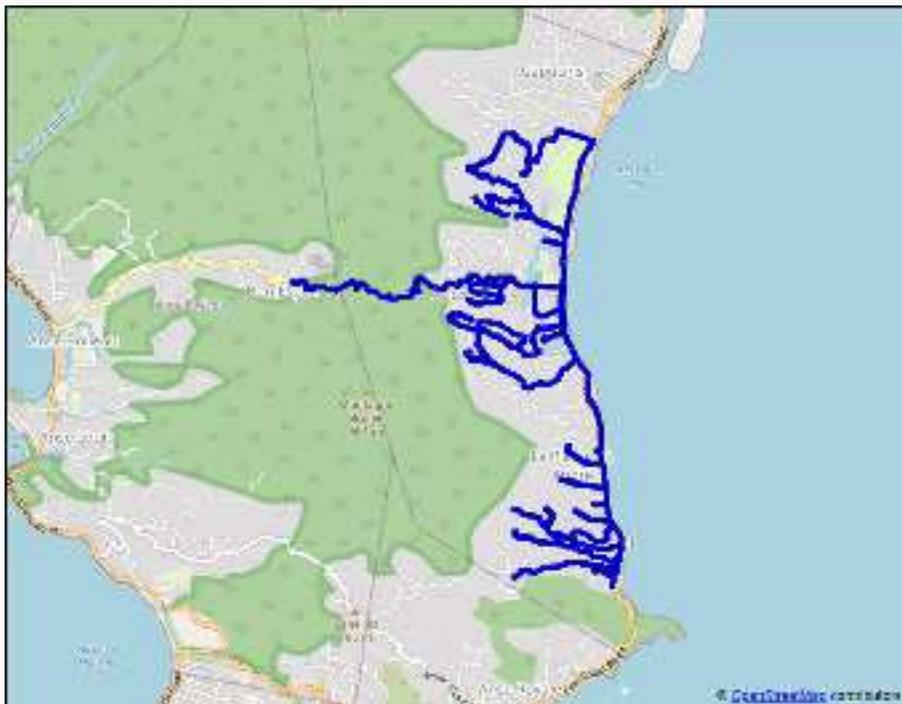


## **Seychelles Test Drive**

### **Au Cape Phase-2 Report**



Phase-1 Dates- 09<sup>th</sup> Oct 2024



Route Name: Mahe

District Name: Au Cap

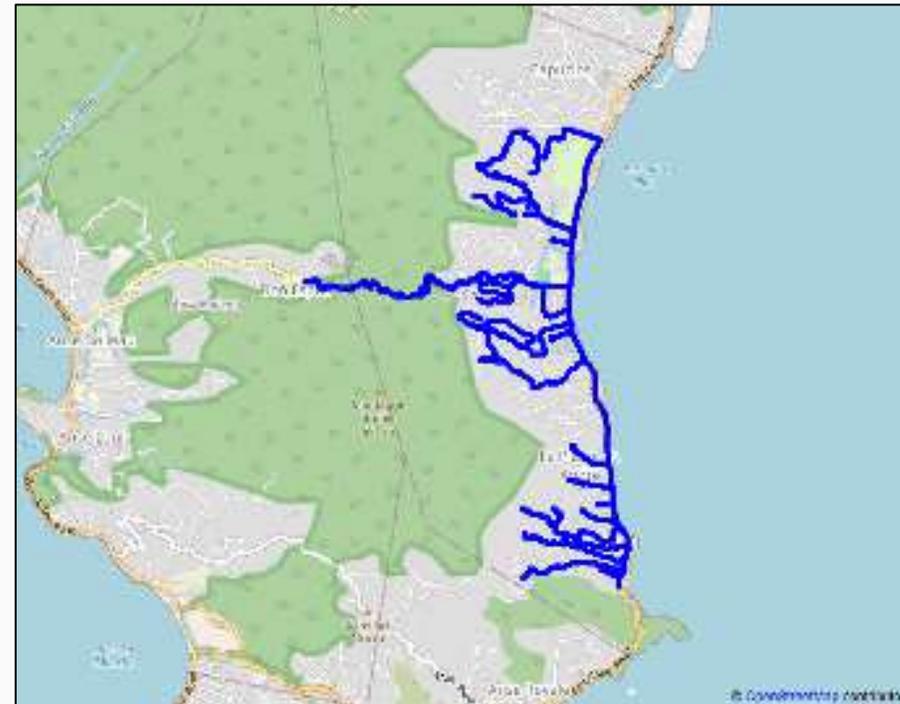
Region: East (SE)

Island: Mahé

Drive Test Distance: 33.87 kms

Drive Test Duration: 02 hours,08 minutes,44 seconds

Phase-2 Dates- 22<sup>nd</sup> Oct 2024



Route Name: Mahe

District Name: Au Cap

Region: East (SE)

Island: Mahé

Drive Test Distance: 34.74 kms

Drive Test Duration: 01 hours,58 minutes,08 seconds

**Phase-1****Short Call Findings:**

- The Call Setup Success Rate for Airtel is (96.86%), while for Operator CWS it is (98.11%).
- The Call Setup Time for Airtel is (6.29s), while for Operator CWS it is (7.00s)

**Long Call Findings :**

- The Call Retainability for Airtel is (95.24%), while for CWS it is (97.73%).
- The MOS quality observed for Airtel is (3.15), and for CWS, it is (3.47).

**Phase-2****Short Call Findings:**

- The Call Setup Success Rate for Airtel is (98.61%), while for Operator CWS it is (97.97%).
- The Call Setup Time for Airtel is (6.17s), while for Operator CWS it is (7.23s)

**Long Call Findings :**

- The Call Retainability for Airtel is (94.74%), while for CWS it is (92.50%).
- The MOS quality observed for Airtel is (3.15), and for CWS, it is (3.35).

## Phase-1

### 4G Preferred Data Findings:

- Airtel SFTP DL is (11.52 Mbps), while SFTP UL is (6.08 Mbps), CWS SFTP DL is (6.48 Mbps), while SFTP UL is (3.78 Mbps)
- Airtel HTTP DL is (17.96 Mbps), HTTP Capacity DL is (32.66 Mbps) ,HTTP UL is (10.19 Mbps) , and HTTP Capacity UL is (18.74 Mbps).
- CWS HTTP DL is (7.97 Mbps), HTTP Capacity DL is (26.23 Mbps) ,HTTP UL is (6.71 Mbps) , and HTTP Capacity UL is (18.33 Mbps).
- On live web page testing for browsing, [www.shein.com](http://www.shein.com) took (6.79s), [www.nbs.gov.sc](http://www.nbs.gov.sc) took (16.71s), and [www.sbc.sc](http://www.sbc.sc) took (18.42s) on Airtel.
- On live web page testing for browsing, [www.shein.com](http://www.shein.com) took (6.97s), [www.nbs.gov.sc](http://www.nbs.gov.sc) took (15.40s), and [www.sbc.sc](http://www.sbc.sc) took (13.90s) on CWS.
- On static browsing, Kepler Webpage took (4.74s), and Kepler Mobile took (1.72s) on Airtel.
- On static browsing, Kepler Webpage took (5.13s), and Kepler Mobile took (2.77s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1075.24) pixels.
- Airtel scored 48.89% in Carrier Aggregation (CA).
- CWS scored 47.97% in Carrier Aggregation (CA).

## Phase-2

### 4G Preferred Data Findings:

- Airtel SFTP DL is (11.94 Mbps), while SFTP UL is (5.53 Mbps), CWS SFTP DL is (5.19 Mbps), while SFTP UL is (3.30 Mbps)
- Airtel HTTP DL is (16.05 Mbps), HTTP Capacity DL is (40.82 Mbps) ,HTTP UL is (9.10 Mbps) , and HTTP Capacity UL is (20.13 Mbps).
- CWS HTTP DL is (6.69 Mbps), HTTP Capacity DL is (21.48 Mbps) ,HTTP UL is (6.28 Mbps) , and HTTP Capacity UL is (20.19 Mbps).
- On live web page testing for browsing, [www.shein.com](http://www.shein.com) took (7.68s), [www.nbs.gov.sc](http://www.nbs.gov.sc) took (17.93s), and [www.sbc.sc](http://www.sbc.sc) took (16.50s) on Airtel.
- On live web page testing for browsing, [www.shein.com](http://www.shein.com) took (9.27s), [www.nbs.gov.sc](http://www.nbs.gov.sc) took (24.37s), and [www.sbc.sc](http://www.sbc.sc) took (20.09s) on CWS.
- On static browsing, Kepler Webpage took (4.87s), and Kepler Mobile took (1.88s) on Airtel.
- On static browsing, Kepler Webpage took (5.82s), and Kepler Mobile took (2.97s) on CWS.
- YouTube average resolution in Airtel is (1065.68) pixels.
- YouTube average resolution in CWS is (1028.31) pixels.
- Airtel scored 54.97% in Carrier Aggregation (CA).
- CWS scored 47.65% in Carrier Aggregation (CA).

## Phase-1

### 3G Preferred Data Test Findings:

- Airtel SFTP DL is (4.15 Mbps), while SFTP UL is (1.57 Mbps), CWS SFTP DL is (3.70 Mbps), while SFTP UL is (1.01 Mbps)
- Airtel HTTP DL is (4.78 Mbps), HTTP Capacity DL is (5.66 Mbps) ,HTTP UL is (2.41 Mbps) , and HTTP Capacity UL is (4.88 Mbps).
- CWS HTTP DL is (3.31 Mbps), HTTP Capacity DL is (9.31 Mbps) ,HTTP UL is (1.55 Mbps) , and HTTP Capacity UL is (3.56 Mbps).
- On live web page testing for browsing, [www.shein.com](http://www.shein.com) took (11.48s), [www.nbs.gov.sc](http://www.nbs.gov.sc) took (11.62s), and [www.sbc.sc](http://www.sbc.sc) took (14.66s) on Airtel.
- On live web page testing for browsing, [www.shein.com](http://www.shein.com) took (8.94s), [www.nbs.gov.sc](http://www.nbs.gov.sc) took (7.98s), and [www.sbc.sc](http://www.sbc.sc) took (11.52s) on CWS.
- On static browsing, Kepler Webpage took (3.89s), and Kepler Mobile took (1.99s) on Airtel.
- On static browsing, Kepler Webpage took (5.49s), and Kepler Mobile took (2.37s) on CWS.
- YouTube average resolution in Airtel is (1071.26) pixels.
- YouTube average resolution in CWS is (1073.67) pixels.

## Phase-2

### 3G Preferred Data Test Findings:

- Airtel SFTP DL is (4.91 Mbps), while SFTP UL is (1.80 Mbps), CWS SFTP DL is (3.38 Mbps), while SFTP UL is (0.91 Mbps)
- Airtel HTTP DL is (4.73 Mbps), HTTP Capacity DL is (6.48 Mbps) ,HTTP UL is (2.06 Mbps) , and HTTP Capacity UL is (5.07 Mbps).
- CWS HTTP DL is (2.67 Mbps), HTTP Capacity DL is (8.25 Mbps) ,HTTP UL is (1.53 Mbps) , and HTTP Capacity UL is (4.14 Mbps).
- On live web page testing for browsing, [www.shein.com](http://www.shein.com) took (10.25s), [www.nbs.gov.sc](http://www.nbs.gov.sc) took (11.89s), and [www.sbc.sc](http://www.sbc.sc) took (12.36s) on Airtel.
- On live web page testing for browsing, [www.shein.com](http://www.shein.com) took (10.00s), [www.nbs.gov.sc](http://www.nbs.gov.sc) took (12.66s), and [www.sbc.sc](http://www.sbc.sc) took (14.07s) on CWS.
- On static browsing, Kepler Webpage took (4.28s), and Kepler Mobile took (1.87s) on Airtel.
- On static browsing, Kepler Webpage took (6.57s), and Kepler Mobile took (2.72s) on CWS.
- YouTube average resolution in Airtel is (1029.31) pixels.
- YouTube average resolution in CWS is (1045.80) 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	<b>Airtel</b>	<b>CWS</b>
Call Attempt	159	159
Call Failed	5	3
Call Connected	154	156
CSSR[%]	<b>96.86</b>	<b>98.11</b>
USCSR[%]	3.14	1.89
CST [s] Alerting	6.29	7.00
CST [s]Connected	6.55	7.23

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)	6.29	7.00	1	2
CS calls CST (until ringing/alerting)	5.78	7.90	1	2
CSFB calls CST (until ringing/alerting)	6.51	7.00	1	2
Overall CST (until Connect/Connect Acknowledge)	6.55	7.23	1	2
CS calls CST (until Connect/Connect Acknowledge)	6.03	7.98	1	2
CSFB calls CST (until Connect/Connect Acknowledge)	6.77	7.22	1	2

## Phase-2

Short Call Statistics		
Short Call Scenario	Operator 1	Operator 2
Voice KPIs	<b>Airtel</b>	<b>CWS</b>
Call Attempt	144	148
Call Failed	2	3
Call Connected	142	145
CSSR[%]	<b>98.61</b>	<b>97.97</b>
USCSR[%]	1.39	2.03
CST [s] Alerting	6.17	7.23
CST [s]Connected	6.45	7.43

Call Setup Time (s)	Operators		Rank	
	Airtel	CWS	Airtel	CWS
Overall CST (until ringing/alerting)	6.17	7.23	1	2
CS calls CST (until ringing/alerting)	6.24	8.29	1	2
CSFB calls CST (until ringing/alerting)	6.14	7.21	1	2
Overall CST (until Connect/Connect Acknowledge)	6.45	7.43	1	2
CS calls CST (until Connect/Connect Acknowledge)	6.55	8.50	1	2
CSFB calls CST (until Connect/Connect Acknowledge)	6.41	7.41	1	2

## Phase-1

Long Call Statistics				
Long Call Scenario	Operator 1		Operator 2	
Voice KPIs	Airtel	CWS		
Call Connected	42	44		
Call Dropped	2	1		
Call Completed	40	43		
CRR[%]	95.24	97.73		
DCR[%]	4.76	2.27		
MOS	3.15	3.44		
	Airtel short call	CWS short call	Airtel long call	CWS long call
CSFB Calls	110	155	31	44
CS Calls	49	4	11	0
Handover Statistics		Airtel MO	CWS MO	
Handover Attempt		26	115	
Handover Failure		0	0	
Handover Success		26	115	
HOSR %		100.00	100.00	

## Phase-2

Long Call Statistics				
Long Call Scenario	Operator 1		Operator 2	
Voice KPIs	Airtel	CWS		
Call Connected	38	40		
Call Dropped	2	3		
Call Completed	36	37		
CRR[%]	94.74	92.50		
DCR[%]	5.26	7.50		
MOS	3.15	3.35		
	Airtel short call	CWS short call	Airtel long call	CWS long call
CSFB Calls	105	146	26	39
CS Calls	39	2	12	1
Handover Statistics		Airtel MO	CWS MO	
Handover Attempt		24	93	
Handover Failure		0	1	
Handover Success		24	92	
HOSR %		100.00	98.92	

# 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)	11.52	6.48	1	2	11.94	5.19	1	2
	SFTP UL(Mbps)	6.08	3.78	1	2	5.53	3.30	1	2
	HTTP DL(Mbps)	17.96	7.97	1	2	16.05	6.69	1	2
	HTTP UL(Mbps)	10.19	6.71	1	2	9.10	6.28	1	2
	HTTP Capacity DL(Mbps)	32.66	26.23	1	2	40.82	21.48	1	2
	HTTP Capacity UL(Mbps)	18.74	18.33	1	2	20.13	20.19	2	1
BROWSER	Overall Browser DL Time (s)	9.75	8.79	2	1	9.93	12.55	1	2
	Kepler Webpage DL Time (s)	4.74	5.13	1	2	4.87	5.82	1	2
	Mobile Kepler Webpage DL Time (s)	1.72	2.77	1	2	1.88	2.97	1	2
	www.shein.com Webpage DL Time (s)	6.79	6.97	1	2	7.68	9.27	1	2
	www.nbs.gov.sc Webpage DL Time (s)	16.71	15.40	2	1	17.93	24.37	1	2
	www.sbc.sc Webpage DL Time (s)	18.42	13.90	2	1	16.50	20.09	1	2
LATENCY	Avg Latency (ms)	275.40	242.23	2	1	270.66	265.53	2	1
	Median Latency (ms)	178	211	1	2	384	231	2	1
YOUTUBE	YouTube Access Time (s)	5.33	2.06	2	1	5.53	2.36	2	1
	YouTube Average Resolution (pixels)	1080.00	1075.24	1	2	1065.68	1028.31	1	2
	YouTube Success Ratio [%]	96.00	96.00	1	1	95.83	94.74	1	2

## Phase-1

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
SFTP DL	Success	16	24	100.00	100.00
	Failure	0	0	0.00	0.00
SFTP UL	Success	23	24	92.00	100.00
	Failure	2	0	8.00	0.00
HTTP DL	Success	24	24	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP UL	Success	24	25	96.00	100.00
	Failure	1	0	4.00	0.00
HTTP Capacity DL	Success	22	23	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	21	20	91.30	90.91
	Failure	2	2	8.70	9.09

## Phase-2

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
SFTP DL	Success	23	17	100.00	100.00
	Failure	0	0	0.00	0.00
SFTP UL	Success	22	19	95.65	100.00
	Failure	1	0	4.35	0.00
HTTP DL	Success	23	20	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP UL	Success	21	19	91.30	100.00
	Failure	2	0	8.70	0.00
HTTP Capacity DL	Success	21	19	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	20	15	90.91	83.33
	Failure	2	3	9.09	16.67

## Phase-1

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
Kepler	Success	22	24	91.67	100.00
	Failure	2	0	8.33	0.00
Mobile Kepler	Success	23	24	100.00	100.00
	Failure	0	0	0.00	0.00
www.shein.com	Success	24	24	100.00	100.00
	Failure	0	0	0.00	0.00
www.nbs.gov.sc	Success	24	24	100.00	100.00
	Failure	0	0	0.00	0.00
www.sbc.sc	Success	23	23	95.83	95.83
	Failure	1	1	4.17	4.17

## Phase-2

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
Kepler	Success	18	17	81.82	89.47
	Failure	4	2	18.18	10.53
Mobile Kepler	Success	21	19	100.00	100.00
	Failure	0	0	0.00	0.00
www.shein.com	Success	20	18	95.24	94.74
	Failure	1	1	4.76	5.26
www.nbs.gov.sc	Success	21	18	100.00	94.74
	Failure	0	1	0.00	5.26
www.sbc.sc	Success	21	19	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]	47	48
	Average Latency [ms]	269.40	246.27
	Median Latency [ms]	178	213
	Ping session status: Successful	47	48
	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]	420.87	194.78
	Median Latency [ms]	428	170
	Ping session status: Successful	23	23
	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]	124.25	293.64
	Median Latency [ms]	119	241
	Ping session status: Successful	24	25
	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]	41	38
	Average Latency [ms]	269.37	272.50
	Median Latency [ms]	384	239
	Ping session status: Successful	41	38
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	0
	Packet Loss<1%	2.38	0.00
www.google.com	Average Latency [ms]	405.86	243.95
	Median Latency [ms]	399	177
	Ping session status: Successful	21	19
	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]	126.05	301.05
	Median Latency [ms]	123	264
	Ping session status: Successful	20	19
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	0
	Packet Loss<1%	4.76	0.00

## Phase-1

LTE YOUTUBE Success Ratio		
KPIs	Airtel 4G	CWS 4G
Attempt(Count)	25	15
Success(Count)	24	2
Failure(Count)	1	1
YouTube Access Time (s)	5.33	2.06
YouTube Average Resolution (pixels)	1080.00	1075.24
YouTube Success Ratio [%]	96.00	96.00

## Phase-2

LTE YOUTUBE Success Ratio		
KPIs	Airtel 4G	CWS 4G
Attempt(Count)	24	19
Success(Count)	23	18
Failure(Count)	1	1
YouTube Access Time (s)	5.53	2.36
YouTube Average Resolution (pixels)	1065.68	1028.31
YouTube Success Ratio [%]	95.83	94.74

# 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)	4.15	3.70	1	2	4.91	3.38	1	2
	SFTP UL(Mbps)	1.57	1.01	1	2	1.80	0.91	1	2
	HTTP DL(Mbps)	4.78	3.31	1	2	4.73	2.67	1	2
	HTTP UL(Mbps)	2.41	1.55	1	2	2.06	1.53	1	2
	HTTP Capacity DL(Mbps)	5.66	9.31	2	1	6.48	8.25	2	1
	HTTP Capacity UL(Mbps)	4.88	3.56	1	2	5.07	4.14	1	2
BROWSER	Overall Browser DL Time (s)	8.51	7.25	2	1	8.10	9.20	1	2
	Kepler Webpage DL Time (s)	3.89	5.49	1	2	4.28	6.57	1	2
	Mobile Kepler Webpage DL Time (s)	1.99	2.37	1	2	1.87	2.72	1	2
	www.shein.com Webpage DL Time (s)	11.48	8.94	2	1	10.25	10.00	2	1
	www.nbs.gov.sc Webpage DL Time (s)	11.62	7.98	2	1	11.89	12.66	1	2
	www.sbc.sc Webpage DL Time (s)	14.66	11.52	2	1	12.36	14.07	1	2
LATENCY	Avg Latency (ms)	289.97	187.65	2	1	267.05	191.63	2	1
	Median Latency (ms)	392	192	2	1	173	195	1	2
YOUTUBE	YouTube Access Time (s)	3.25	2.15	2	1	3.80	2.37	2	1
	YouTube Average Resolution (pixels)	1071.26	1073.67	2	1	1029.31	1045.80	2	1
	YouTube Success Ratio [%]	90.91	84.21	1	2	95.00	77.78	1	2

## Phase-1

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
SFTP DL	Success	21	16	100.00	88.89
	Failure	0	2	0.00	11.11
SFTP UL	Success	20	12	95.24	75.00
	Failure	1	4	4.76	25.00
HTTP DL	Success	19	17	95.00	94.44
	Failure	1	1	5.00	5.56
HTTP UL	Success	20	17	95.24	89.47
	Failure	1	2	4.76	10.53
HTTP Capacity DL	Success	18	15	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	17	15	94.44	93.75
	Failure	1	1	5.56	6.25

## Phase-2

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
SFTP DL	Success	20	16	100.00	100.00
	Failure	0	0	0.00	0.00
SFTP UL	Success	18	14	90.00	82.35
	Failure	2	3	10.00	17.65
HTTP DL	Success	19	16	95.00	94.12
	Failure	1	1	5.00	5.88
HTTP UL	Success	20	12	95.24	66.67
	Failure	1	6	4.76	33.33
HTTP Capacity DL	Success	18	17	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	18	16	94.74	100.00
	Failure	1	0	5.26	0.00

## Phase-1

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Kepler	Success	20	16	100.00	84.21
	Failure	0	3	0.00	15.79
Mobile Kepler	Success	19	17	100.00	100.00
	Failure	0	0	0.00	0.00
www.shein.com	Success	18	18	100.00	94.74
	Failure	0	1	0.00	5.26
www.nbs.gov.sc	Success	17	18	94.44	94.74
	Failure	1	1	5.56	5.26
www.sbc.sc	Success	18	16	94.74	88.89
	Failure	1	2	5.26	11.11

## Phase-2

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Kepler	Success	18	15	100.00	88.24
	Failure	0	2	0.00	11.76
Mobile Kepler	Success	16	16	94.12	94.12
	Failure	1	1	5.88	5.88
www.shein.com	Success	17	17	94.44	100.00
	Failure	1	0	5.56	0.00
www.nbs.gov.sc	Success	17	15	94.44	88.24
	Failure	1	2	5.56	11.76
www.sbc.sc	Success	16	16	94.12	94.12
	Failure	1	1	5.88	5.88

## Phase-1

	Latency KPIs	Airtel 3G	CWS 3G
Overall Latency	Sample Count [32 bytes]	28	33
	Average Latency [ms]	338.57	177.97
	Median Latency [ms]	405	152
	Ping session status: Successful	28	33
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	9	2
	Packet Loss<1%	24.32	5.71
www.google.com	Average Latency [ms]	414.18	140.35
	Median Latency [ms]	413	139
	Ping session status: Successful	17	17
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	0
	Packet Loss<1%	5.56	0.00
102.133.176.104	Average Latency [ms]	221.73	217.94
	Median Latency [ms]	187	210
	Ping session status: Successful	11	16
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	8	2
	Packet Loss<1%	42.11	11.11

## Phase-2

	Latency KPIs	Airtel 3G	CWS 3G
Overall Latency	Sample Count [32 bytes]	37	29
	Average Latency [ms]	262.92	178.79
	Median Latency [ms]	137	162
	Ping session status: Successful	37	29
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	2	2
	Packet Loss<1%	5.13	6.45
www.google.com	Average Latency [ms]	411.00	149.50
	Median Latency [ms]	408	141
	Ping session status: Successful	18	16
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	1
	Packet Loss<1%	0.00	5.88
102.133.176.104	Average Latency [ms]	122.63	214.85
	Median Latency [ms]	119	212
	Ping session status: Successful	19	13
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	2	1
	Packet Loss<1%	9.52	7.14

## Phase-1

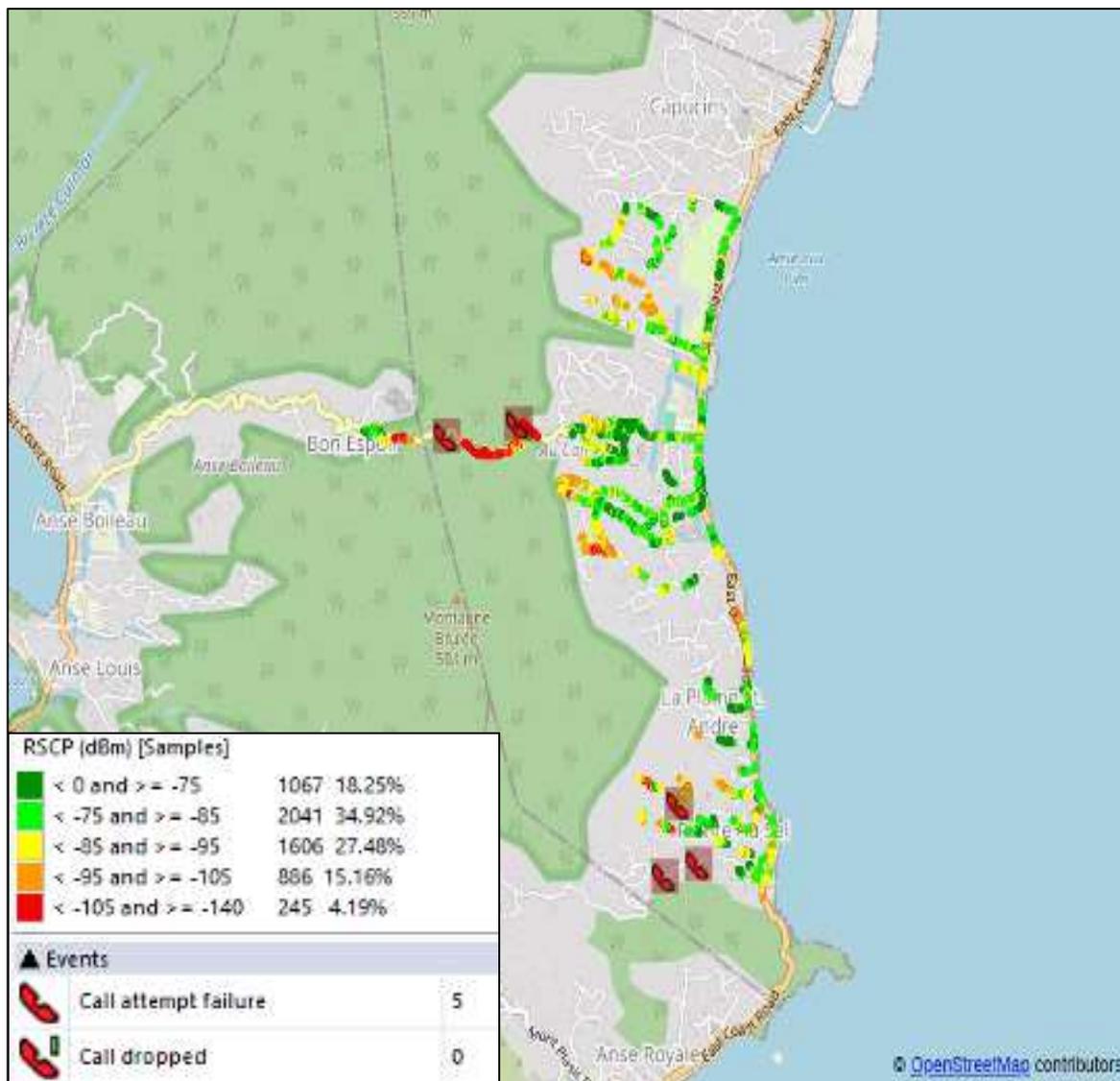
UMTS YOUTUBE Success Ratio		
KPIs	Airtel 3G	CWS 3G
Attempt(Count)	22	19
Success(Count)	20	16
Failure(Count)	2	3
YouTube Access Time (s)	3.25	2.15
YouTube Average Resolution (pixels)	1071.26	1073.67
YouTube Success Ratio [%]	90.91	84.21

## Phase-2

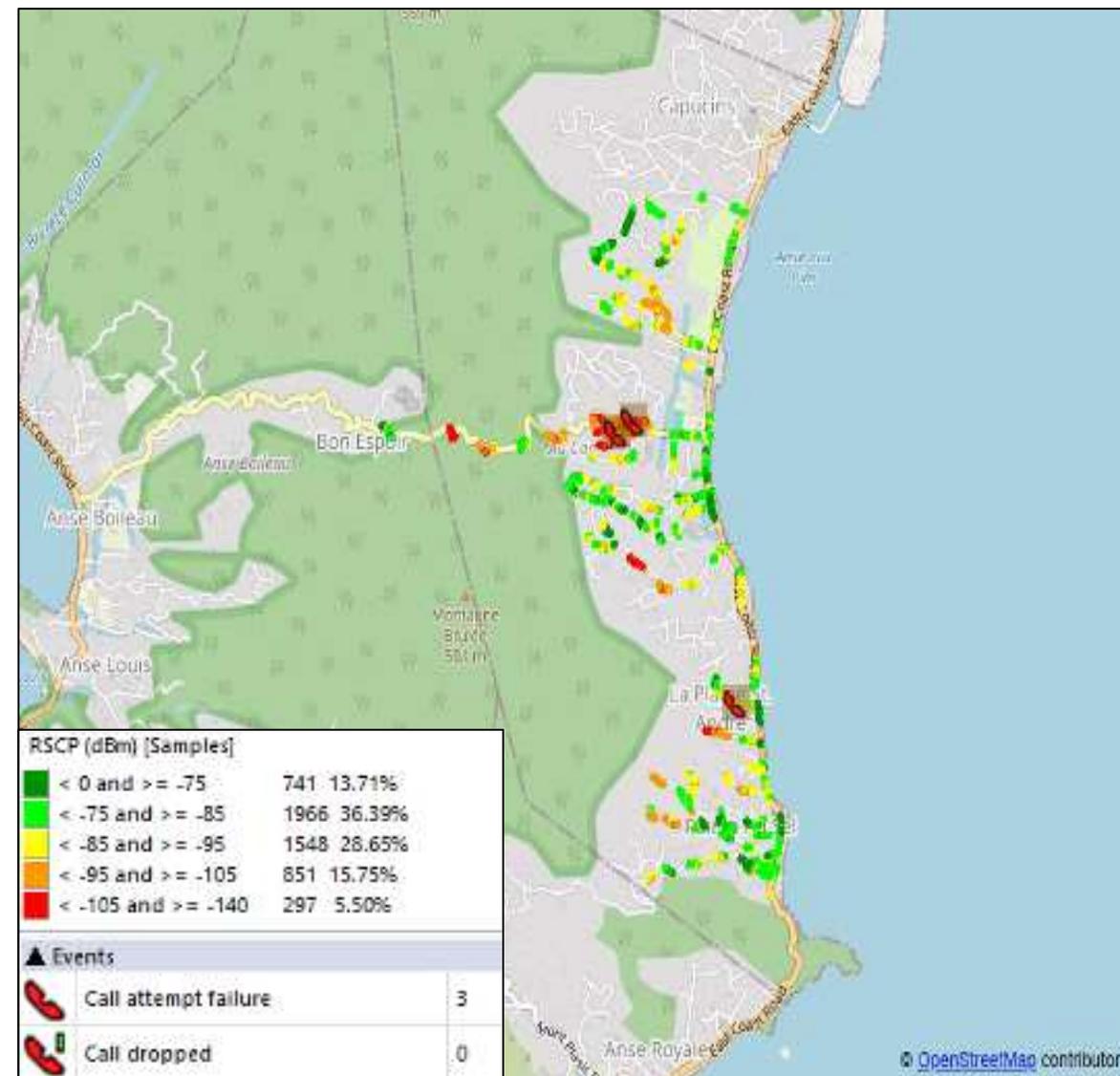
UMTS YOUTUBE Success Ratio		
KPIs	Airtel 3G	CWS 3G
Attempt(Count)	20	18
Success(Count)	19	14
Failure(Count)	1	4
YouTube Access Time (s)	3.80	2.37
YouTube Average Resolution (pixels)	1029.31	1045.80
YouTube Success Ratio [%]	95.00	77.78

# Voice Call Events

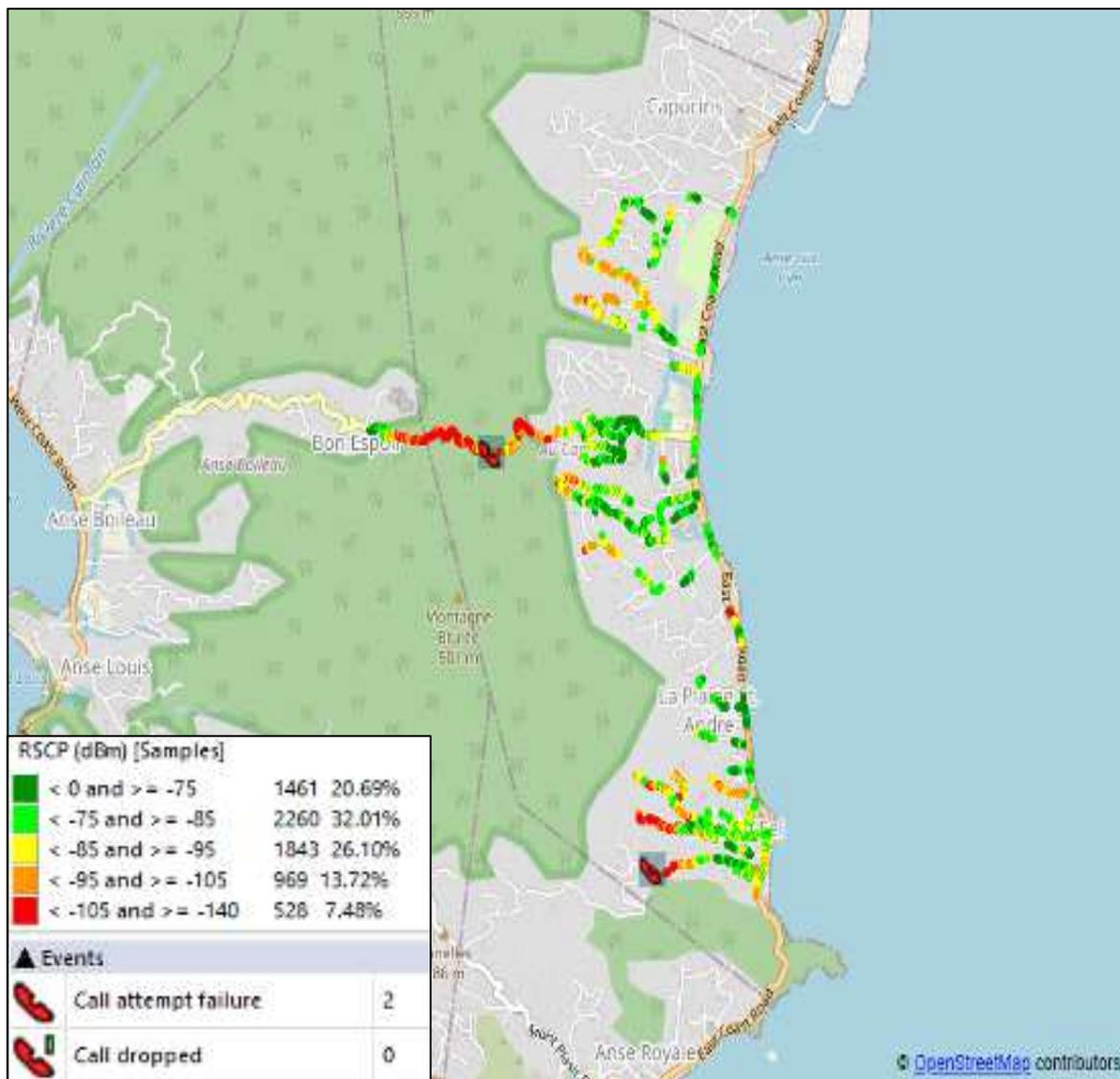
## Airtel SC MO



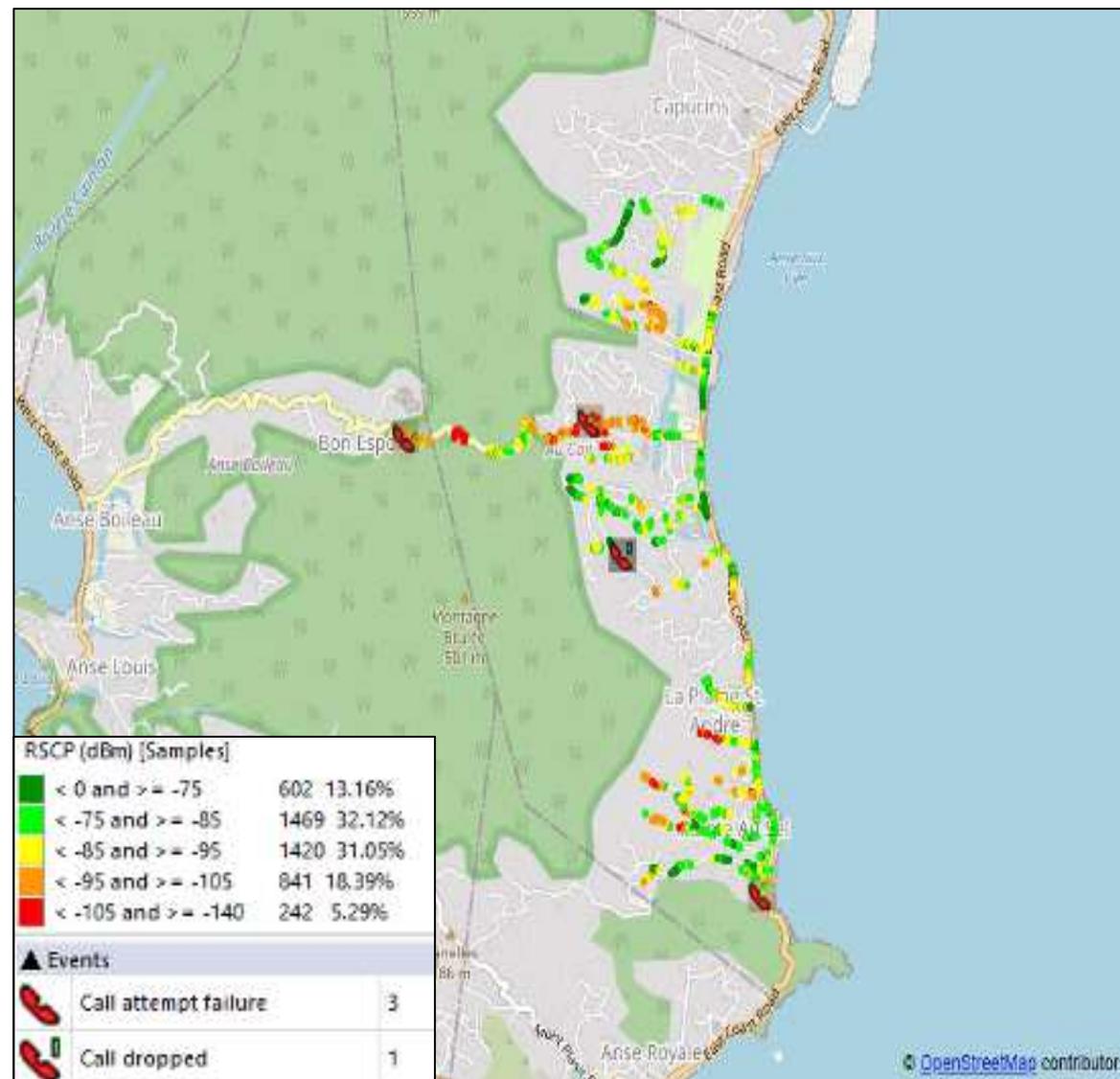
## CWS SC MO



## Airtel SC MO



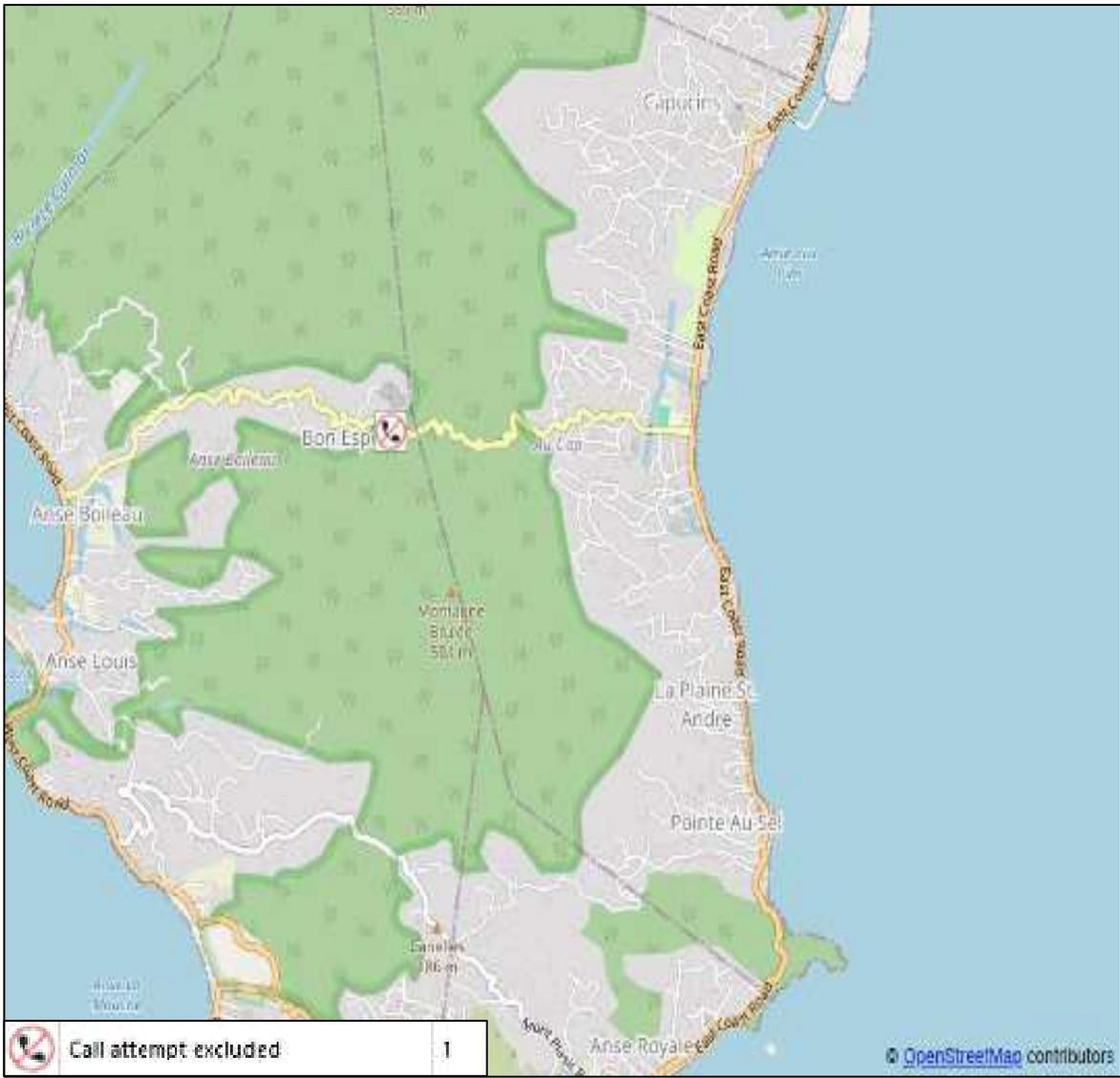
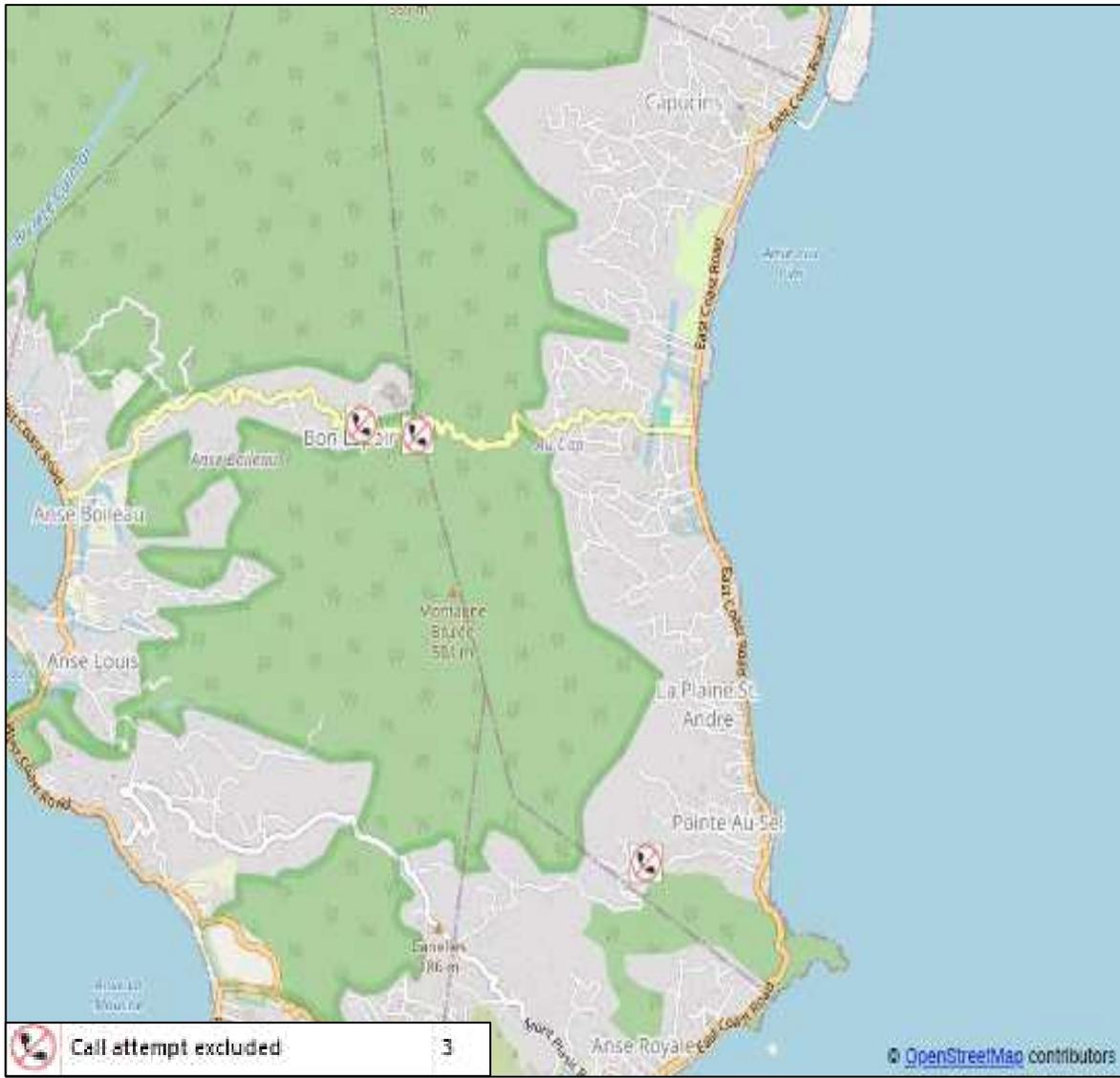
## CWS SC MO



# Phase-1 SHORT CALL EXCLUDED EVENTS

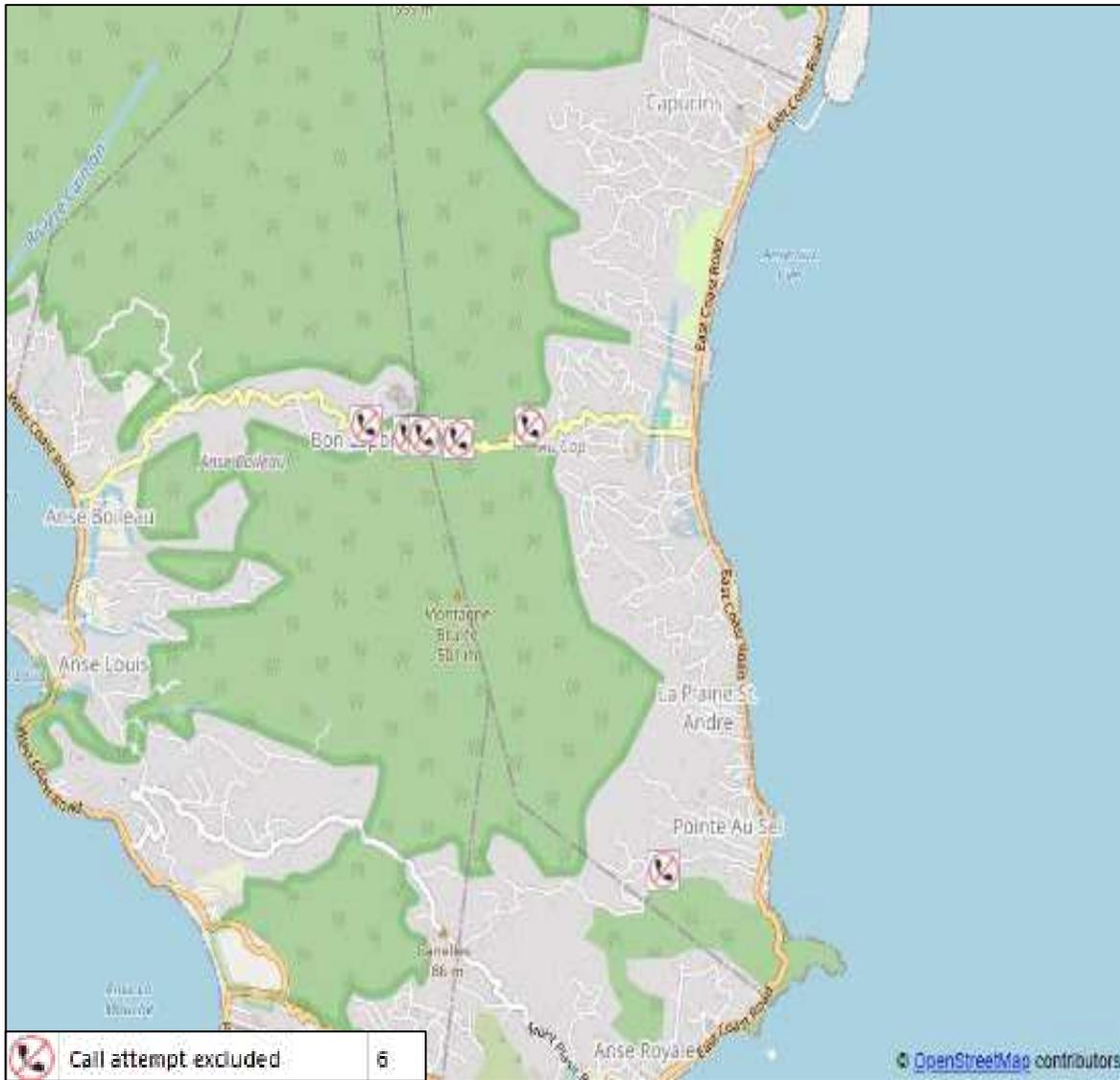
**Airtel SC MO**

**CWS SC MO**

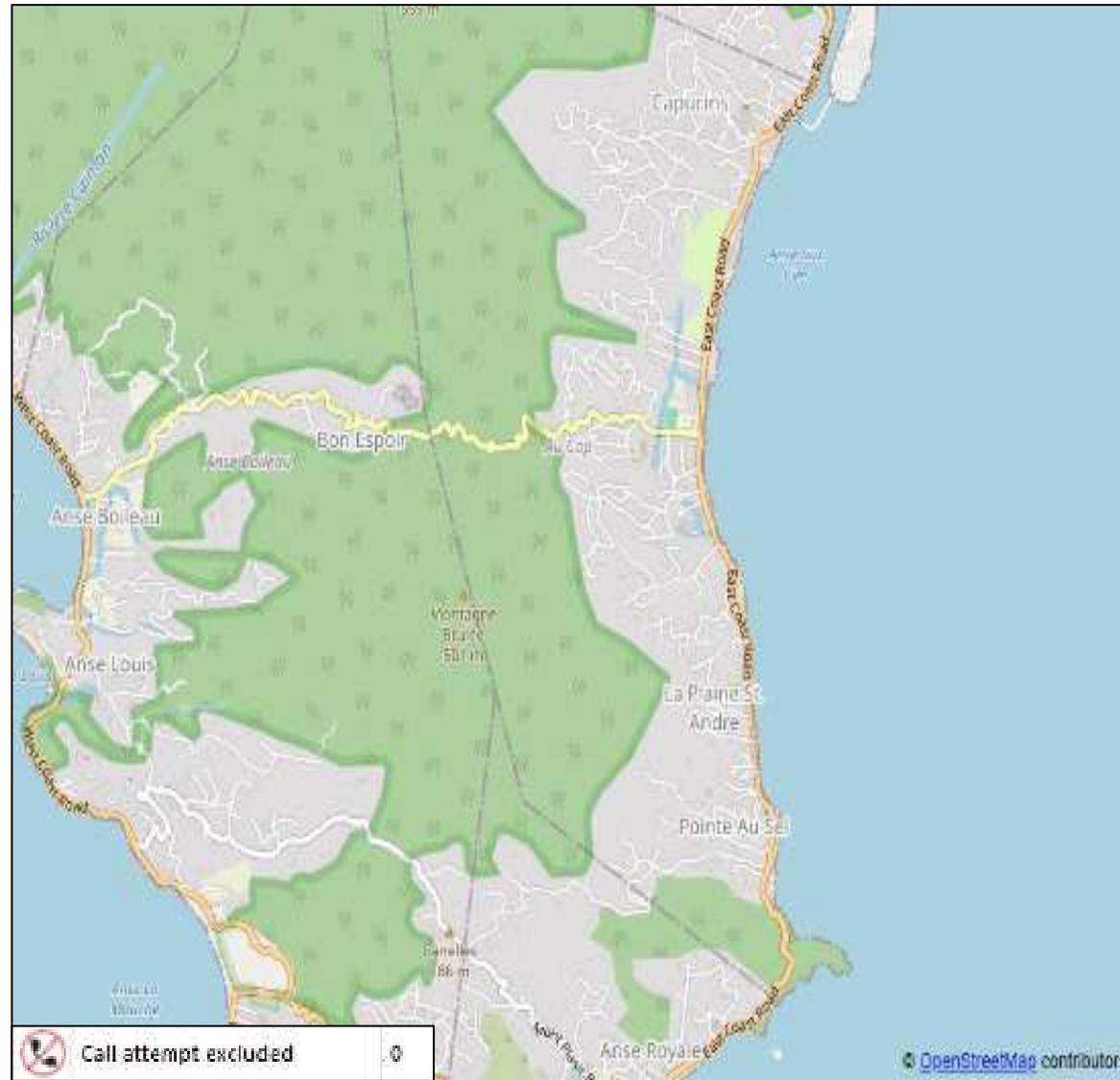


# Phase-2 SHORT CALL EXCLUDED EVENTS

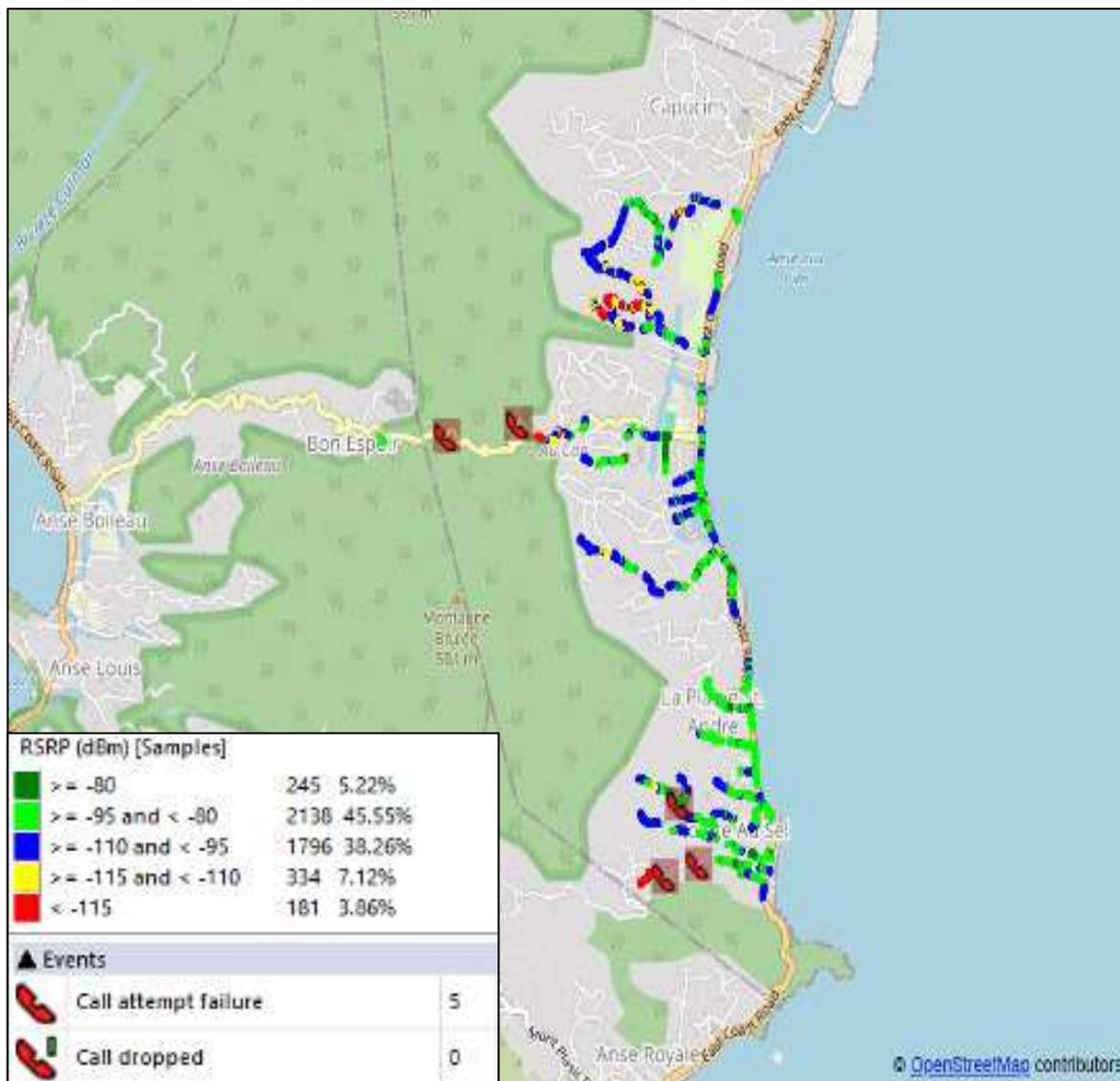
**Airtel SC MO**



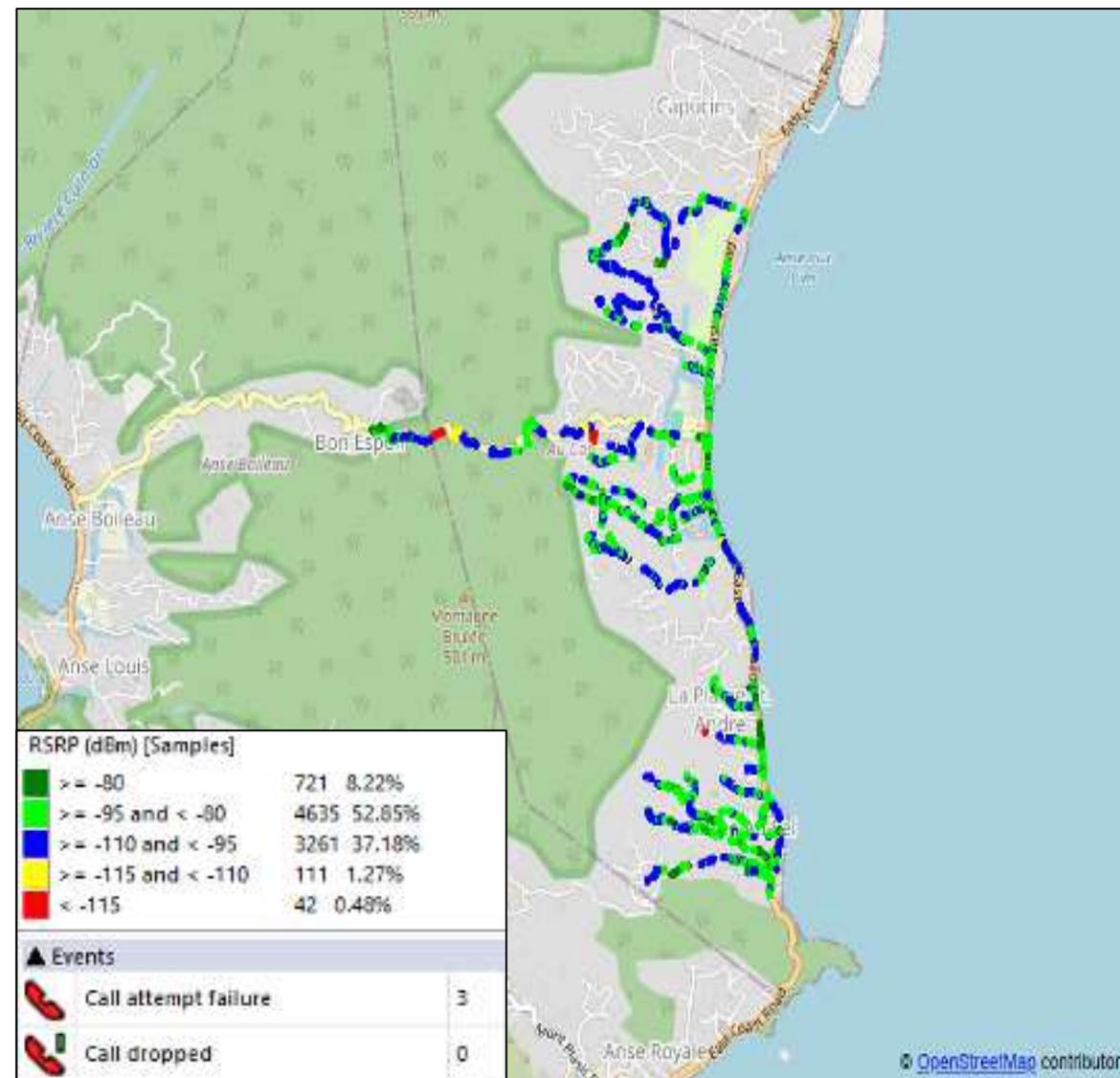
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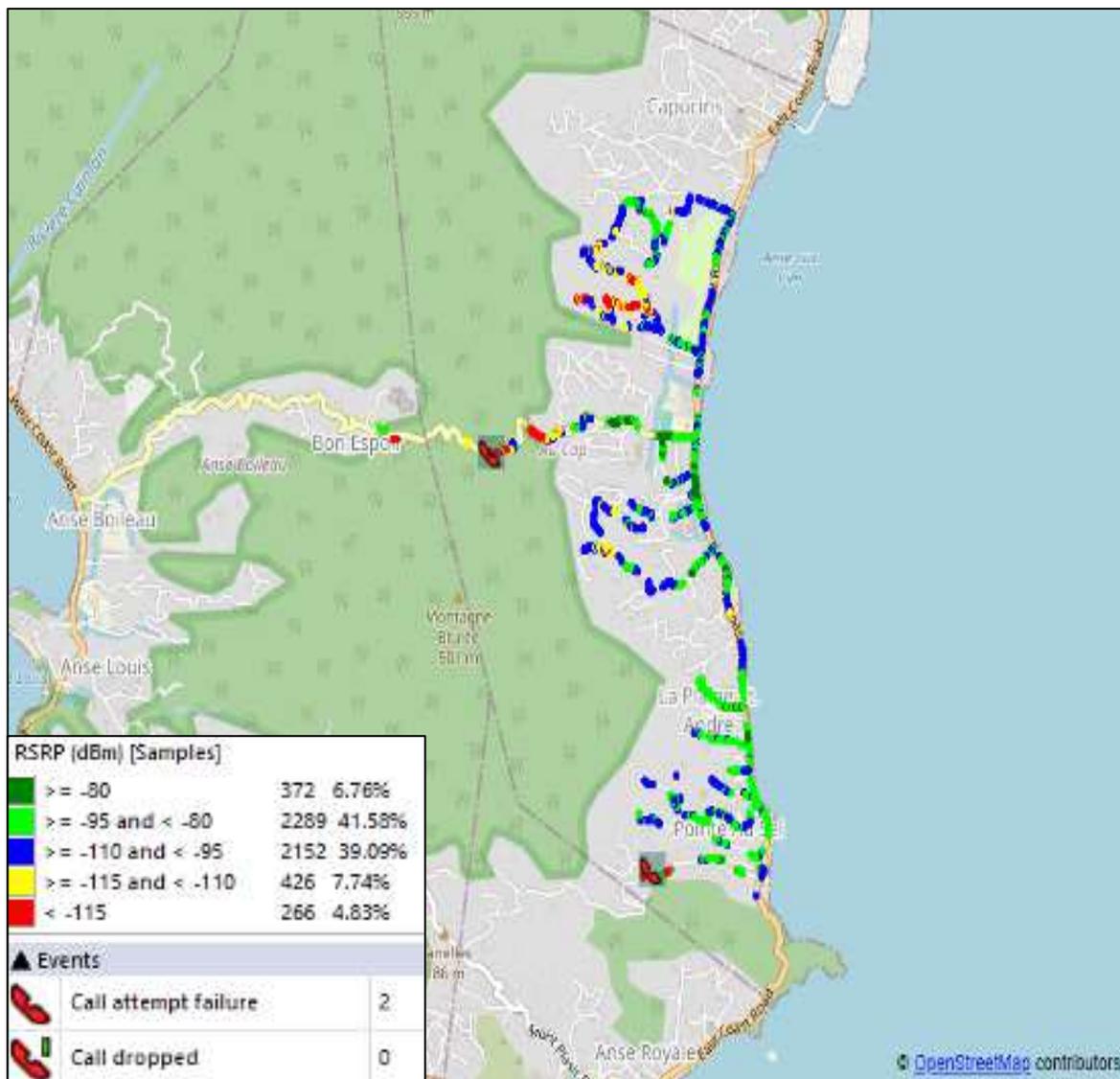
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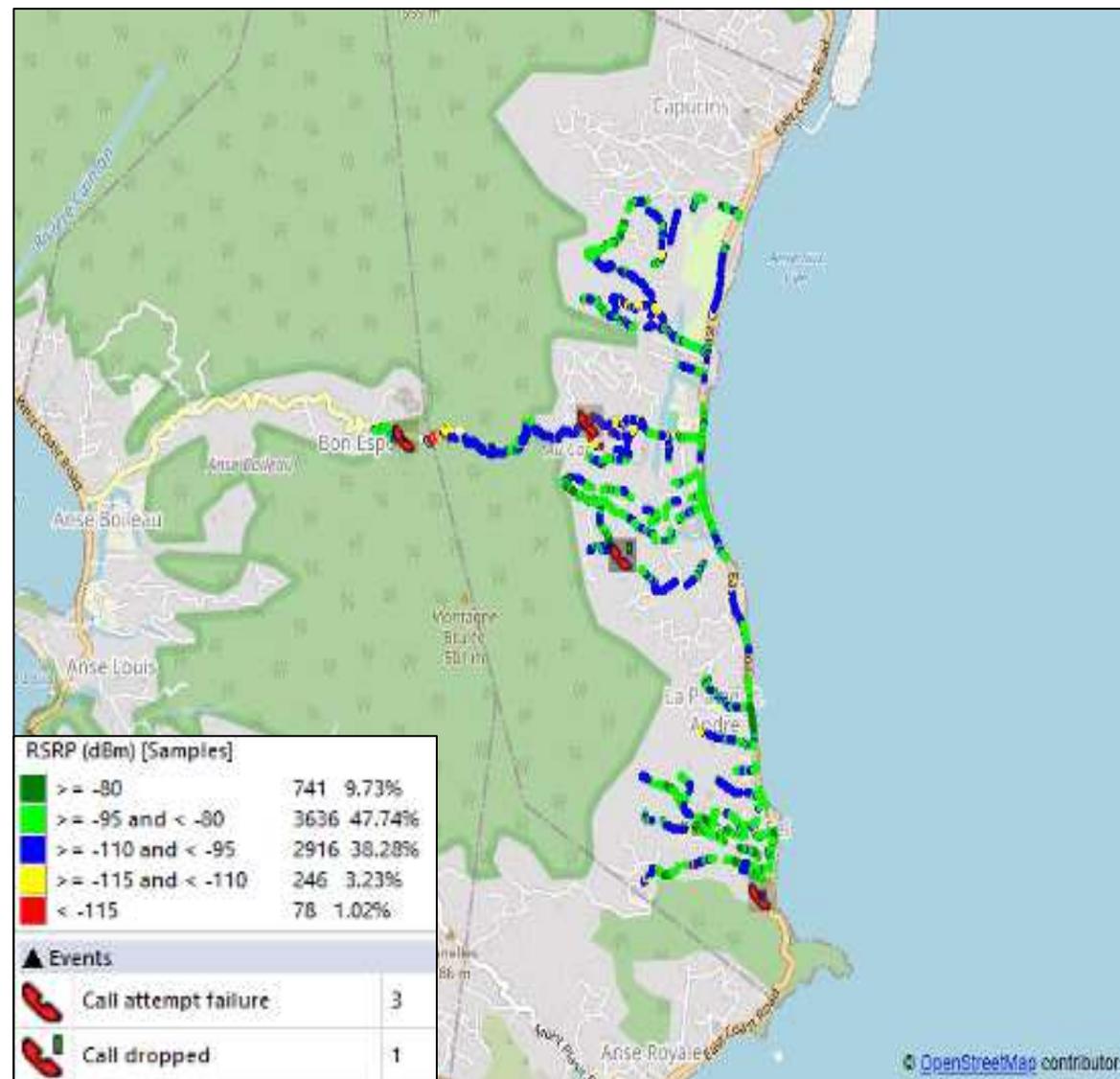
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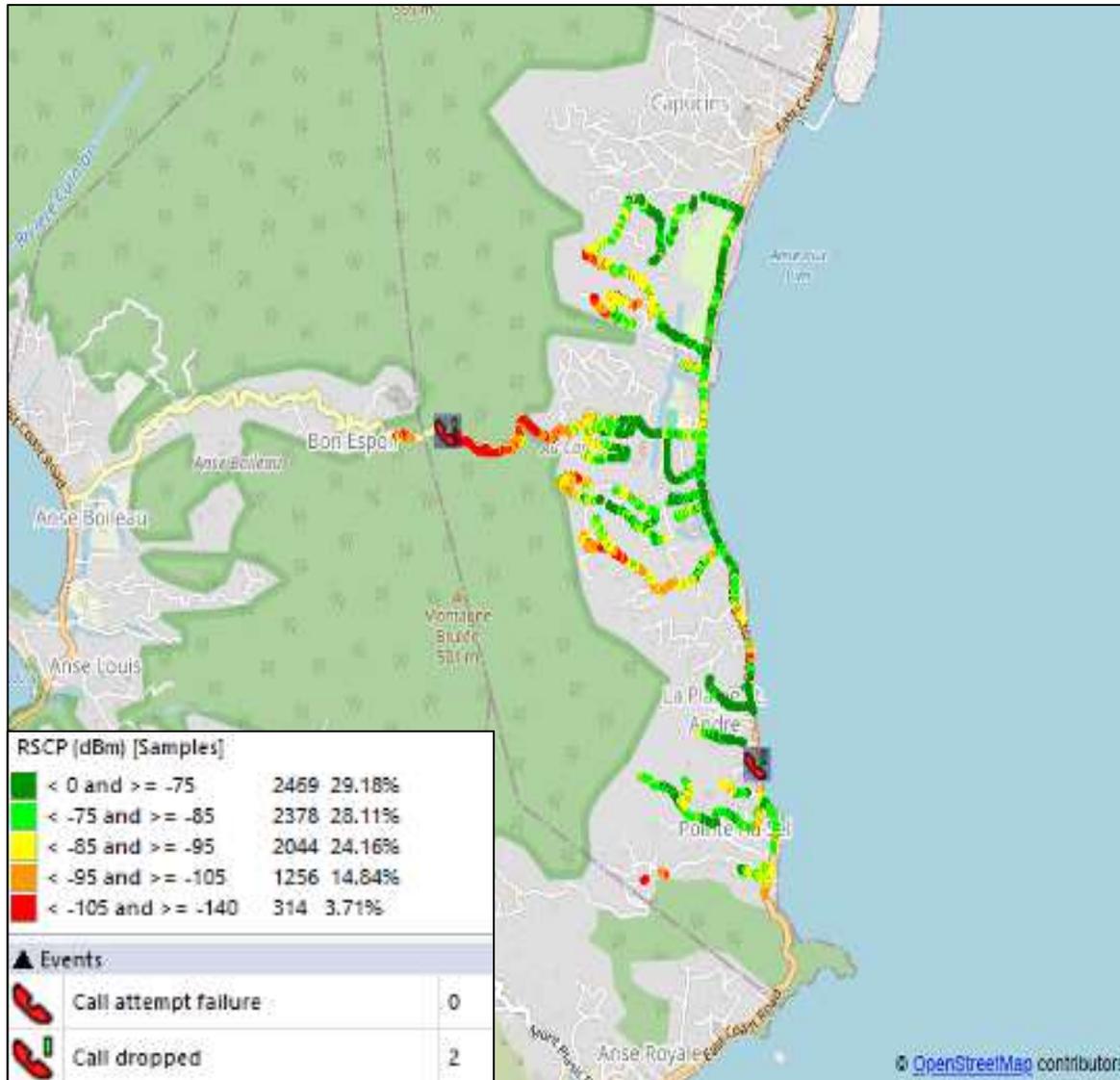
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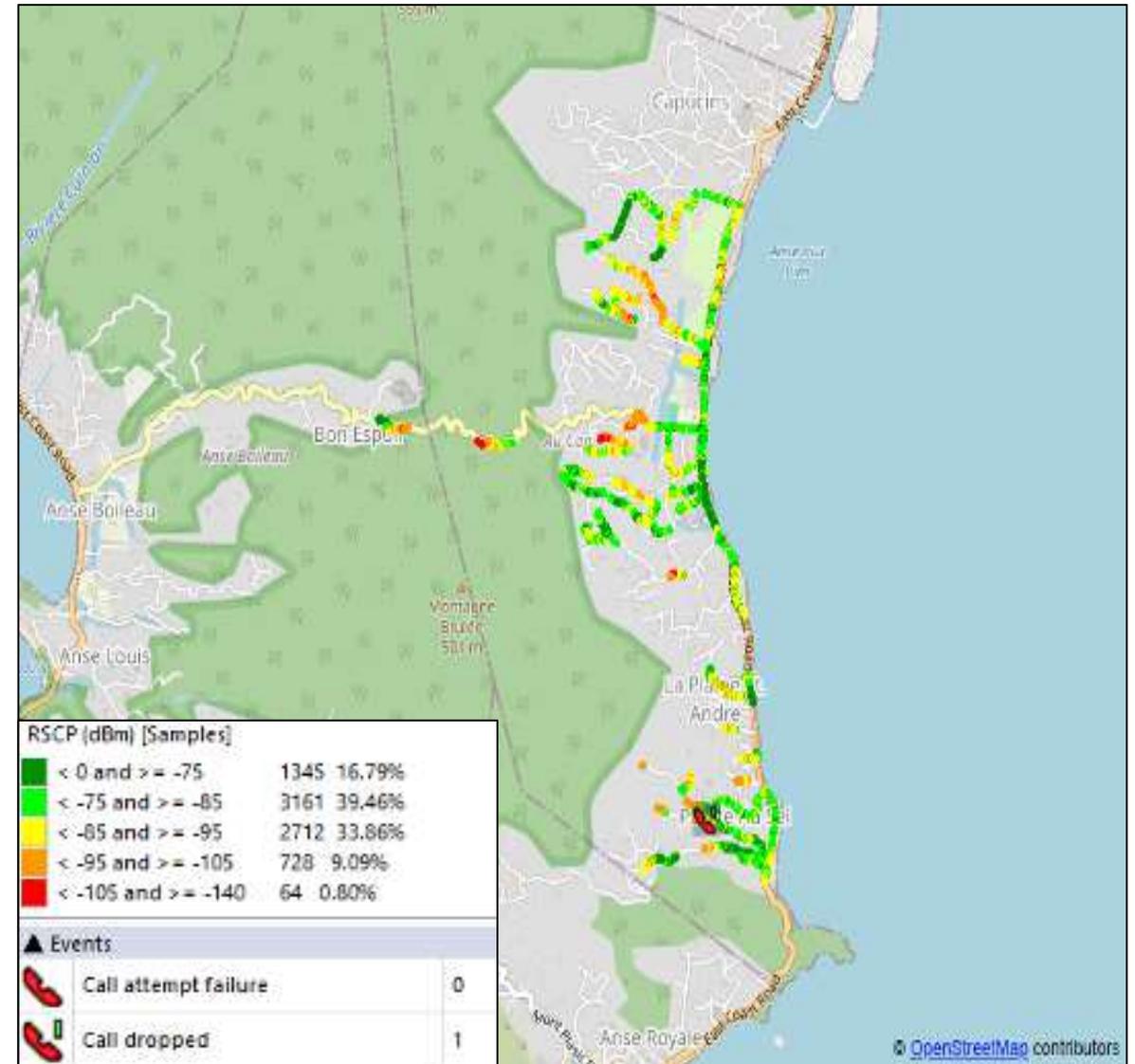
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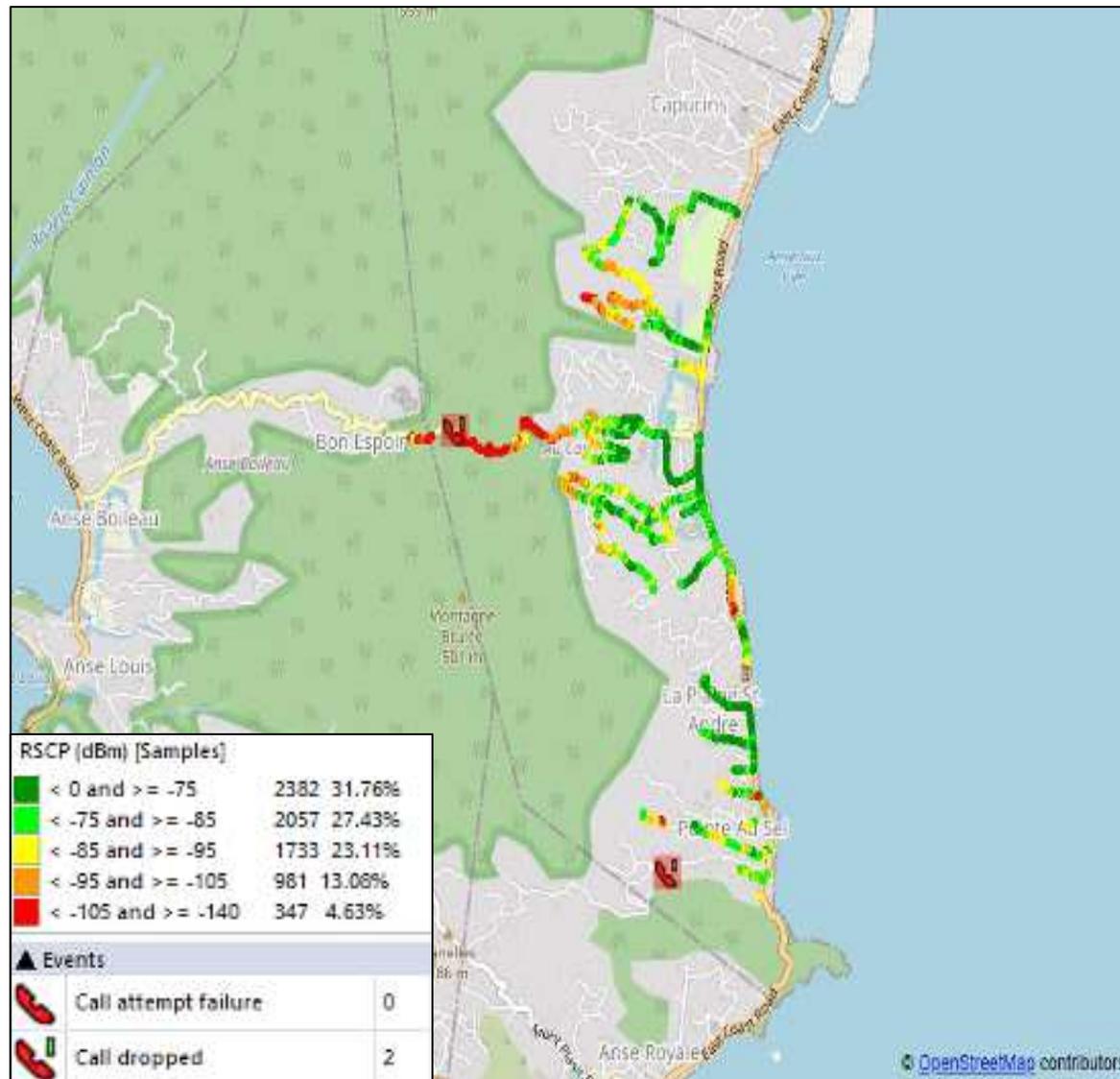
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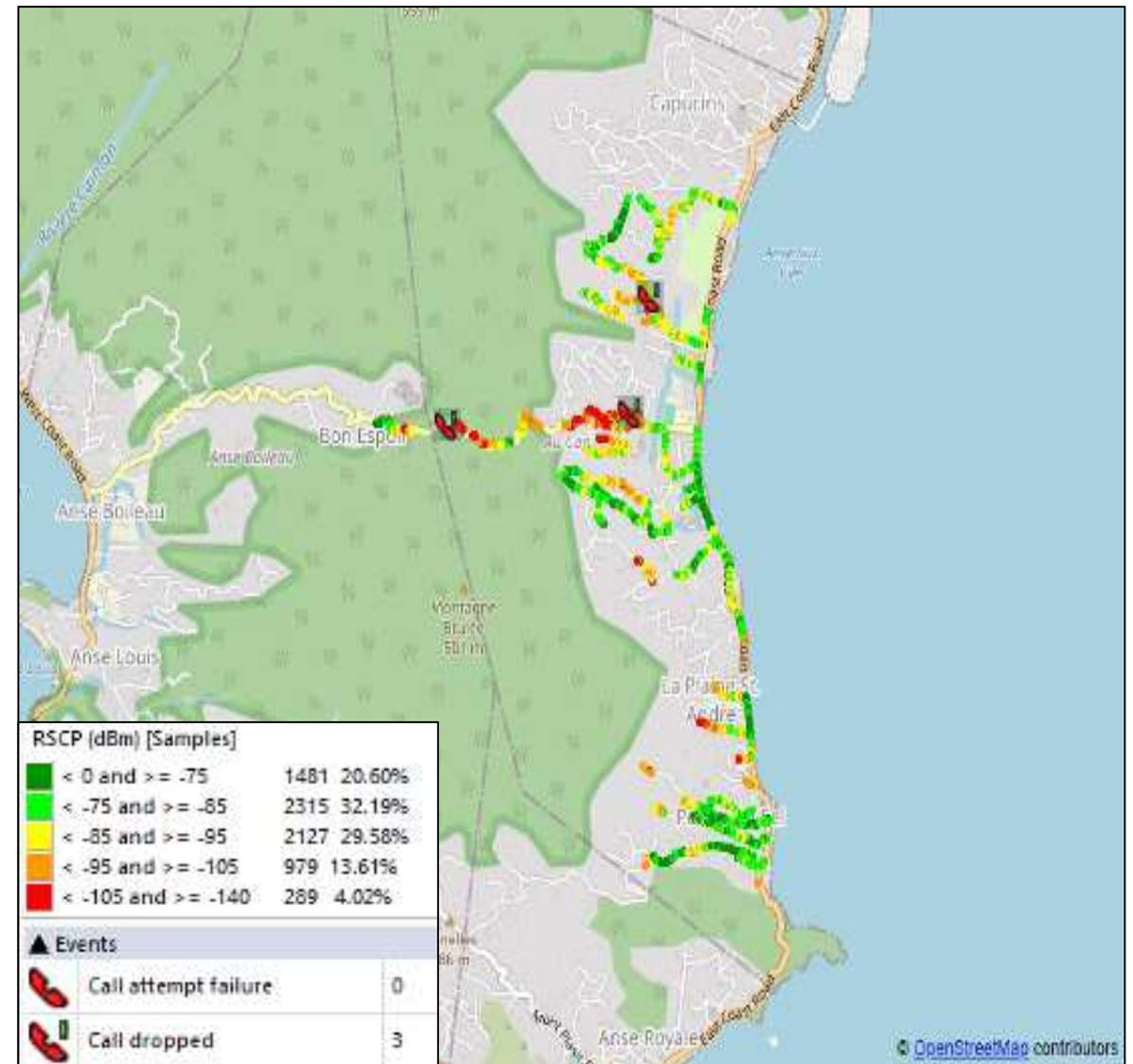
## CWS LC MO



## Airtel LC MO

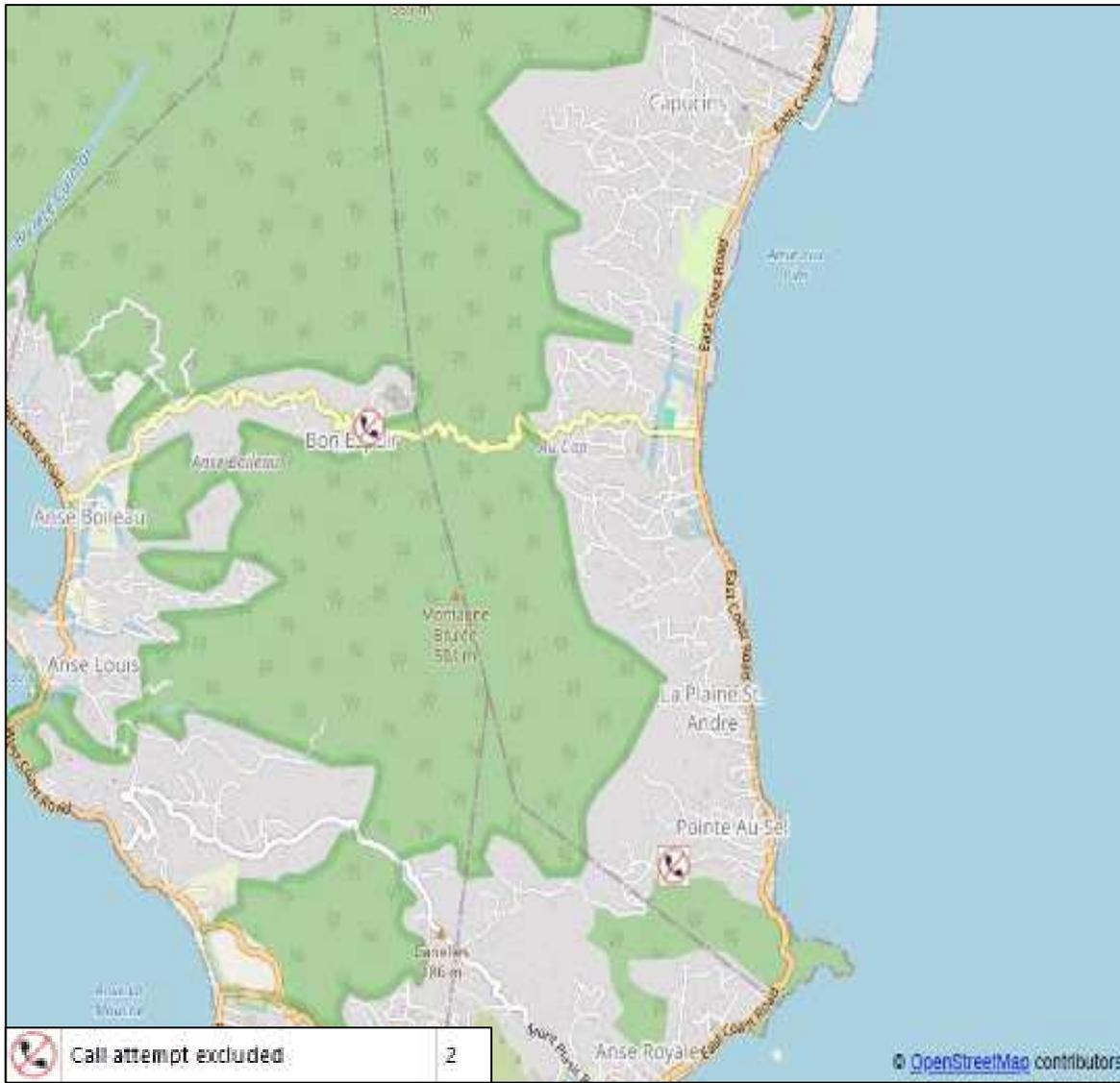


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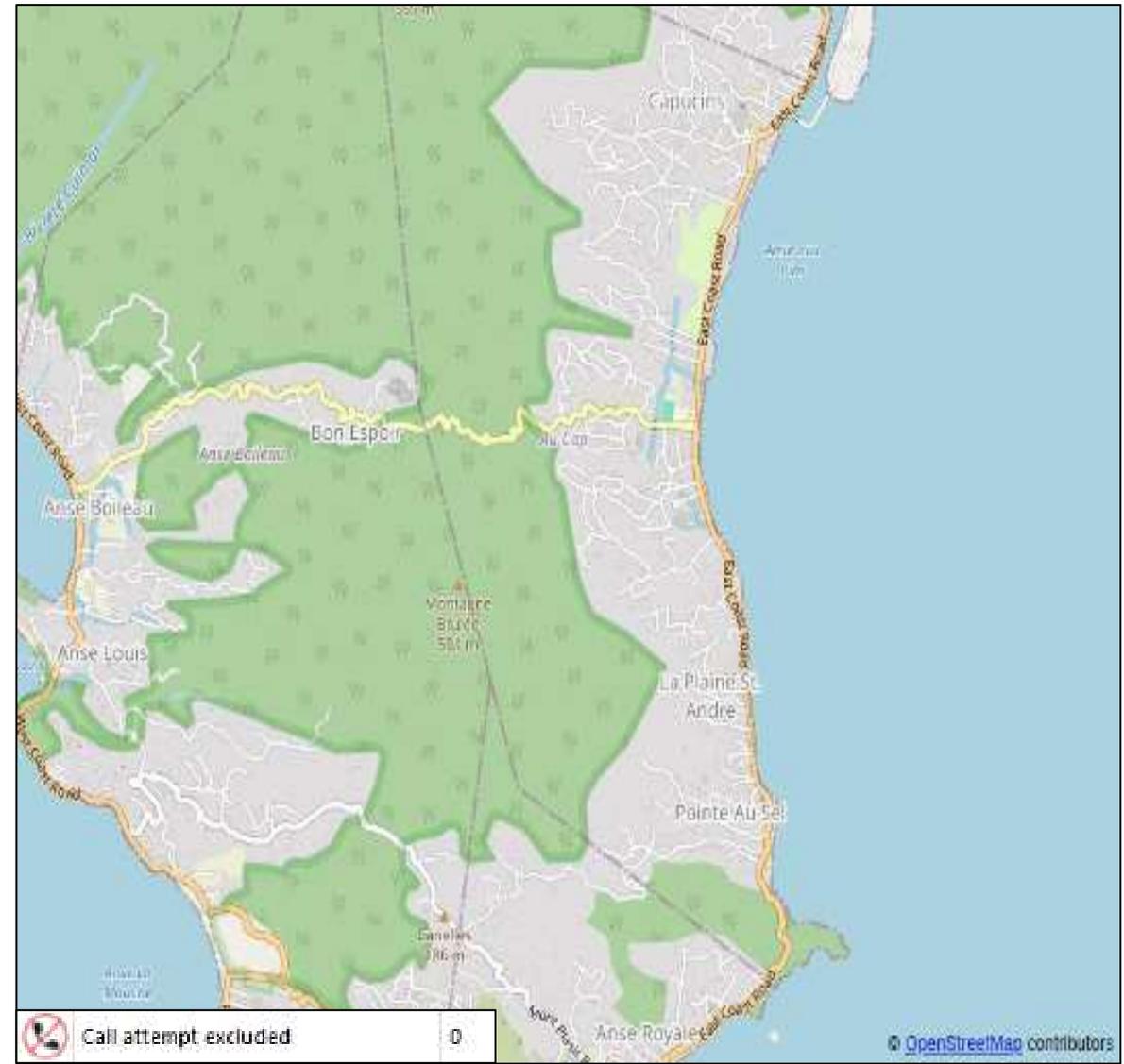


# Phase-1 LONG CALL EXCLUDED EVENTS

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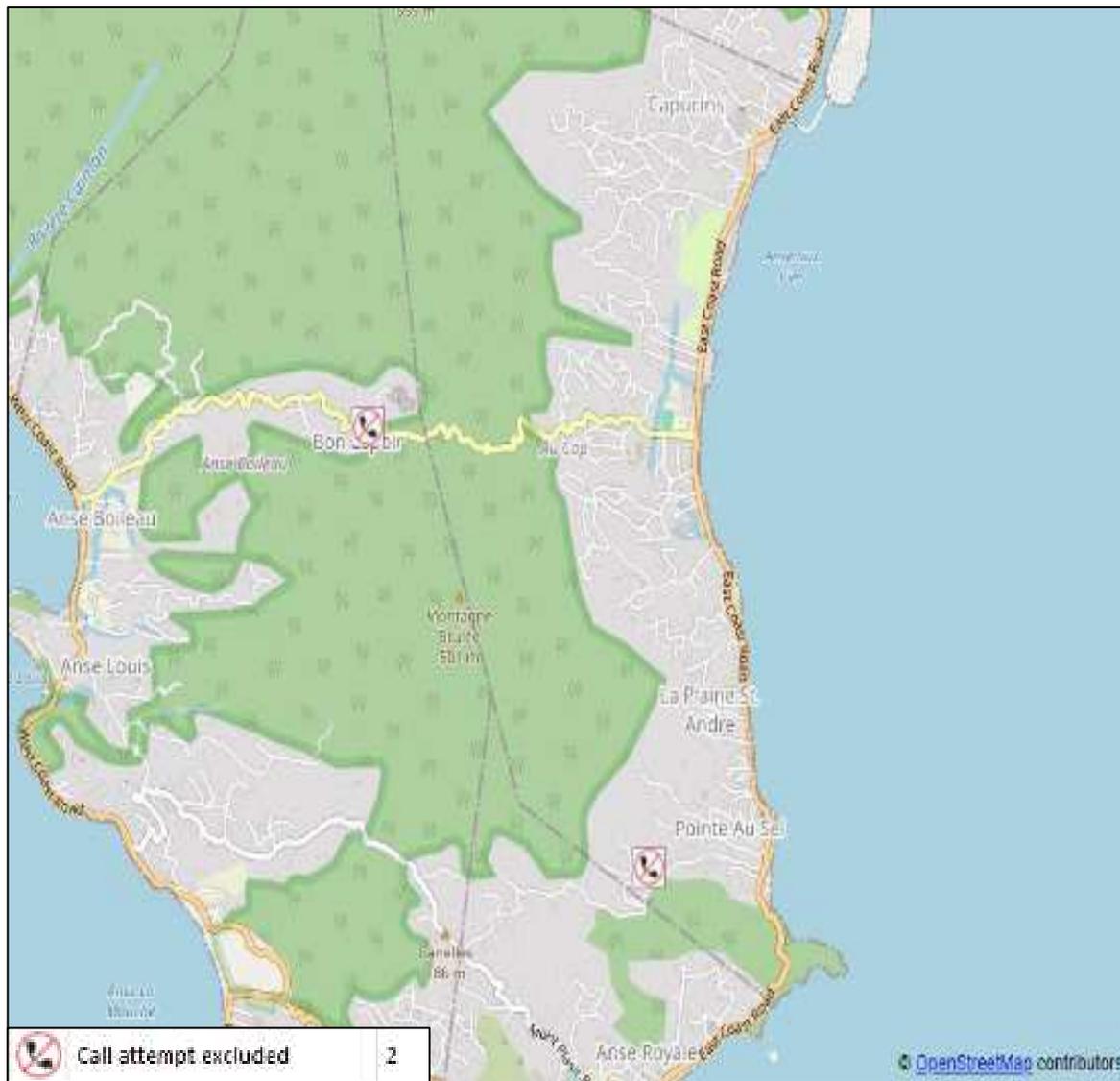


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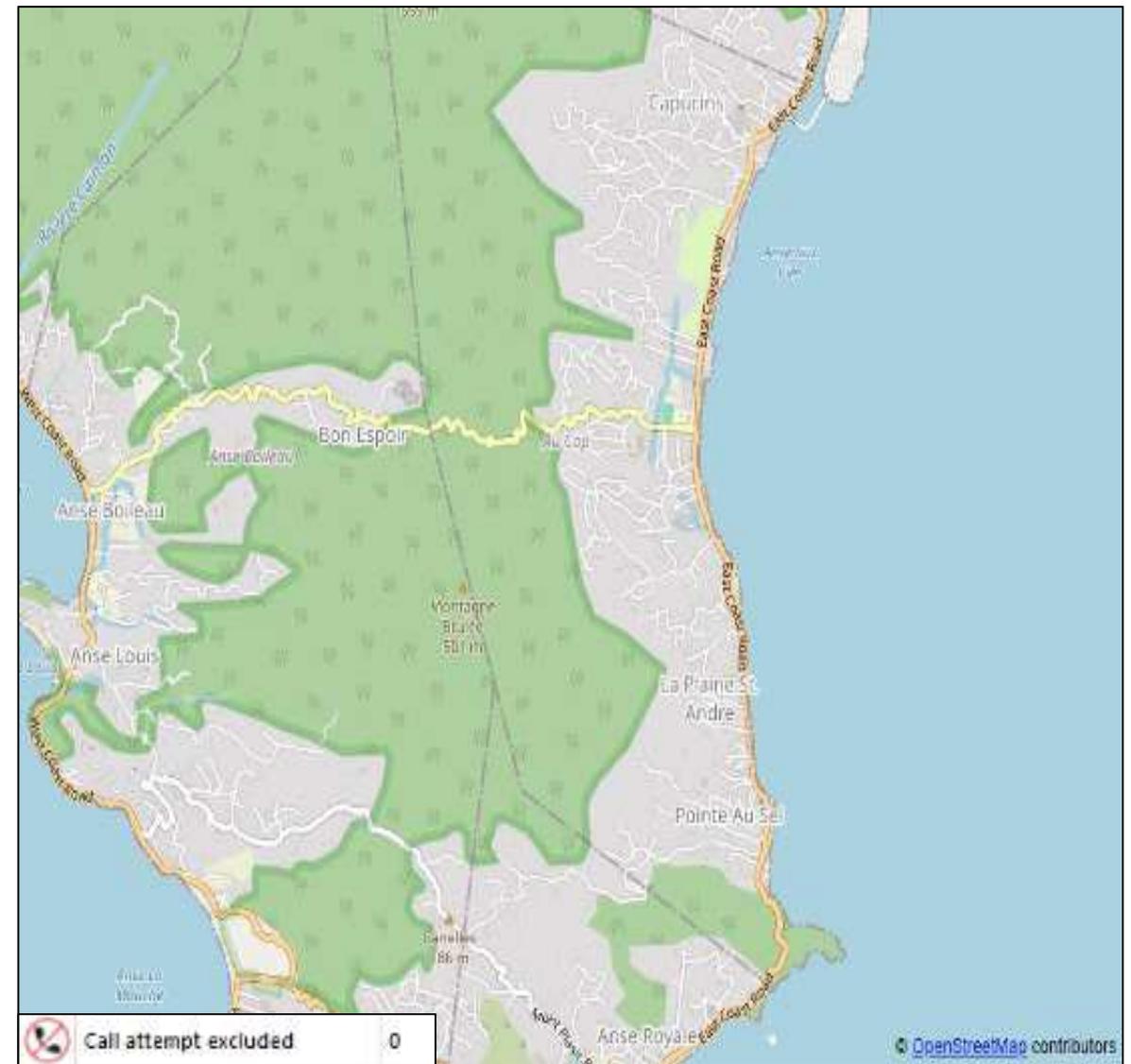


# Phase-2 LONG CALL EXCLUDED EVENTS

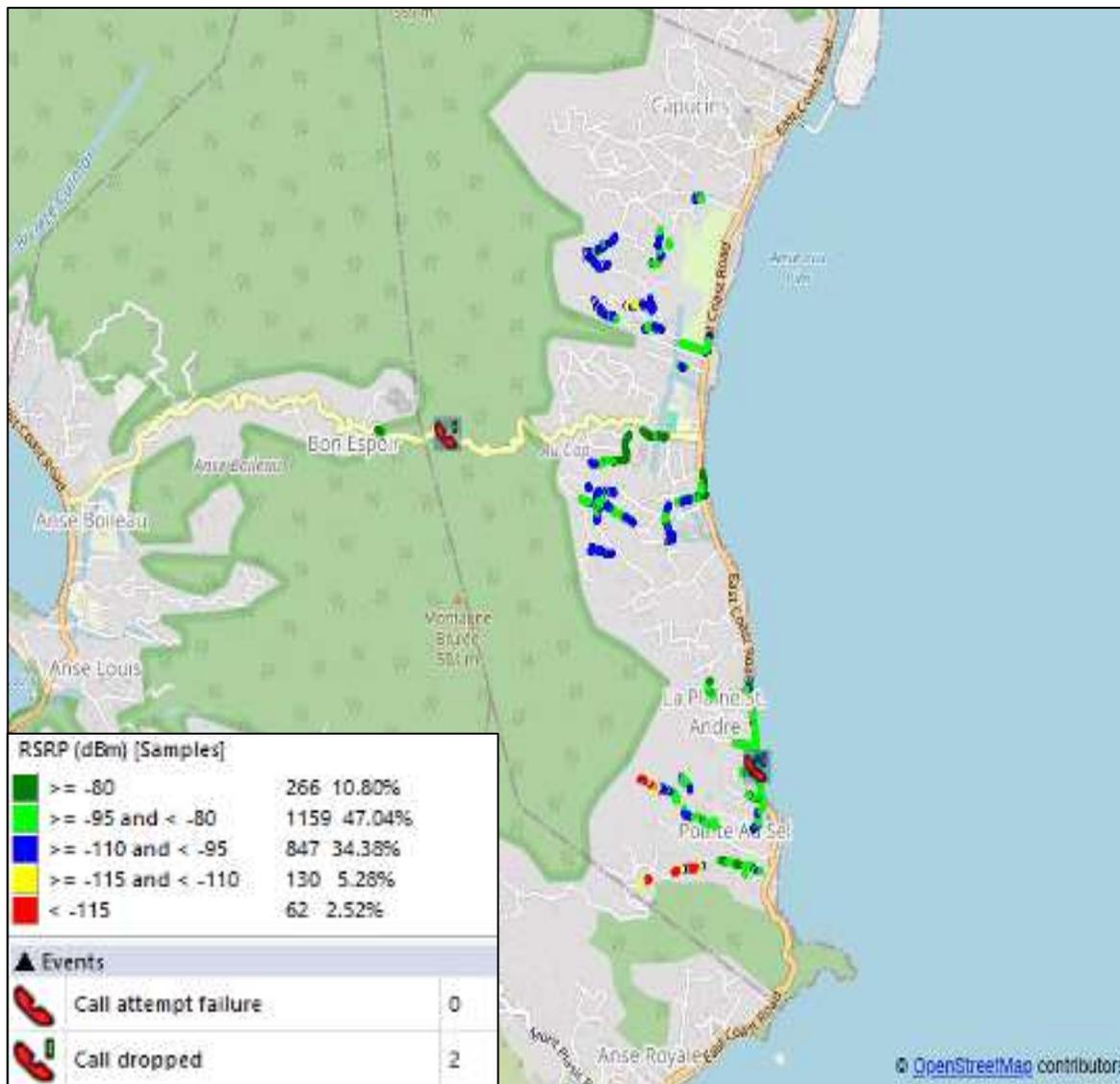
**Airtel LC MO**



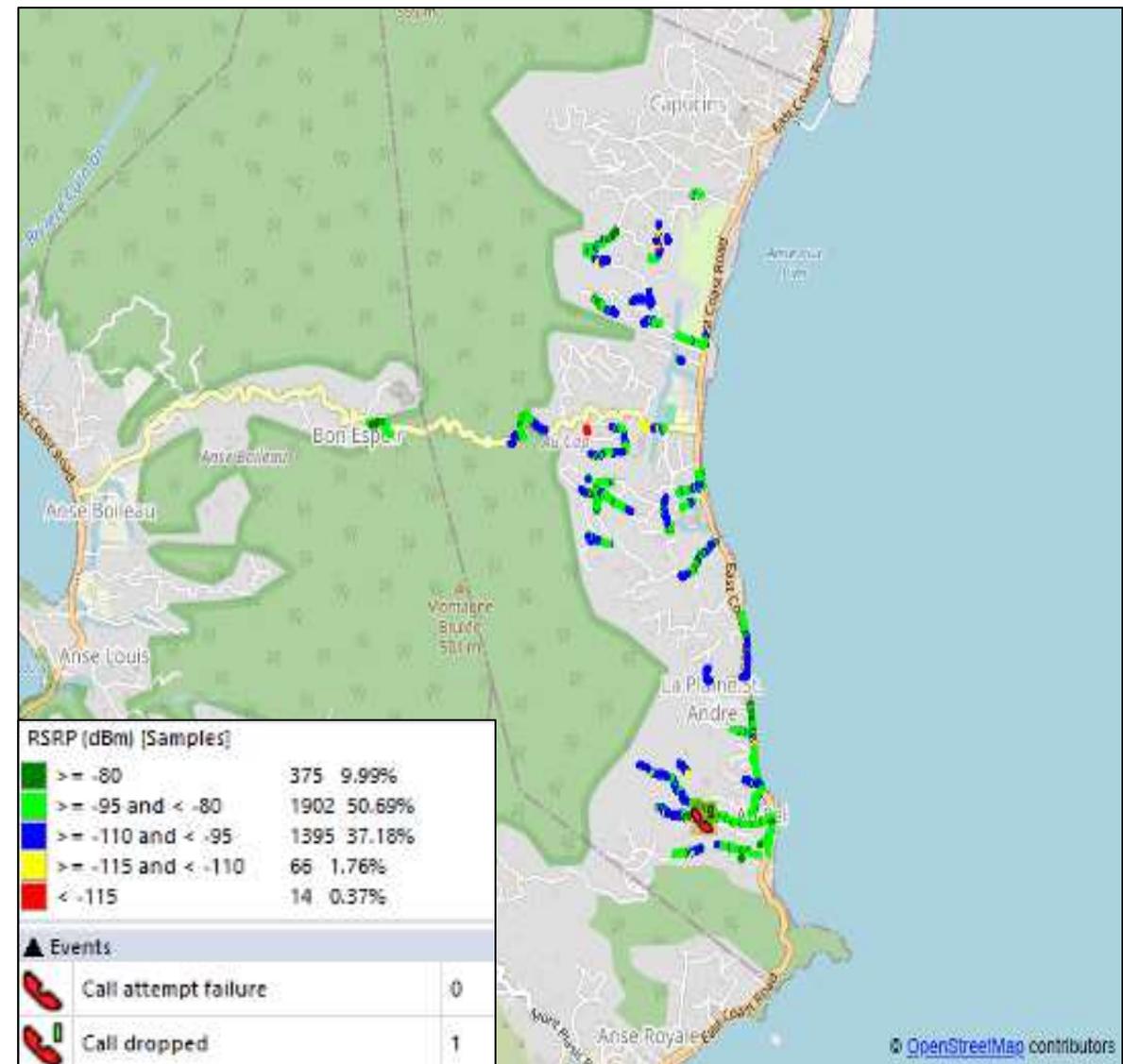
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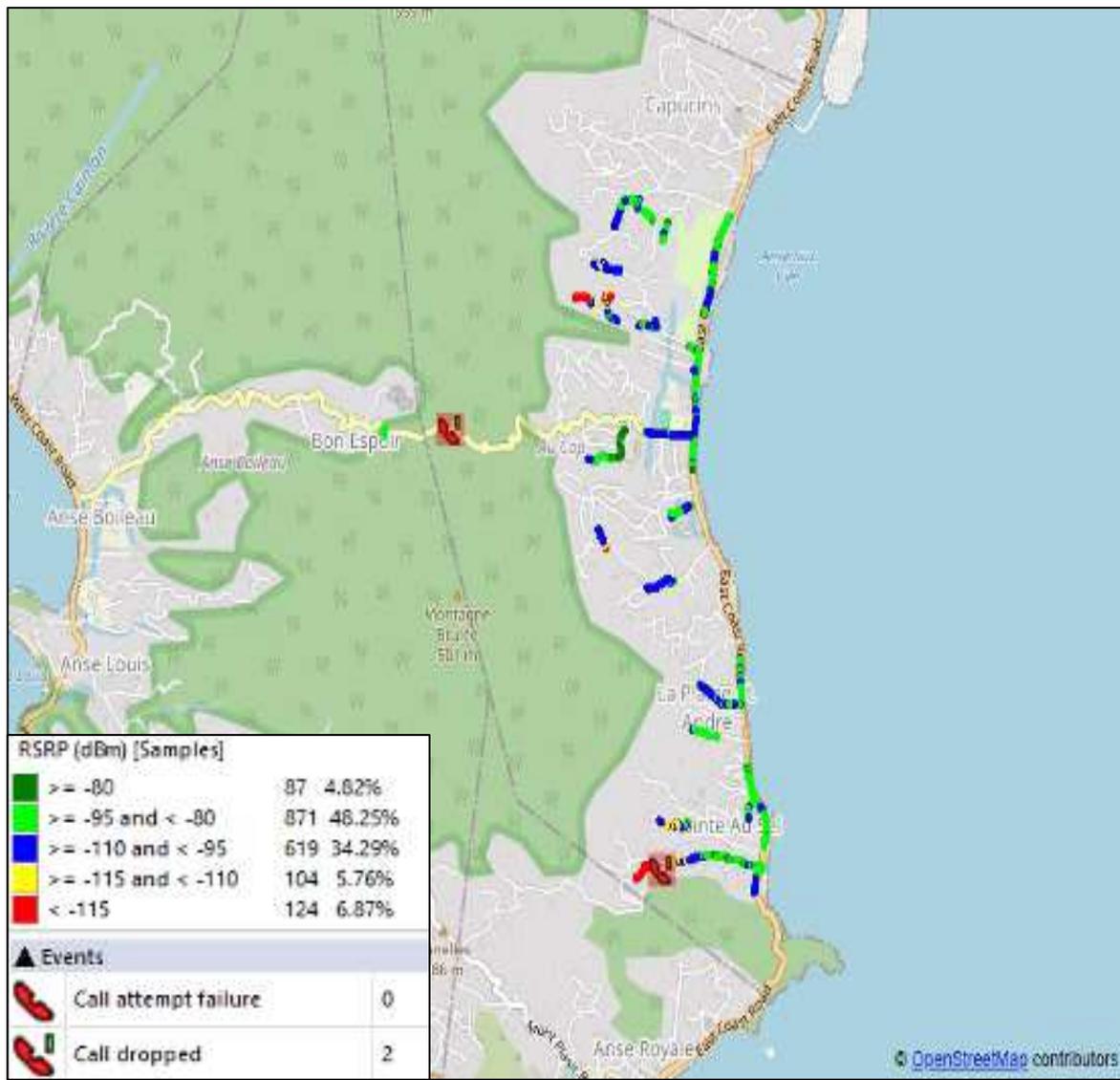
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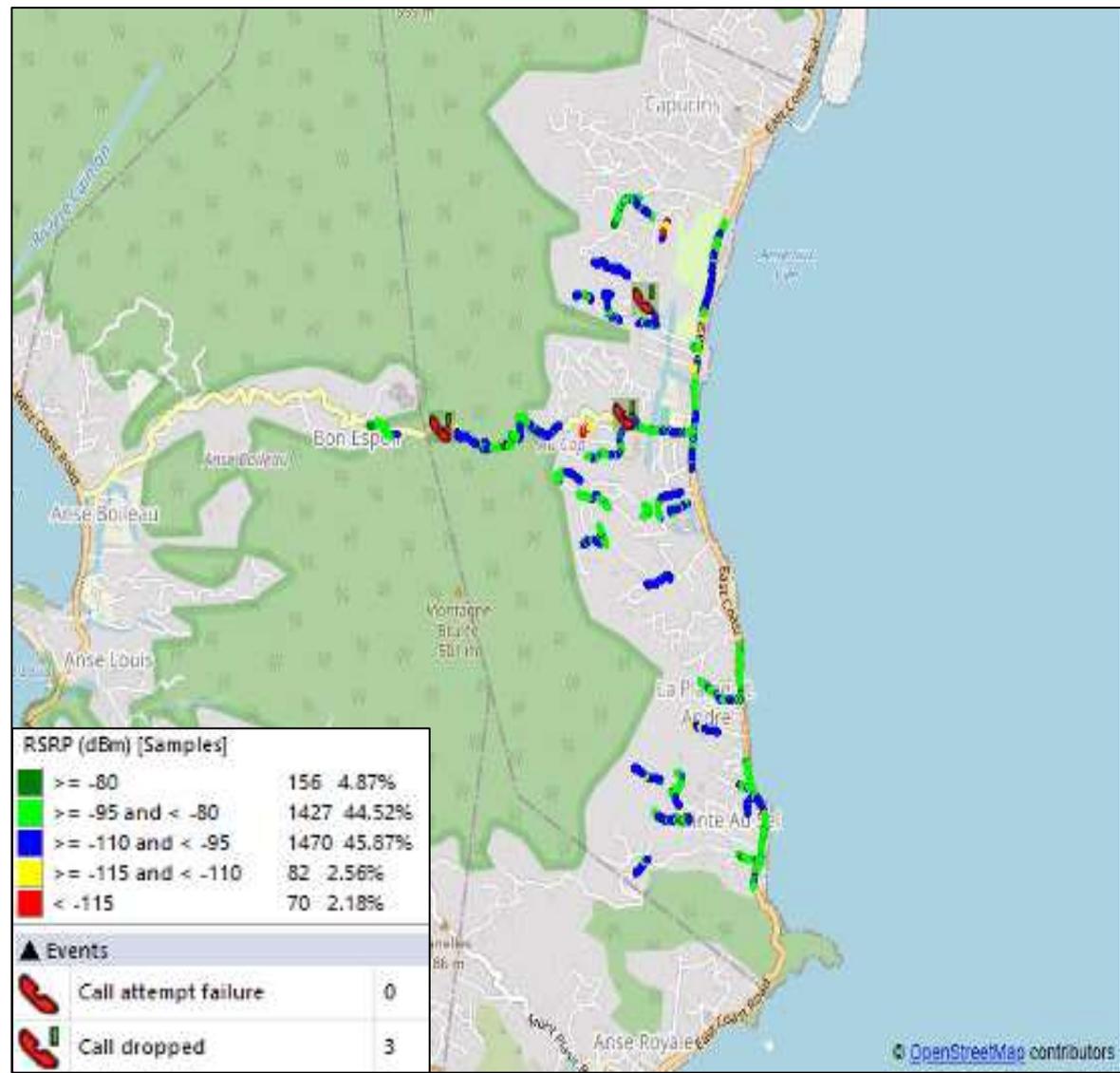
## CWS LC MO



## Airtel LC MO

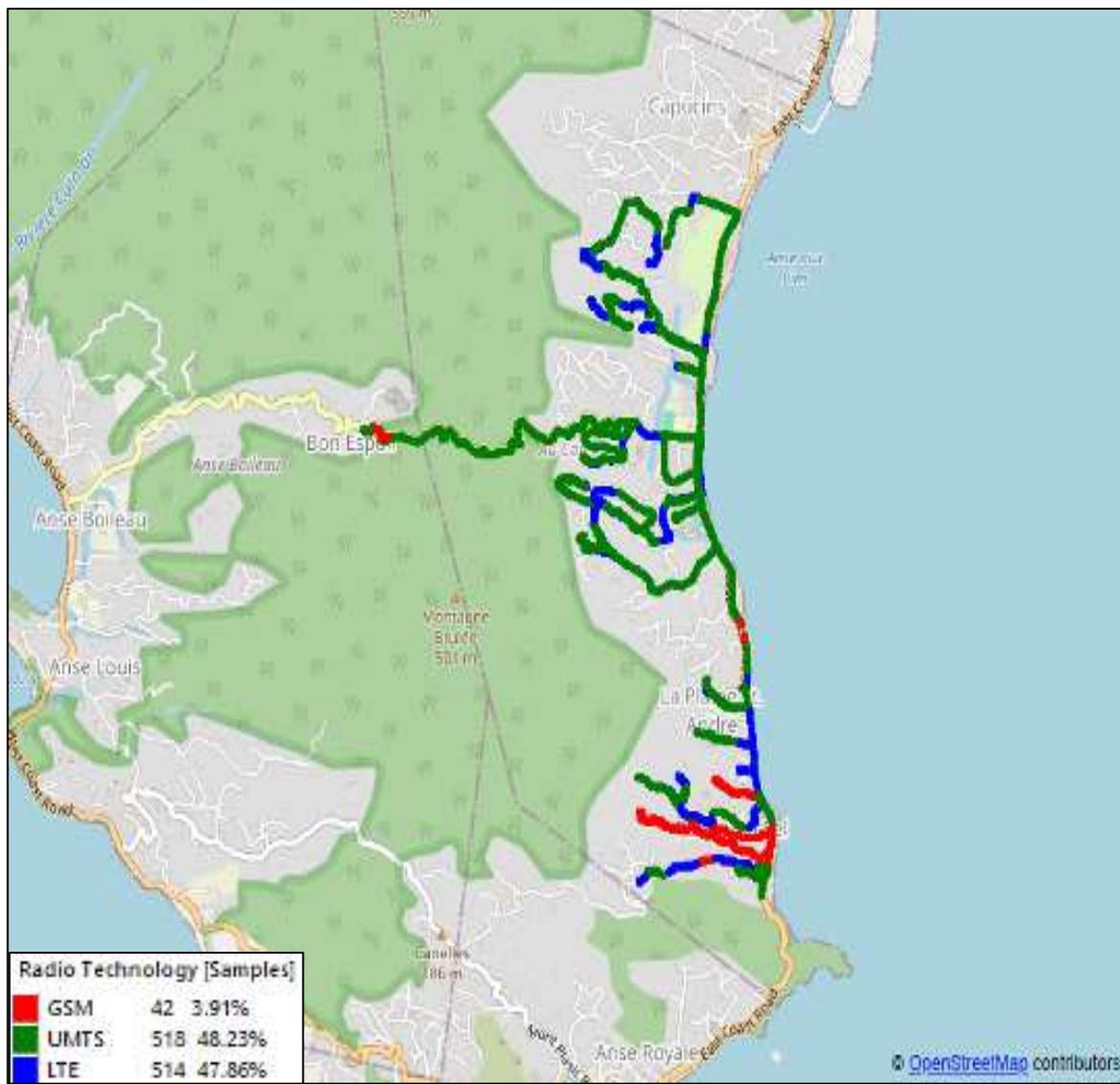


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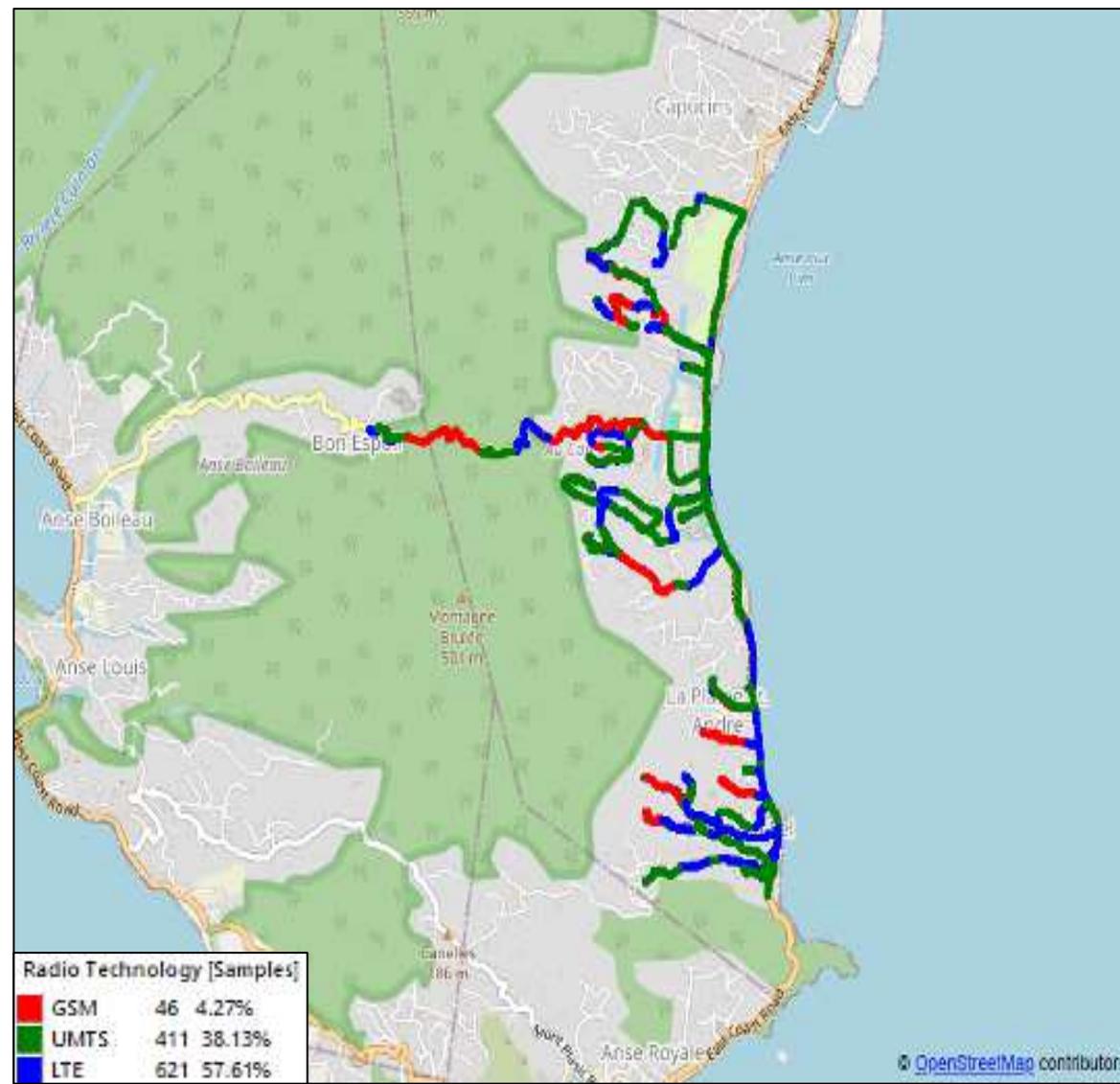


# LONG CALL DRIVE PLOTS

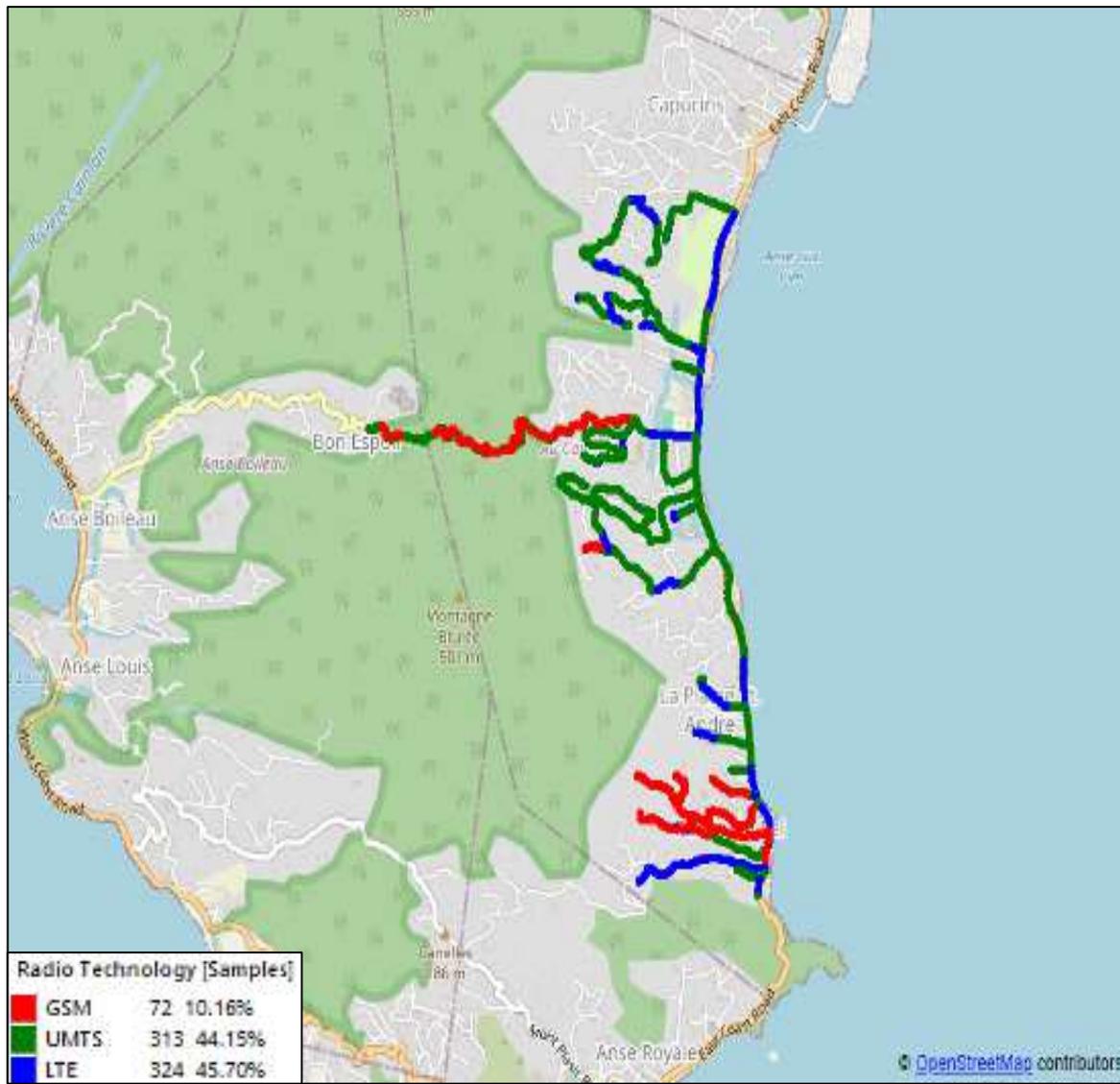
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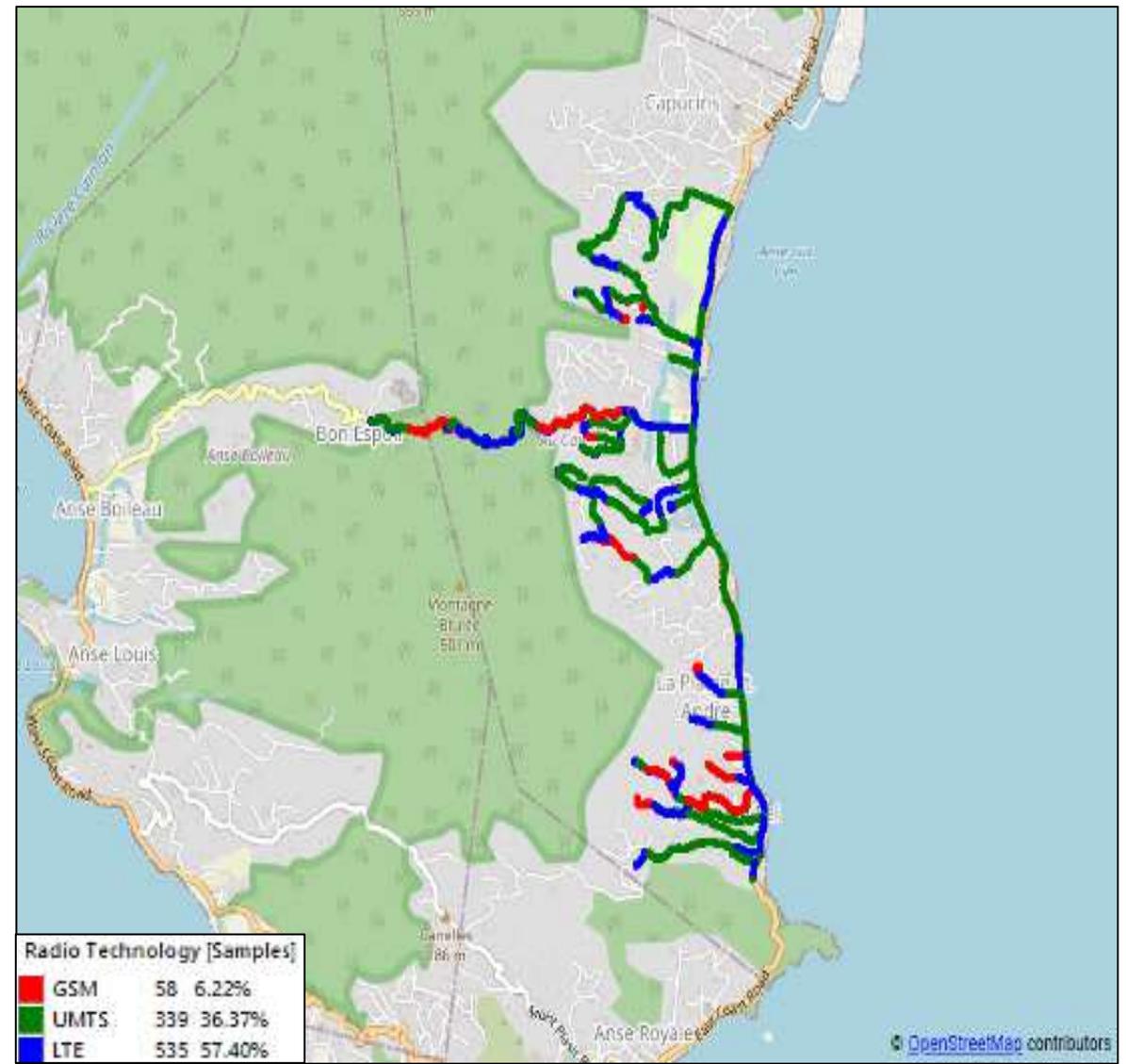
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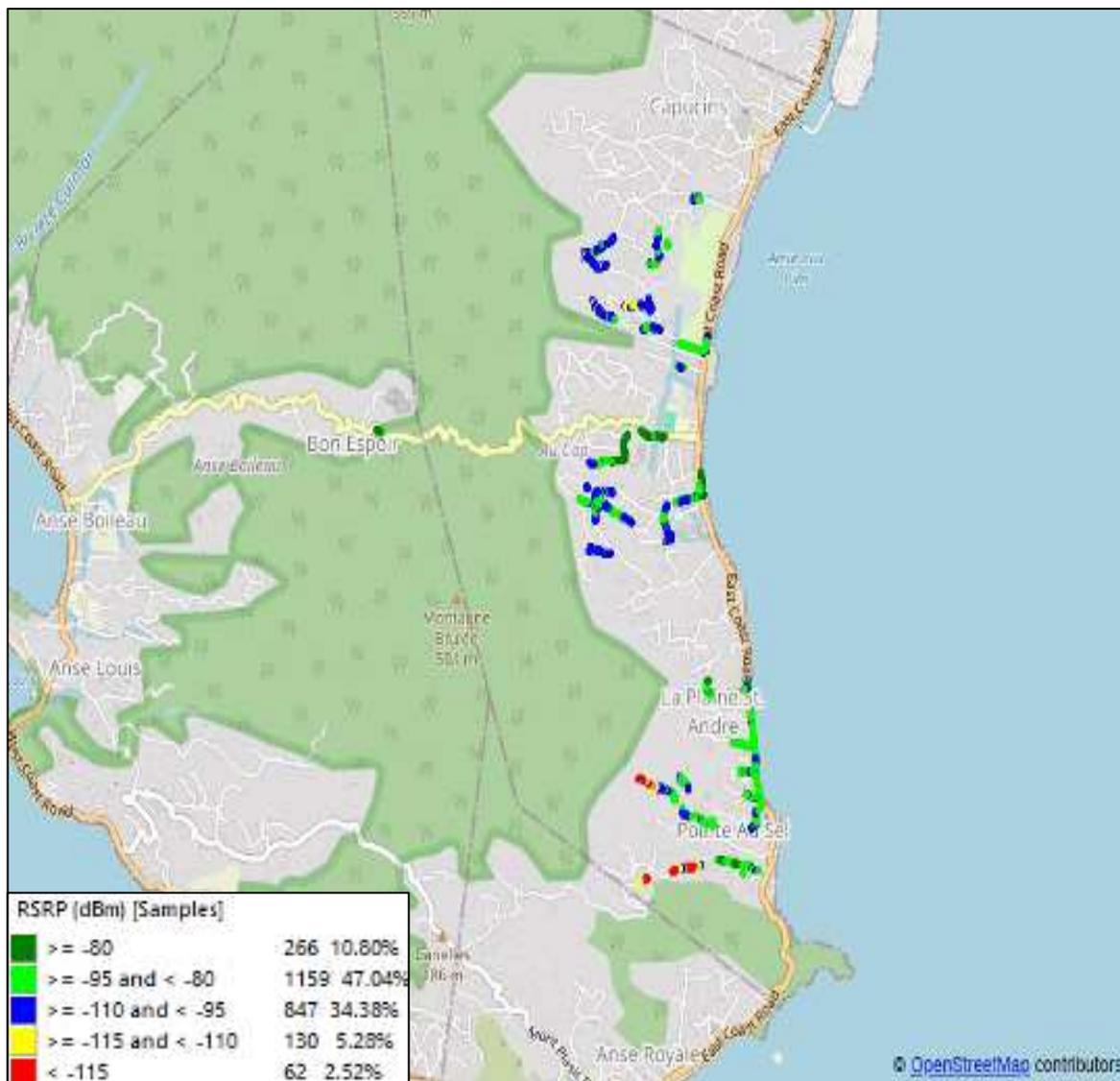
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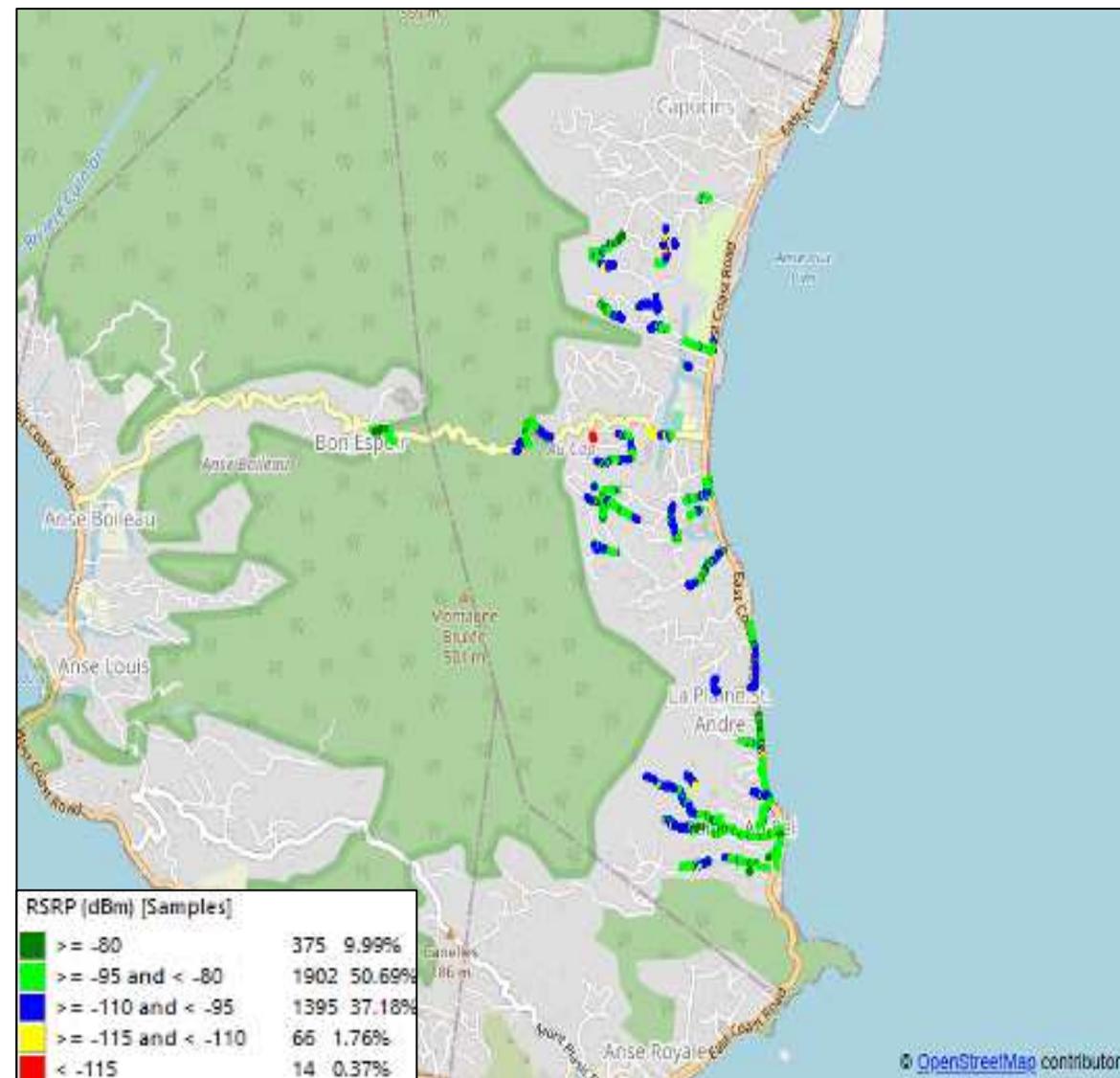
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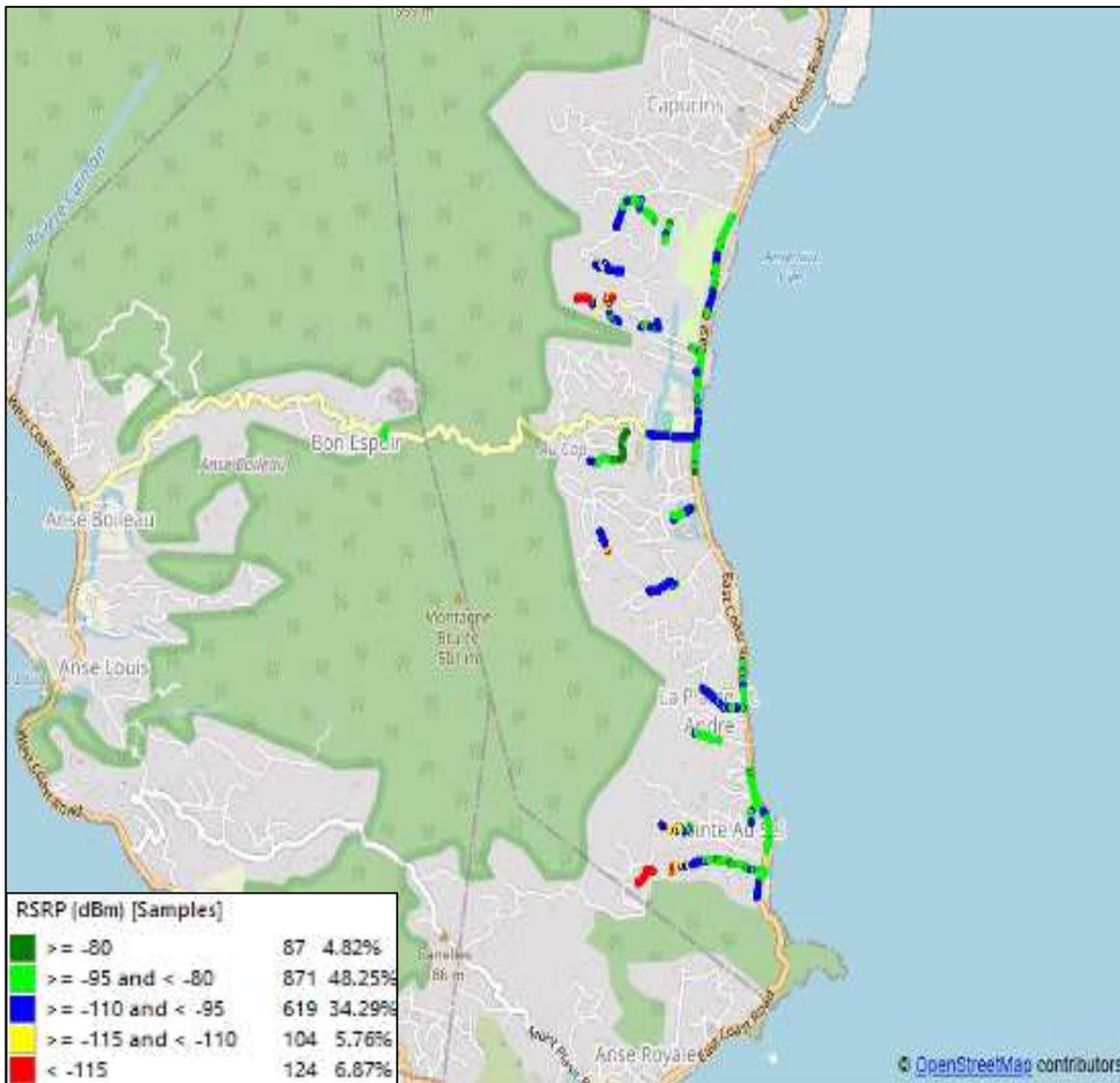
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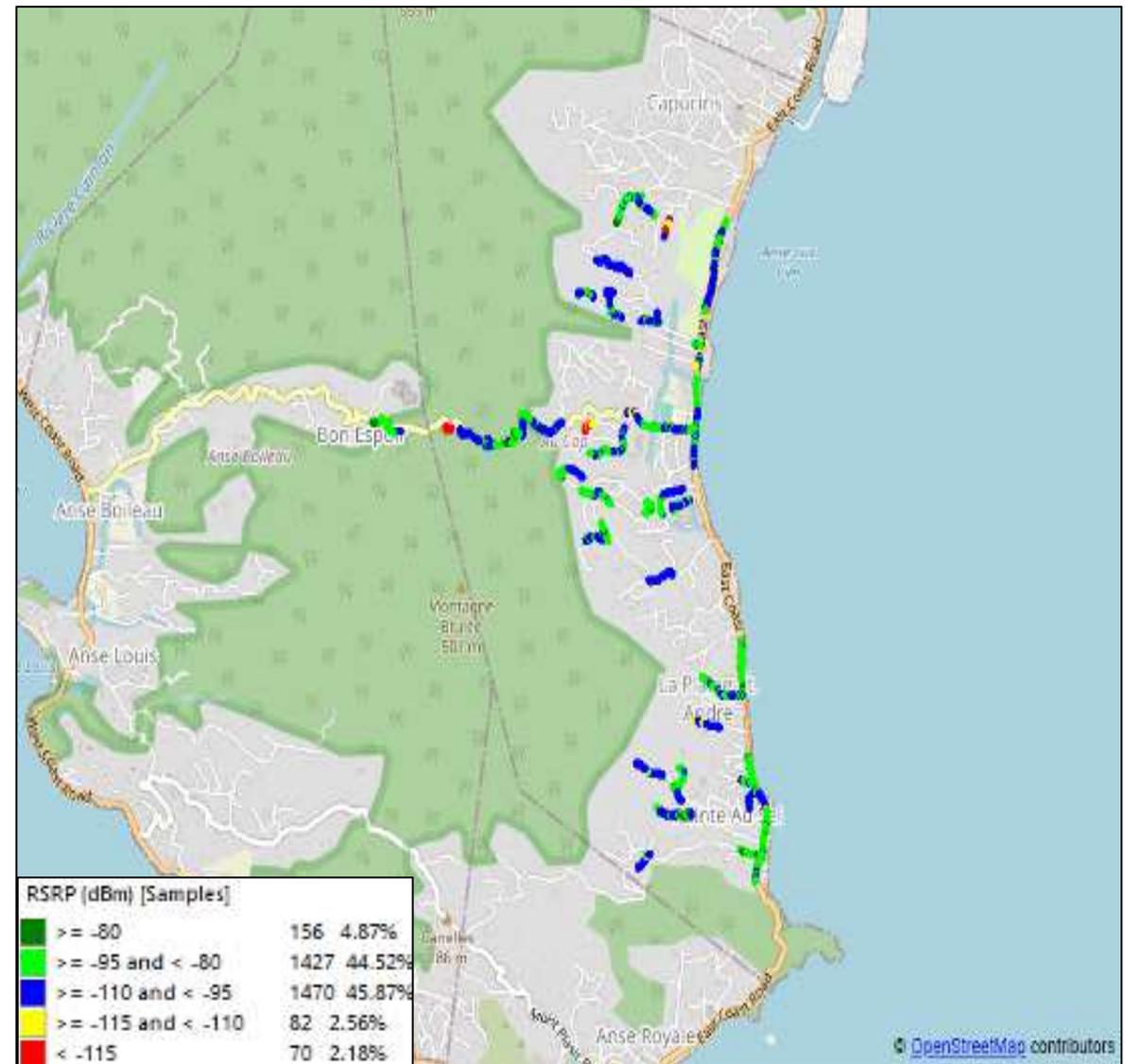
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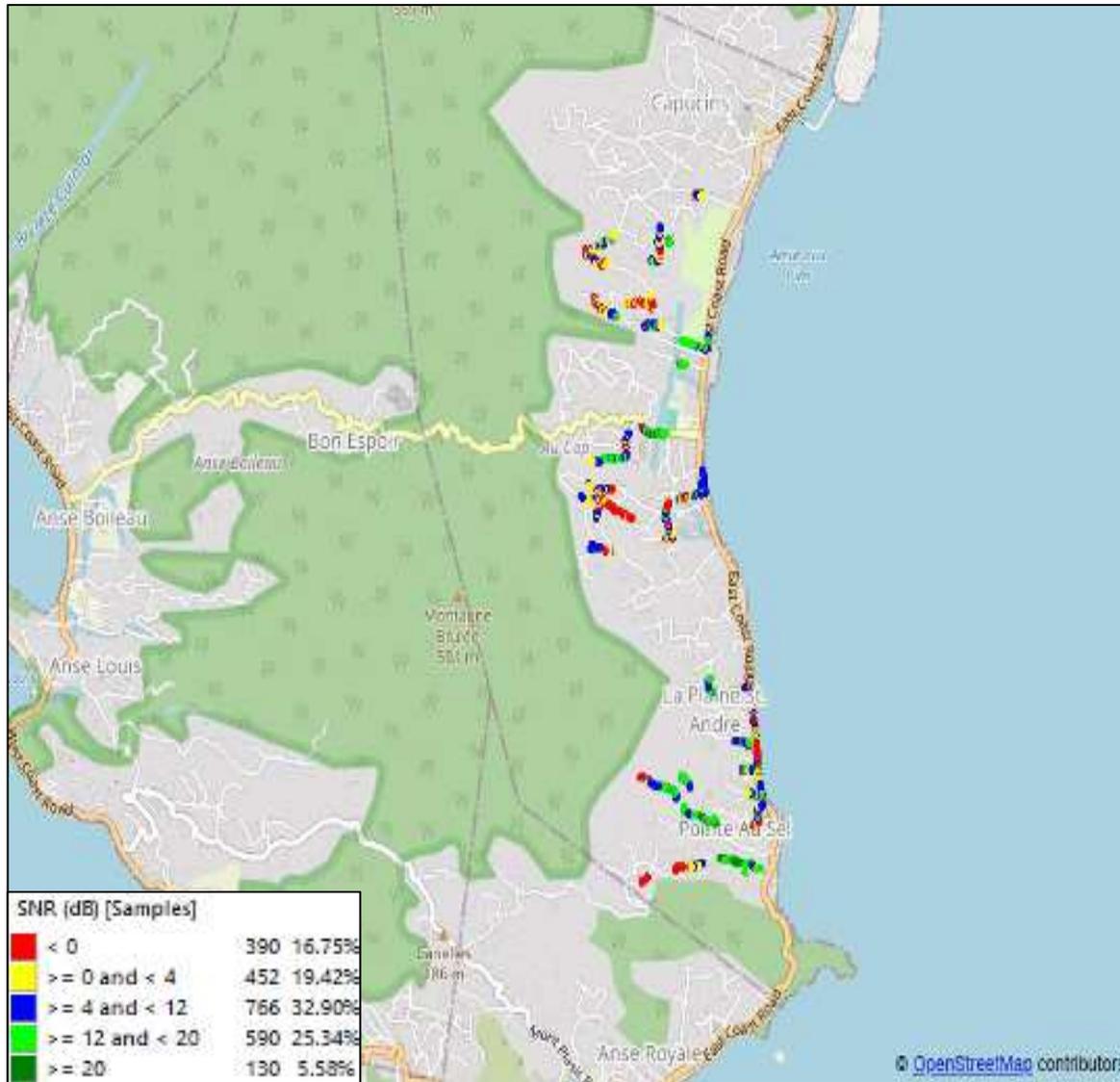
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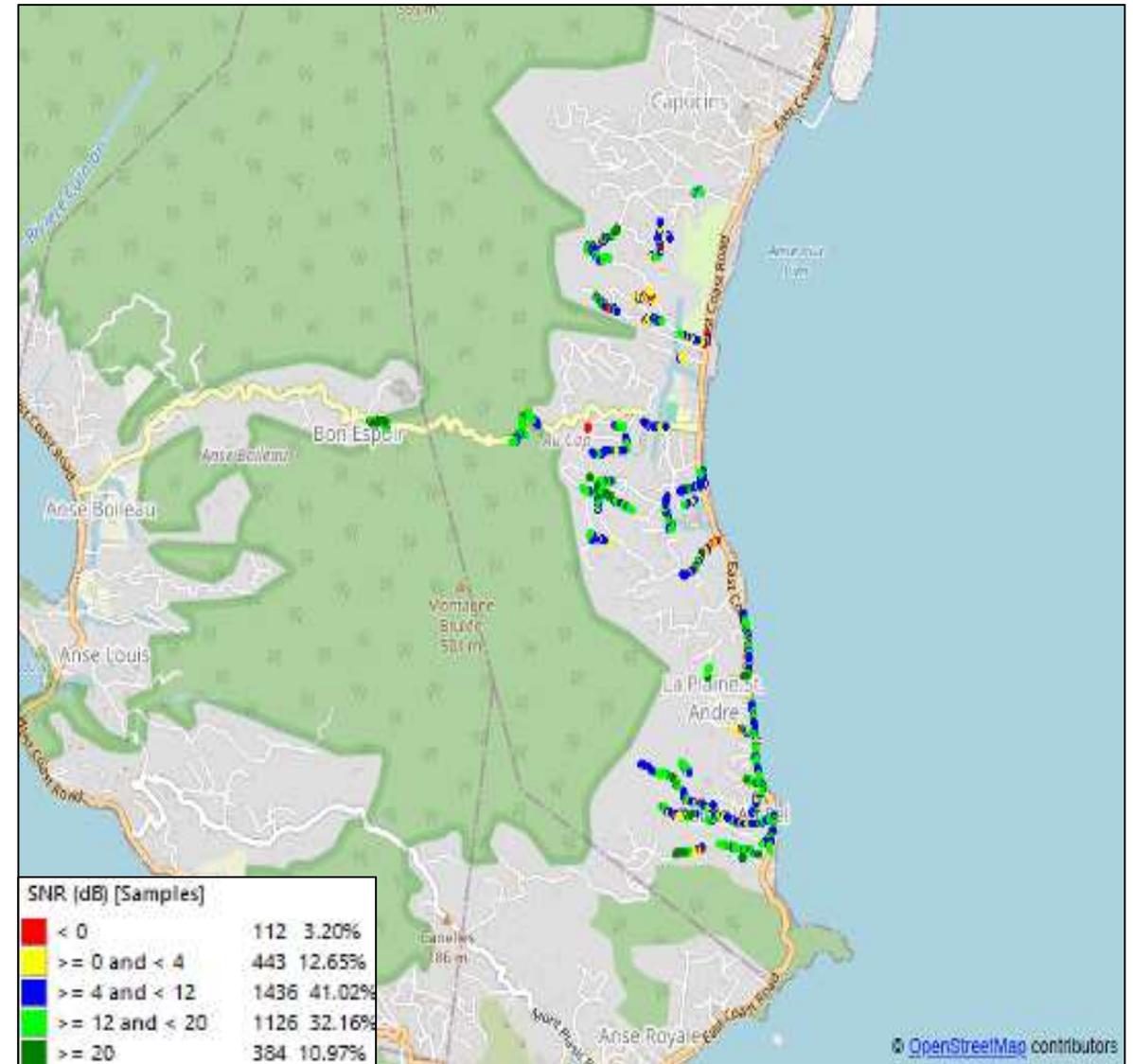
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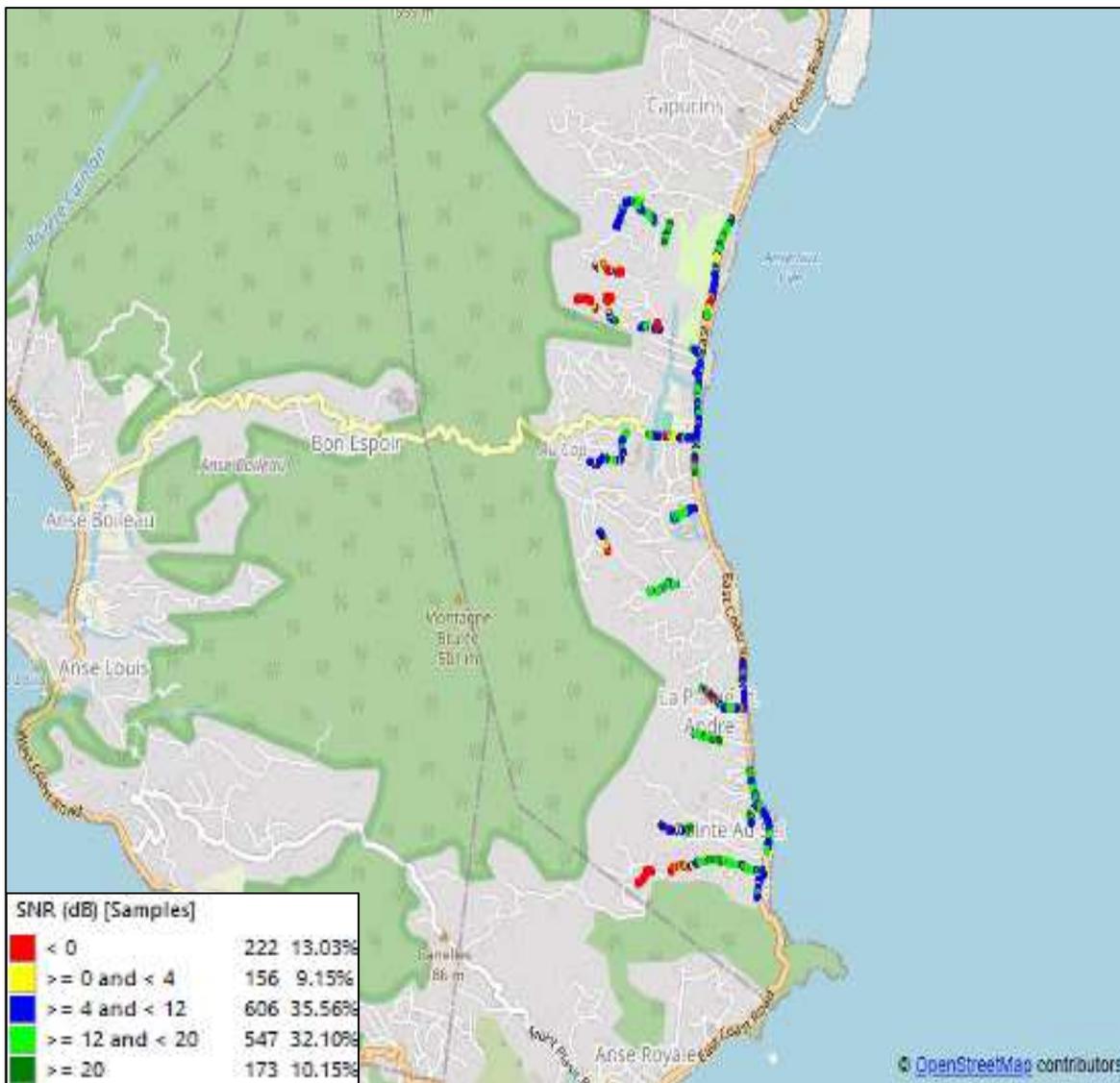
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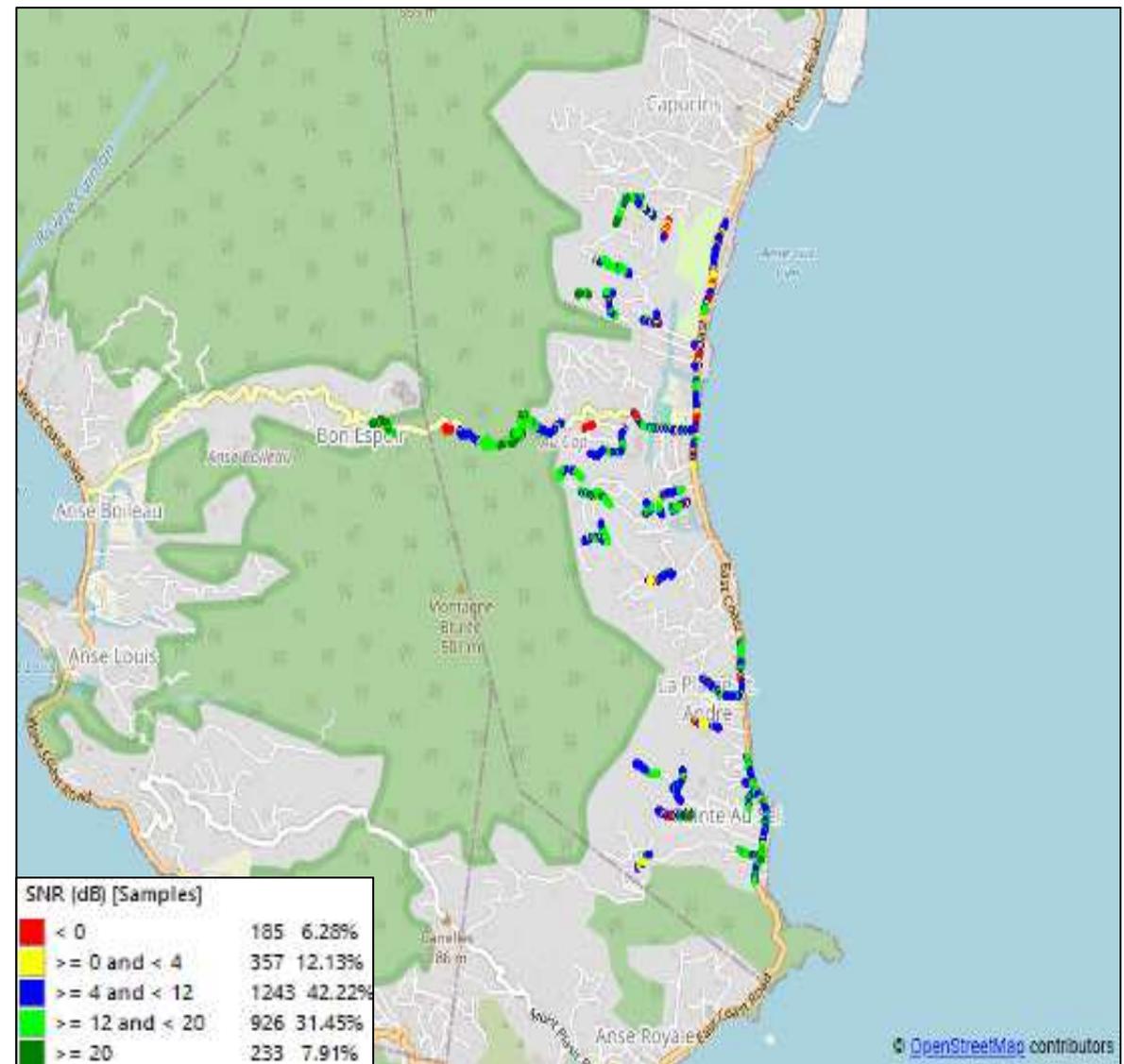
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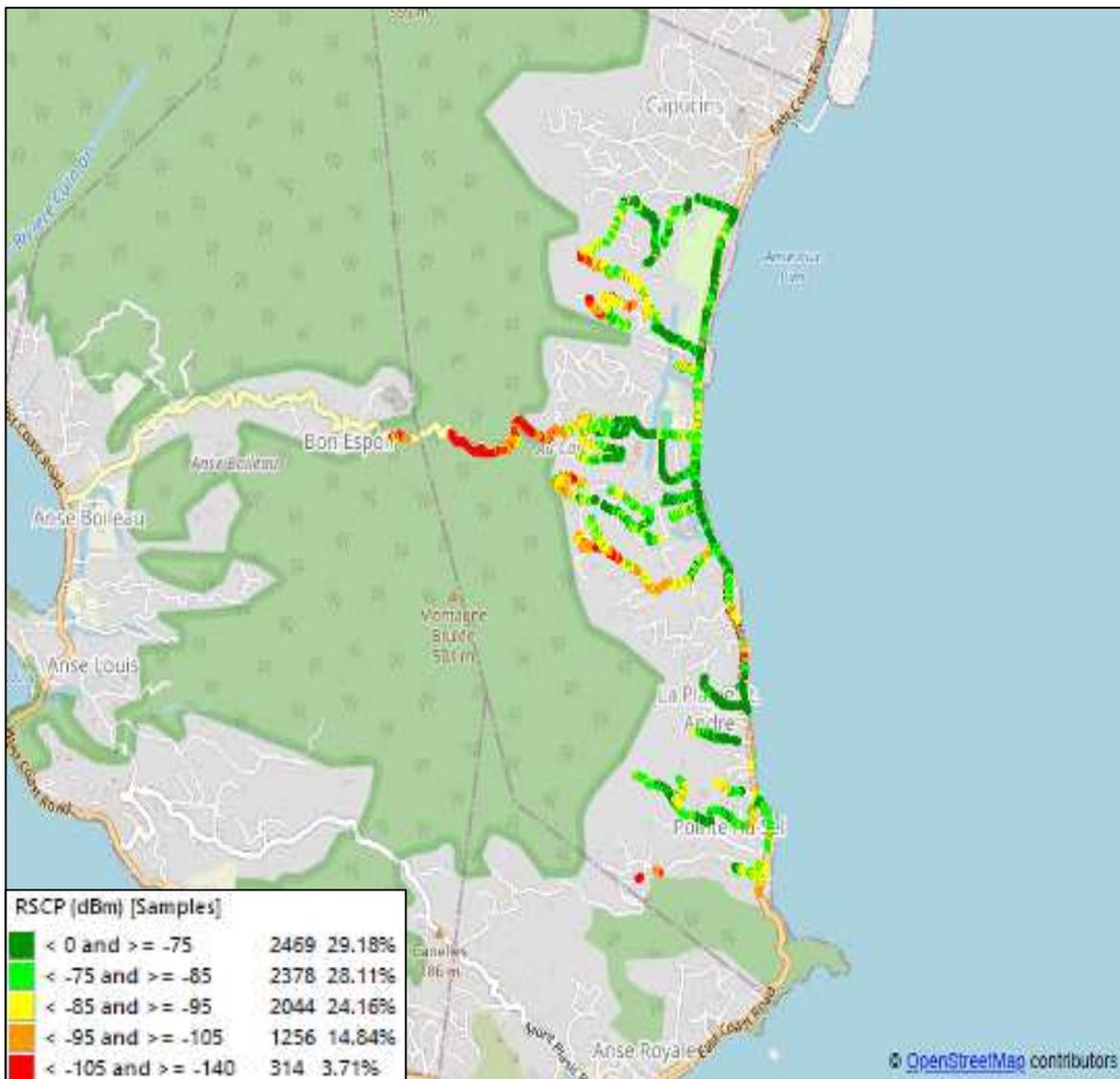
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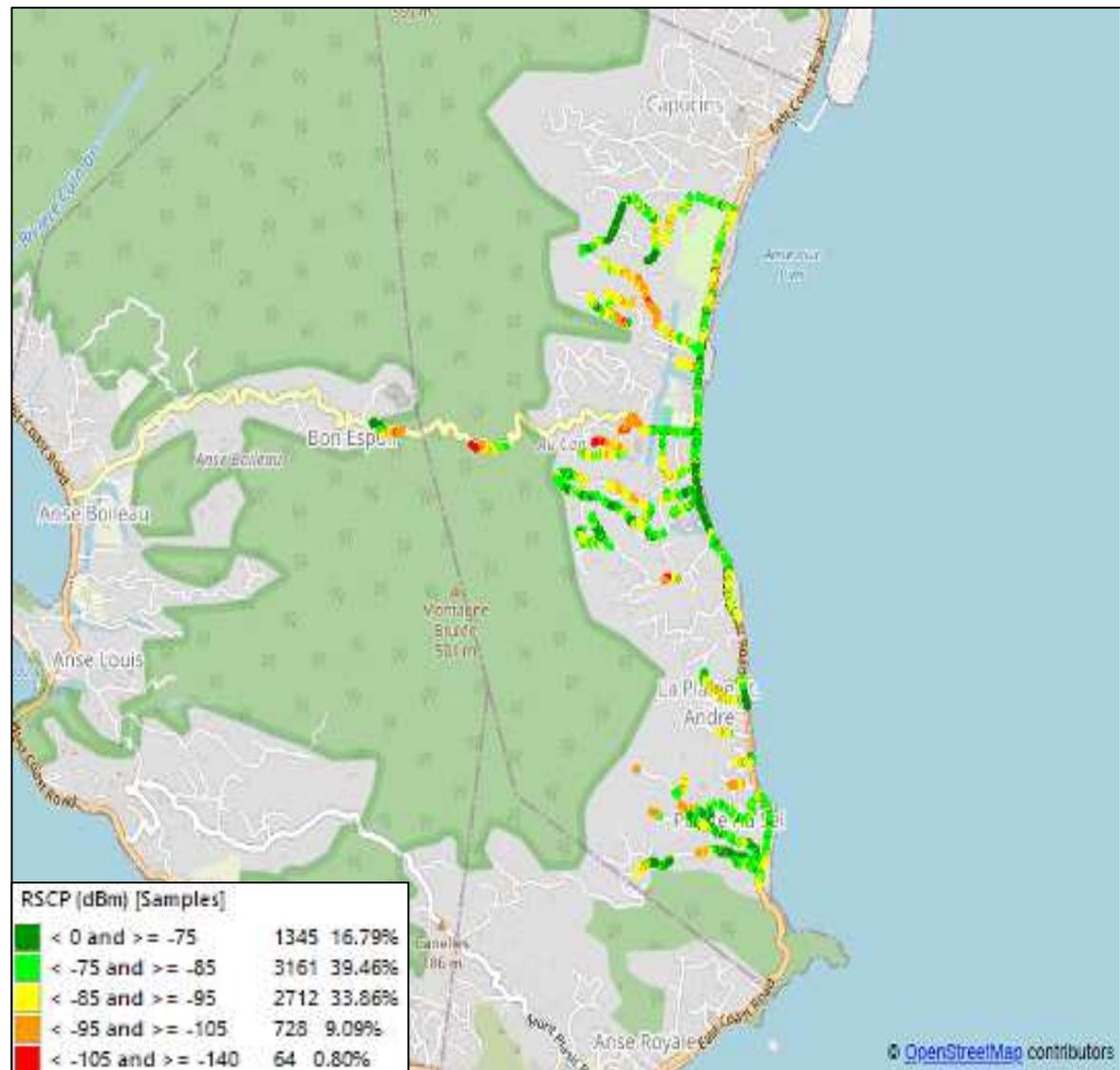
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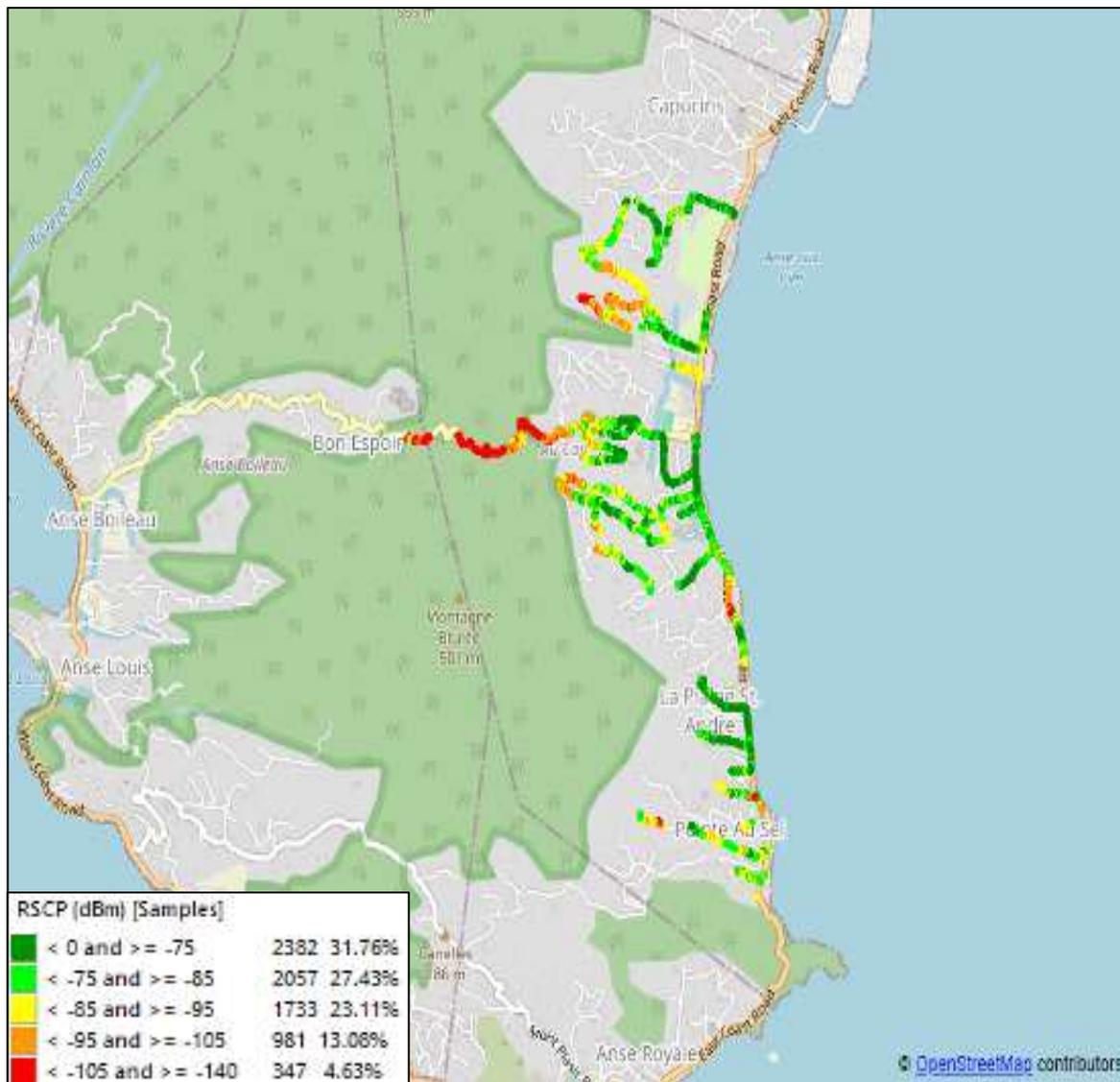
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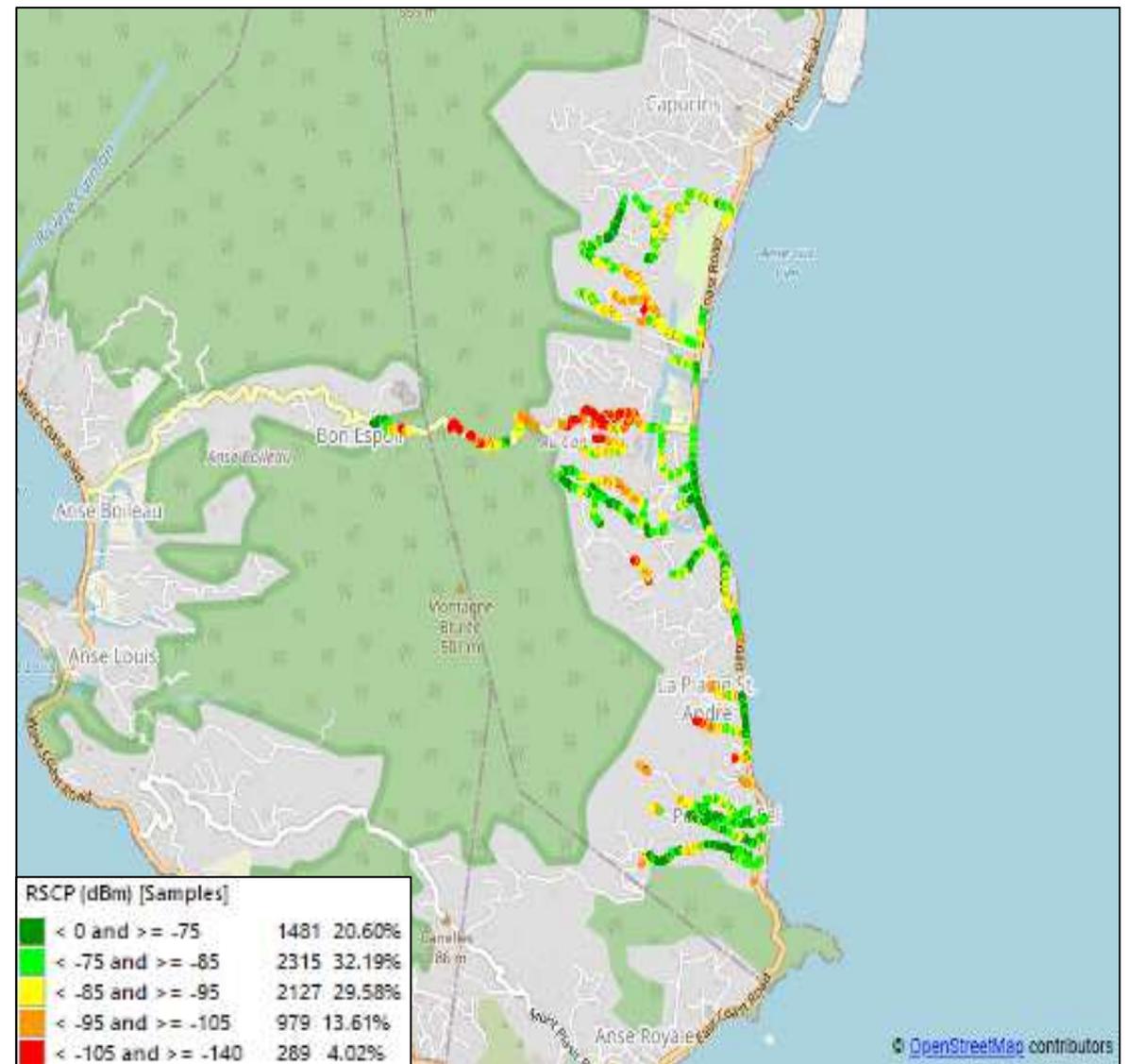
## CWS LC MO



## Airtel LC MO

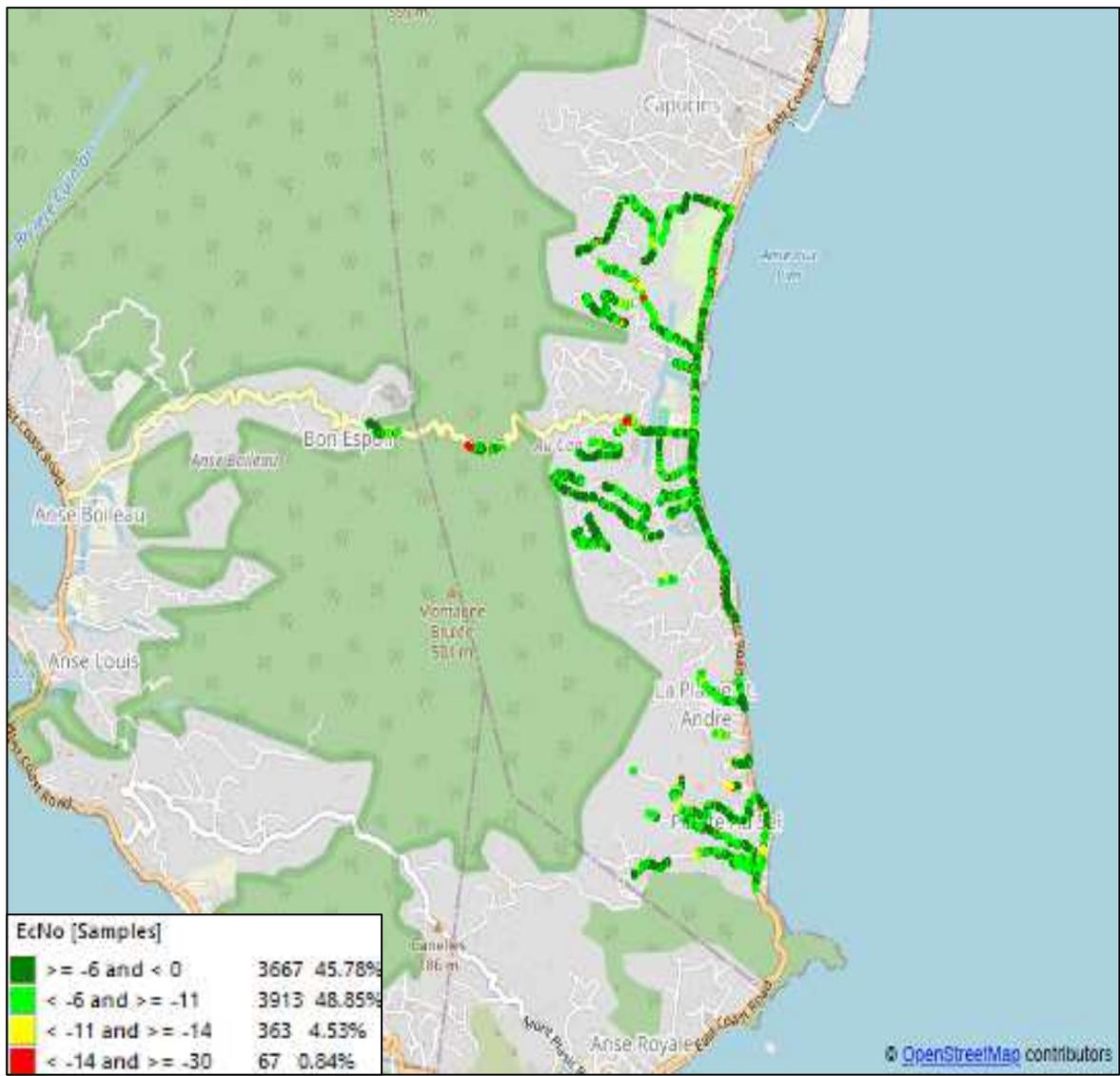
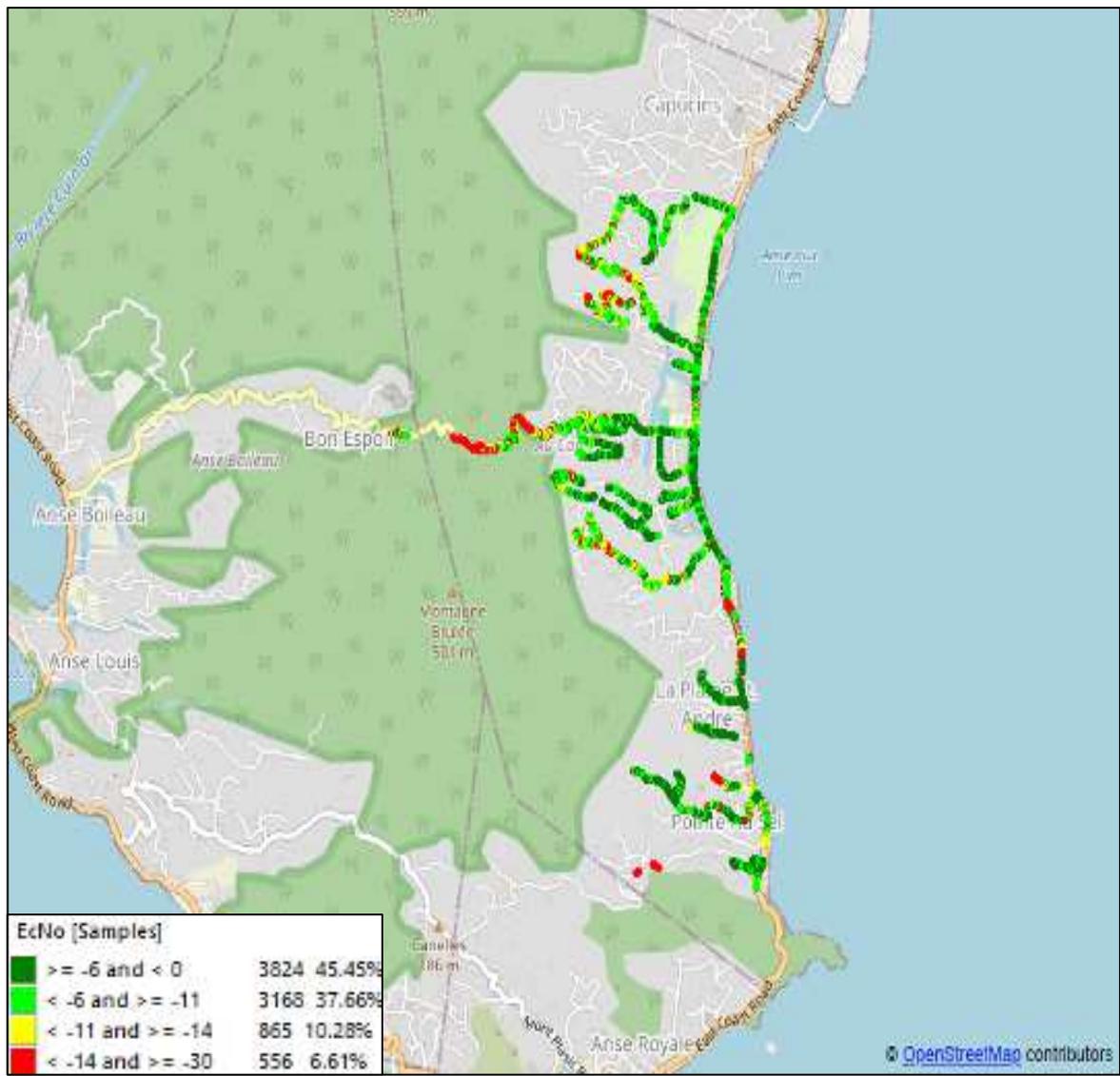


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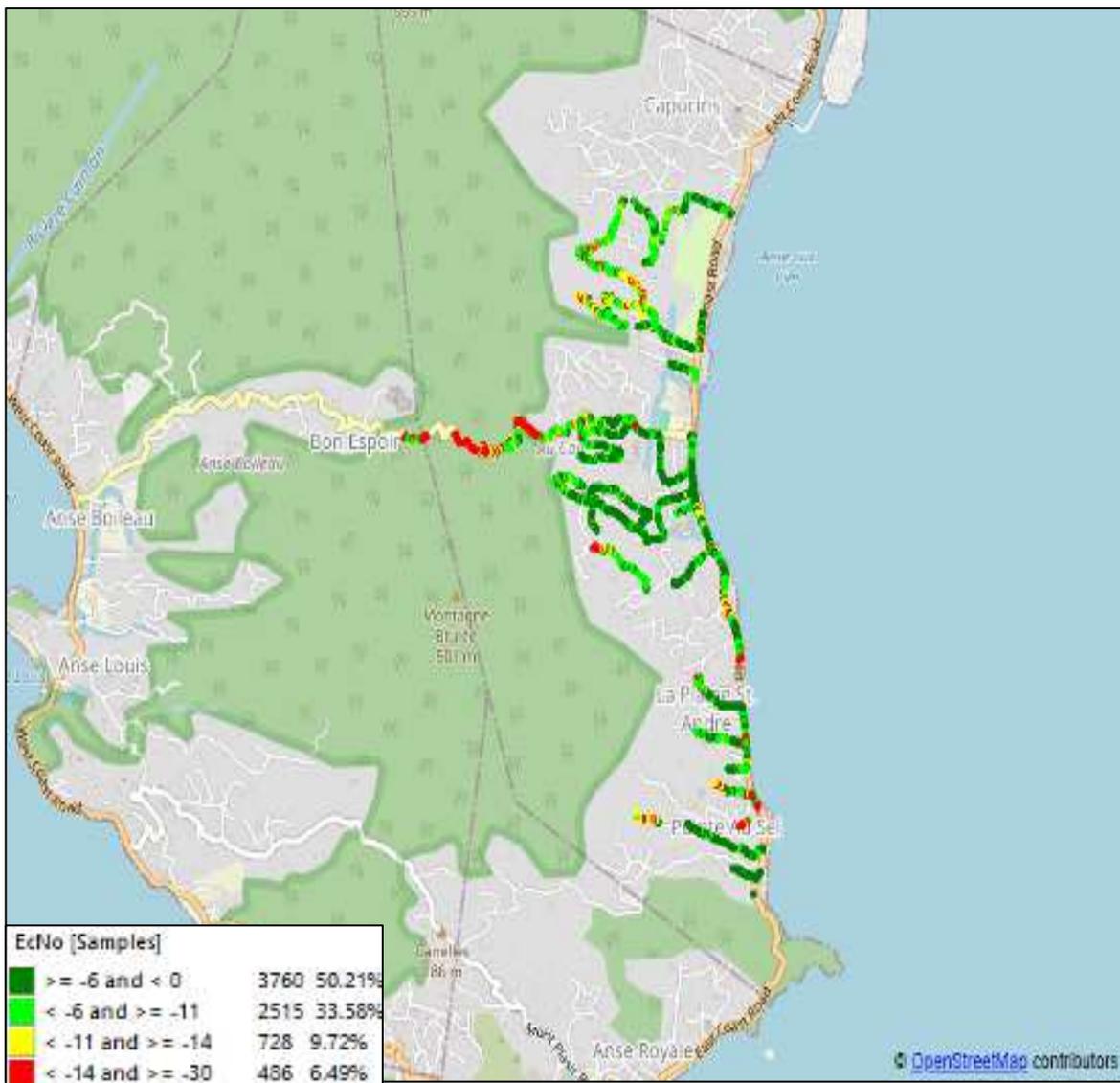


**Airtel LC MO**

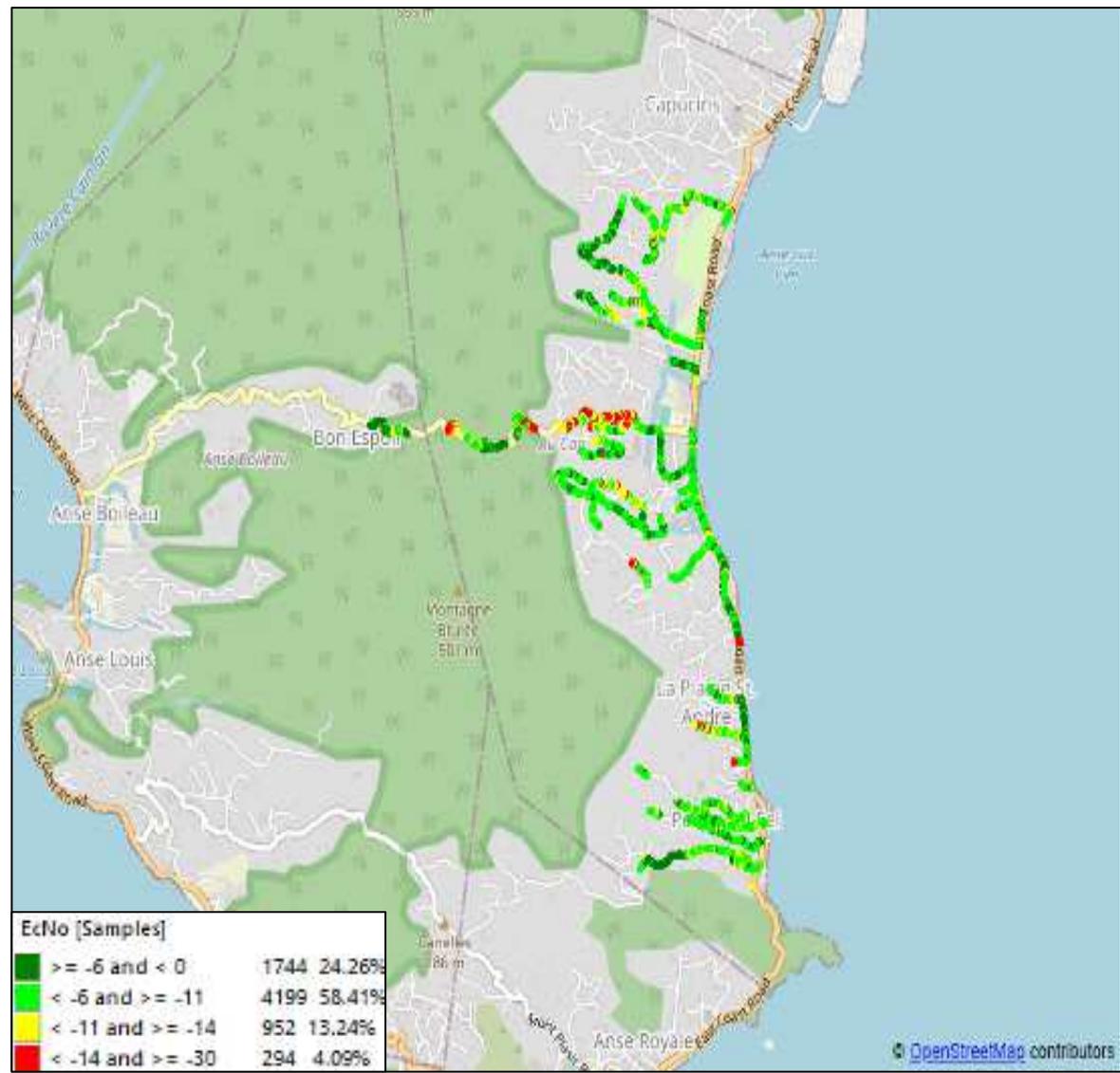
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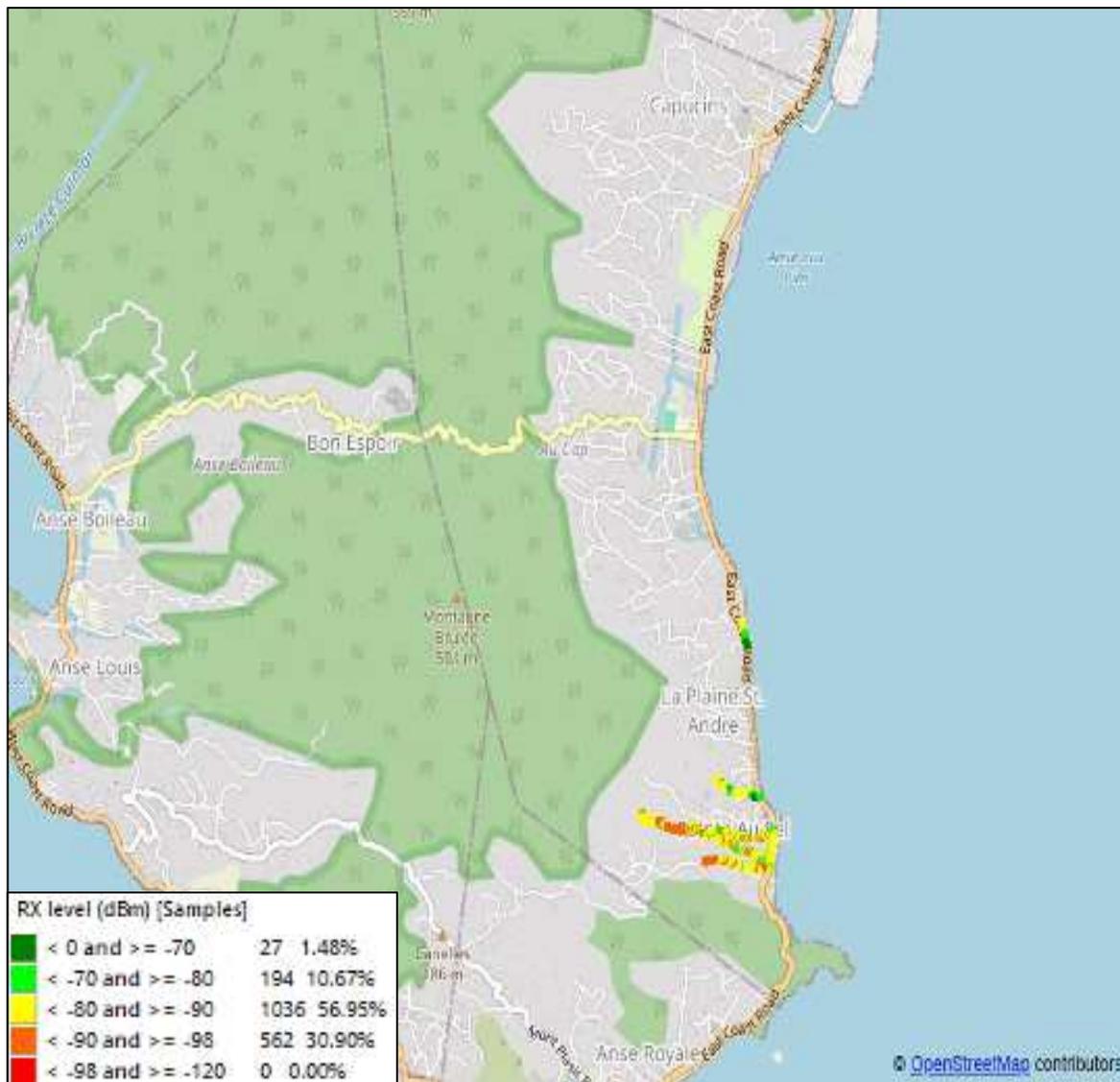
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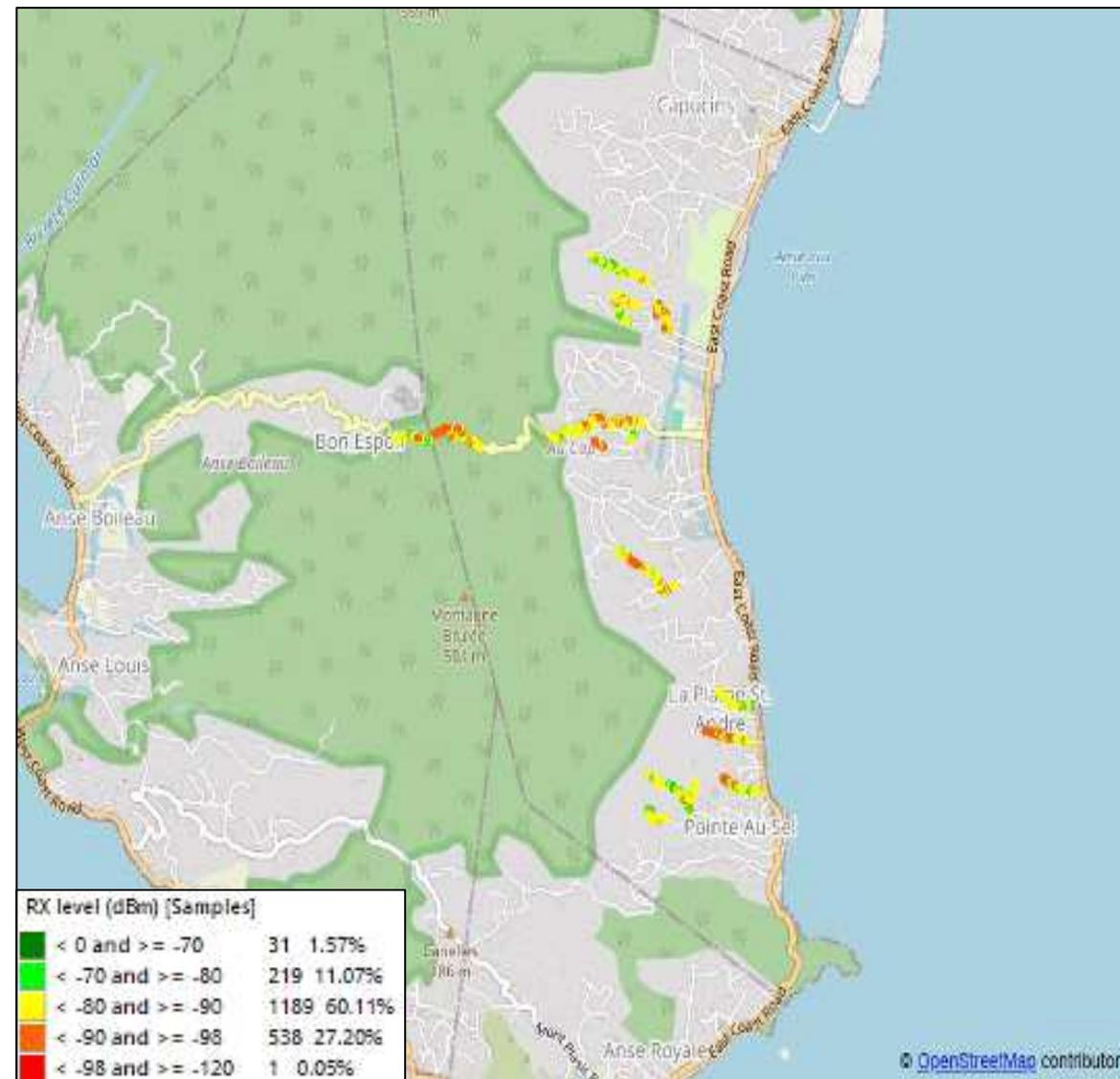
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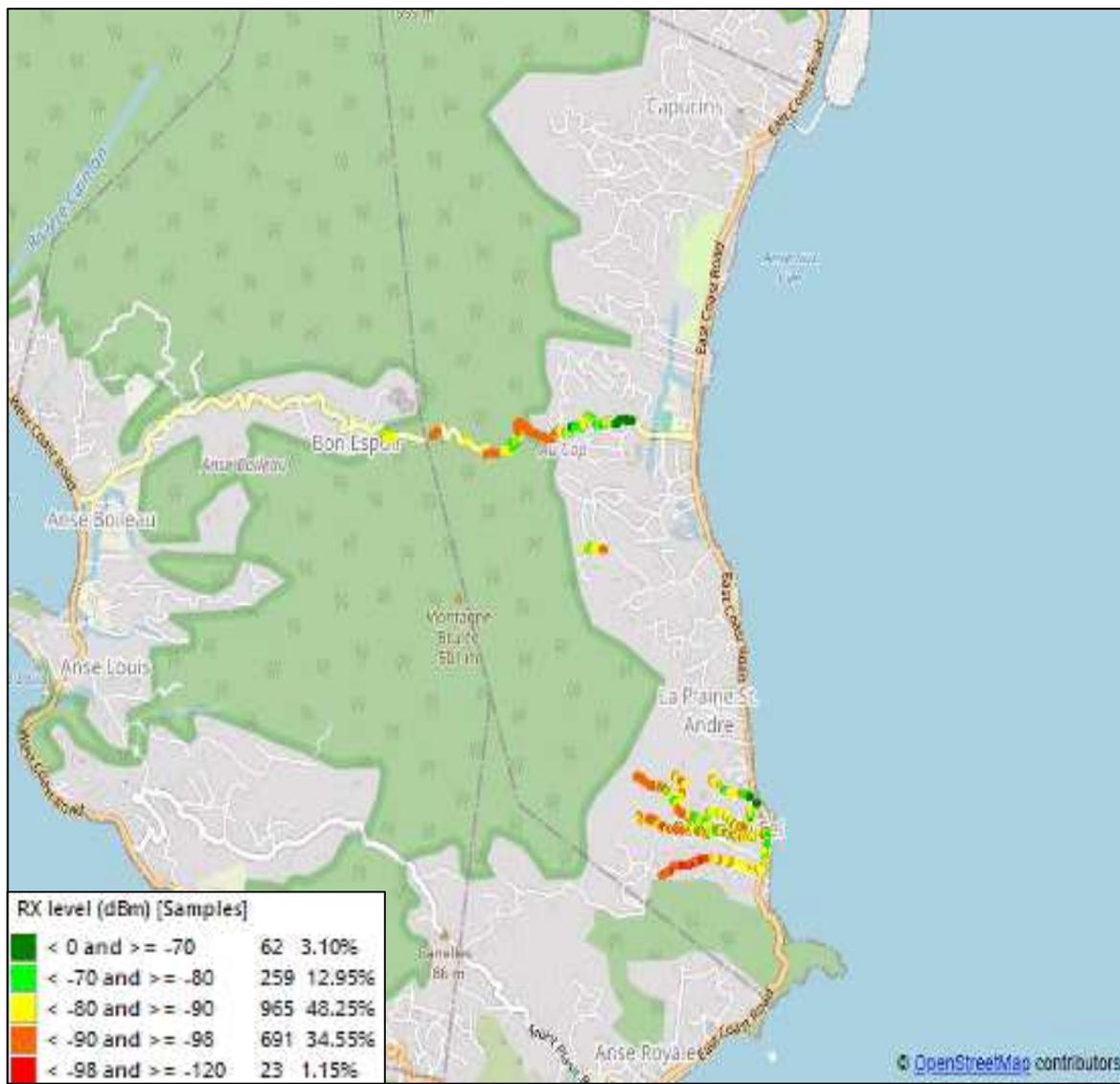
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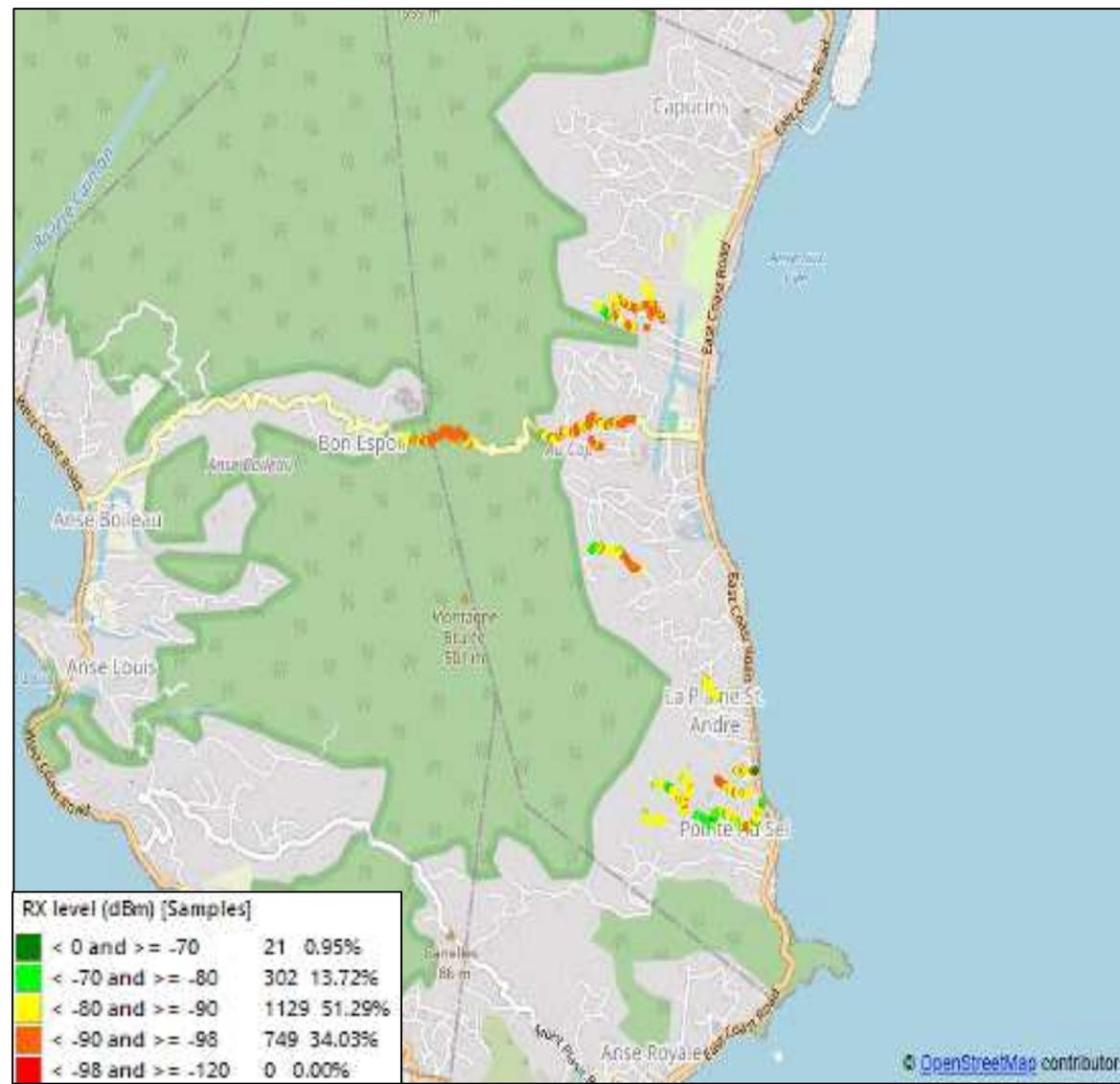
## CWS LC MO



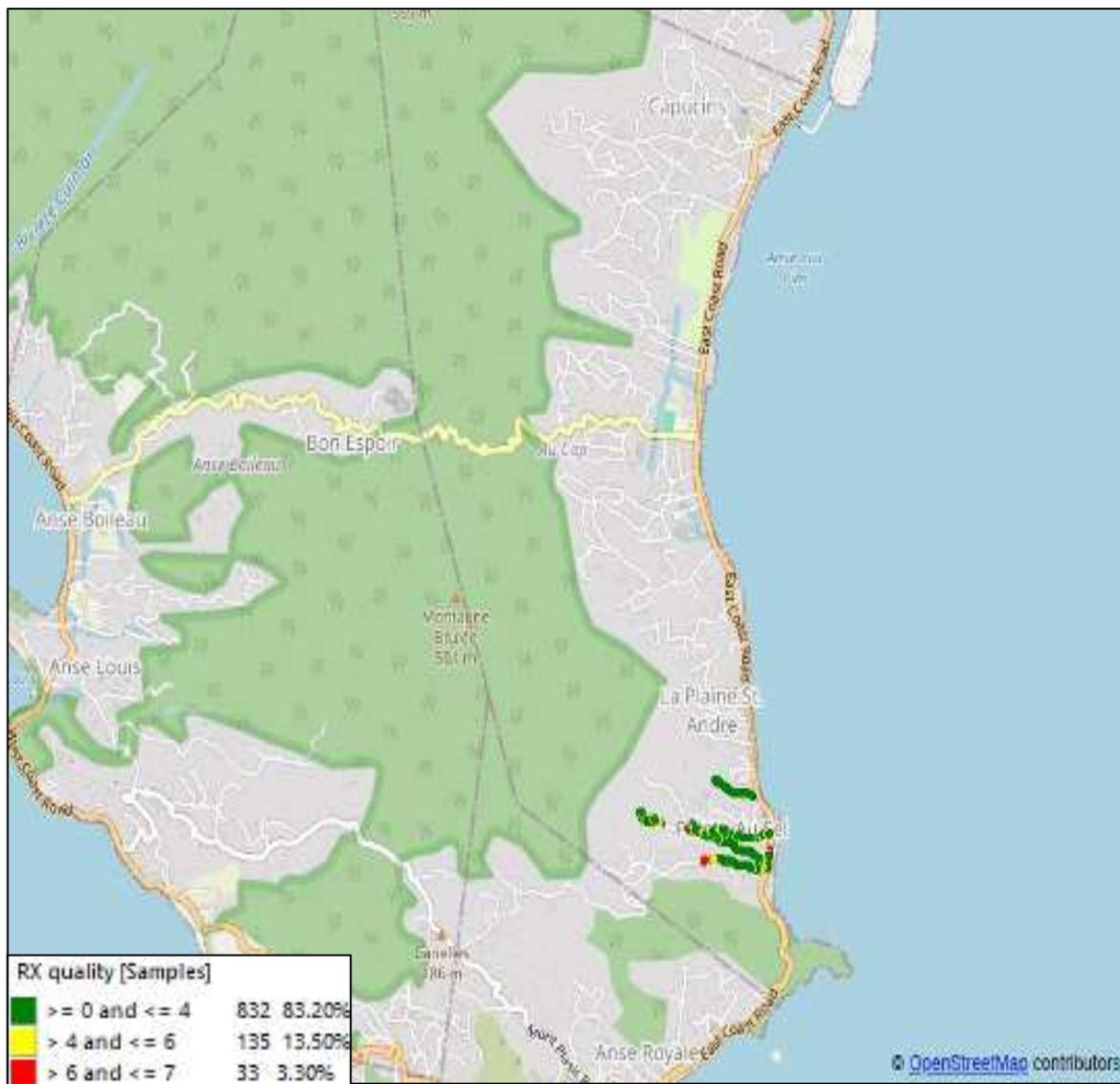
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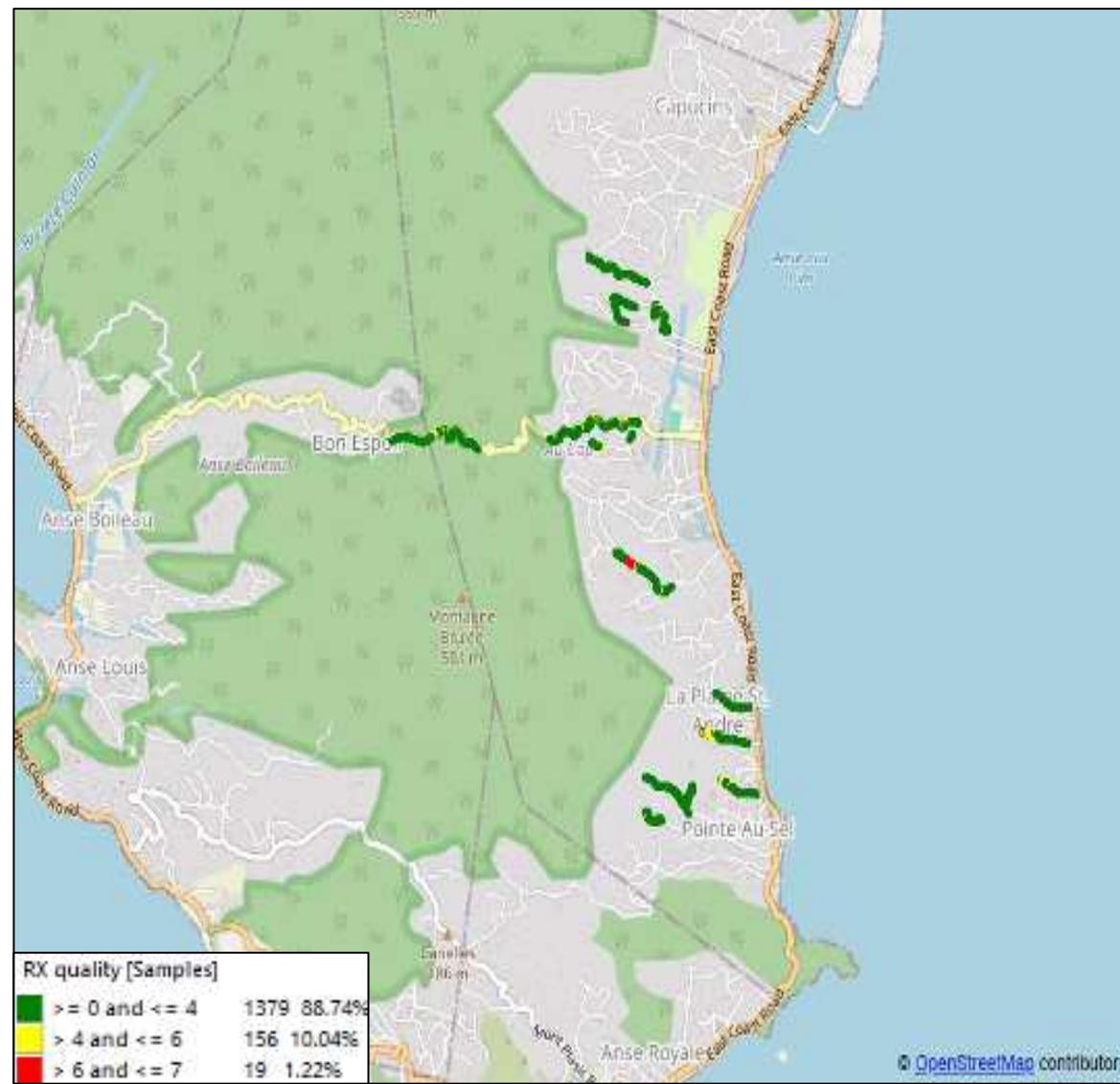
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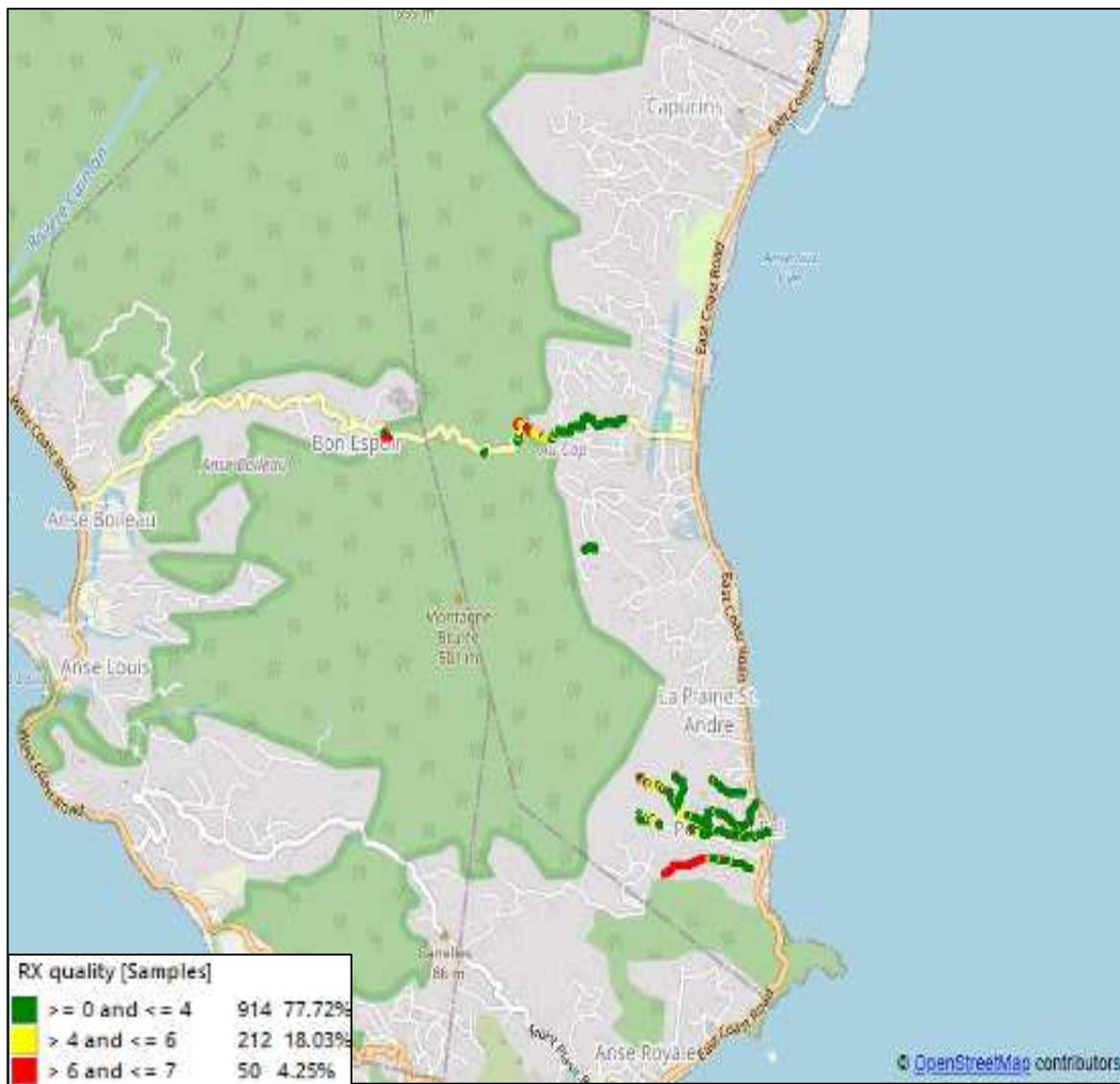
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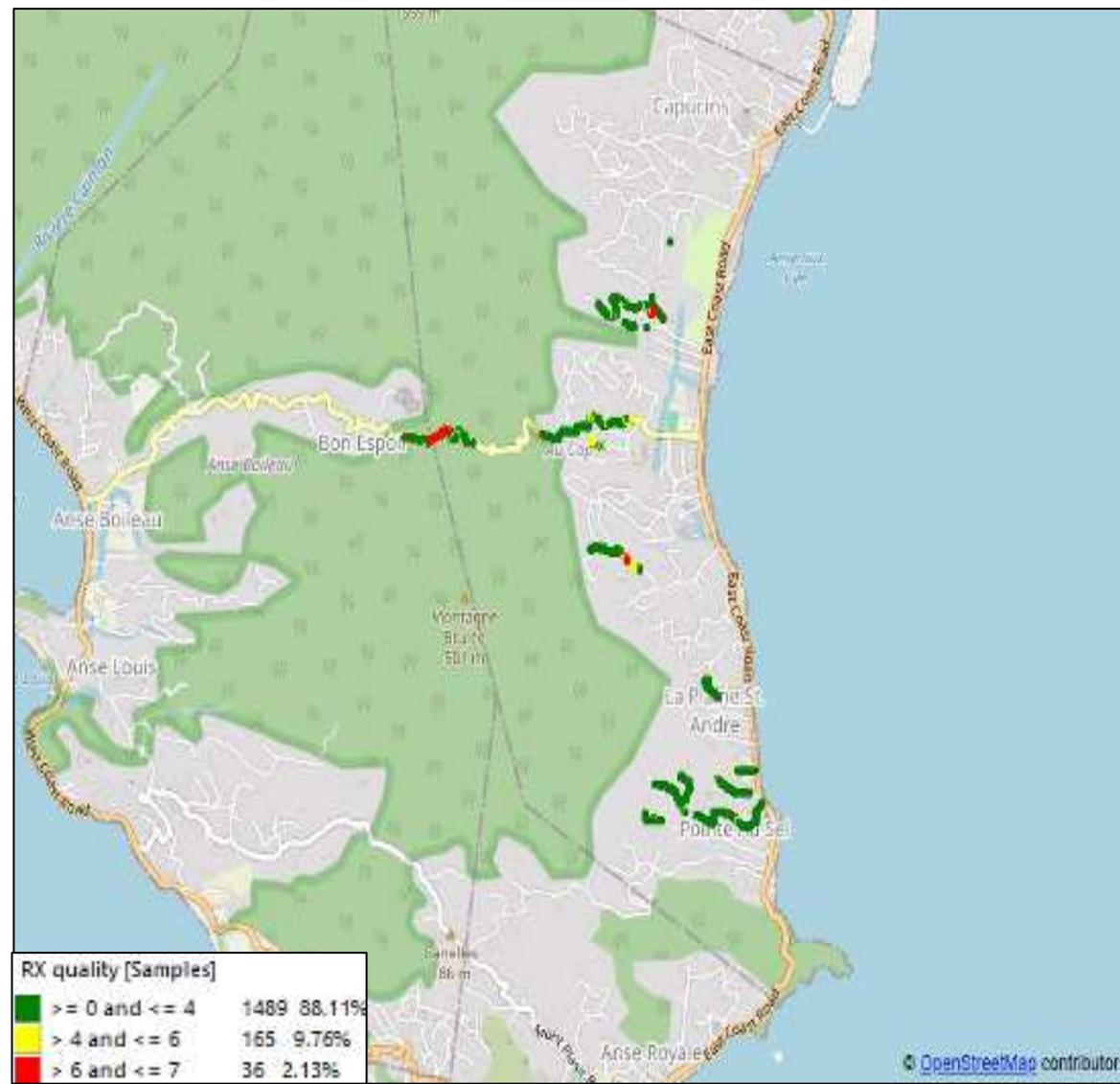
## CWS LC MO



## Airtel LC MO

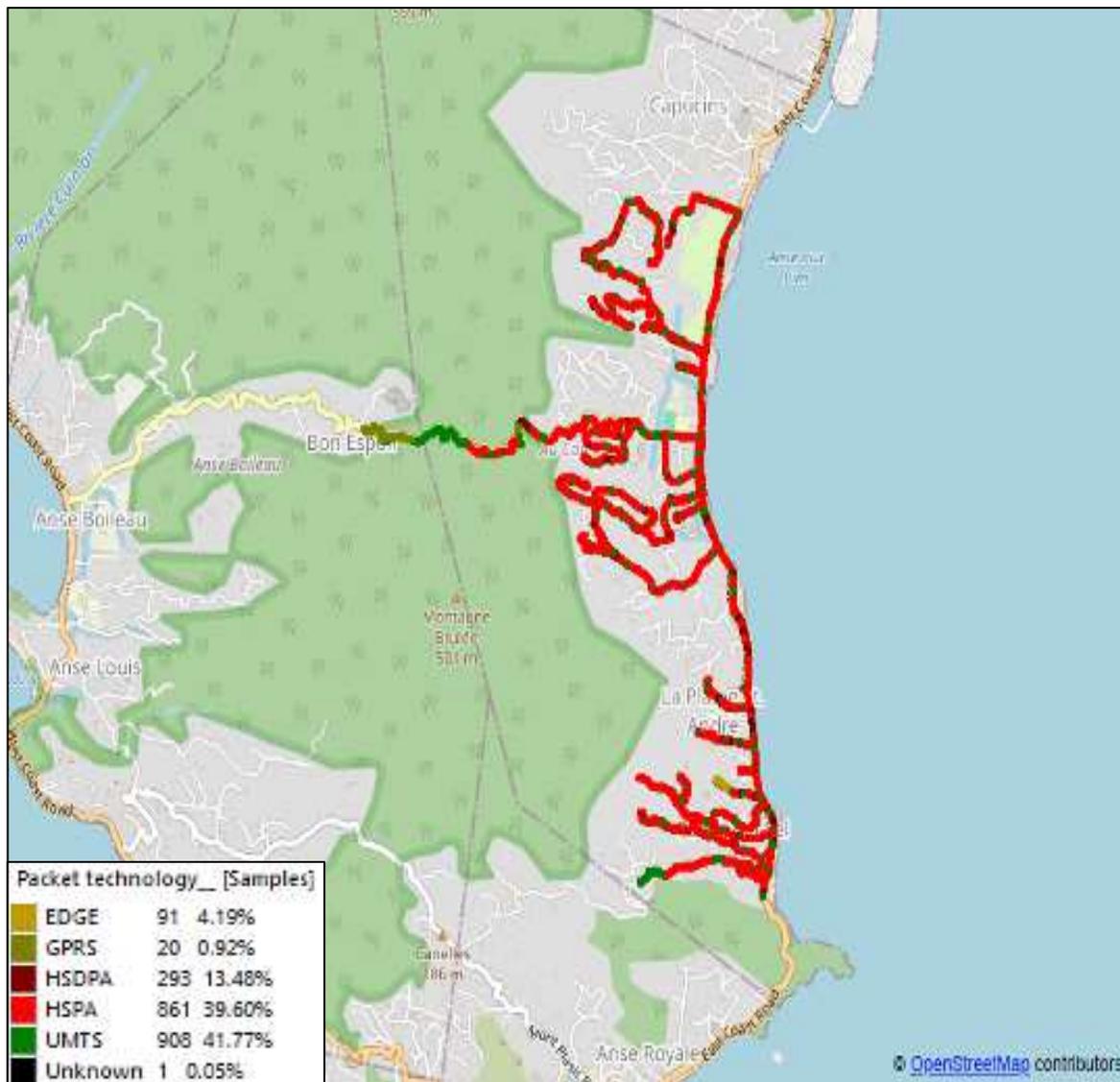


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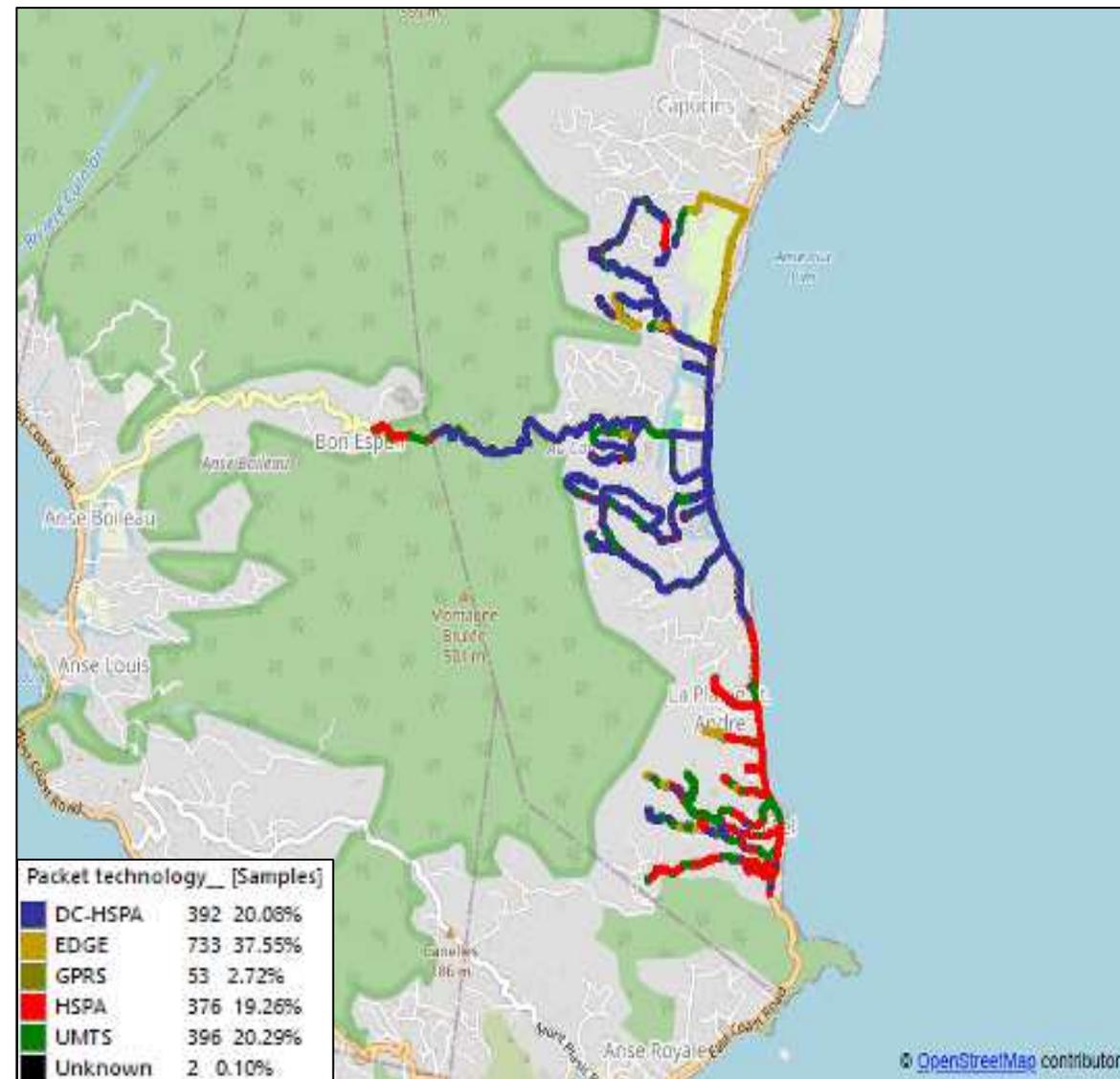


# 3G PREFERRED DATA DRIVE PLOTS

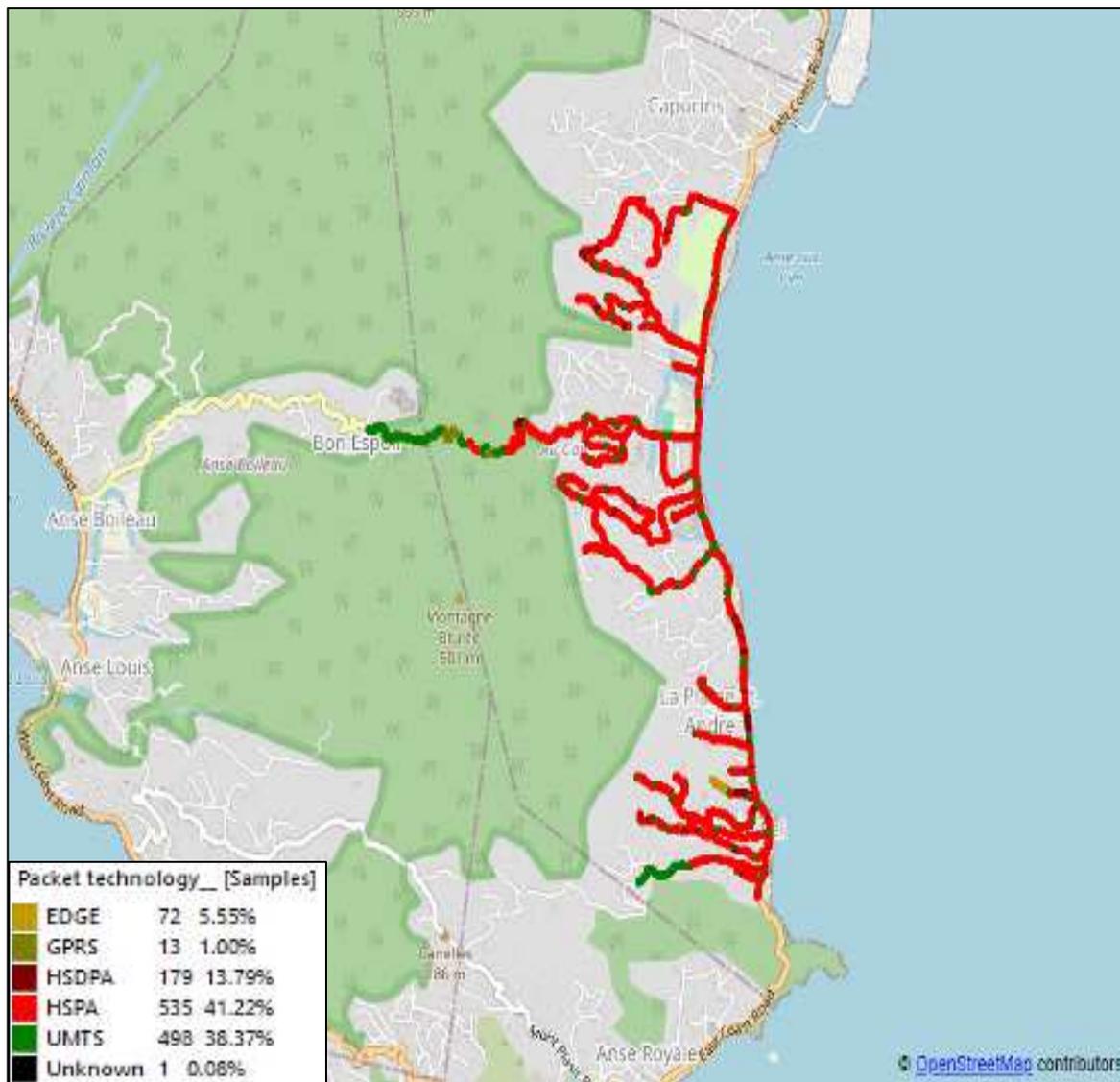
## Airtel Data 3G



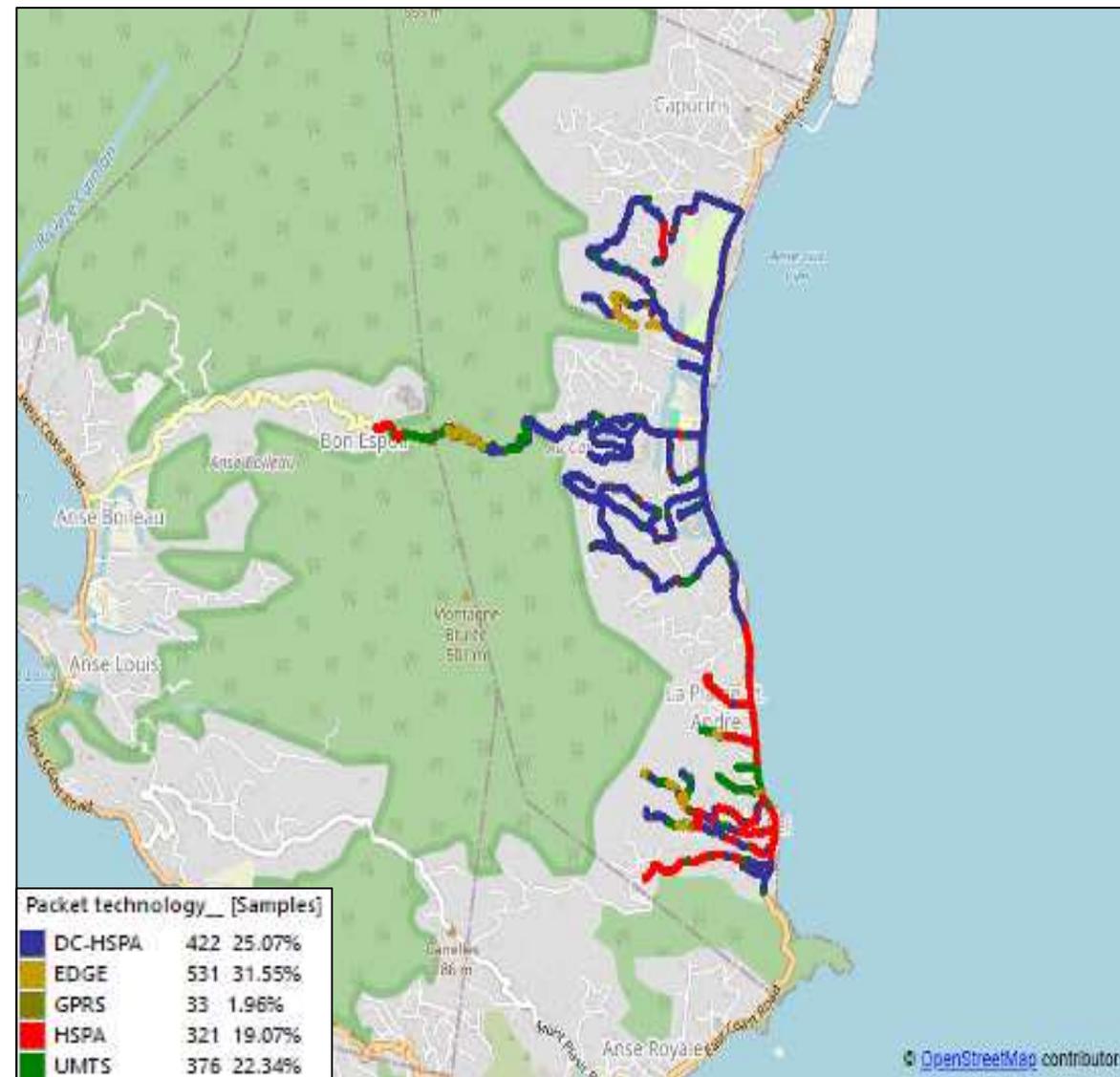
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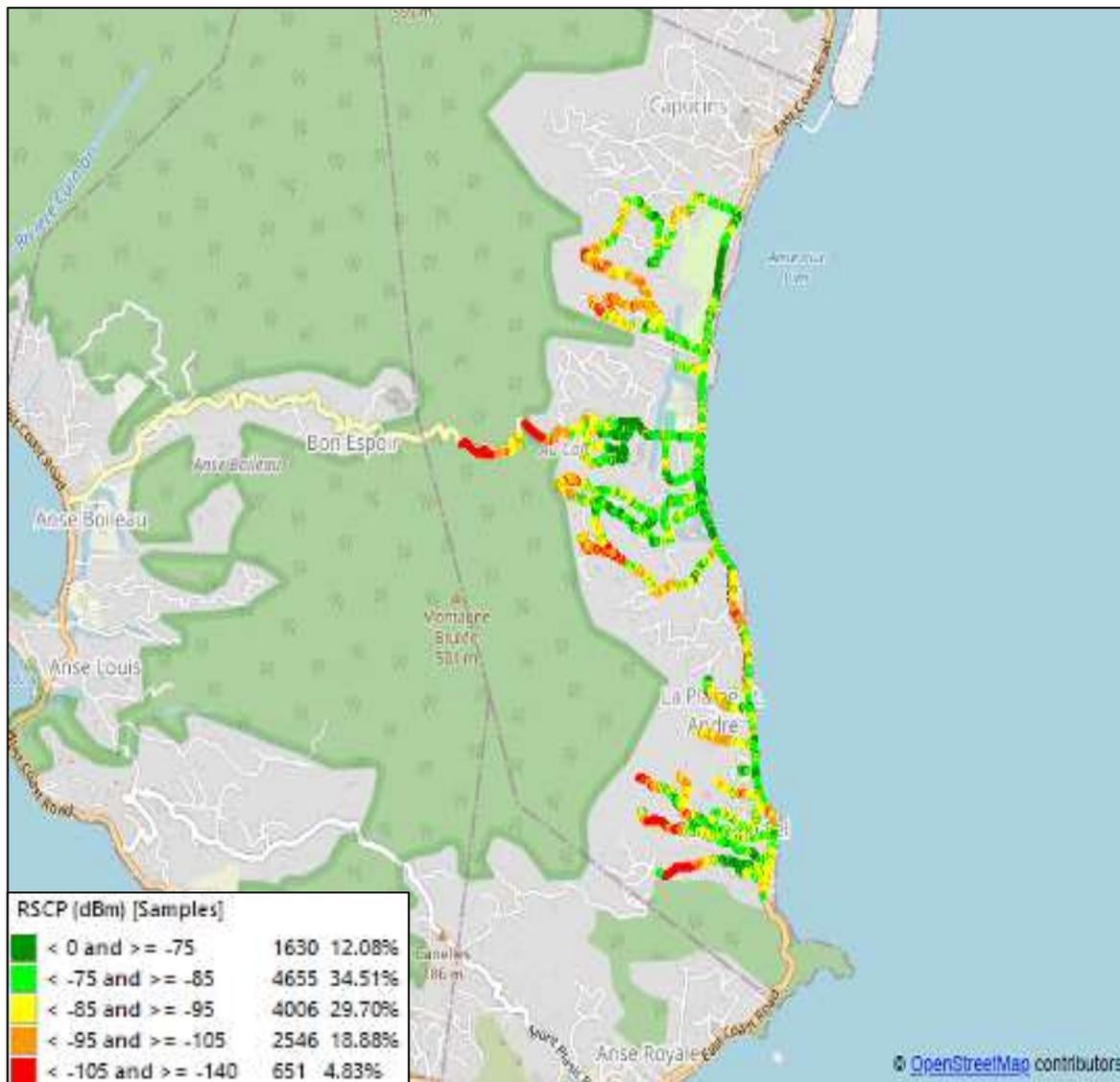
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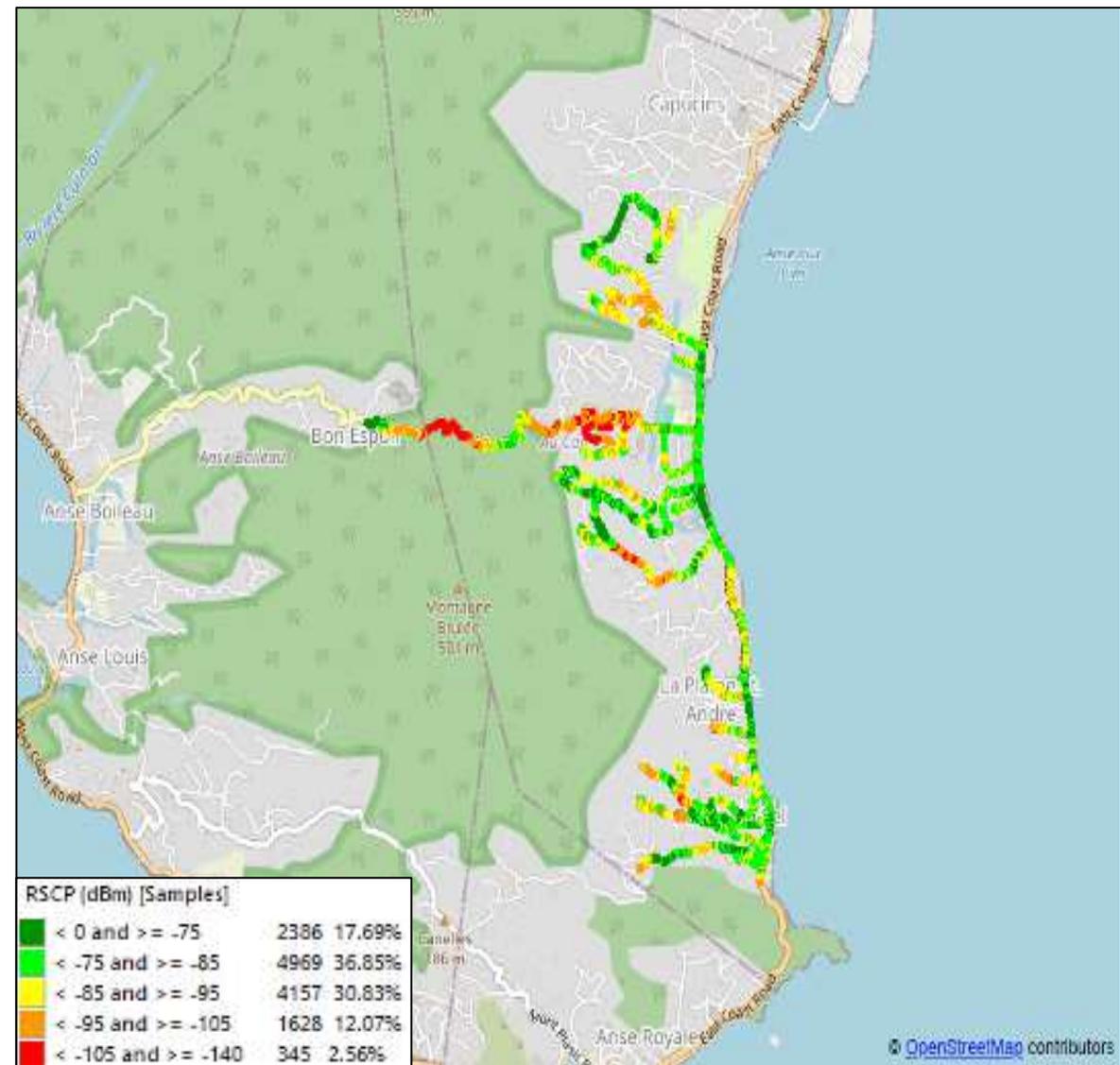
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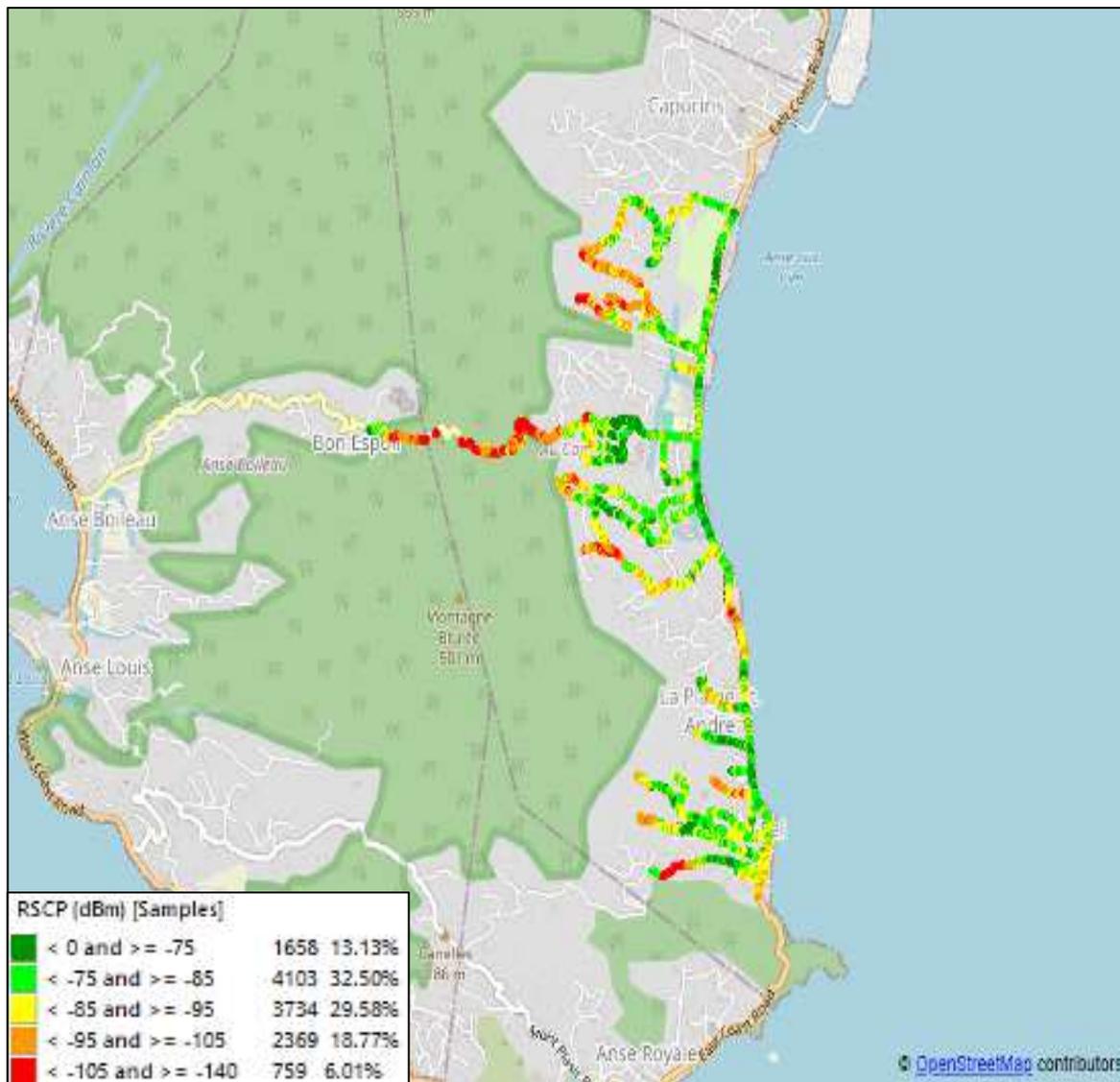
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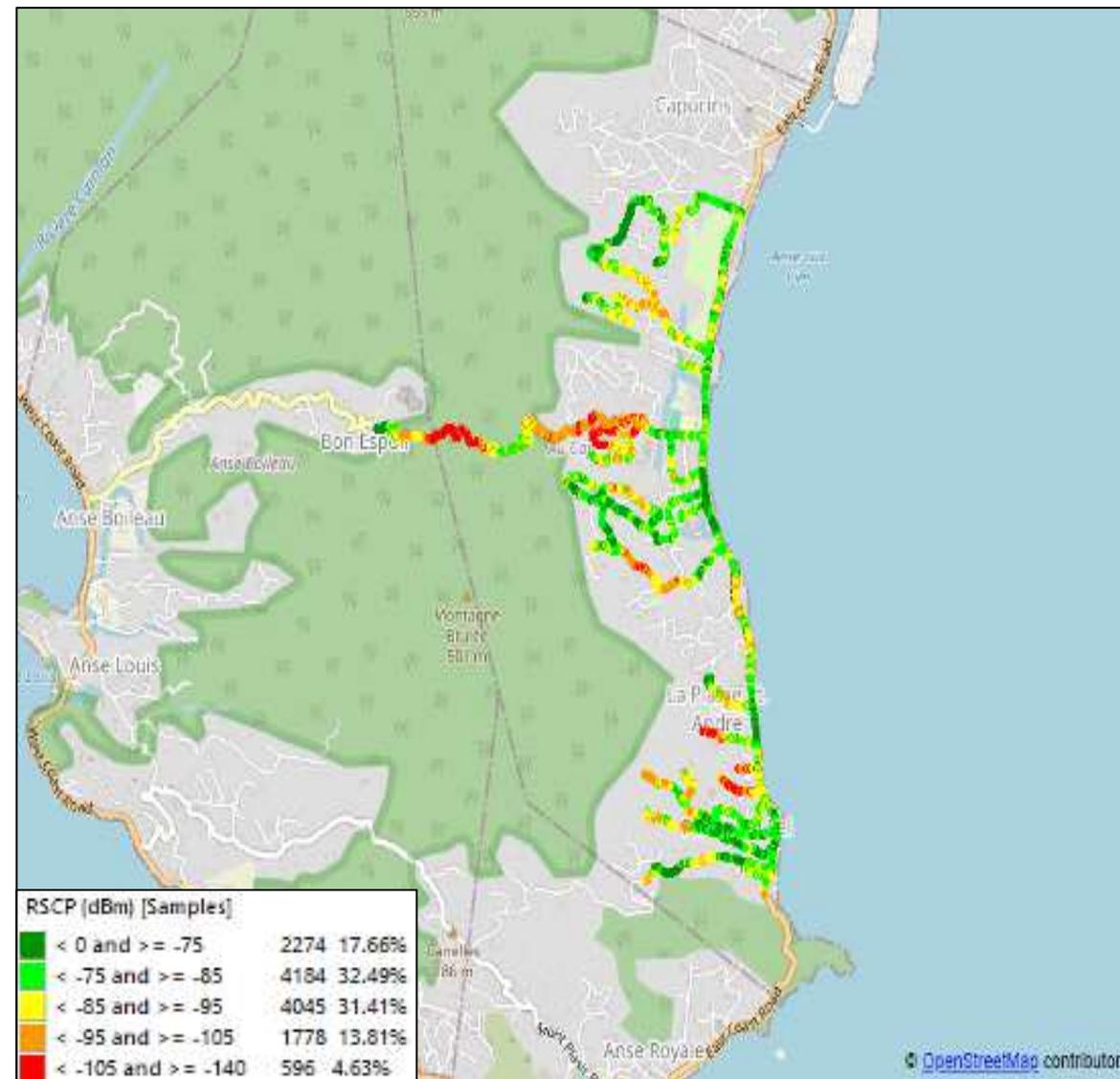
## CWS Data 3G



## Airtel Data 3G

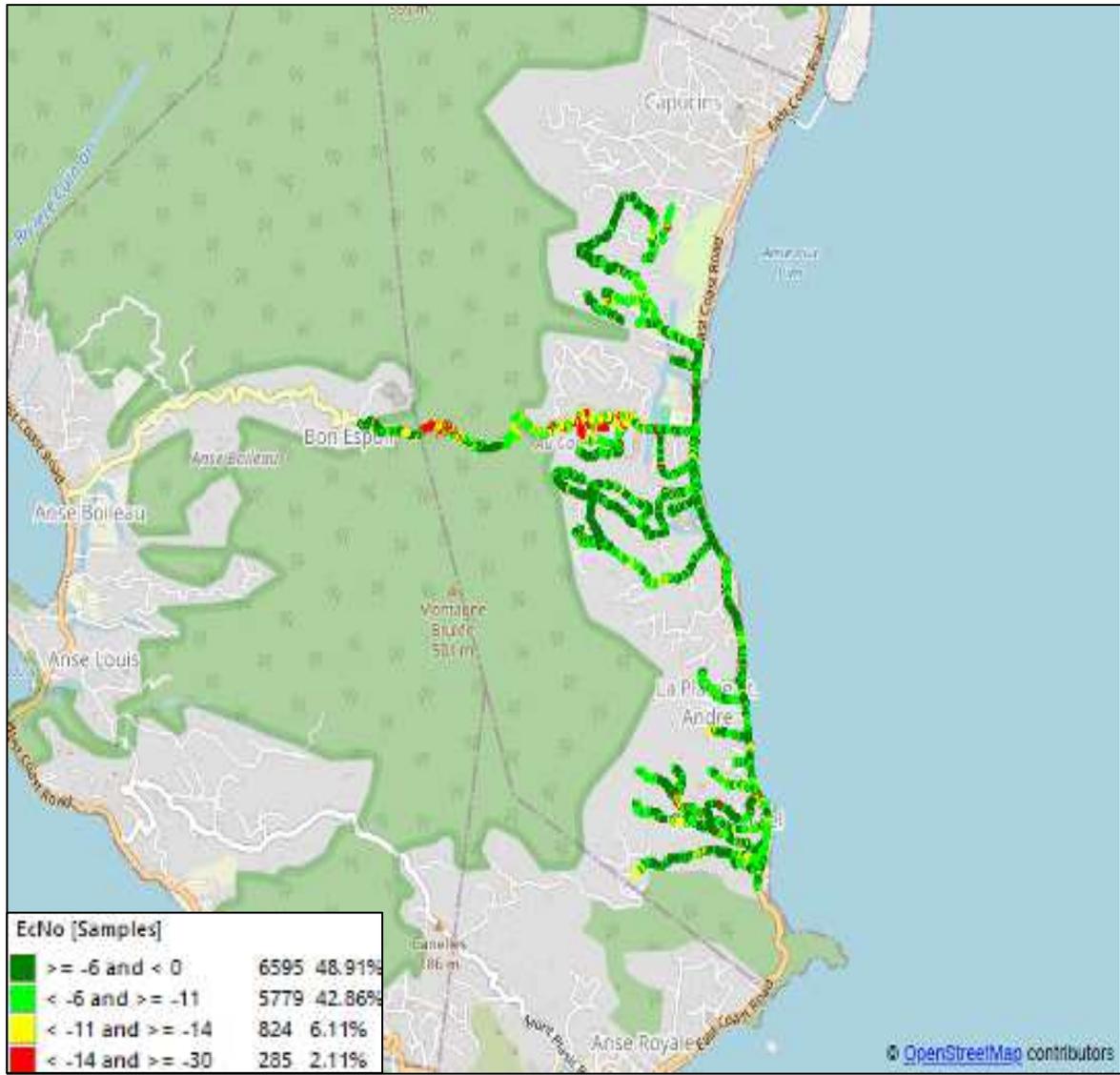
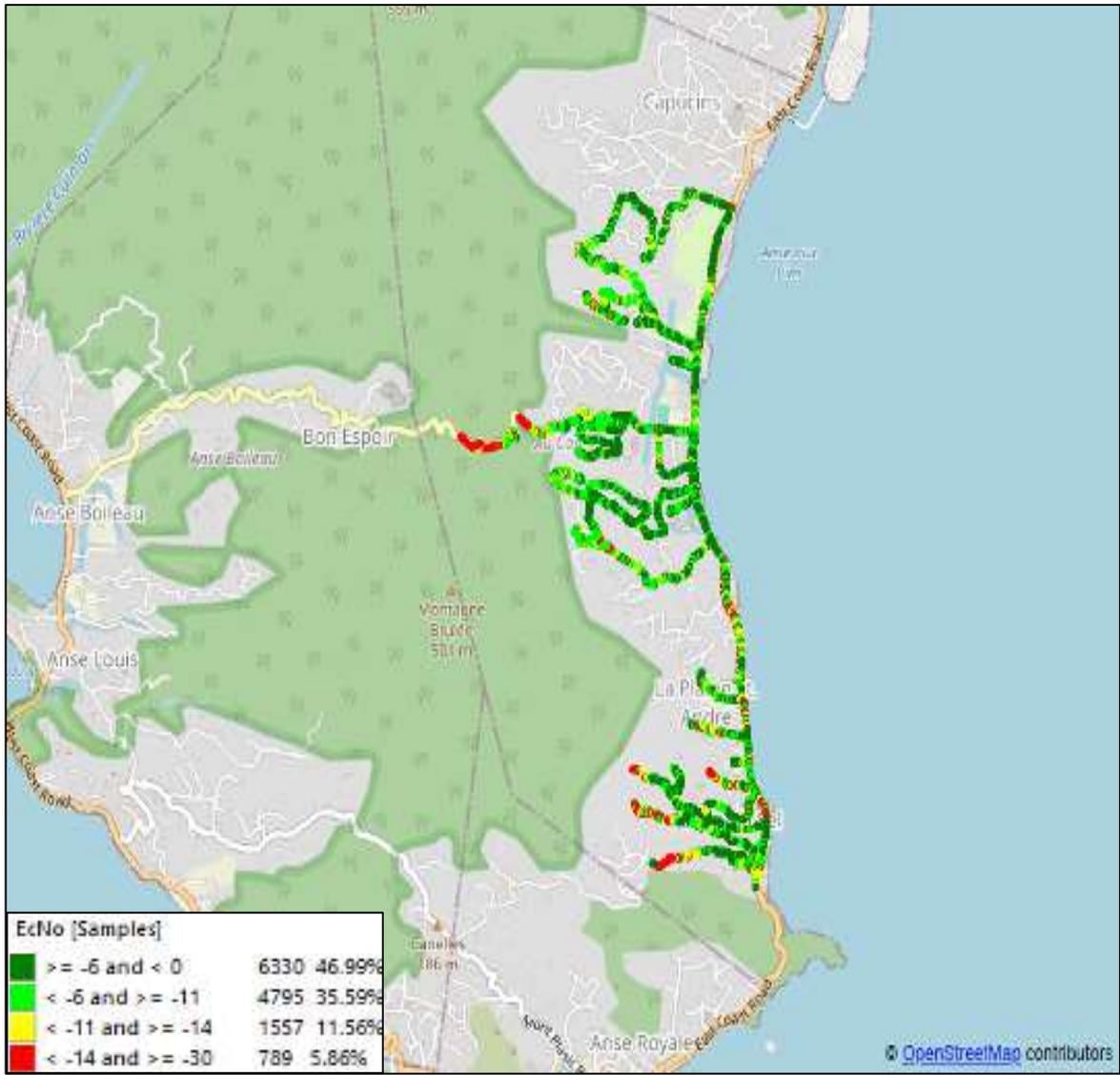


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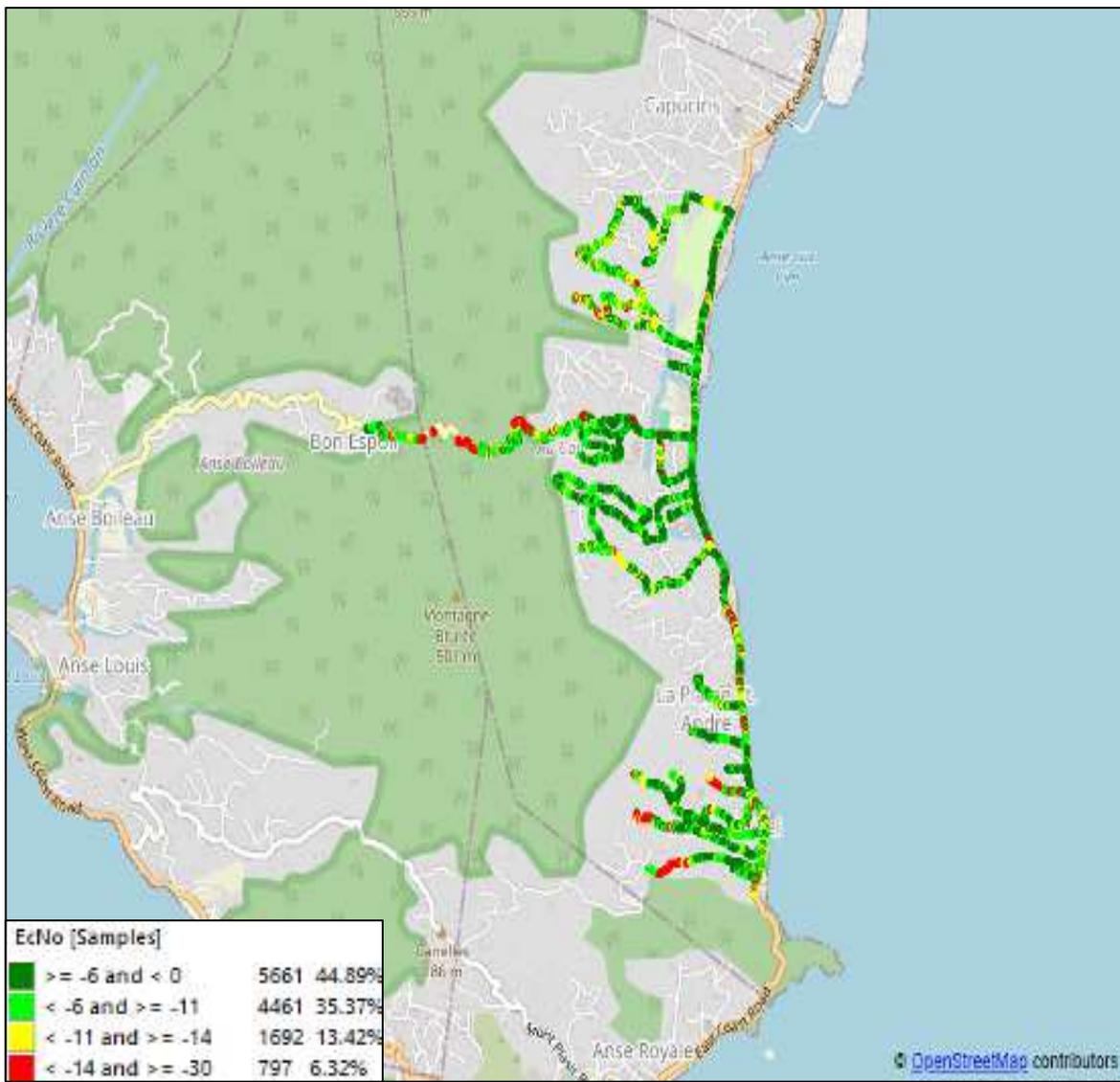


**Airtel Data 3G**

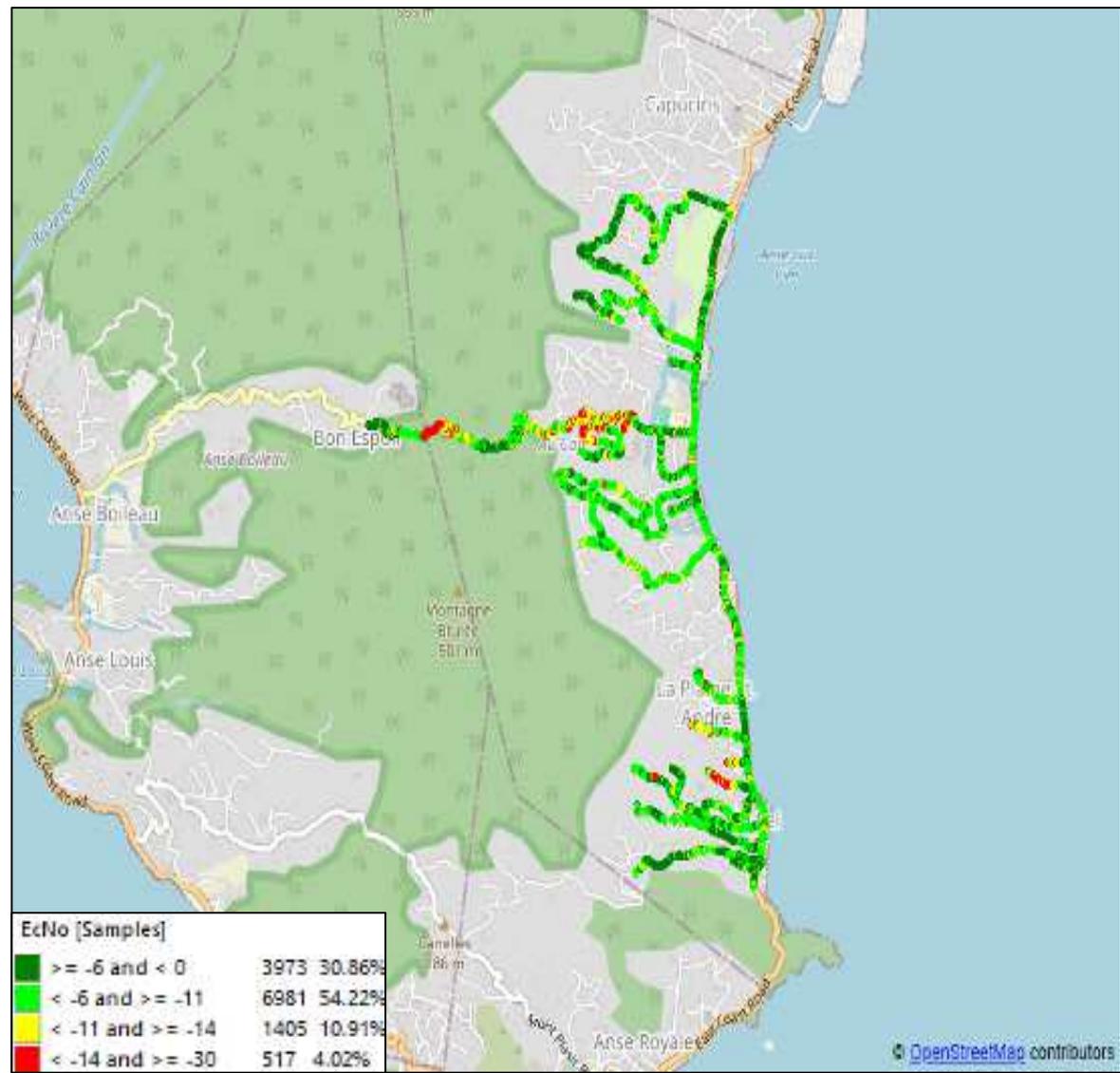
**CWS Data 3G**



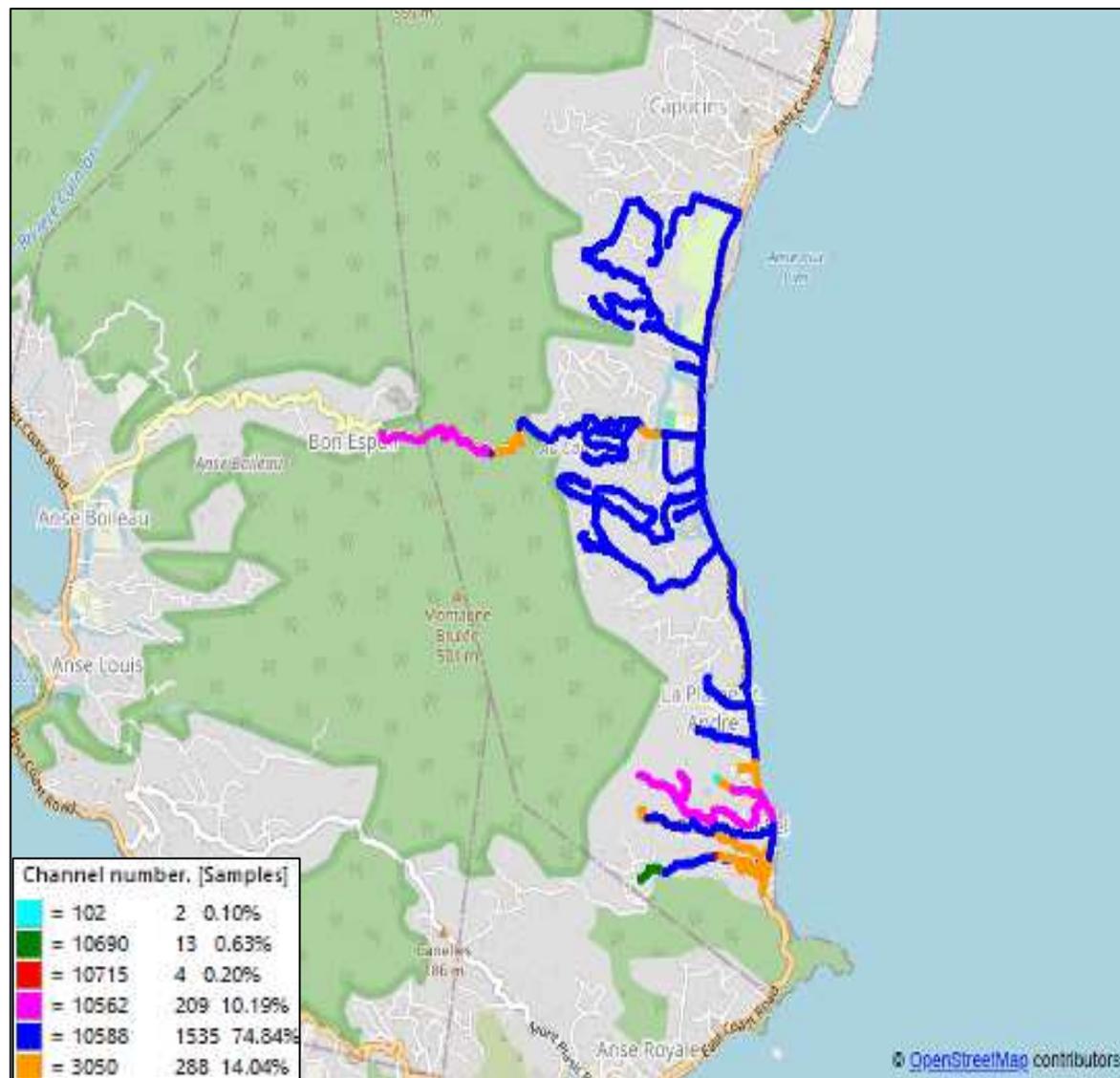
**Airtel Data 3G**



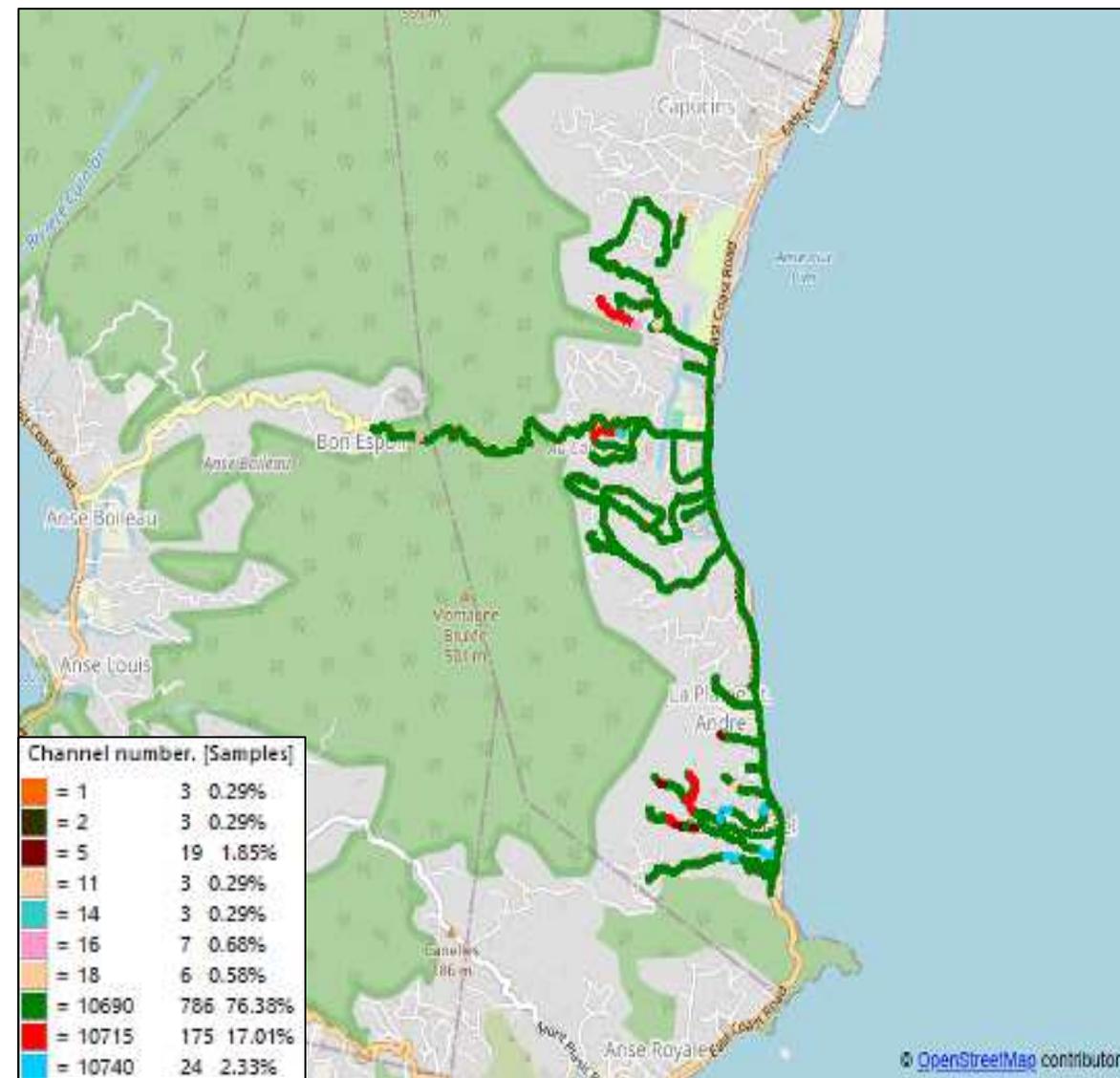
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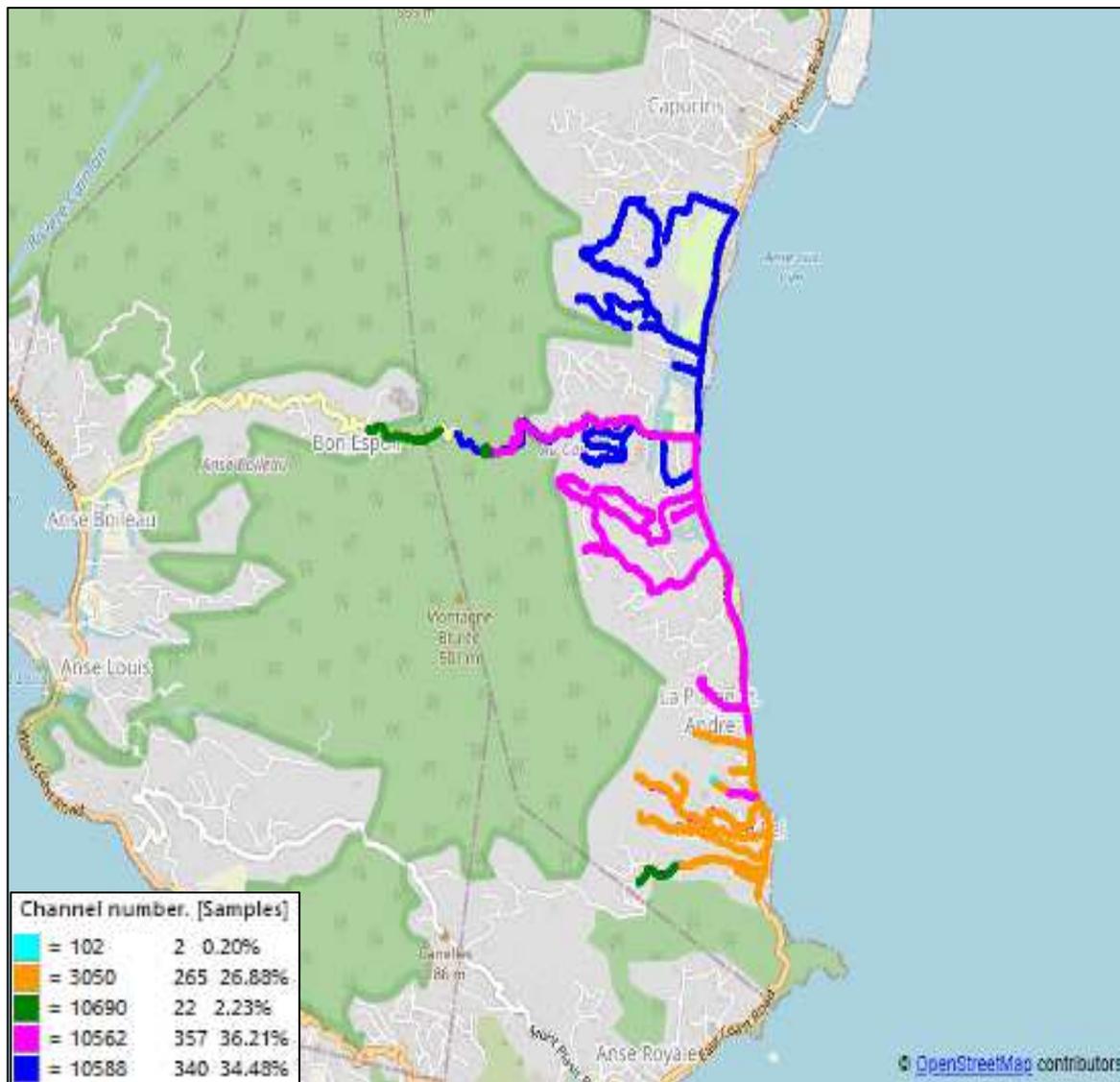
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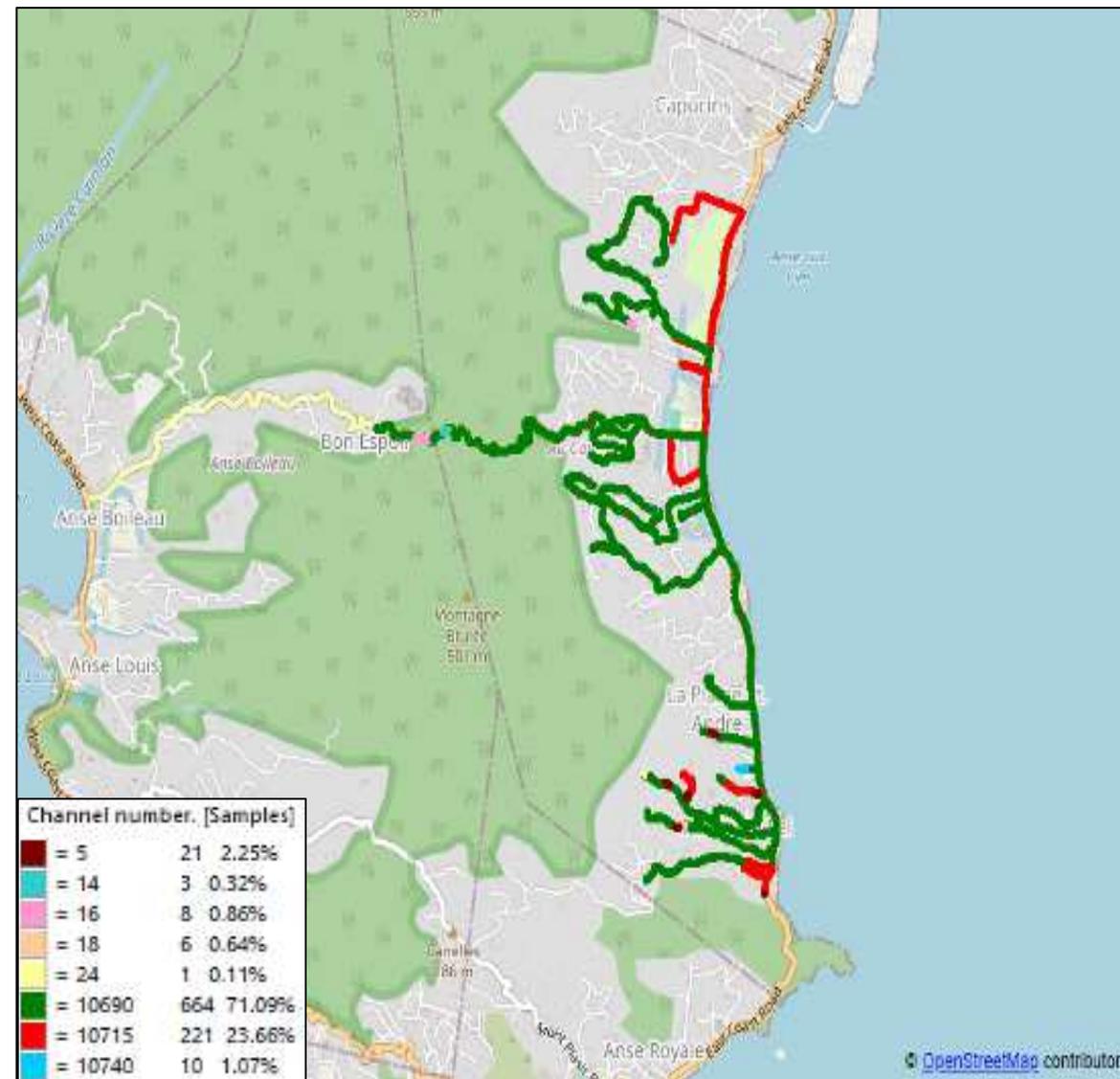
## CWS Data 3G



## Airtel Data 3G

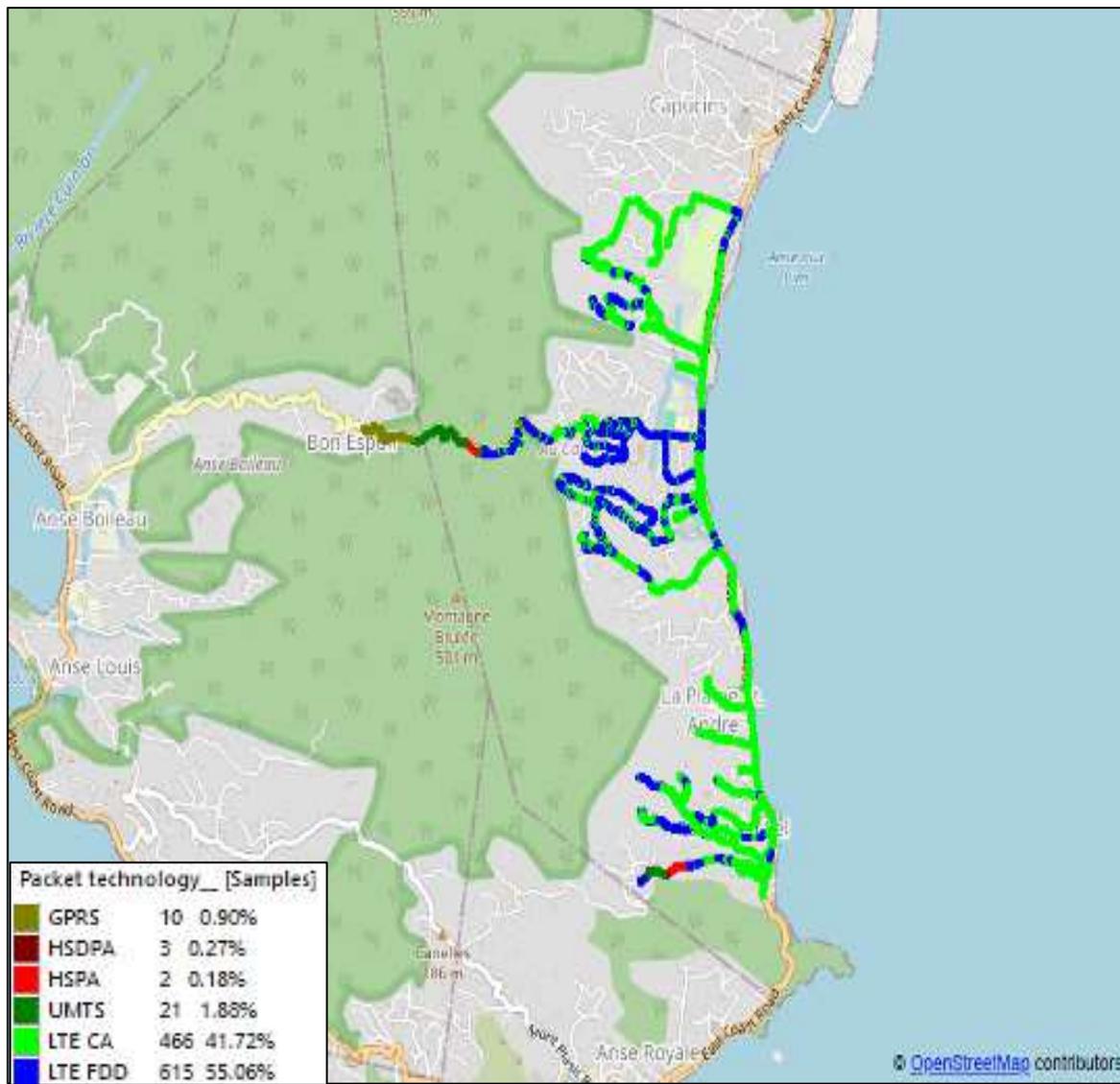


## CWS Data 3G

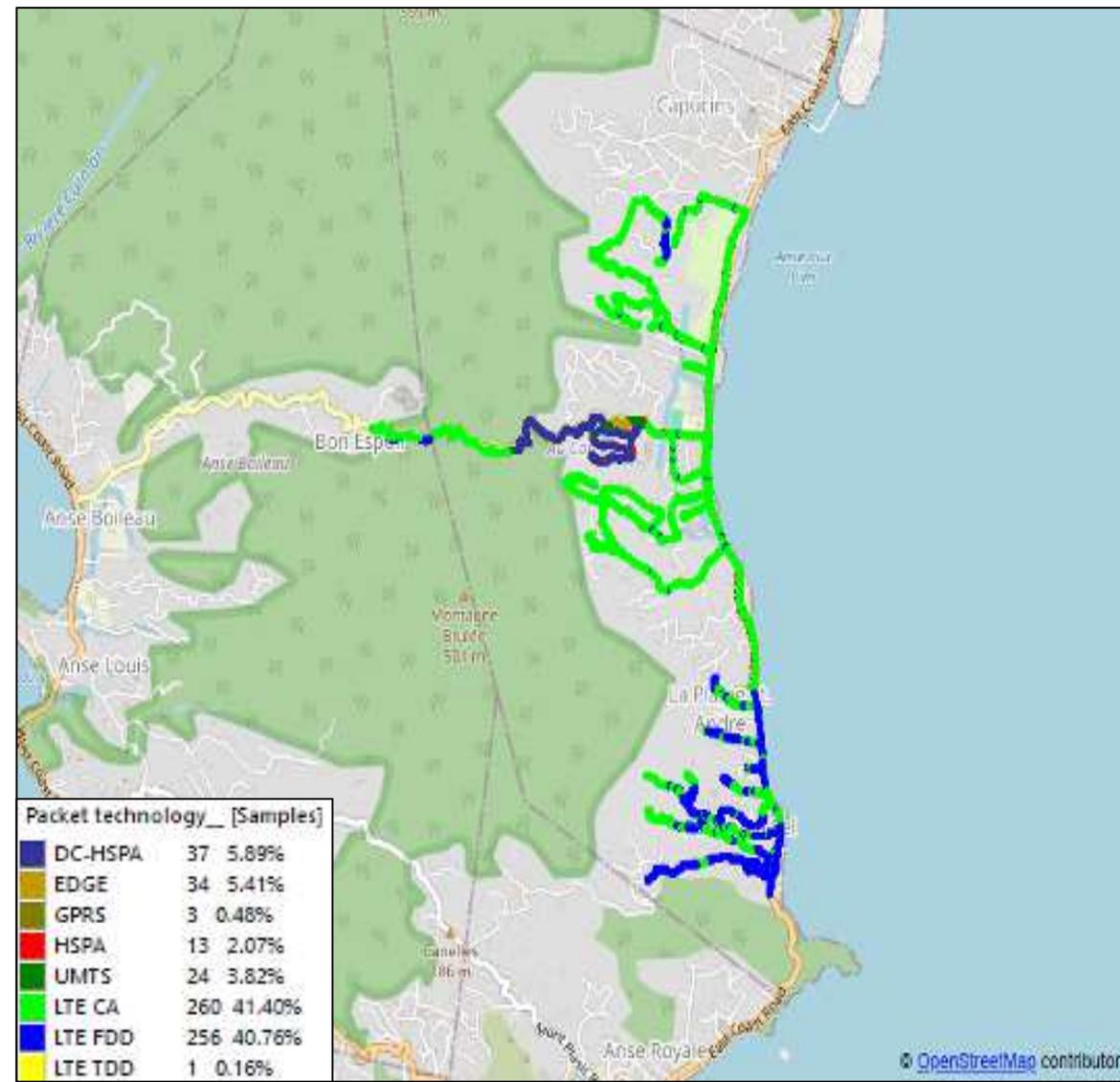


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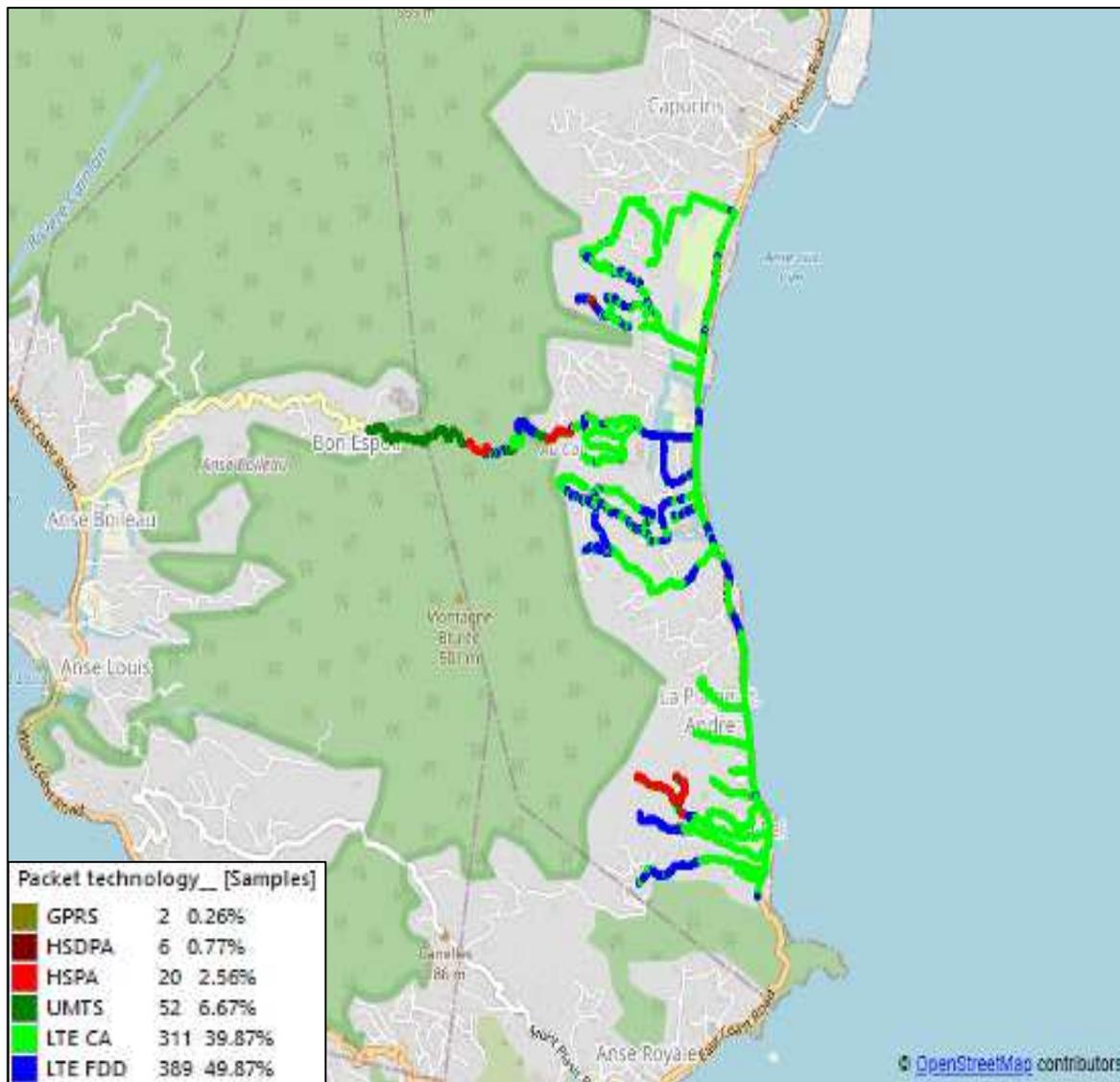
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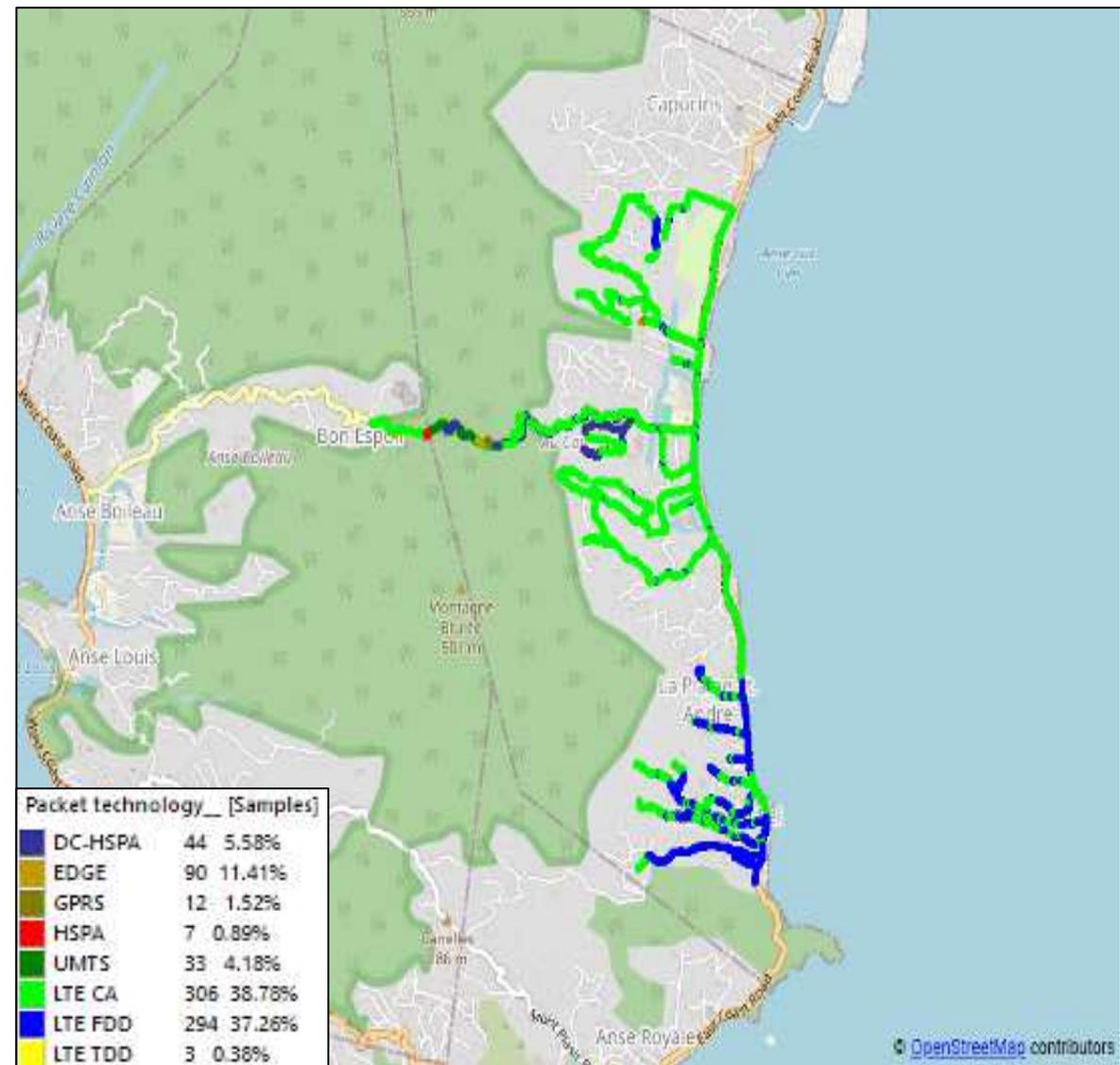
## CWS Data 4G



## Airtel Data 4G

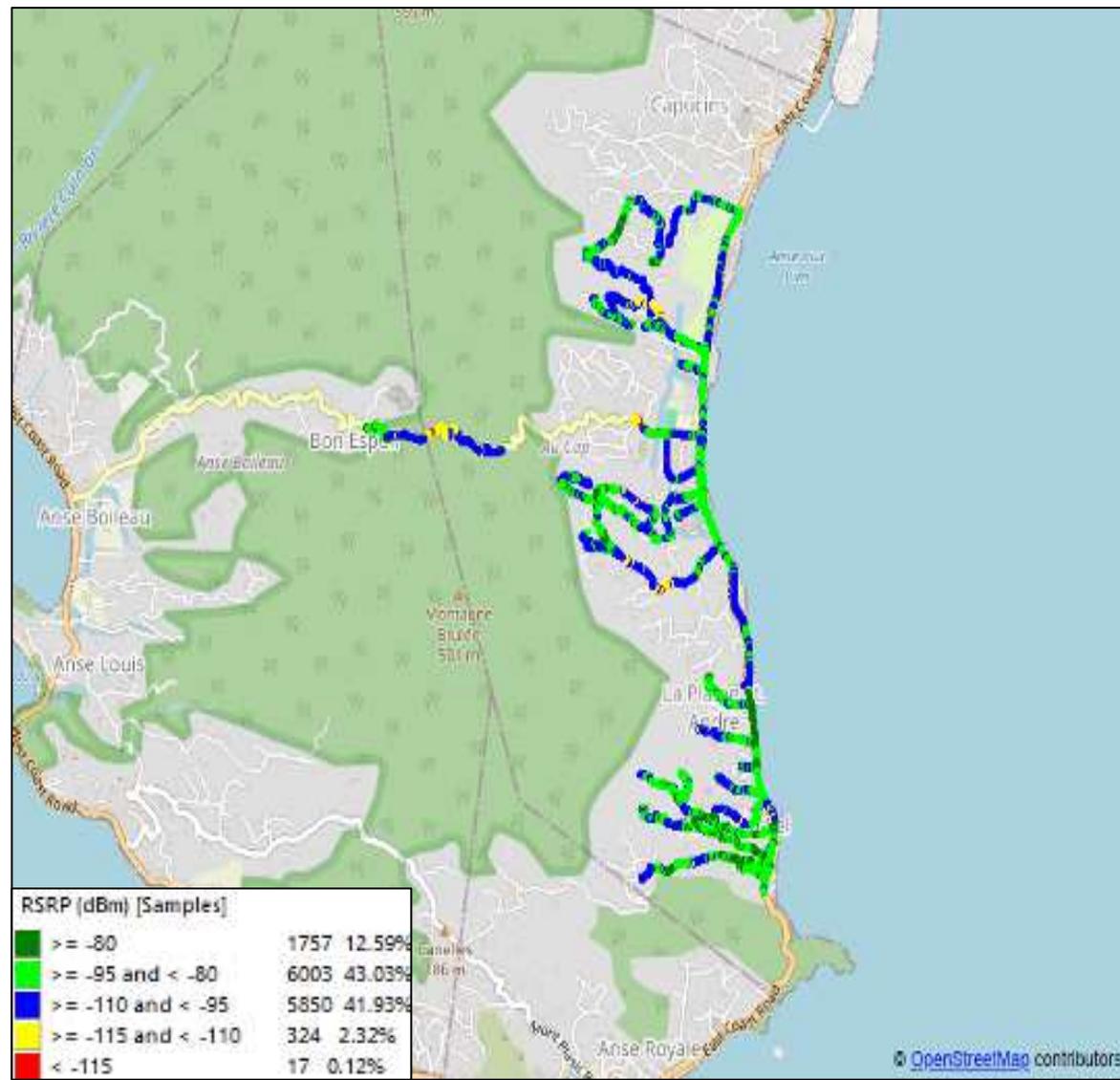
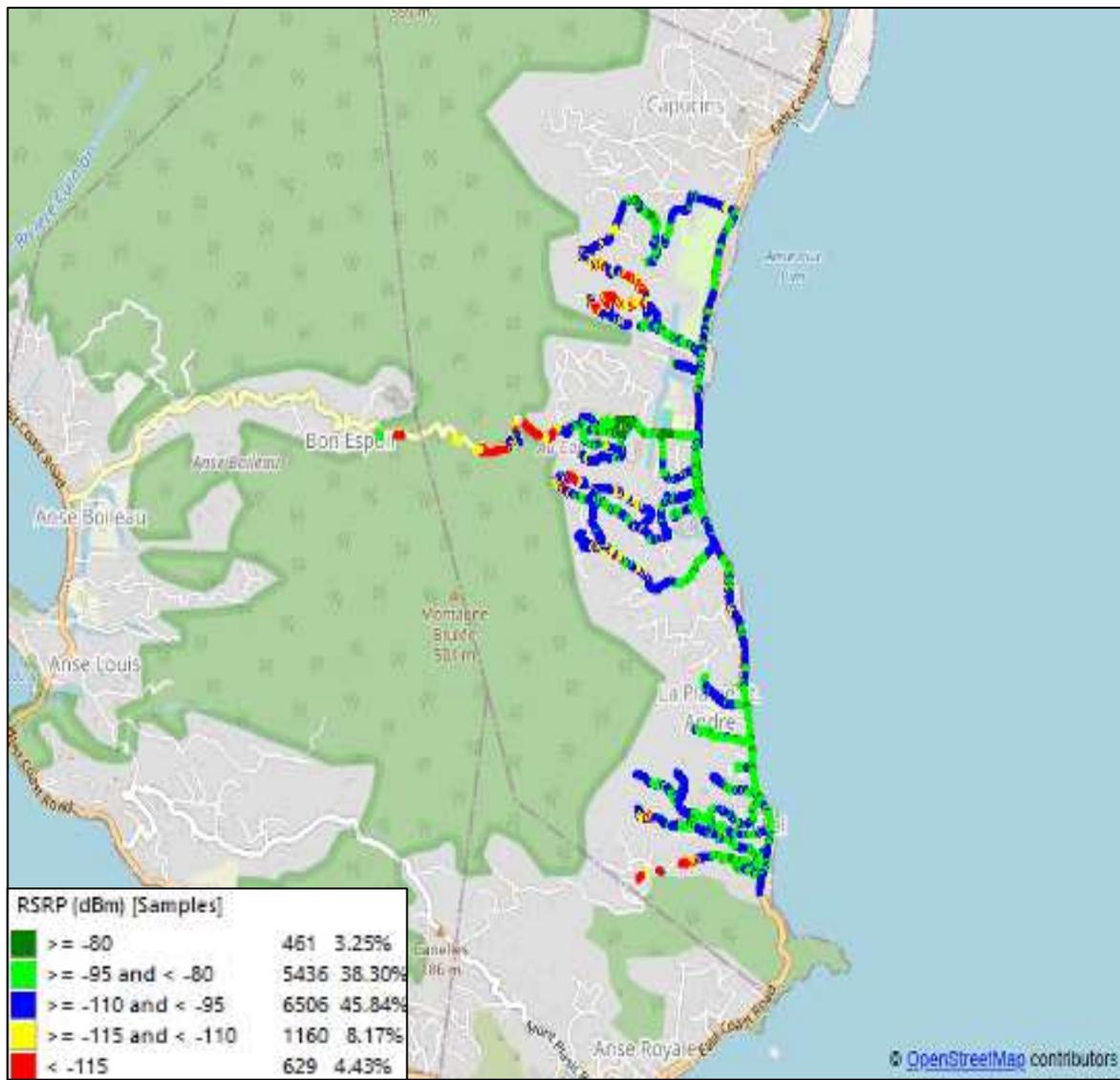


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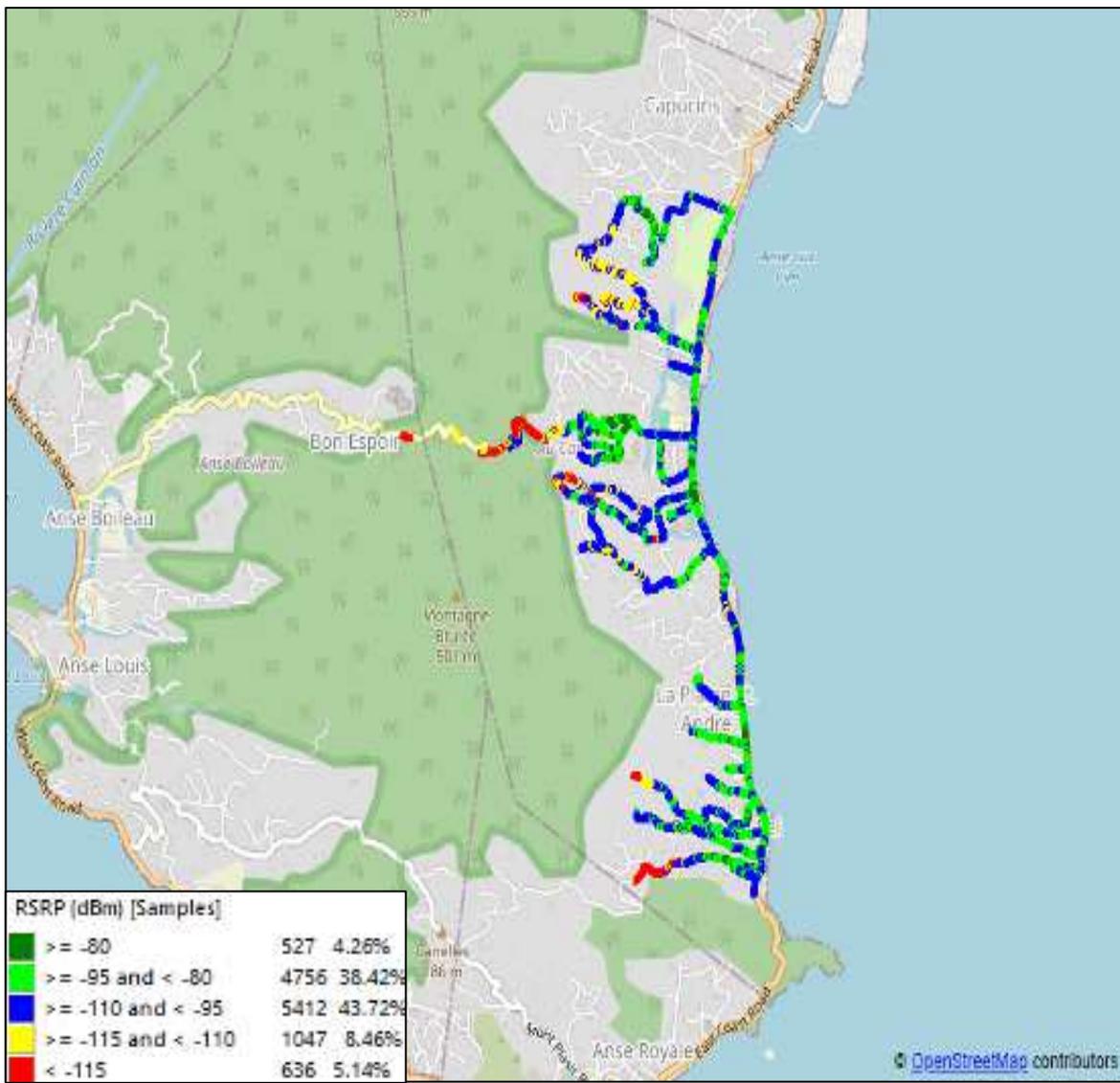


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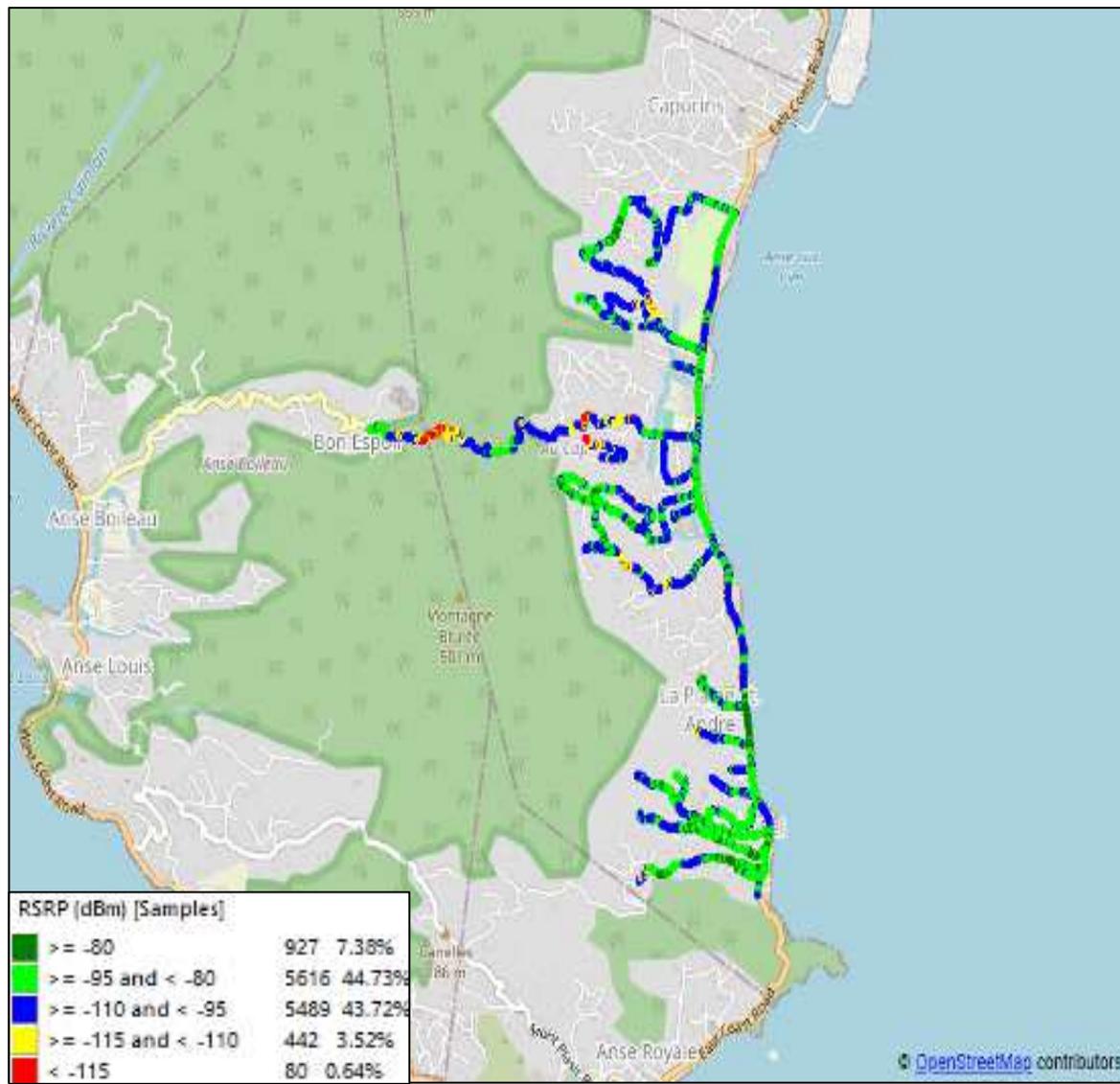
**CWS Data 4G**



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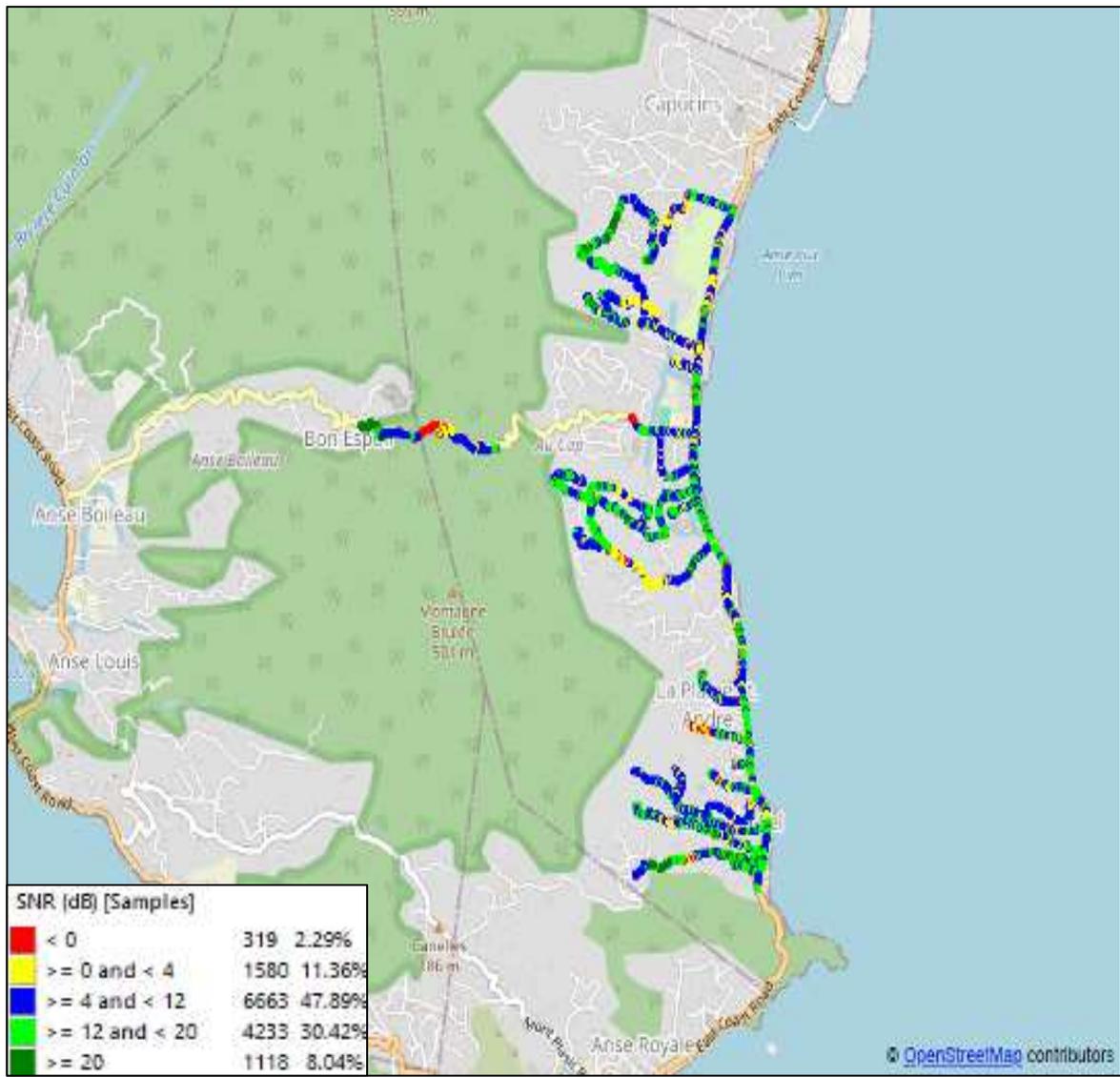
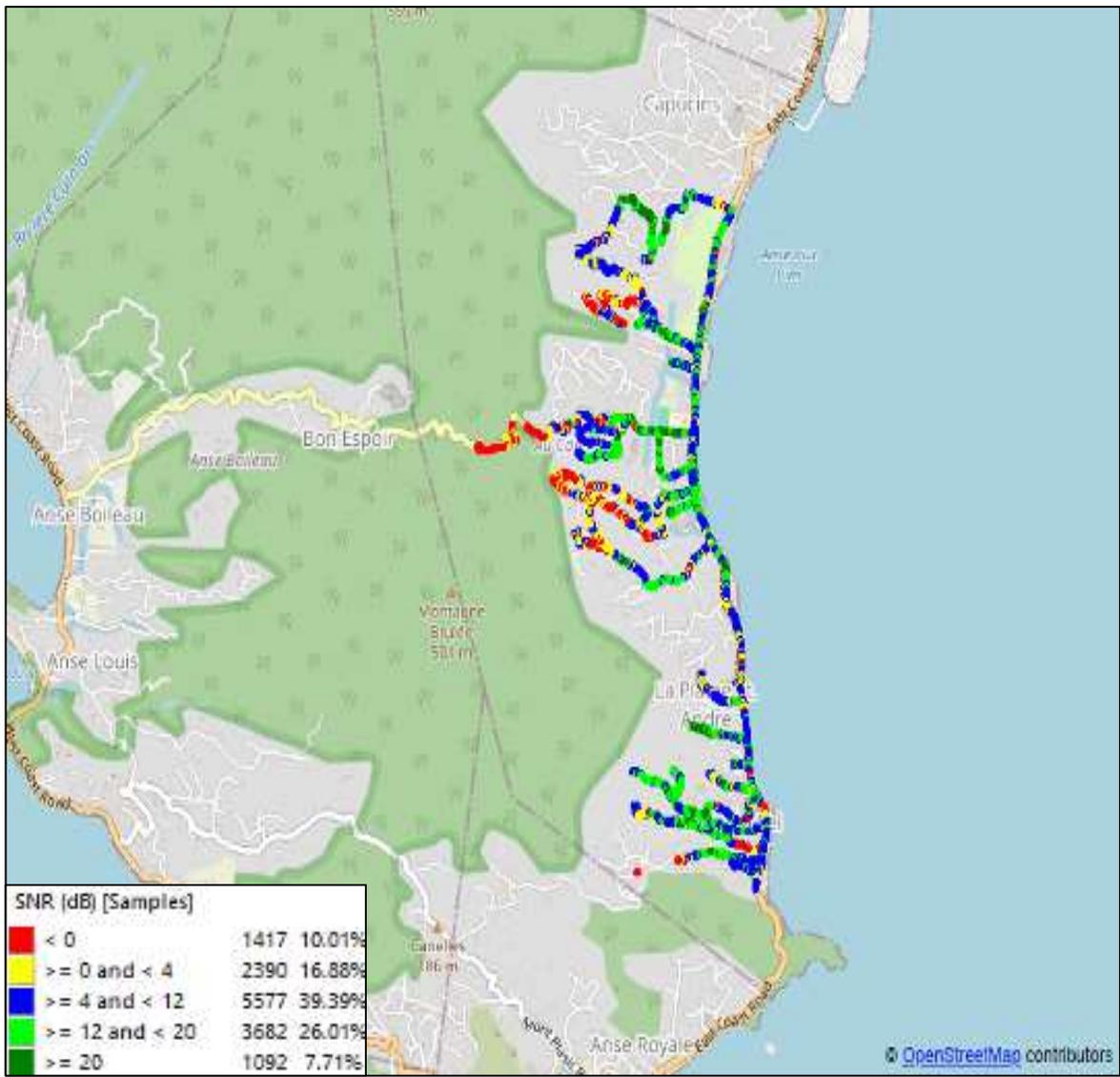


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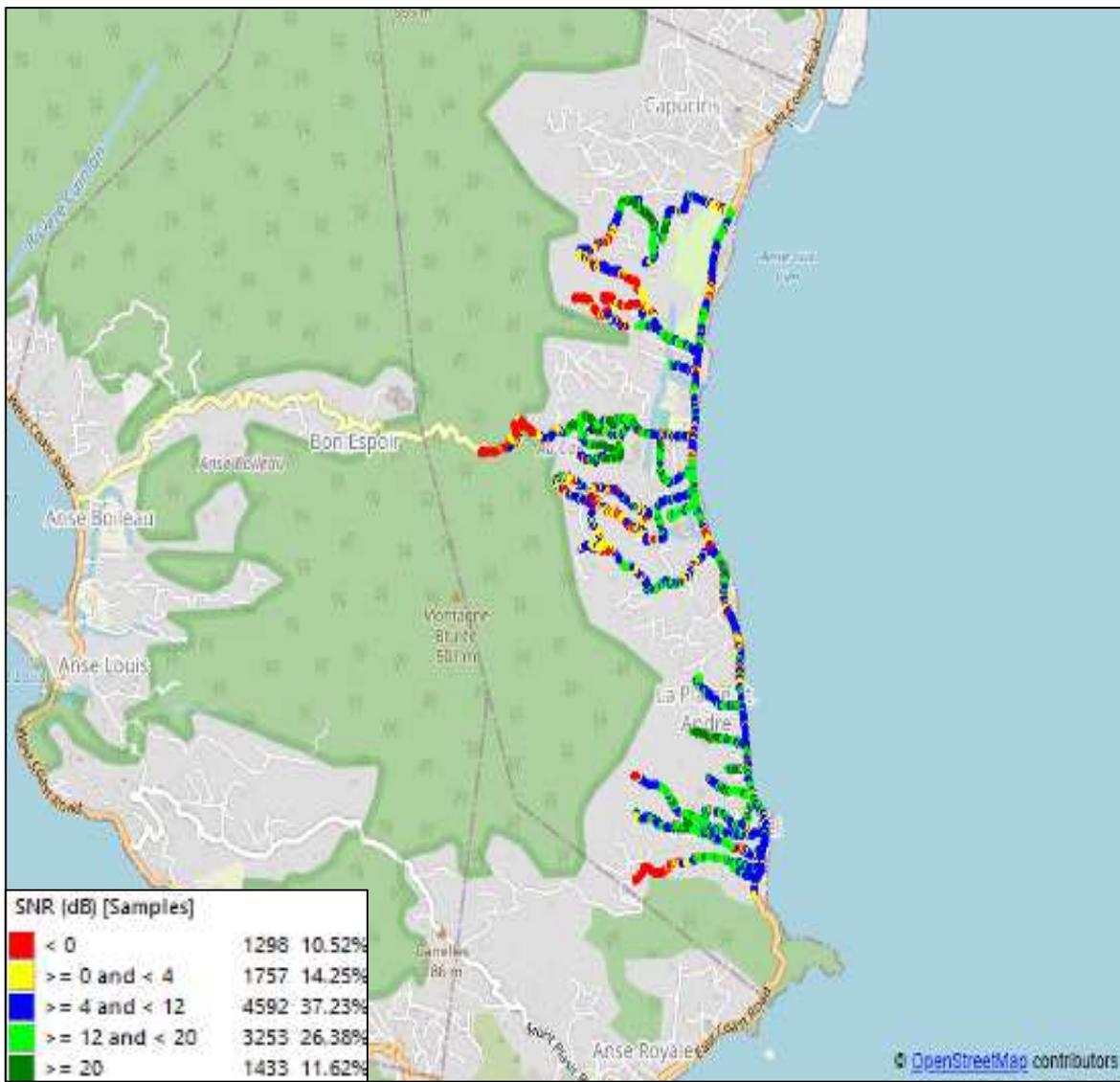


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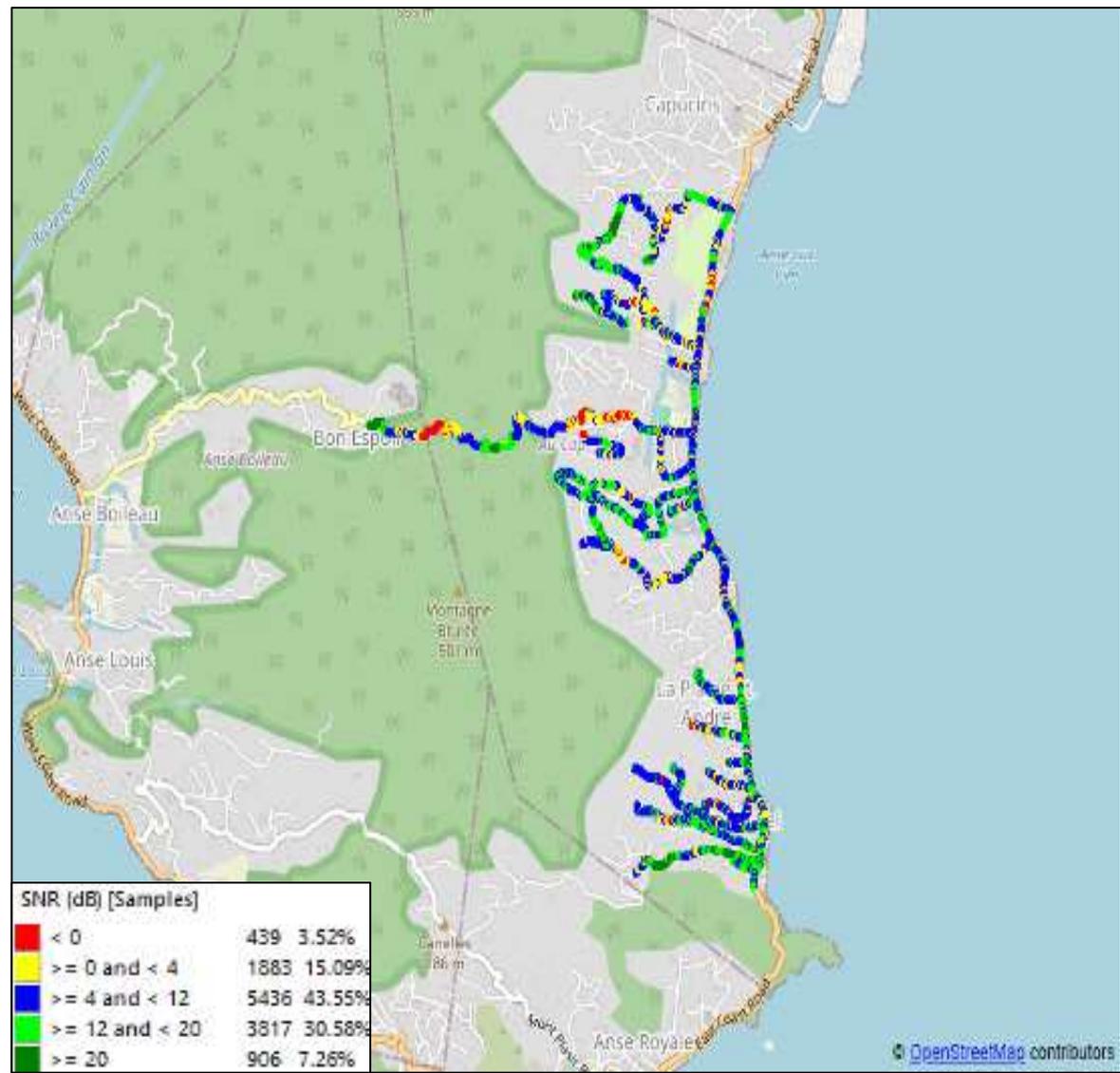
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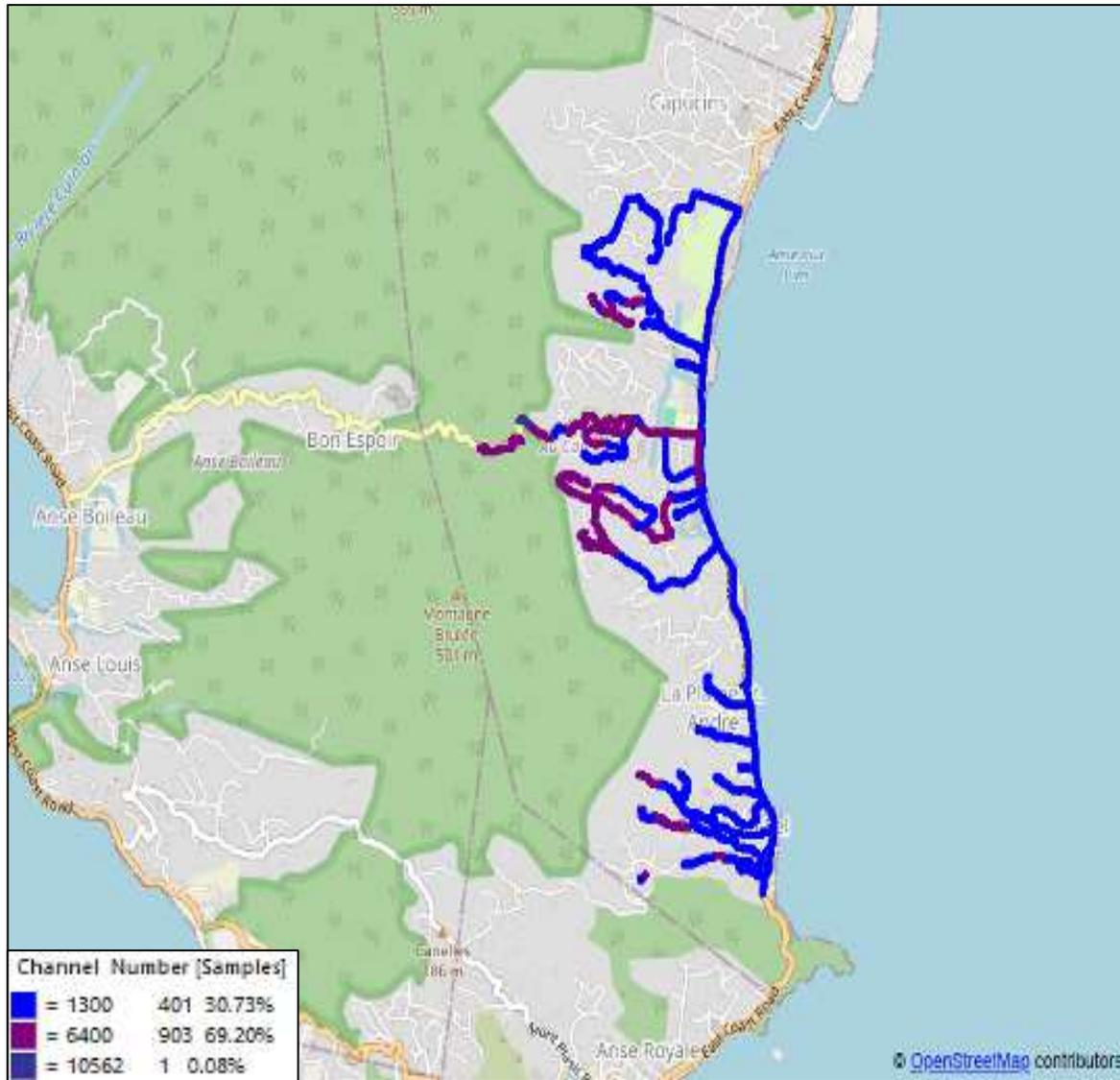
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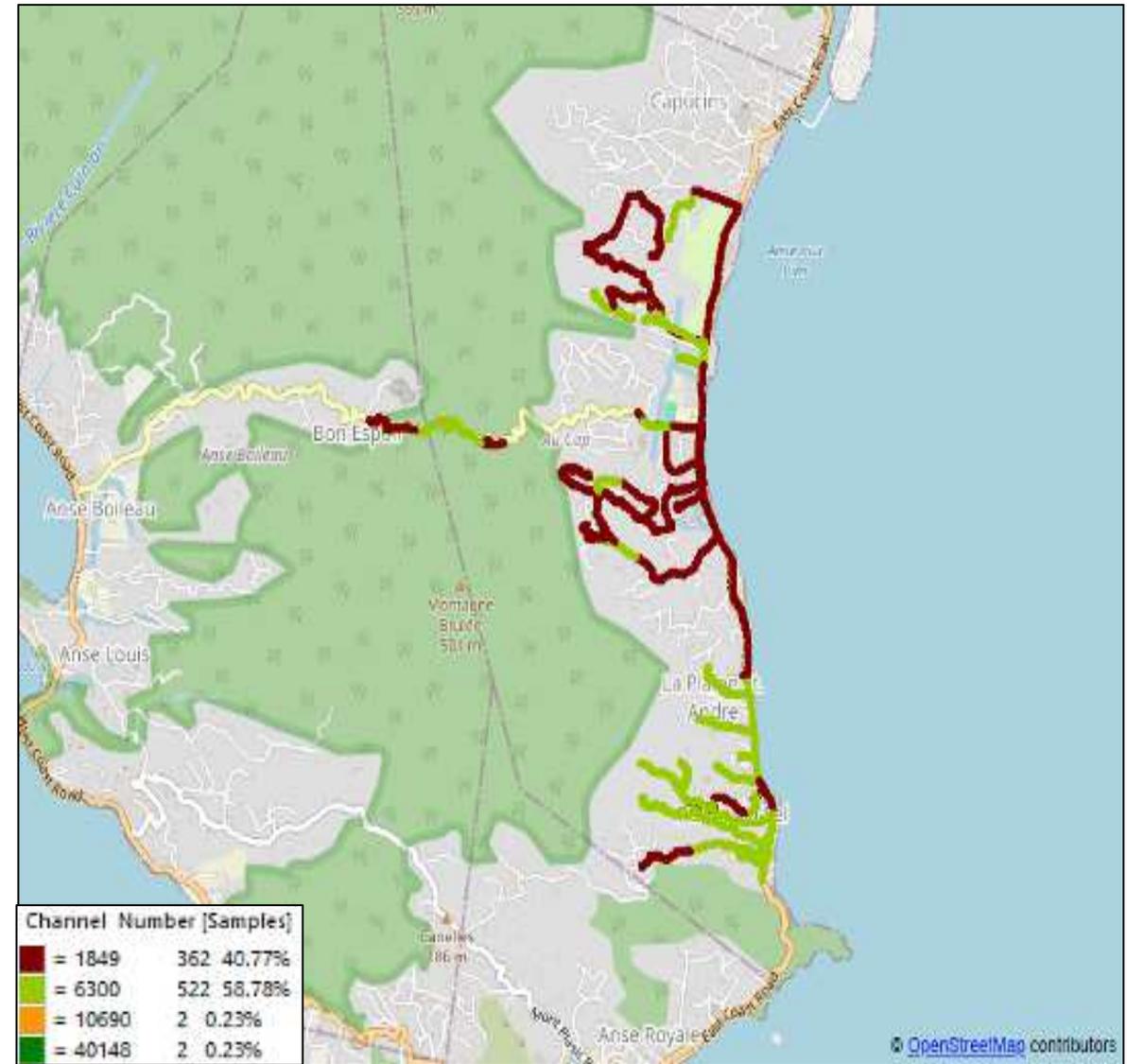
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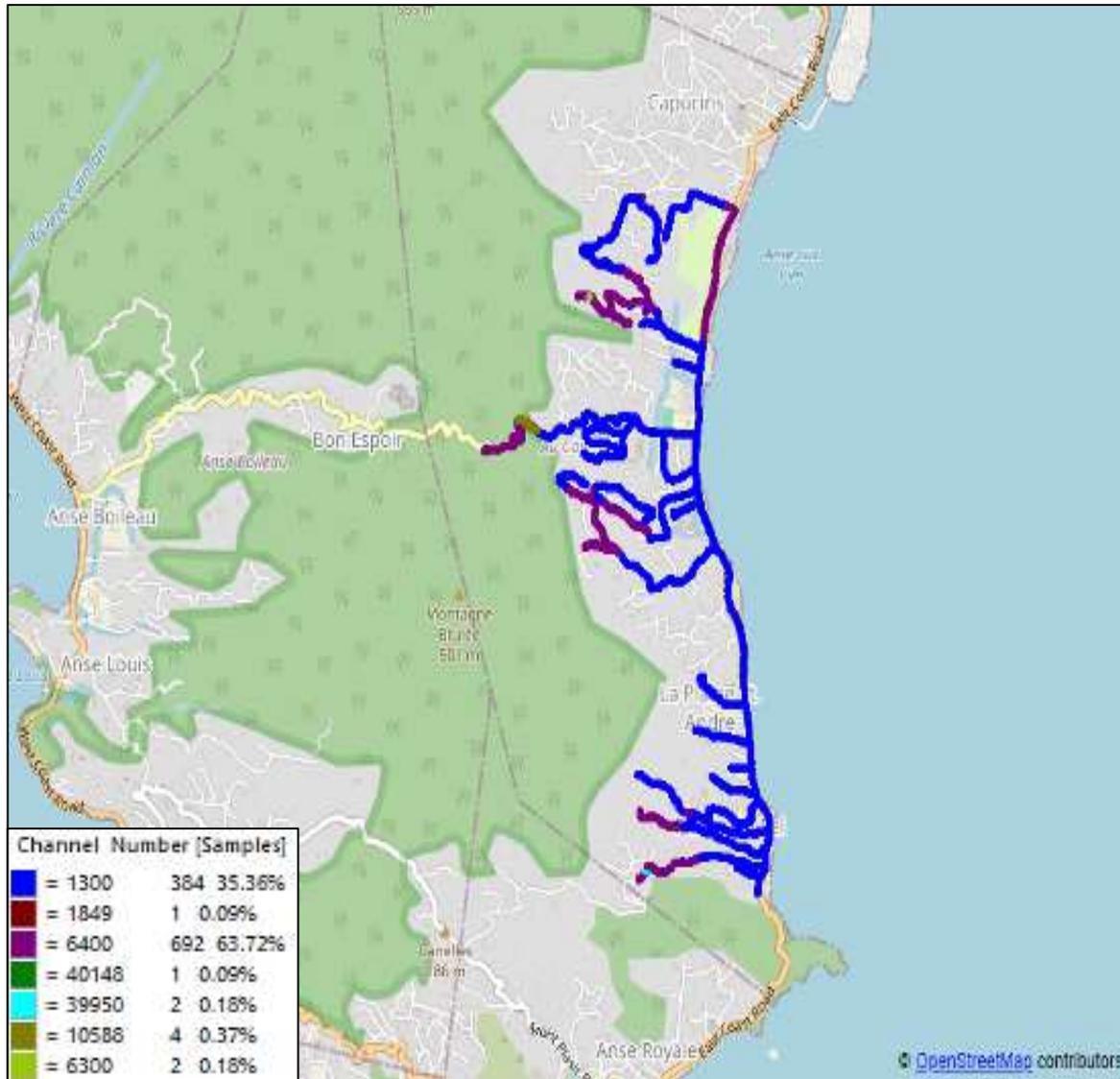
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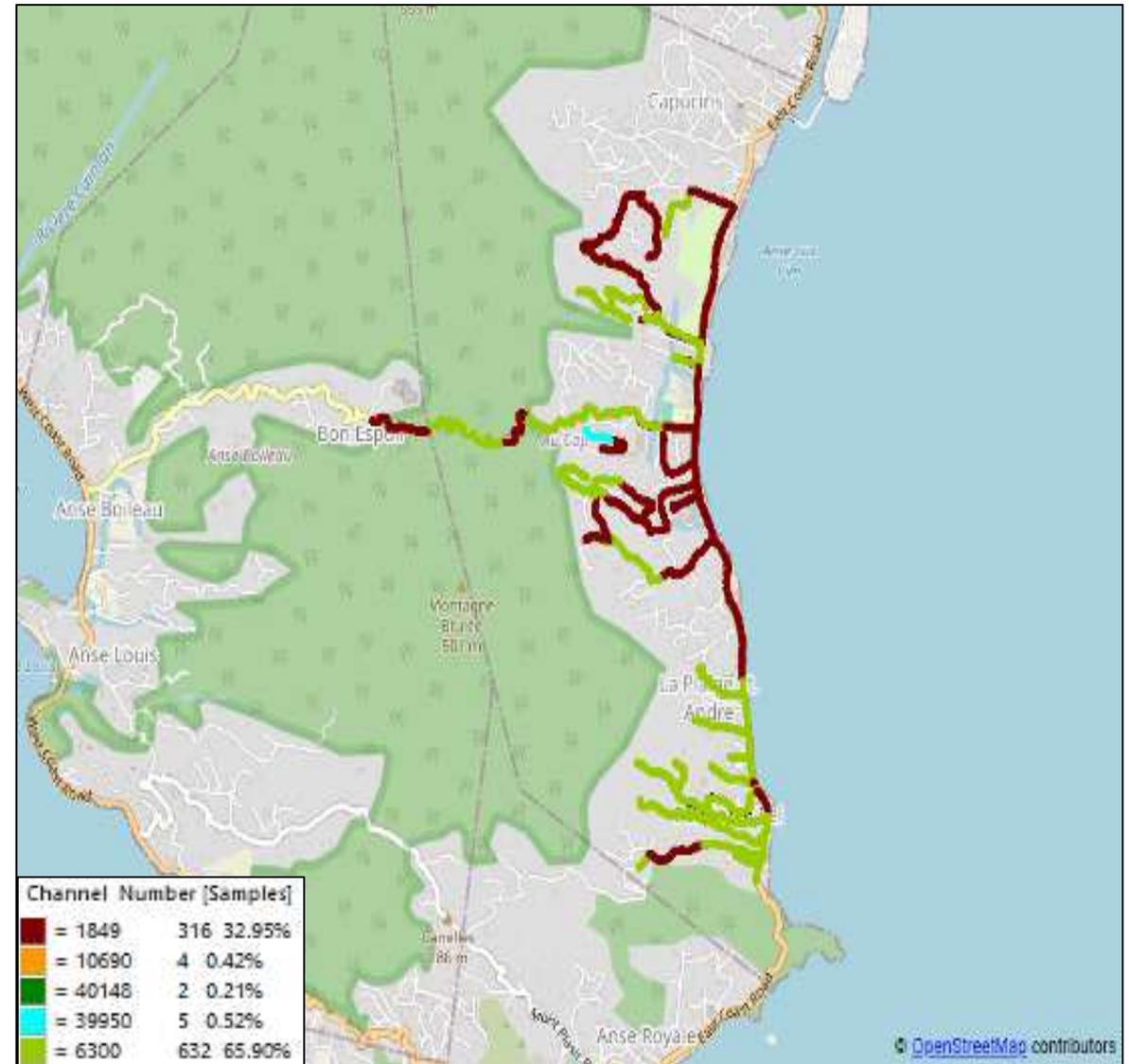
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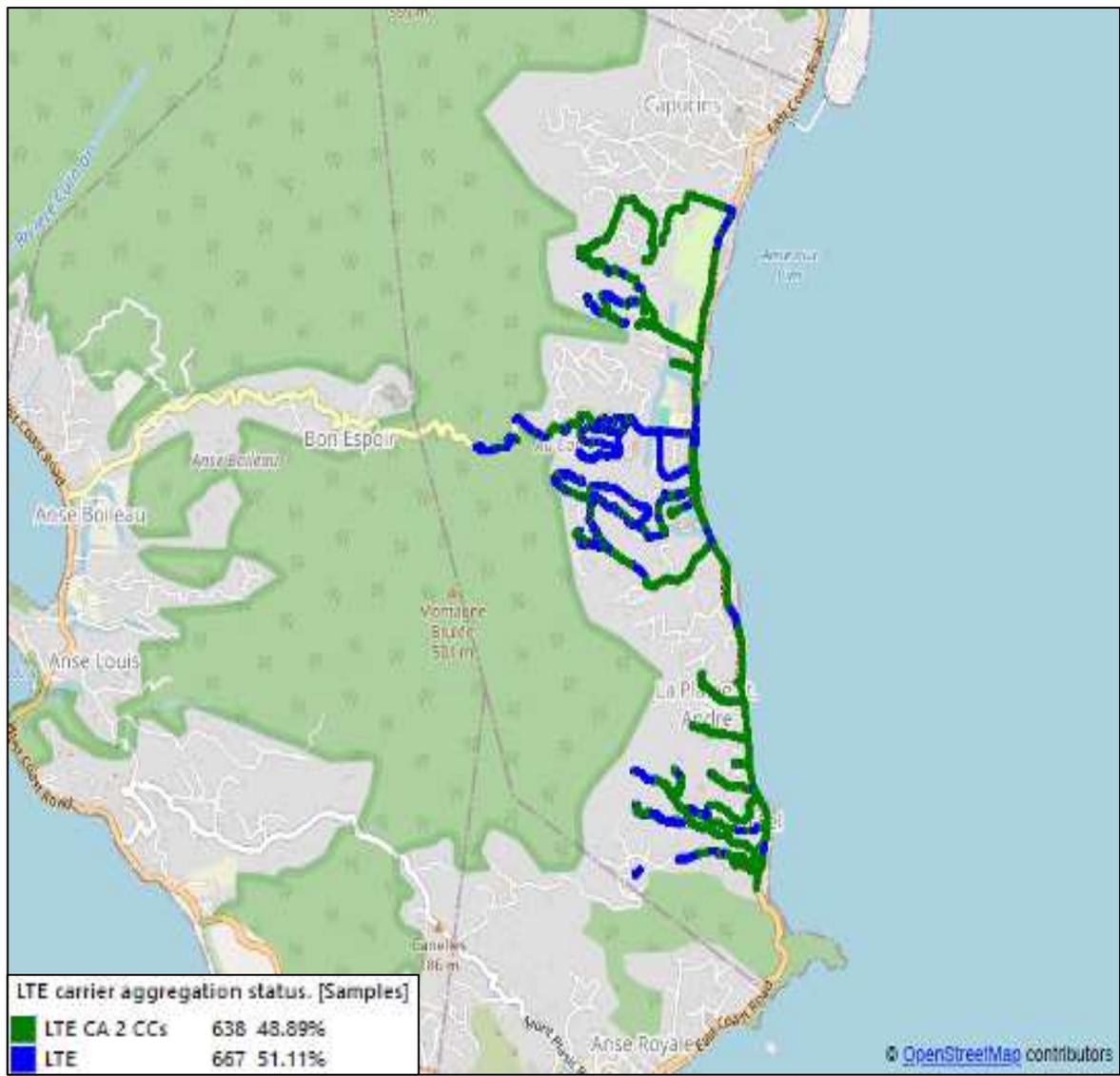
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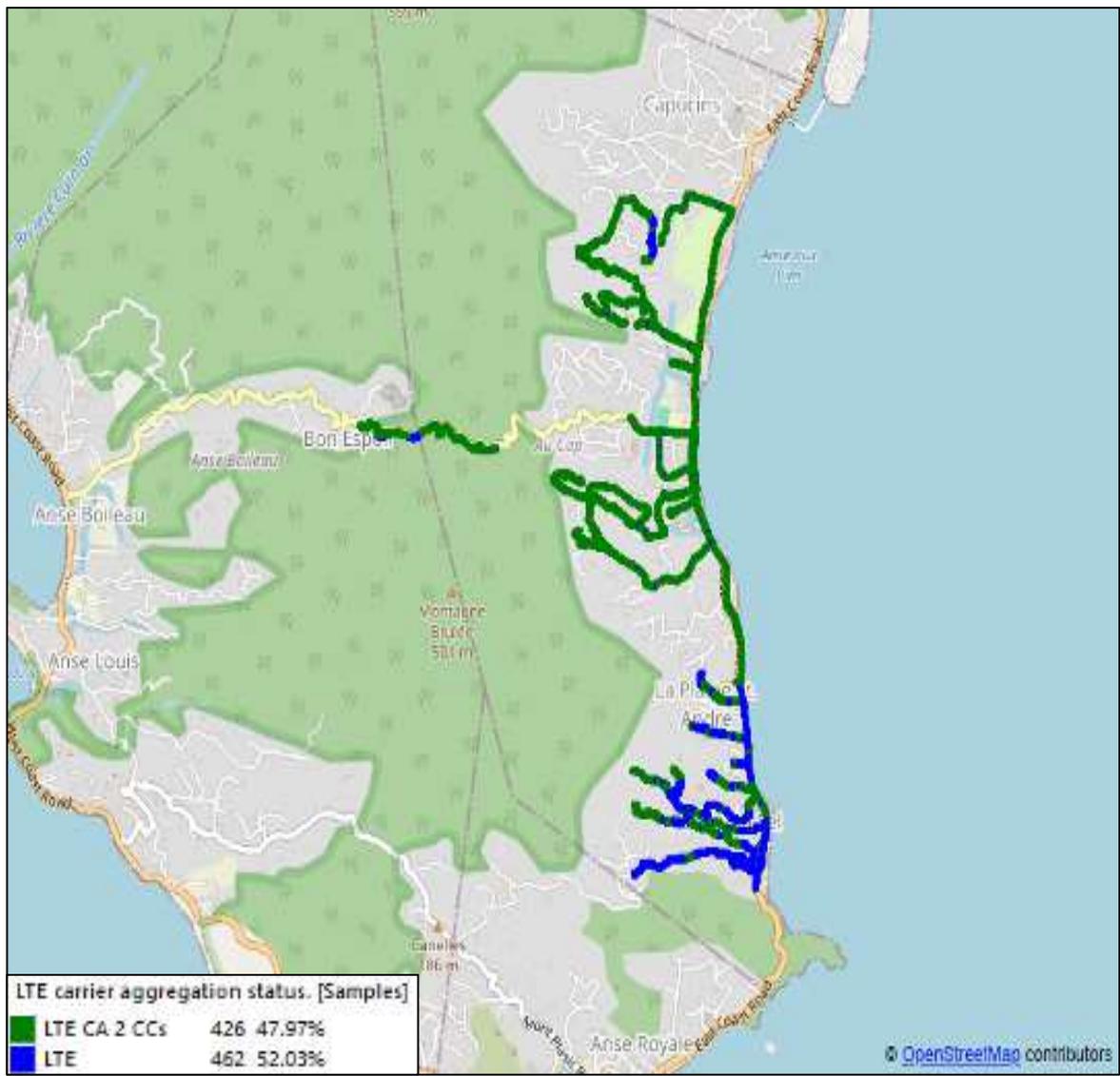
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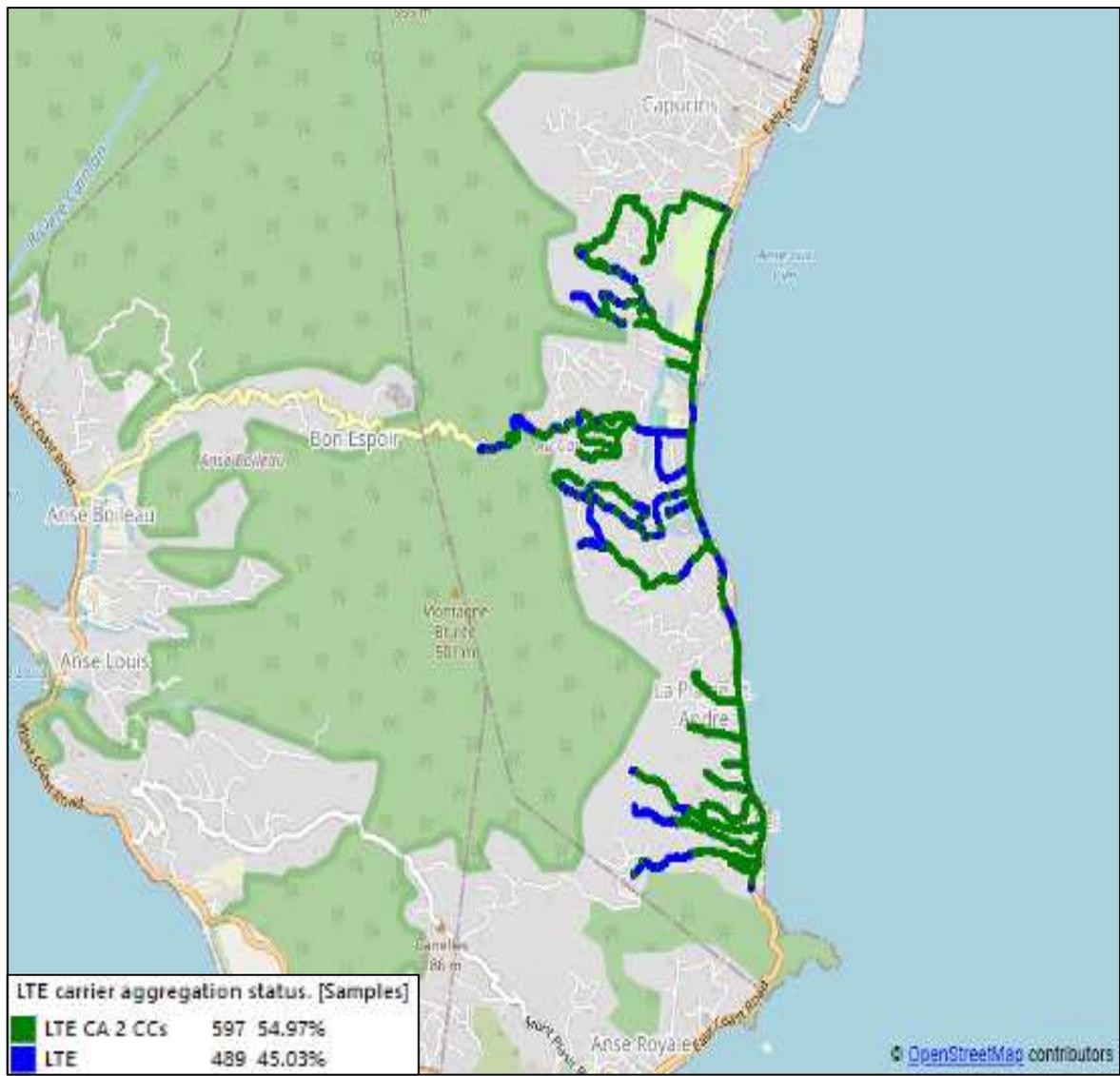
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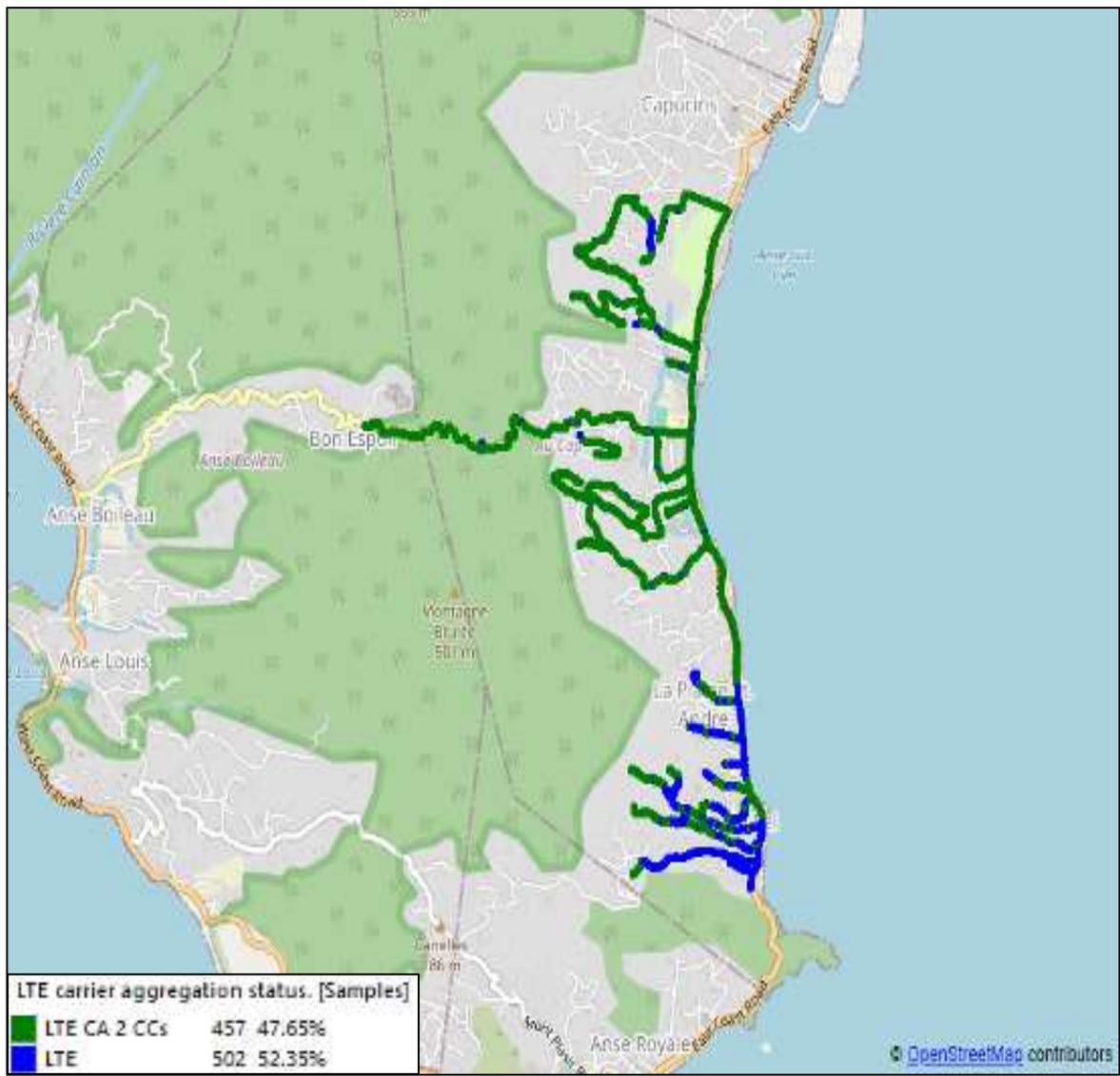
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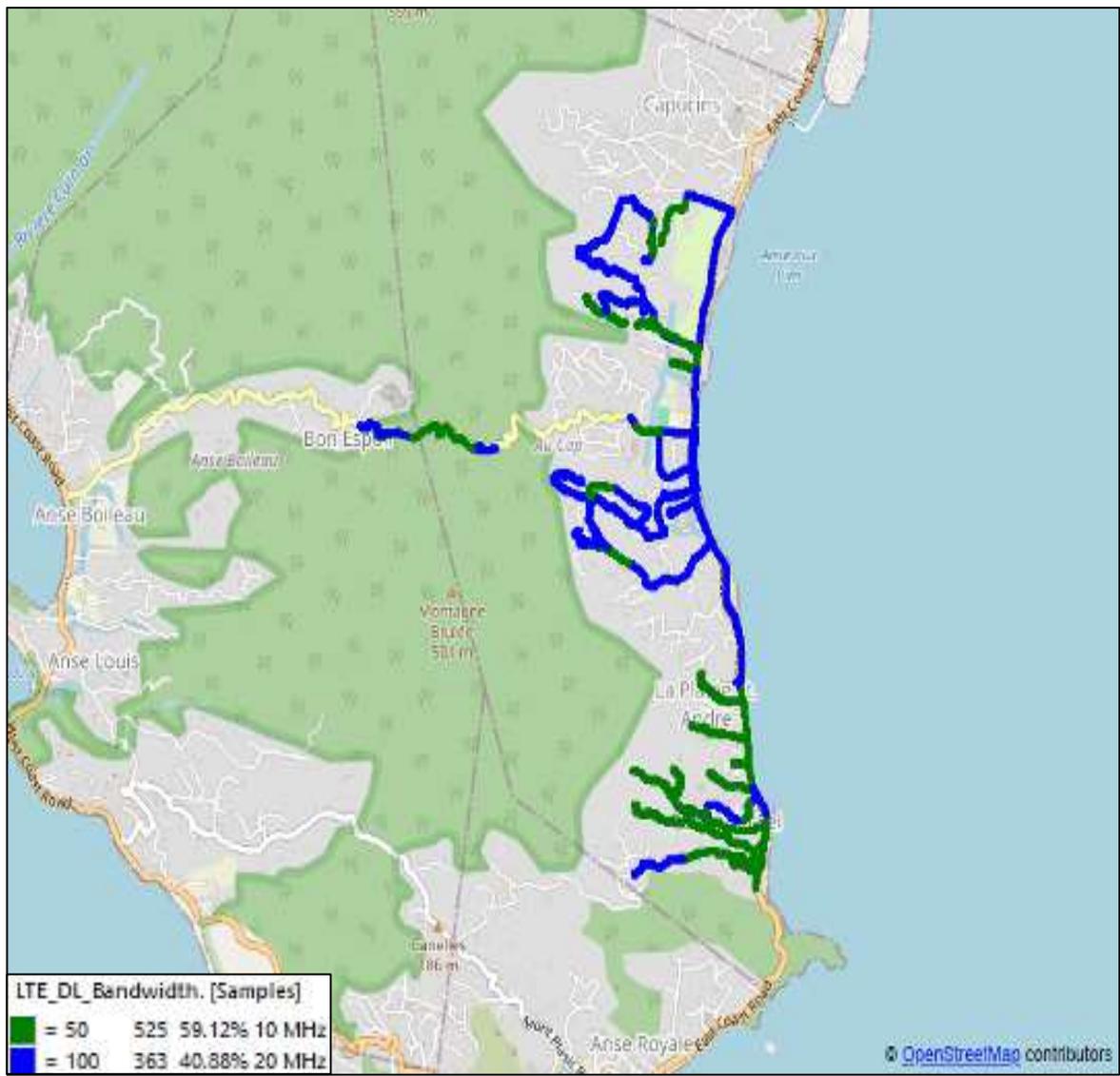
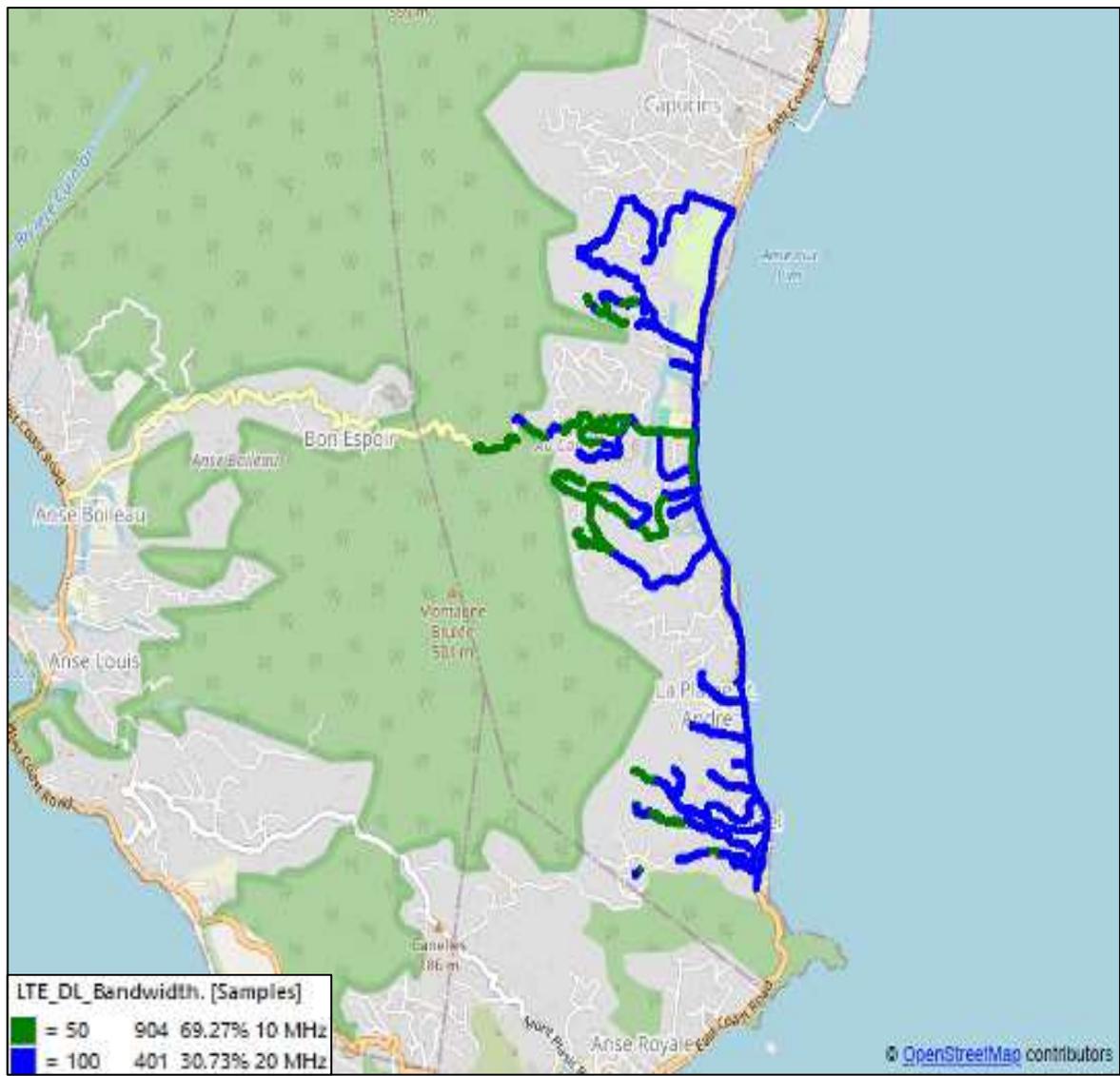


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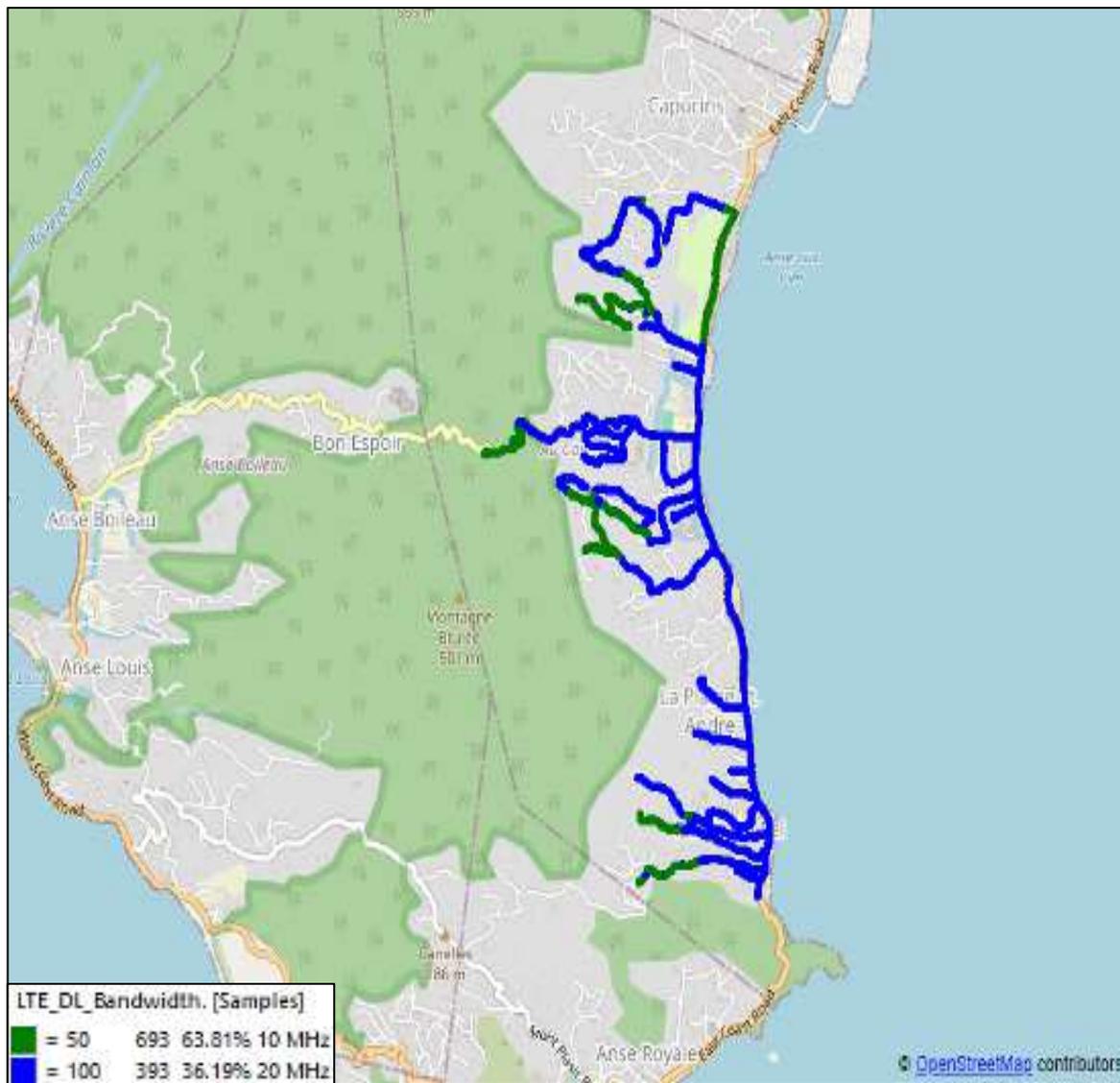


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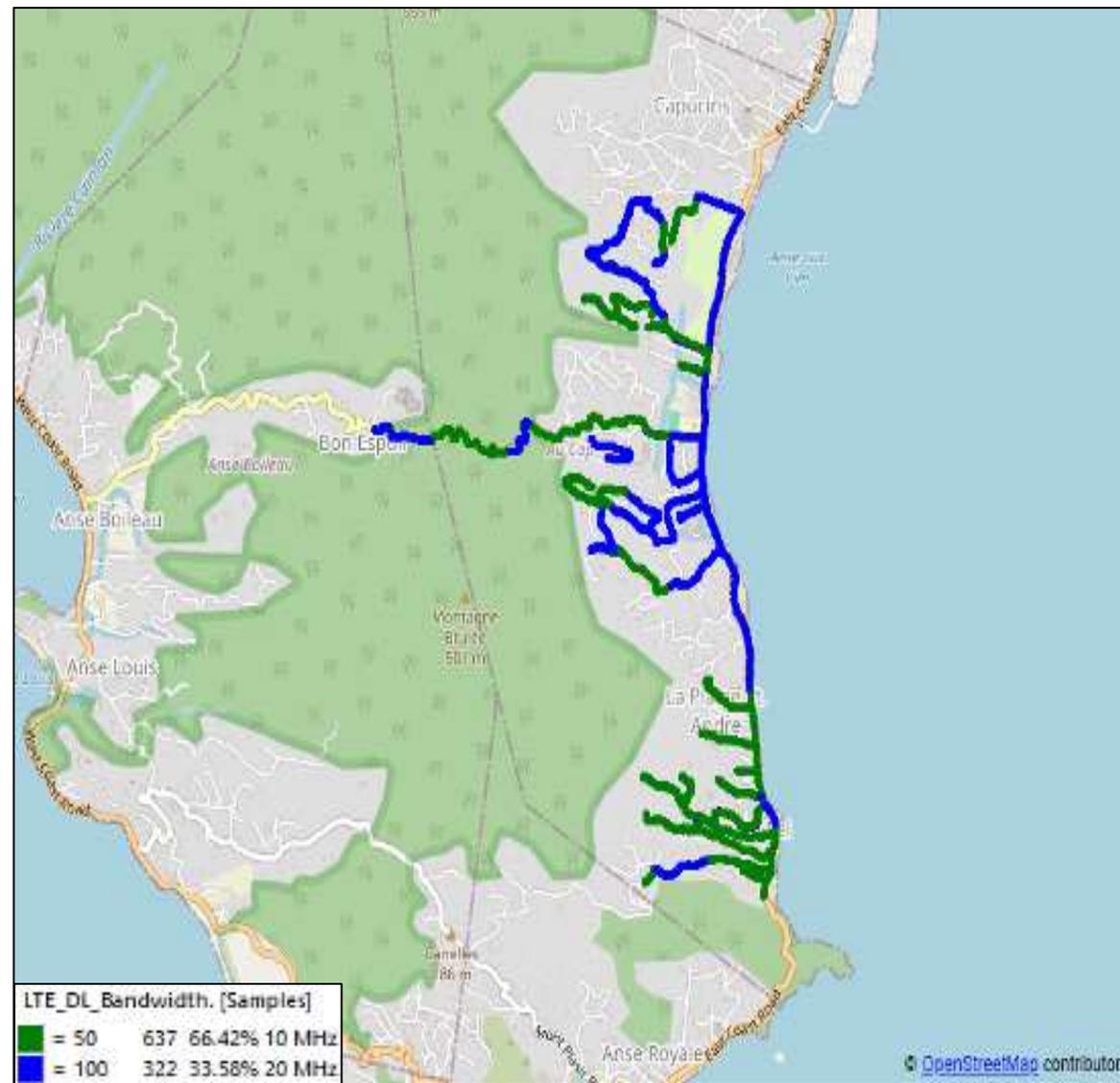
**CWS Data 4G**



**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
<b>Total Call Attempt Failure</b>	<b>5</b>
Poor Coverage	3
Poor Quality	1
Network End	1

Call Attempt Failure cause from CWS	Count
<b>Total Call Attempt Failure</b>	<b>3</b>
Poor Coverage	2
Poor Quality	1

Call Drop cause from Airtel	Count
<b>Total Call Drop</b>	<b>2</b>
Poor Coverage	1
Network End	1

Call Drop cause from CWS	Count
<b>Total Call Drop</b>	<b>1</b>
Network End	1

# Phase-1 Call Attempt Failure Analysis 1 From MS5 Airtel MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		System	Transf. dir.	Time	Subchannel	Message name	
1.	10:47:30.994	UMTS FDD	2100	4308.		10:47:25.415	10588	248	-22.3		10773.	UMTS FDD	Uplink	10:47:14.187	DCCH	UPLINK_DIRECT_TRANSFER
2.	10:49:17.093	UMTS FDD	2100	4309.	-123.1	10:47:25.782	10588	256			10774.	UMTS FDD	Uplink	10:47:14.187	DCCH	SETUP
3.	11:48:42.248	UMTS FDD	2100	4310.		10:47:25.782	10588	256	-21		10775.	UMTS FDD	Downlink	10:47:14.196	DCCH	DOWNLINK_DIRECT_TRANSFER
4.	12:08:23.336	GSM	900	4311.	-118.3	10:47:26.358	10588	256			10776.	UMTS FDD	Downlink	10:47:14.196	DCCH	IDENTITY_REQUEST
5.	12:09:23.811	GSM	900	4312.		10:47:26.358	10588	256	-17.4		10777.	UMTS FDD	Uplink	10:47:14.197	DCCH	UPLINK_DIRECT_TRANSFER
				4313.	-121.2	10:47:26.885	10588	248			10778.	UMTS FDD	Uplink	10:47:14.197	DCCH	IDENTITY_RESPONSE
				4314.		10:47:26.885	10588	248	-21.8		10779.	UMTS FDD	Downlink	10:47:14.316	DCCH	DOWNLINK_DIRECT_TRANSFER
				4315.	-122.9	10:47:27.325	10588	256			10780.	UMTS FDD	Downlink	10:47:14.316	DCCH	CALL_PROCEEDING
				4316.		10:47:27.325	10588	256	-23.6		10781.	UMTS FDD	Uplink	10:47:15.028	DCCH	MEASUREMENT_REPORT
				4317.	-117.5	10:47:27.905	10588	256			10782.	UMTS FDD	Uplink	10:47:15.677	DCCH	MEASUREMENT_REPORT
				4318.		10:47:27.905	10588	256	-17.6		10783.	UMTS FDD	Uplink	10:47:15.729	DCCH	MEASUREMENT_REPORT
				4319.	-119.2	10:47:28.386	10588	248			10784.	UMTS FDD	Downlink	10:47:15.835	DCCH	ACTIVE_SET_UPDATE
				4320.		10:47:28.386	10588	248	-20.8		10785.	UMTS FDD	Uplink	10:47:15.847	DCCH	ACTIVE_SET_UPDATE_COMPLETE
				4321.	-116.3	10:47:28.915	10588	256			10786.	UMTS FDD	Uplink	10:47:15.889	DCCH	MEASUREMENT_REPORT
				4322.		10:47:28.915	10588	256	-16		10787.	UMTS FDD	Downlink	10:47:15.945	DCCH	MEASUREMENT_CONTROL
				4323.	-116.5	10:47:29.355	10588	256			10788.	UMTS FDD	Uplink	10:47:17.028	DCCH	MEASUREMENT_REPORT
				4324.		10:47:29.355	10588	256	-17.1		10789.	UMTS FDD	Downlink	10:47:17.135	DCCH	ACTIVE_SET_UPDATE
				4325.	-117.1	10:47:29.906	10588	256			10790.	UMTS FDD	Uplink	10:47:17.147	DCCH	ACTIVE_SET_UPDATE_COMPLETE
				4326.		10:47:29.906	10588	256	-18.3		10791.	UMTS FDD	Downlink	10:47:17.255	DCCH	MEASUREMENT_CONTROL
				4327.	-120.5	10:47:30.378	10588	256			10792.	UMTS FDD	Downlink	10:47:20.035	DCCH	RADIO_BEARER_SETUP
				4328.		10:47:30.378	10588	256	-21.5		10793.	UMTS FDD	Uplink	10:47:20.389	DCCH	RADIO_BEARER_SETUP_COMPLETE
				4329.	-118	10:47:30.934	10588	256			10794.	UMTS FDD	Uplink	10:47:20.598	DCCH	MEASUREMENT_REPORT
				4330.		10:47:30.934	10588	256	-19.6		10795.	UMTS FDD	Downlink	10:47:20.676	DCCH	RADIO_BEARER_RECONFIGURATION
				4331.	-112.4	10:47:31.404	10588	256			10796.	UMTS FDD	Uplink	10:47:20.717	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
				4332.		10:47:31.404	10588	256	-11.4		10797.	UMTS FDD	Downlink	10:47:20.756	DCCH	DOWNLINK_DIRECT_TRANSFER
				4333.	-114.9	10:47:31.915	10588	256			10798.	UMTS FDD	Downlink	10:47:20.756	DCCH	PROGRESS
				4334.		10:47:31.915	10588	256	-15.6		10799.	UMTS FDD	Downlink	10:47:21.076	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
				4335.	-116.7	10:47:32.496	10588	248			10800.	UMTS FDD	Uplink	10:47:21.117	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_COMPLETE
				4336.		10:47:32.496	10588	248	-15.2		10801.	UMTS FDD	Downlink	10:47:21.916	DCCH	MEASUREMENT_CONTROL
				4337.	-117.5	10:47:32.857	10588	248			10802.	UMTS FDD	Downlink	10:47:23.115	DCCH	SECURITY_MODE_COMMAND
				4338.		10:47:32.857	10588	248	-18.5		10803.	UMTS FDD	Uplink	10:47:23.116	DCCH	SECURITY_MODE_COMPLETE
				4339.	-110	10:47:33.721	10588	256			10804.	UMTS FDD	Uplink	10:47:23.357	DCCH	MEASUREMENT_REPORT
				4340.		10:47:33.721	10588	256	-11.6		10805.	UMTS FDD	Downlink	10:47:23.595	DCCH	DOWNLINK_DIRECT_TRANSFER
				4341.	-114	10:47:34.116	10588	256			10806.	UMTS FDD	Downlink	10:47:23.595	DCCH	ROUTING_AREA_UPDATE_ACCEPT
				4342.		10:47:34.116	10588	256	-17.6		10807.	UMTS FDD	Uplink	10:47:23.597	DCCH	UPLINK_DIRECT_TRANSFER
				4343.	-100.3	10:47:34.757	10588	256			10808.	UMTS FDD	Uplink	10:47:23.597	DCCH	ROUTING_AREA_UPDATE_COMPLETE

## Analysis:

- This call failure event occurred on short call at 10:47:30:994 time when UE was latched with 3G network.
- After sending "CM Service Request" message to core network, then core network responds with "Call Proceeding" message. After that call setup has been failed.
- During the failure, UE was latched with PSC 256 and RF condition RSCP -118 dBm good but Ec/No -19.6 dB are very poor.
- Call failed due to poor network quality on the MO site. Network issues such as low signal strength or interference in the area are impacting call performance.

# Phase-1 Call Attempt Failure Analysis 2 From MS5 Airtel MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		System	Transf. dir.	Time	Subchannel	Message name	
1.	10:47:30.994	UMTS FDD	2100		4506.	10:48:44.832	10588	256	-19		10978.	UMTS FDD	Downlink	10:49:01.397	BCCH_BCH	SYSTEM_INFORMATION_BCH
2.	10:49:17.093	UMTS FDD	2100		4507.	10:48:46.159	10588	256			10979.	UMTS FDD	Downlink	10:49:01.417	BCCH_BCH	SYSTEM_INFORMATION_BCH
3.	11:48:42.248	UMTS FDD	2100		4508.	10:48:47.435	10588	256			10980.	UMTS FDD	Downlink	10:49:01.437	BCCH_BCH	SYSTEM_INFORMATION_BCH
4.	12:08:23.336	GSM	900		4509.	10:48:47.435	10588	256	-19.6		10981.	UMTS FDD	Downlink	10:49:01.457	BCCH_BCH	SYSTEM_INFORMATION_BCH
5.	12:09:23.811	GSM	900		4510.	10:48:47.781	10588	256			10982.	UMTS FDD	Downlink	10:49:01.457	BCCH	MASTER_INFORMATION_BLOCK
					4511.	10:48:47.781	10588	256	-20.2		10983.	UMTS FDD	Downlink	10:49:01.457	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					4512.	10:48:48.975	10588	256			10984.	UMTS FDD	Downlink	10:49:01.677	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4513.	10:48:48.975	10588	256	-23.7		10985.	UMTS FDD	Downlink	10:49:01.697	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4514.	10:48:49.779	10588	256			10986.	UMTS FDD	Downlink	10:49:01.697	BCCH	MASTER_INFORMATION_BLOCK
					4515.	10:48:49.779	10588	256	-21.5		10987.	UMTS FDD	Downlink	10:49:01.697	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					4516.	10:48:50.779	10588	256			10988.	UMTS FDD	Downlink	10:49:09.918	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4517.	10:48:50.779	10588	256	-18.9		10989.	UMTS FDD	Downlink	10:49:09.918	BCCH	SCHEDULING_BLOCK_1
					4518.	10:48:50.995	10588	256			10990.	UMTS FDD	Downlink	10:49:09.937	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4519.	10:48:50.995	10588	256	-19.4		10991.	UMTS FDD	Downlink	10:49:09.937	BCCH	MASTER_INFORMATION_BLOCK
					4520.	10:48:51.782	10588	256			10992.	UMTS FDD	Downlink	10:49:09.937	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					4521.	10:48:51.782	10588	256	-24.9		10993.	UMTS FDD	Downlink	10:49:10.197	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4522.	10:48:52.205	10588	256			10994.	UMTS FDD	Downlink	10:49:10.217	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4523.	10:48:52.205	10588	256	-21		10995.	UMTS FDD	Downlink	10:49:10.217	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_1
					4524.	10:48:52.901	10588	256			10996.	UMTS FDD	Downlink	10:49:10.237	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4525.	10:48:52.901	10588	256	-21		10997.	UMTS FDD	Downlink	10:49:10.257	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4526.	10:48:53.779	10588	256			10998.	UMTS FDD	Downlink	10:49:10.257	BCCH	MASTER_INFORMATION_BLOCK
					4527.	10:48:53.779	10588	256	-21		10999.	UMTS FDD	Downlink	10:49:10.257	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					4528.	10:48:54.729	10588	256			11000.	UMTS FDD	Downlink	10:49:23.237	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4529.	10:48:54.729	10588	256	-21		11001.	UMTS FDD	Downlink	10:49:23.237	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2
					4530.	10:48:55.782	10588	256			11002.	UMTS FDD	Downlink	10:49:23.237	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
					4531.	10:48:55.782	10588	256	-21		11003.	UMTS FDD	Downlink	10:49:23.257	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4532.	10:50:55.411	10690	140			11004.	UMTS FDD	Downlink	10:49:23.277	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4533.	10:50:55.411	10690	140	-4.3		11005.	UMTS FDD	Downlink	10:49:23.277	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_5
					4534.	10:50:55.827	10690	140			11006.	UMTS FDD	Downlink	10:49:23.297	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4535.	10:50:55.827	10690	140	-4.4		11007.	UMTS FDD	Downlink	10:49:23.297	BCCH	MASTER_INFORMATION_BLOCK
					4536.	10:50:56.324	10690	140			11008.	UMTS FDD	Downlink	10:49:23.297	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					4537.	10:50:56.324	10690	140	-4.2		11009.	UMTS FDD	Downlink	10:49:23.517	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4538.	10:50:57.217	10690	140			11010.	UMTS FDD	Downlink	10:49:23.537	BCCH_BCH	SYSTEM_INFORMATION_BCH
					4539.	10:50:57.217	10690	140	-4.1		11011.	UMTS FDD	Downlink	10:49:23.537	BCCH	MASTER_INFORMATION_BLOCK
					4540.	10:50:57.950	10690	140			11012.	UMTS FDD	Downlink	10:49:23.537	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					4541.	10:50:57.950	10690	140	-7.3		11013.	GSM	Downlink	10:49:26.898	BCCH	SYSTEM_INFORMATION_TYPE_3

- Analysis:**
- This call failure event occurred on short call at 10:49:17:093 time when UE was latched with 3G network.
  - Initially call was attempt at 10:48:46:844 time, Call failure happened.
  - During the failure, UE was latched with PSC 256 and RF condition RSCP -124.6 dBm good but Ec/No -21 dB are very poor.
  - Call failed due to poor network quality on the MO site. Network issues such as low signal strength or interference in the area are impacting call performance.

# Phase-1 Call Attempt Failure Analysis 3 From MS5 Airtel MO

	Time	System	Serving band	1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		System	Transf. dir.	Time	Subchannel	Message name	
1.	10:47:30.994	UMTS FDD	2100	10164, -89	11:48:05.353	10588	288			22799.	UMTS FDD	Downlink	11:48:39.791	BCCH_BCH	SYSTEM_INFORMATION_BCH
2.	10:49:17.093	UMTS FDD	2100	10165.	11:48:05.353	10588	288	-3.2		22800.	UMTS FDD	Downlink	11:48:39.801	CCCH	RRC_CONNECTION_SETUP
3.	11:48:42.248	UMTS FDD	2100	10166.	11:48:06.035	10588	288	-104.9		22801.	UMTS FDD	Uplink	11:48:39.857	DCCH	RRC_CONNECTION_SETUP_COMPLETE
4.	12:08:23.336	GSM	900	10167.	11:48:06.035	10588	288	-7.7		22802.	UMTS FDD	Uplink	11:48:39.858	DCCH	INITIAL_DIRECT_TRANSFER
5.	12:09:23.811	GSM	900	10168.	11:48:06.546	10588	288	-93.2		22803.	UMTS FDD	Uplink	11:48:39.858	DCCH	CM_SERVICE_REQUEST
				10169.	11:48:06.546	10588	288	-4.7		22804.	UMTS FDD	Uplink	11:48:39.858	DCCH	INITIAL_DIRECT_TRANSFER
				10170.	11:48:07.035	10588	288	-94.9		22805.	UMTS FDD	Uplink	11:48:39.858	DCCH	ROUTING_AREA_UPDATE_REQUEST
				10171.	11:48:07.035	10588	288	-5.5		22806.	UMTS FDD	Downlink	11:48:40.091	DCCH	MEASUREMENT_CONTROL
				10172.	11:48:07.686	10588	288	-89.2		22807.	UMTS FDD	Downlink	11:48:40.141	DCCH	MEASUREMENT_CONTROL
				10173.	11:48:07.686	10588	288	-4.9		22808.	UMTS FDD	Downlink	11:48:40.151	DCCH	MEASUREMENT_CONTROL
				10174.	11:48:08.111	10588	288	.96		22809.	UMTS FDD	Downlink	11:48:40.161	DCCH	MEASUREMENT_CONTROL
				10175.	11:48:08.111	10588	288	-5.2		22810.	UMTS FDD	Downlink	11:48:40.171	DCCH	MEASUREMENT_CONTROL
				10176.	11:48:08.777	10588	288	-88.1		22811.	UMTS FDD	Downlink	11:48:40.211	DCCH	DOWNLINK_DIRECT_TRANSFER
				10177.	11:48:08.777	10588	288	-5.1		22812.	UMTS FDD	Downlink	11:48:40.211	DCCH	AUTHENTICATION_REQUEST
				10178.	11:48:09.097	10588	288	-89.7		22813.	UMTS FDD	Uplink	11:48:40.340	DCCH	UPLINK_DIRECT_TRANSFER
				10179.	11:48:09.097	10588	288	-3.4		22814.	UMTS FDD	Uplink	11:48:40.340	DCCH	AUTHENTICATION_RESPONSE
				10180.	11:48:09.685	10588	288	-86.4		22815.	UMTS FDD	Downlink	11:48:40.440	DCCH	SECURITY_MODE_COMMAND
				10181.	11:48:09.685	10588	288	-4.4		22816.	UMTS FDD	Uplink	11:48:40.441	DCCH	SECURITY_MODE_COMPLETE
				10182.	11:48:09.965	10588	288	-83.9		22817.	UMTS FDD	Uplink	11:48:40.532	DCCH	UPLINK_DIRECT_TRANSFER
				10183.	11:48:09.965	10588	288	-2.6		22818.	UMTS FDD	Uplink	11:48:40.532	DCCH	SETUP
				10184.	11:48:11.164	10588	288	-90.3		22819.	UMTS FDD	Downlink	11:48:40.541	DCCH	DOWNLINK_DIRECT_TRANSFER
				10185.	11:48:11.164	10588	288	-3.3		22820.	UMTS FDD	Downlink	11:48:40.541	DCCH	IDENTITY_REQUEST
				10186.	11:48:39.857	10588	288	-81.5		22821.	UMTS FDD	Uplink	11:48:40.541	DCCH	UPLINK_DIRECT_TRANSFER
				10187.	11:48:39.857	10588	288	-4.6		22822.	UMTS FDD	Uplink	11:48:40.541	DCCH	IDENTITY_RESPONSE
				10188.	11:48:40.311	10588	288	-75.7		22823.	UMTS FDD	Downlink	11:48:40.661	DCCH	DOWNLINK_DIRECT_TRANSFER
				10189.	11:48:40.311	10588	288	-2.6		22824.	UMTS FDD	Downlink	11:48:40.661	DCCH	CALL_PROCEEDING
				10190.	11:48:40.811	10588	288	-75		22825.	UMTS FDD	Uplink	11:48:41.372	DCCH	MEASUREMENT_REPORT
				10191.	11:48:40.811	10588	288	-2.8		22826.	UMTS FDD	Uplink	11:48:41.483	DCCH	MEASUREMENT_REPORT
				10192.	11:48:41.352	10588	288	-78.3		22827.	UMTS FDD	Uplink	11:48:41.483	DCCH	MEASUREMENT_REPORT
				10193.	11:48:41.352	10588	288	-3.9		22828.	UMTS FDD	Uplink	11:48:42.248	DCCH	UPLINK_DIRECT_TRANSFER
				10194.	11:48:41.811	10588	288	-73.1		22829.	UMTS FDD	Uplink	11:48:42.248	DCCH	DISCONNECT
				10195.	11:48:41.811	10588	288	-2.8		22830.	UMTS FDD	Downlink	11:48:42.331	DCCH	DOWNLINK_DIRECT_TRANSFER
				10196.	11:48:42.322	10588	288	-80.1		22831.	UMTS FDD	Downlink	11:48:42.331	DCCH	RELEASE
				10197.	11:48:42.322	10588	288	-3.9		22832.	UMTS FDD	Uplink	11:48:42.331	DCCH	UPLINK_DIRECT_TRANSFER
				10198.	11:48:42.891	10588	288	-71.2		22833.	UMTS FDD	Uplink	11:48:42.331	DCCH	RELEASE_COMPLETE
				10199.	11:48:42.891	10588	288	-4.2		22834.	UMTS FDD	Downlink	11:48:42.411	DCCH	MEASUREMENT_CONTROL
				10200.	11:48:43.603	10588	288	-77.3		22835.	UMTS FDD	Downlink	11:48:42.431	DCCH	SIGNALLING_CONNECTION_RELEASE
				10201.	11:48:43.603	10588	288	-2.7							

- Analysis:**
- This call failure event occurred on short call at 11:48:42:248 time when UE was latched with 3G network.
  - Initially call was attempt at 11:48:38:248 time, Call failure happened.
  - During the failure, UE was latched with PSC 256 and RF condition RSCP -124.6 dBm good but Ec/No -21 dB are very poor.
  - Need to check MT.

# Phase-1 Call Attempt Failure Analysis 3 From MS6 Airtel MT

	Time	Band (MHz)	Ch	PCI	RSRP	SNR	▲	Event ID	System	Transf. dir.	Time	Subchannel	Message name	
8838.	11:48:26.840					14.4		22967.	RRC SM	LTE FDD	Uplink	11:48:13.123	DCCH	MeasurementReport
8839.	11:48:27.018	800	6400	114	-91.8			22968.	RRC SM	LTE FDD	Uplink	11:48:13.124	DCCH	RRCCONNECTIONRECONFIGURATIONCOMPLETE
8840.	11:48:27.840	800	6400	114	-95.4			22969.	RRC SM	LTE FDD	Downlink	11:48:13.148	DCCH	RRCCONNECTIONRECONFIGURATION
8841.	11:48:27.840					12		22970.	RRC SM	LTE FDD	Uplink	11:48:13.160	DCCH	RRCCONNECTIONRECONFIGURATIONCOMPLETE
8842.	11:48:29.075	800	6400	114	-91.5			22971.	RRC SM	LTE FDD	Downlink	11:48:13.625	BCCH-SCH	SystemInformationBlockType1
8843.	11:48:29.075					15		22972.	RRC SM	LTE FDD	Downlink	11:48:22.629	DCCH	RRCCONNECTIONRECONFIGURATION
8844.	11:48:30.536	800	6400	114	-85.5			22973.	RRC SM	LTE FDD	Uplink	11:48:22.630	DCCH	RRCCONNECTIONRECONFIGURATIONCOMPLETE
8845.	11:48:30.536					18.8		22974.	RRC SM	LTE FDD	Downlink	11:48:23.024	DCCH	RRCCONNECTIONRELEASE
8846.	11:48:31.630	800	6400	114	-85.8			22975.	RRC SM	LTE FDD	Downlink	11:48:25.230	PCCH	Paging
8847.	11:48:31.630					18.1		22976.	RRC SM	LTE FDD	Downlink	11:48:41.870	PCCH	Paging
8848.	11:48:32.030	800	6400	114	-85.8			22977.	L3 SM	LTE FDD	Uplink	11:48:41.870		EXTENDED_SERVICE_REQUEST
8849.	11:48:32.914	800	6400	114	-89.6			22978.	RRC SM	LTE FDD	Uplink	11:48:41.871	CCCH	RRCCONNECTIONREQUEST
8850.	11:48:32.914					13.5		22979.	RRC SM	LTE FDD	Downlink	11:48:41.926	CCCH	RRCCONNECTIONSETUP
8851.	11:48:34.194	800	6400	114	-83.9			22980.	RRC SM	LTE FDD	Uplink	11:48:41.930	DCCH	RRCCONNECTIONSETUPCOMPLETE
8852.	11:48:34.194					21.1		22981.	RRC SM	LTE FDD	Downlink	11:48:41.970	DCCH	SecurityModeCommand
8853.	11:48:35.839	800	6400	114	-82.1			22982.	RRC SM	LTE FDD	Uplink	11:48:41.971	DCCH	SecurityModeComplete
8854.	11:48:35.839					21		22983.	RRC SM	LTE FDD	Downlink	11:48:41.986	DCCH	UECapabilityEnquiry
8855.	11:48:36.778	800	6400	114	-79.9			22984.	RRC SM	LTE FDD	Uplink	11:48:41.987	DCCH	UECapabilityInformation
8856.	11:48:36.778					21.8		22985.	RRC SM	UMTS FDD	Uplink	11:48:41.987		INTER_RAT_HANDOVER_INFO
8857.	11:48:38.032	800	6400	114	-81.9			22986.	RRC SM	LTE FDD	Downlink	11:48:42.014	DCCH	RRCCONNECTIONRECONFIGURATION
8858.	11:48:38.032					20.4		22987.	RRC SM	LTE FDD	Uplink	11:48:42.025	DCCH	RRCCONNECTIONRECONFIGURATIONCOMPLETE
8859.	11:48:39.357	800	6400	114	-80.6			22988.	RRC SM	LTE FDD	Downlink	11:48:42.042	DCCH	RRCCONNECTIONRECONFIGURATION
8860.	11:48:39.357					19.3		22989.	RRC SM	LTE FDD	Uplink	11:48:42.044	DCCH	RRCCONNECTIONRECONFIGURATIONCOMPLETE
8861.	11:48:40.841	800	6400	114	-81.7			22990.	RRC SM	LTE FDD	Downlink	11:48:42.559	DCCH	RRCCONNECTIONRELEASE
8862.	11:48:40.841					17.3		22991.	RRC SM	UMTS FDD	Downlink	11:48:42.851	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
8863.	11:48:42.293	800	6400	114	-79.1			22992.	RRC SM	UMTS FDD	Downlink	11:48:42.871	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
8864.	11:48:42.293					24.4		22993.	RRC SM	UMTS FDD	Downlink	11:48:42.871	BCCH	MASTER_INFORMATION_BLOCK
8865.	11:48:42.622	800	6400	114	-80.6			22994.	RRC SM	UMTS FDD	Downlink	11:48:42.891	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
8866.	11:48:42.622					23.2		22995.	RRC SM	UMTS FDD	Downlink	11:48:42.911	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
8867.	11:48:48.705	800	6400	114	-95.6			22996.	RRC SM	UMTS FDD	Downlink	11:48:42.911	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_5
8868.	11:48:48.705							22997.	RRC SM	UMTS FDD	Downlink	11:48:42.971	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
8869.	11:48:48.705					12.7		22998.	RRC SM	UMTS FDD	Downlink	11:48:42.971	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
8870.	11:48:49.558	800	6400	114	-96.9			22999.	RRC SM	UMTS FDD	Downlink	11:48:42.971	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
8871.	11:48:49.558					12.8		23000.	RRC SM	UMTS FDD	Downlink	11:48:42.971	BCCH_BCH	MASTER_INFORMATION_BLOCK
8872.	11:48:50.839	800	6400	114	-95.5			23001.	RRC SM	UMTS FDD	Downlink	11:48:42.971	BCCH_BCH	SCHEDULING_BLOCK_1
8873.	11:48:50.839					13.8		23002.	RRC SM	UMTS FDD	Downlink	11:48:42.971	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_1
8874.	11:48:52.443	800	6400	114	-98.6			23003.	RRC SM	UMTS FDD	Downlink	11:48:42.971	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_3

## Analysis:

- On MT End, During the setup fail, UE was latched with PCI 114 and RF condition RSRP -81.7 dBm is and SINR -17.3 which is poor.
- As per Analysis call attempt failure happened from Network end.

# Phase-1 Call Attempt Failure Analysis 4 From MS5 Airtel MO

	Time	System	Serving band		Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub
1.	10:47:30.994	UMTS FDD	2100	833.	12:07:50.282	-89	99		50000	1	
2.	10:49:17.093	UMTS FDD	2100	834.	12:07:50.873	-89	99		50000	1	
3.	11:48:42.248	UMTS FDD	2100	835.	12:07:51.399	-89	99		50000	1	
4.	12:08:23.336	GSM	900	836.	12:07:51.897	-90	99		50000	1	
5.	12:09:23.811	GSM	900	837.	12:07:52.383	-86	99		50000	1	
				838.	12:07:53.795	-81	99		50000	1	
				839.	12:07:55.090	-81	99		50000	1	
				840.	12:07:56.031	-82	99		50000	1	
				841.	12:07:56.745	-83	99		50000	1	
				842.	12:07:57.262				50000	1	
				843.	12:07:57.745	-85	99		50000	1	
				844.	12:07:58.791	-88	99		50000	1	
				845.	12:07:59.860	-88	99		50000	1	
				846.	12:08:00.438	-88	99		50000	1	
				847.	12:08:00.909	-92	93		50000	1	
				848.	12:08:00.909						5
				849.	12:08:02.021	-91	93		50000	1	
				850.	12:08:02.021						0
				851.	12:08:02.344	-94	93		50000	1	
				852.	12:08:02.344						4
				853.	12:08:02.815						6
				854.	12:08:02.963	-92	93		50000	1	
				855.	12:08:03.793	-92	93		50000	1	
				856.	12:08:03.793						7
				857.	12:08:04.375	-93	93		50000	1	
				858.	12:08:04.933	-93	93		50000	1	
				859.	12:08:05.737	-93	93		50000	1	
				860.	12:08:06.258	-92	93		50000	1	
				861.	12:08:06.793	-93	93		50000	1	
				862.	12:08:07.052	-92	93		50000	1	
				863.	12:08:07.793	-92	93		50000	1	
				864.	12:08:07.793						6
				865.	12:08:08.324	-92	93		50000	1	
				866.	12:08:08.324						7
				867.	12:08:08.912	-93	93		50000	1	

	System	Transf. dir.	Time	Subchannel	Message name
27371.	GSM	Uplink	12:08:00.909	SACCH	MEASUREMENT_REPORT
27372.	GSM	Downlink	12:08:00.932	DCCH	AUTHENTICATION_REQUEST
27373.	GSM	Uplink	12:08:01.078	DCCH	AUTHENTICATION_RESPONSE
27374.	GSM	Downlink	12:08:01.080	SACCH	MEASUREMENT_INFORMATION
27375.	GSM	Uplink	12:08:01.380	SACCH	MEASUREMENT_REPORT
27376.	GSM	Downlink	12:08:01.403	DCCH	CIPHERING_MODE_COMMAND
27377.	GSM	Uplink	12:08:01.407	DCCH	CIPHERING_MODE_COMPLETE
27378.	GSM	Uplink	12:08:01.408	DCCH	SETUP
27379.	GSM	Downlink	12:08:01.550	SACCH	SYSTEM_INFORMATION_TYPE_6
27380.	GSM	Downlink	12:08:01.638	DCCH	IDENTITY_REQUEST
27381.	GSM	Uplink	12:08:01.638	DCCH	IDENTITY_RESPONSE
27382.	GSM	Uplink	12:08:01.851	SACCH	MEASUREMENT_REPORT
27383.	GSM	Downlink	12:08:02.021	SACCH	SYSTEM_INFORMATION_TYPE_5
27384.	GSM	Uplink	12:08:02.321	SACCH	MEASUREMENT_REPORT
27385.	GSM	Downlink	12:08:02.492	SACCH	MEASUREMENT_INFORMATION
27386.	GSM	Uplink	12:08:02.792	SACCH	MEASUREMENT_REPORT
27387.	GSM	Downlink	12:08:02.815	DCCH	CALL_PROCEEDING
27388.	GSM	Downlink	12:08:02.963	SACCH	SYSTEM_INFORMATION_TYPE_6
27389.	GSM	Uplink	12:08:03.263	SACCH	MEASUREMENT_REPORT
27390.	GSM	Uplink	12:08:03.734	SACCH	MEASUREMENT_REPORT
27391.	GSM	Uplink	12:08:04.205	SACCH	MEASUREMENT_REPORT
27392.	GSM	Uplink	12:08:04.675	SACCH	MEASUREMENT_REPORT
27393.	GSM	Uplink	12:08:05.146	SACCH	MEASUREMENT_REPORT
27394.	GSM	Uplink	12:08:05.617	SACCH	MEASUREMENT_REPORT
27395.	GSM	Uplink	12:08:06.088	SACCH	MEASUREMENT_REPORT
27396.	GSM	Uplink	12:08:06.558	SACCH	MEASUREMENT_REPORT
27397.	GSM	Uplink	12:08:07.029	SACCH	MEASUREMENT_REPORT
27398.	GSM	Downlink	12:08:07.200	SACCH	SYSTEM_INFORMATION_TYPE_6
27399.	GSM	Uplink	12:08:07.500	SACCH	MEASUREMENT_REPORT
27400.	GSM	Uplink	12:08:07.971	SACCH	MEASUREMENT_REPORT
27401.	GSM	Uplink	12:08:08.441	SACCH	MEASUREMENT_REPORT
27402.	GSM	Uplink	12:08:08.912	SACCH	MEASUREMENT_REPORT
27403.	GSM	Uplink	12:08:09.383	SACCH	MEASUREMENT_REPORT
27404.	GSM	Uplink	12:08:09.854	SACCH	MEASUREMENT_REPORT
27405.	GSM	Uplink	12:08:10.325	SACCH	MEASUREMENT_REPORT

## Analysis:

- This call failure event occurred on short call at 12:08:23:336 time when UE was latched with 2G network.
- After sending "CM Service Request" message to core network, then core network responds with "Call Proceeding" message. After that call setup has been failed.
- During the call failure UE, was latched with ARFCN 93 and RF condition Rxlev -94 dBm is good and Rxqual 7 which is poor.
- As per the analysis call failure happened due to poor quality of the network.

# Phase-1 Call Attempt Failure Analysis 5 From MS5 Airtel MO

	Time	System	Serving band		Time	Band	Band (MHz)	Ch	PCI	RSRP	SNR
1.	10:47:30.994	UMTS FDD	2100	8615.	12:01:20.102						13
2.	10:49:17.093	UMTS FDD	2100	8616.	12:01:21.340	B3	1800	1300	47	-98	
3.	11:48:42.248	UMTS FDD	2100	8617.	12:01:21.340						9.5
4.	12:08:23.336	GSM	900	8618.	12:01:22.880	B3	1800	1300	47	-97.2	
5.	12:09:23.811	GSM	900	8619.	12:01:22.880						13.9
				8620.	12:01:23.792	B3	1800	1300	47	-97.9	
				8621.	12:01:23.792						15.2
				8622.	12:01:25.048	B3	1800	1300	47	-99.3	
				8623.	12:01:25.048						11.7
				8624.	12:01:25.819	B3	1800	1300	47	-94.2	
				8625.	12:01:25.819						15
				8626.	12:01:26.182	B3	1800	1300	47	-98.3	
				8627.	12:01:26.182						14.9
				8628.	12:09:48.482	B3	1800	1300	47	-124.1	
				8629.	12:09:59.510	B20	800	6400	47	-122.6	
				8630.	12:09:59.510						
				8631.	12:09:59.510						-8.3
				8632.	12:10:00.023	B20	800	6400	47	-120.3	
				8633.	12:10:00.023						-9.6
				8634.	12:10:00.556	B20	800	6400	47	-118.6	
				8635.	12:10:00.556						-7.6
				8636.	12:10:00.770	B3	1800	1300	47	-119.1	
				8637.	12:10:00.770						-0.9
				8638.	12:10:02.050	B3	1800	1300	47	-117.1	
				8639.	12:10:02.050						0.7
				8640.	12:10:03.795	B3	1800	1300	47	-115.9	
				8641.	12:10:03.795						3
				8642.	12:10:04.804	B3	1800	1300	47	-118.3	
				8643.	12:10:04.804						0.3
				8644.	12:10:05.892	B3	1800	1300	47	-119.3	
				8645.	12:10:05.892						-0.9
				8646.	12:10:07.170	B3	1800	1300	47	-122.6	
				8647.	12:10:07.170						-4.6
				8648.	12:10:08.796	B3	1800	1300	47	-124.9	

	System	Transf. dir.	Time	Subchannel	Message name
27463.	UMTS FDD	Downlink	12:09:10.694	BCCH_BCH	SYSTEM_INFORMATION_BCH
27464.	UMTS FDD	Downlink	12:09:12.556	BCCH_BCH	SYSTEM_INFORMATION_BCH
27465.	UMTS FDD	Downlink	12:09:12.556	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2
27466.	UMTS FDD	Downlink	12:09:12.556	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
27467.	UMTS FDD	Downlink	12:09:12.576	BCCH_BCH	SYSTEM_INFORMATION_BCH
27468.	UMTS FDD	Downlink	12:09:12.596	BCCH_BCH	SYSTEM_INFORMATION_BCH
27469.	UMTS FDD	Downlink	12:09:12.616	BCCH_BCH	SYSTEM_INFORMATION_BCH
27470.	UMTS FDD	Downlink	12:09:12.616	BCCH	MASTER_INFORMATION_BLOCK
27471.	UMTS FDD	Downlink	12:09:12.616	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
27472.	LTE FDD	Downlink	12:09:46.927	BCCH-BCH	MasterInformationBlock
27473.	LTE FDD	Downlink	12:09:47.380	BCCH-BCH	MasterInformationBlock
27474.	LTE FDD	Downlink	12:09:47.810	BCCH-BCH	MasterInformationBlock
27475.	LTE FDD	Downlink	12:09:48.280	BCCH-BCH	MasterInformationBlock
27476.	LTE FDD	Downlink	12:09:48.313	BCCH-SCH	SystemInformationBlockType1
27477.	LTE FDD	Downlink	12:09:48.313	BCCH-SCH	SystemInformation - SIB2,SIB3
27478.	LTE FDD	Downlink	12:09:48.437	BCCH-BCH	MasterInformationBlock
27479.	LTE FDD	Downlink	12:09:48.986	BCCH-BCH	MasterInformationBlock
27480.	LTE FDD	Downlink	12:09:59.190	BCCH-BCH	MasterInformationBlock
27481.	LTE FDD	Downlink	12:09:59.373	BCCH-SCH	SystemInformationBlockType1
27482.	LTE FDD	Downlink	12:09:59.373	BCCH-SCH	SystemInformation - SIB2,SIB3
27483.	LTE FDD	Uplink	12:09:59.389		TRACKING_AREA_UPDATE_REQUEST
27484.	LTE FDD	Uplink	12:09:59.390	CCCH	RRCCConnectionRequest
27485.	LTE FDD	Downlink	12:09:59.503	CCCH	RRCCConnectionSetup
27486.	LTE FDD	Uplink	12:09:59.507	DCCH	RRCCConnectionSetupComplete
27487.	LTE FDD	Downlink	12:09:59.791	DCCH	DLInformationTransfer
27488.	LTE FDD	Downlink	12:09:59.791		AUTHENTICATION_REQUEST
27489.	LTE FDD	Uplink	12:09:59.920		AUTHENTICATION_RESPONSE
27490.	LTE FDD	Uplink	12:09:59.920	DCCH	ULInformationTransfer
27491.	LTE FDD	Downlink	12:09:59.964	DCCH	DLInformationTransfer
27492.	LTE FDD	Downlink	12:09:59.964		SECURITY_MODE_COMMAND
27493.	LTE FDD	Uplink	12:09:59.965		SECURITY_MODE_COMPLETE
27494.	LTE FDD	Uplink	12:09:59.966	DCCH	ULInformationTransfer
27495.	LTE FDD	Downlink	12:10:00.143	DCCH	SecurityModeCommand
27496.	LTE FDD	Uplink	12:10:00.144	DCCH	SecurityModeComplete

## Analysis:

- This call failure event occurred on short call at 12:09:23:811 time when UE was latched with 2G network.
- Initially call was attempt at 10:08:53:630 time, Call failure happened.
- During the call failure UE, was latched with PCI 47 and RF condition RSRP -124.1 dBm is poor and SINR 14.9 which is good.
- As per the analysis call failure happened due to poor coverage of the network.

# Phase-1 Call Attempt Failure Analysis 1 From MS7 CWS MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	10:44:51.291	UMTS FDD	2100	Dro	3387, -104.8	10:44:44.542	10690	135			10274, RRCSM	UMTS FDD	Uplink	10:44:37.479	DCCH	SECURITY_MODE_COMPLETE
2.	10:45:37.460	UMTS FDD	2100	Call	3388, -10.7	10:44:44.542	10690	135			10275, RRCSM	UMTS FDD	Uplink	10:44:37.719	DCCH	UPLINK_DIRECT_TRANSFER
3.	11:31:21.708	UMTS FDD	2100	Dro	3389, -105	10:44:45.132	10715	136			10276, L3SM	UMTS FDD	Uplink	10:44:37.719	DCCH	SETUP
					3390, -10.6	10:44:45.132	10715	136			10277, RRCSM	UMTS FDD	Downlink	10:44:37.798	DCCH	DOWNLINK_DIRECT_TRANSFER
					3391, -111.9	10:44:45.633	10715	136			10278, L3SM	UMTS FDD	Downlink	10:44:37.798	DCCH	TMSI_REALLOCATION_COMMAND
					3392, -11.1	10:44:45.633	10715	136			10279, RRCSM	UMTS FDD	Uplink	10:44:37.799	DCCH	UPLINK_DIRECT_TRANSFER
					3393, -109.5	10:44:46.193	10715	136			10280, L3SM	UMTS FDD	Uplink	10:44:37.799	DCCH	TMSI_REALLOCATION_COMPLETE
					3394, -12.3	10:44:46.193	10715	136			10281, RRCSM	UMTS FDD	Downlink	10:44:38.118	DCCH	DOWNLINK_DIRECT_TRANSFER
					3395, -108.5	10:44:46.777	10715	136			10282, L3SM	UMTS FDD	Downlink	10:44:38.118	DCCH	CALL_PROCEEDING
					3396, -11.3	10:44:46.777	10715	136			10283, RRCSM	UMTS FDD	Uplink	10:44:38.130	DCCH	MEASUREMENT_REPORT
					3397, -114.7	10:44:47.196	10715	136			10284, RRCSM	UMTS FDD	Uplink	10:44:38.243	DCCH	MEASUREMENT_REPORT
					3398, -16.6	10:44:47.196	10715	136			10285, RRCSM	UMTS FDD	Uplink	10:44:38.327	DCCH	MEASUREMENT_REPORT
					3399, -113.8	10:44:47.742	10715	136			10286, RRCSM	UMTS FDD	Uplink	10:44:38.602	DCCH	MEASUREMENT_REPORT
					3400, -15	10:44:47.742	10715	136			10287, RRCSM	UMTS FDD	Downlink	10:44:39.078	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					3401, -114.3	10:44:48.185	10690	136			10288, RRCSM	UMTS FDD	Uplink	10:44:39.848	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					3402, -14.5	10:44:48.185	10690	136			10289, RRCSM	UMTS FDD	Uplink	10:44:39.892	DCCH	MEASUREMENT_REPORT
					3403, -115.5	10:44:48.777	10690	135			10290, RRCSM	UMTS FDD	Downlink	10:44:40.078	DCCH	MEASUREMENT_CONTROL
					3404, -16.2	10:44:48.777	10690	135			10291, RRCSM	UMTS FDD	Downlink	10:44:40.118	DCCH	MEASUREMENT_CONTROL
					3405, -116	10:44:49.324	10715	136			10292, RRCSM	UMTS FDD	Uplink	10:44:40.130	DCCH	MEASUREMENT_REPORT
					3406, -15.1	10:44:49.324	10715	136			10293, RRCSM	UMTS FDD	Downlink	10:44:40.238	DCCH	MEASUREMENT_CONTROL
					3407, -115.6	10:44:49.832	10690	135			10294, RRCSM	UMTS FDD	Downlink	10:44:40.278	DCCH	ACTIVE_SET_UPDATE
					3408, -16.2	10:44:49.832	10690	135			10295, RRCSM	UMTS FDD	Uplink	10:44:40.296	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					3409, -114.8	10:44:50.322	10690	134			10296, RRCSM	UMTS FDD	Uplink	10:44:40.942	DCCH	MEASUREMENT_REPORT
					3410, -14.9	10:44:50.322	10690	134			10297, RRCSM	UMTS FDD	Downlink	10:44:41.198	DCCH	ACTIVE_SET_UPDATE
					3411, -115.6	10:44:50.798	10690	134			10298, RRCSM	UMTS FDD	Uplink	10:44:41.230	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					3412, -16.8	10:44:50.798	10690	134			10299, RRCSM	UMTS FDD	Uplink	10:44:41.240	DCCH	MEASUREMENT_REPORT
					3413, -113.1	10:44:51.350	10690	135			10300, RRCSM	UMTS FDD	Uplink	10:44:41.435	DCCH	MEASUREMENT_REPORT
					3414, -14.6	10:44:51.350	10690	135			10301, RRCSM	UMTS FDD	Uplink	10:44:41.532	DCCH	MEASUREMENT_REPORT
					3415, -112.2	10:44:51.889	10715	136			10302, RRCSM	UMTS FDD	Uplink	10:44:42.130	DCCH	MEASUREMENT_REPORT
					3416, -14.1	10:44:51.889	10715	136			10303, RRCSM	UMTS FDD	Uplink	10:44:42.180	DCCH	MEASUREMENT_REPORT
					3417, -112.2	10:44:52.449	10715	136			10304, RRCSM	UMTS FDD	Uplink	10:44:44.130	DCCH	MEASUREMENT_REPORT
					3418, -13.9	10:44:52.449	10690	136			10305, RRCSM	UMTS FDD	Uplink	10:44:46.130	DCCH	MEASUREMENT_REPORT
					3419, -106.6	10:44:52.981	10690	134			10306, RRCSM	UMTS FDD	Uplink	10:44:46.752	DCCH	MEASUREMENT_REPORT
					3420, -10.7	10:44:52.981	10690	134			10307, RRCSM	UMTS FDD	Downlink	10:44:46.998	DCCH	ACTIVE_SET_UPDATE

### Analysis:

- This call failure event occurred on short call at 10:44:51:294 time when UE was latched with 3G network.
- After sending "CM Service Request" message to core network, then core network responds with "Call Proceeding" message. After that call setup has been failed.
- During the failure, UE was latched with PSC 134 and RF condition RSCP -115.6 dBm poor but Ec/No -16.8 dB are very poor.
- Call failed due to poor network coverage and quality at the MO site. Low signal strength and degraded network quality are contributing to call failures.

# Phase-1 Call Attempt Failure Analysis 2 From MS7 CWS MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	10:44:51.291	UMTS FDD	2100	Dro	3596.				-9.2		10483.	RRCSM	Uplink	10:45:23.325	DCCH	SECURITY_MODE_COMPLETE
2.	10:45:37.460	UMTS FDD	2100	Call	3597.	-105.6	10:45:32.488	10690	135		10484.	RRCSM	Uplink	10:45:23.377	DCCH	MEASUREMENT_REPORT
3.	11:31:21.708	UMTS FDD	2100	Dro	3598.		10:45:32.488	10715	135	-14.8	10485.	RRCSM	Uplink	10:45:23.606	DCCH	UPLINK_DIRECT_TRANSFER
					3599.	-102.2	10:45:32.962	10690	135		10486.	L3SM	Uplink	10:45:23.606	DCCH	SETUP
					3600.		10:45:32.962	10690	135	-13.4	10487.	RRCSM	Downlink	10:45:23.645	DCCH	ACTIVE_SET_UPDATE
					3601.	-100.9	10:45:33.428	10690	135		10488.	RRCSM	Uplink	10:45:23.677	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					3602.		10:45:33.428	10690	135	-10	10489.	RRCSM	Downlink	10:45:23.725	DCCH	DOWNLINK_DIRECT_TRANSFER
					3603.	-103.4	10:45:34.005	10715	135		10490.	L3SM	Downlink	10:45:23.725	DCCH	TMSI_REALLOCATION_COMMAND
					3604.		10:45:34.005	10715	135	-12.1	10491.	RRCSM	Uplink	10:45:23.726	DCCH	UPLINK_DIRECT_TRANSFER
					3605.	-108.4	10:45:34.469	10715	135		10492.	L3SM	Uplink	10:45:23.726	DCCH	TMSI_REALLOCATION_COMPLETE
					3606.		10:45:34.469	10715	135	-14.7	10493.	RRCSM	Uplink	10:45:23.877	DCCH	MEASUREMENT_REPORT
					3607.	-110.4	10:45:34.965	10715	135		10494.	RRCSM	Downlink	10:45:23.925	DCCH	MEASUREMENT_CONTROL
					3608.		10:45:34.965	10715	135	-15.3	10495.	RRCSM	Uplink	10:45:23.966	DCCH	MEASUREMENT_REPORT
					3609.	-110	10:45:35.557	10690	135		10496.	RRCSM	Downlink	10:45:24.245	DCCH	MEASUREMENT_CONTROL
					3610.		10:45:35.557	10690	135	-16.4	10497.	RRCSM	Downlink	10:45:24.325	DCCH	DOWNLINK_DIRECT_TRANSFER
					3611.	-105.4	10:45:36.041	10690	135		10498.	L3SM	Downlink	10:45:24.325	DCCH	CALL_PROCEEDING
					3612.		10:45:36.041	10715	135	-12.2	10499.	RRCSM	Uplink	10:45:24.377	DCCH	MEASUREMENT_REPORT
					3613.	-106.2	10:45:36.540	10715	135		10500.	RRCSM	Uplink	10:45:24.877	DCCH	MEASUREMENT_REPORT
					3614.		10:45:36.540	10715	135	-12.4	10501.	RRCSM	Uplink	10:45:25.187	DCCH	MEASUREMENT_REPORT
					3615.	-102.7	10:45:36.778	10690	135		10502.	RRCSM	Uplink	10:45:25.246	DCCH	MEASUREMENT_REPORT
					3616.		10:45:36.778	10690	135	-11.4	10503.	RRCSM	Uplink	10:45:25.377	DCCH	MEASUREMENT_REPORT
					3617.	-108.4	10:45:37.460	10690	135		10504.	RRCSM	Uplink	10:45:25.877	DCCH	MEASUREMENT_REPORT
					3618.		10:45:37.460	10690	135	-15.6	10505.	RRCSM	Downlink	10:45:26.245	DCCH	RADIO_BEARER_RECONFIGURATION
					3619.	-106.8	10:45:37.778	10690	135		10506.	RRCSM	Uplink	10:45:26.247	DCCH	MEASUREMENT_REPORT
					3620.		10:45:37.778	10690	135	-14.9	10507.	RRCSM	Uplink	10:45:26.377	DCCH	MEASUREMENT_REPORT
					3621.	-106.3	10:45:38.564	10690	135		10508.	RRCSM	Uplink	10:45:26.877	DCCH	MEASUREMENT_REPORT
					3622.		10:45:38.564	10690	135	-13.5	10509.	RRCSM	Uplink	10:45:27.011	DCCH	RADIO_BEARER_RECONFIGURATION_COM
					3623.	-108.3	10:45:39.294	10690	135		10510.	RRCSM	Uplink	10:45:27.246	DCCH	MEASUREMENT_REPORT
					3624.		10:45:39.294	10690	135	-15.1	10511.	RRCSM	Downlink	10:45:27.733	DCCH	MEASUREMENT_CONTROL
					3625.	-107.3	10:45:39.786	10690	135		10512.	RRCSM	Downlink	10:45:27.813	DCCH	MEASUREMENT_CONTROL
					3626.		10:45:39.786	10690	135	-13.4	10513.	RRCSM	Downlink	10:45:27.853	DCCH	MEASUREMENT_CONTROL
					3627.	-105.8	10:45:40.309	10690	135		10514.	RRCSM	Downlink	10:45:27.893	DCCH	MEASUREMENT_CONTROL
					3628.		10:45:40.309	10690	135	-12.1	10515.	RRCSM	Downlink	10:45:27.933	DCCH	MEASUREMENT_CONTROL
					3629.	-108	10:45:40.900	10715	135		10516.	RRCSM	Downlink	10:45:27.973	DCCH	MEASUREMENT_CONTROL
					3630.		10:45:40.900	10715	135	-13	10517.	RRCSM	Downlink	10:45:28.013	DCCH	MEASUREMENT_CONTROL
					3631.	-107	10:45:41.349	10690	135		10518.	RRCSM	Downlink	10:45:28.014	DCCH	MEASUREMENT_CONTROL
					3632.		10:45:41.349	10690	135	-12.6	10519.	RRCSM	Downlink	10:45:28.053	DCCH	MEASUREMENT_CONTROL

- Analysis:**
- This call failure event occurred on short call at 10:45:37:460 time when UE was latched with 3G network.
  - After sending "CM Service Request" message to core network, then core network responds with "Call Proceeding" message. After that call setup has been failed.
  - During the failure, UE was latched with PSC 135 and RF condition RSCP -108.4 dBm poor but Ec/No -15.6 dB are very poor.
  - Call failed due to poor network coverage and quality at the MO site. Low signal strength and degraded network quality are contributing to call failures.

# Phase-1 Call Attempt Failure Analysis 3 From MS7 CWS MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	10:44:51.291	UMTS FDD	2100	Dro	7006.						19398.	RRCSM	Downlink	11:31:12.908	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
2.	10:45:37.460	UMTS FDD	2100	Call	7007.	-96	10690	102			19399.	RRCSM	Downlink	11:31:12.911	CCCH	RRC_CONNECTION_SETUP
3.	11:31:21.708	UMTS FDD	2100	Dro	7008.		10690	102	-8.5		19400.	RRCSM	Uplink	11:31:12.964	DCCH	RRC_CONNECTION_SETUP_COMPLETE
					7009.	-96	10690	102			19401.	RRCSM	Uplink	11:31:12.965	DCCH	INITIAL_DIRECT_TRANSFER
					7010.		10690	102	-5.6		19402.	L3SM	Uplink	11:31:12.965	DCCH	CM_SERVICE_REQUEST
					7011.	-96	10690	102			19403.	RRCSM	Uplink	11:31:12.965	DCCH	INITIAL_DIRECT_TRANSFER
					7012.		10690	102	-7.7		19404.	L3SM	Uplink	11:31:12.965	DCCH	ROUTING_AREA_UPDATE_REQUEST
					7013.	-96	10690	102			19405.	RRCSM	Downlink	11:31:13.228	DCCH	MEASUREMENT_CONTROL
					7014.		10690	143	-9.2		19406.	RRCSM	Downlink	11:31:13.258	DCCH	SECURITY_MODE_COMMAND
					7015.	-96	10690	102			19407.	RRCSM	Uplink	11:31:13.258	DCCH	SECURITY_MODE_COMPLETE
					7016.		10690	143	-8.5		19408.	RRCSM	Uplink	11:31:13.338	DCCH	UPLINK_DIRECT_TRANSFER
					7017.	-96.9	10690	102			19409.	L3SM	Uplink	11:31:13.338	DCCH	SETUP
					7018.		10690	102	-9.8		19410.	RRCSM	Downlink	11:31:13.368	DCCH	DOWNLINK_DIRECT_TRANSFER
					7019.	-96.9	10690	102			19411.	L3SM	Downlink	11:31:13.368	DCCH	TMSI_REALLOCATION_COMMAND
					7020.		10690	102	-9.5		19412.	RRCSM	Uplink	11:31:13.369	DCCH	UPLINK_DIRECT_TRANSFER
					7021.	-94.2	10690	102			19413.	L3SM	Uplink	11:31:13.369	DCCH	TMSI_REALLOCATION_COMPLETE
					7022.		10690	102	-6.7		19414.	RRCSM	Downlink	11:31:13.488	DCCH	DOWNLINK_DIRECT_TRANSFER
					7023.	-94.4	10690	102			19415.	L3SM	Downlink	11:31:13.488	DCCH	CALL_PROCEEDING
					7024.		10690	102	-8.6		19416.	RRCSM	Uplink	11:31:13.510	DCCH	MEASUREMENT_REPORT
					7025.	-97	10690	102			19417.	RRCSM	Downlink	11:31:13.628	DCCH	ACTIVE_SET_UPDATE
					7026.		10690	102	-6.7		19418.	RRCSM	Uplink	11:31:13.639	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					7027.	-96.6	10690	102			19419.	RRCSM	Downlink	11:31:13.748	DCCH	MEASUREMENT_CONTROL
					7028.		10690	102	-8		19420.	RRCSM	Downlink	11:31:16.948	DCCH	RADIO_BEARER_SETUP
					7029.	-94.4	10690	143			19421.	RRCSM	Uplink	11:31:17.181	DCCH	RADIO_BEARER_SETUP_COMPLETE
					7030.		10690	143	-6.9		19422.	RRCSM	Downlink	11:31:17.427	DCCH	MEASUREMENT_CONTROL
					7031.	-93.6	10690	102			19423.	RRCSM	Downlink	11:31:17.467	DCCH	MEASUREMENT_CONTROL
					7032.		10690	102	-7.2		19424.	RRCSM	Downlink	11:31:17.507	DCCH	MEASUREMENT_CONTROL
					7033.	-93.8	10690	102			19425.	RRCSM	Downlink	11:31:17.547	DCCH	MEASUREMENT_CONTROL
					7034.		10690	102	-7		19426.	RRCSM	Downlink	11:31:17.707	DCCH	DOWNLINK_DIRECT_TRANSFER
					7035.	-94.8	10690	102			19427.	L3SM	Downlink	11:31:17.707	DCCH	AUTHENTICATION_AND_CIPHERING_REQU
					7036.		10690	102	-7.4		19428.	RRCSM	Uplink	11:31:17.745	DCCH	UPLINK_DIRECT_TRANSFER
					7037.	-90.4	10690	102			19429.	L3SM	Uplink	11:31:17.745	DCCH	AUTHENTICATION_AND_CIPHERING_RESP
					7038.		10690	102	-6.6		19430.	RRCSM	Downlink	11:31:18.227	DCCH	SECURITY_MODE_COMMAND
					7039.	-97.7	10690	102			19431.	RRCSM	Uplink	11:31:18.228	DCCH	SECURITY_MODE_COMPLETE
					7040.		10690	102	-11.2		19432.	RRCSM	Uplink	11:31:18.725	DCCH	MEASUREMENT_REPORT

- Analysis:**
- This call failure event occurred on short call at 11:31:21:706 time when UE was latched with 3G network.
  - After sending "CM Service Request" message to core network, then core network responds with "Call Proceeding" message. After that call setup has been failed.
  - During the failure, UE was latched with PSC 102 and RF condition RSCP -94.8 dBm good but Ec/No -7.4 dB are very good.
  - Need to check MT End.

# Phase-1 Call Attempt Failure Analysis 3 From MS8 CWS MT

	1. best active RSCP	Time	Ch	SC	1. best ▲	Event ID	System	Transf. dir.	Time	Subchannel	Message name	
5109.	-97	11:31:16.006	10690	102		19437.	RRCSM	UMTS FDD	Downlink	11:31:16.419	DCCH	DOWNLINK_DIRECT_TRANSFER
5110.		11:31:16.006	10690	102	-11.4	19438.	L3SM	UMTS FDD	Downlink	11:31:16.419	DCCH	TMSI_REALLOCATION_COMMAND
5111.	-97	11:31:16.852	10690	102		19439.	RRCSM	UMTS FDD	Uplink	11:31:16.420	DCCH	UPLINK_DIRECT_TRANSFER
5112.		11:31:16.852	10690	143	-8.3	19440.	L3SM	UMTS FDD	Uplink	11:31:16.420	DCCH	TMSI_REALLOCATION_COMPLETE
5113.	-97	11:31:17.161	10690	102		19441.	RRCSM	UMTS FDD	Uplink	11:31:16.512	DCCH	MEASUREMENT_REPORT
5114.		11:31:17.161	10690	102	-10.1	19442.	RRCSM	UMTS FDD	Downlink	11:31:16.519	DCCH	DOWNLINK_DIRECT_TRANSFER
5115.	-97	11:31:17.846	10690	102		19443.	L3SM	UMTS FDD	Downlink	11:31:16.519	DCCH	SETUP
5116.		11:31:17.846	10690	102	-7.4	19444.	RRCSM	UMTS FDD	Uplink	11:31:16.624	DCCH	UPLINK_DIRECT_TRANSFER
5117.	-97	11:31:18.154	10690	102		19445.	L3SM	UMTS FDD	Uplink	11:31:16.624	DCCH	CALL_CONFIRMED
5118.		11:31:18.154	10690	102	-11.5	19446.	RRCSM	UMTS FDD	Uplink	11:31:16.624	DCCH	UPLINK_DIRECT_TRANSFER
5119.	-97	11:31:18.846	10690	102		19447.	L3SM	UMTS FDD	Uplink	11:31:16.624	DCCH	ALERTING
5120.		11:31:18.846	10690	102	-8.5	19448.	RRCSM	UMTS FDD	Downlink	11:31:16.629	DCCH	ACTIVE_SET_UPDATE
5121.	-97	11:31:19.203	10690	102		19449.	RRCSM	UMTS FDD	Uplink	11:31:16.641	DCCH	ACTIVE_SET_UPDATE_COMPLETE
5122.		11:31:19.203	10690	102	-10	19450.	RRCSM	UMTS FDD	Uplink	11:31:16.747	DCCH	UPLINK_DIRECT_TRANSFER
5123.	-92.1	11:31:19.841	10690	102		19451.	L3SM	UMTS FDD	Uplink	11:31:16.747	DCCH	CONNECT
5124.		11:31:19.841	10690	102	-6.9	19452.	RRCSM	UMTS FDD	Downlink	11:31:21.339	DCCH	DOWNLINK_DIRECT_TRANSFER
5125.	-99.1	11:31:20.161	10690	102		19453.	L3SM	UMTS FDD	Downlink	11:31:21.339	DCCH	AUTHENTICATION_AND_CIPHERING_REQUEST
5126.		11:31:20.161	10690	102	-9.9	19454.	RRCSM	UMTS FDD	Uplink	11:31:21.376	DCCH	UPLINK_DIRECT_TRANSFER
5127.	-89.3	11:31:20.847	10690	102		19455.	L3SM	UMTS FDD	Uplink	11:31:21.376	DCCH	AUTHENTICATION_AND_CIPHERING_RESPONSE
5128.		11:31:20.847	10690	102	-6.7	19456.	RRCSM	UMTS FDD	Downlink	11:31:21.649	DCCH	RRC_CONNECTION_RELEASE
5129.	-97.1	11:31:21.183	10690	102		19457.	RRCSM	UMTS FDD	Uplink	11:31:21.650	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
5130.		11:31:21.183	10690	102	-9.3	19458.	RRCSM	UMTS FDD	Uplink	11:31:21.690	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
5131.	-91.6	11:31:21.801	10690	102		19459.	RRCSM	UMTS FDD	Downlink	11:31:21.869	BCCH_BCH	SYSTEM_INFORMATION_BCH
5132.		11:31:21.801	10690	102	-7	19460.	RRCSM	UMTS FDD	Downlink	11:31:21.869	BCCH	MASTER_INFORMATION_BLOCK
5133.	-90.2	11:31:22.329	10690	102		19461.	RRCSM	UMTS FDD	Downlink	11:31:21.869	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
5134.		11:31:22.329	10690	102	-6	19462.	RRCSM	UMTS FDD	Downlink	11:31:21.889	BCCH_BCH	SYSTEM_INFORMATION_BCH
5135.	-87.8	11:31:22.846	10690	102		19463.	RRCSM	UMTS FDD	Downlink	11:31:21.889	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2
5136.		11:31:22.846	10690	102	-5.7	19464.	RRCSM	UMTS FDD	Downlink	11:31:21.889	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
5137.	-87.3	11:31:23.298	10690	102		19465.	RRCSM	UMTS FDD	Downlink	11:31:22.069	BCCH_BCH	SYSTEM_INFORMATION_BCH
5138.		11:31:23.298	10690	102	-5.7	19466.	RRCSM	UMTS FDD	Downlink	11:31:22.089	BCCH_BCH	SYSTEM_INFORMATION_BCH
5139.	-101.7	11:31:24.044	10690	102		19467.	RRCSM	UMTS FDD	Downlink	11:31:22.109	BCCH_BCH	SYSTEM_INFORMATION_BCH
5140.		11:31:24.044	10690	102	-11.7	19468.	RRCSM	UMTS FDD	Downlink	11:31:22.109	BCCH	MASTER_INFORMATION_BLOCK
5141.	-88.4	11:31:24.111	10690	102		19469.	RRCSM	UMTS FDD	Downlink	11:31:22.109	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
5142.		11:31:24.111	10690	102	-7.8	19470.	RRCSM	UMTS FDD	Downlink	11:31:22.129	BCCH_BCH	SYSTEM_INFORMATION_BCH
5143.	-84	11:31:24.893	10690	102		19471.	RRCSM	UMTS FDD	Downlink	11:31:22.129	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_5
5144.		11:31:24.893	10690	102	-4.6	19472.	RRCSM	UMTS FDD	Downlink	11:31:22.149	BCCH_BCH	SYSTEM_INFORMATION_BCH

## Analysis:

- On MT End, During the setup fail, UE was latched with PSC 102 and RF condition RSCP -97.1 dBm and Ec/No -97.1 dB both are ok.
- On both MO And MT Side, RF Conditions seems OK Also there is no abnormal message regarding failure.
- Need to check from Network End.

# Phase-1 Call Drop Analysis 1 From MS9 Airtel MO

	Time	System	Serving band	Call type	1. best active RSCP	Time	Ch	SC	1. best active Ec/NO	Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	10:49:16.717	UMTS FDD	2100	Voice call	7601. -118.1	10:48:59.201	1058x	256		6130.	RRCSM	Uplink	10:48:36.028	DCCH	MEASUREMENT_REPORT
2.	11:36:05.615	UMTS FDD	2100	Voice call	7602. -119.1	10:48:59.702	1058x	256		6131.	RRCSM	Uplink	10:48:37.502	DCCH	MEASUREMENT_REPORT
					7603. -118.6	10:49:00.209	1058x	256		6132.	RRCSM	Uplink	10:48:37.562	DCCH	MEASUREMENT_REPORT
					7604. -118.2	10:49:00.756	1058x	256		6133.	RRCSM	Uplink	10:48:40.889	DCCH	MEASUREMENT_REPORT
					7605. -117.9	10:49:01.368	1058x	256		6134.	RRCSM	Uplink	10:48:40.889	DCCH	MEASUREMENT_REPORT
					7606.	10:49:01.368	1058x	256	-25.8	6135.	RRCSM	Uplink	10:48:42.868	DCCH	MEASUREMENT_REPORT
					7607. -117.9	10:49:01.757	1058x	256		6136.	RRCSM	Uplink	10:48:42.868	DCCH	MEASUREMENT_REPORT
					7608.	10:49:01.757	1058x	256	-25.9	6137.	RRCSM	Uplink	10:48:52.310	DCCH	MEASUREMENT_REPORT
					7609. -117.7	10:49:02.296	1058x	256		6138.	RRCSM	Downlink	10:49:05.292	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYF
					7610.	10:49:02.296	1058x	256	-25.6	6139.	RRCSM	Downlink	10:49:05.292	BCCH	SYSTEM_INFORMATION_BLOCK_TYF
					7611. -117.7	10:49:02.756	1058x	256		6140.	RRCSM	Downlink	10:49:05.292	BCCH	SYSTEM_INFORMATION_BLOCK_TYF
					7612.	10:49:02.756	1058x	256	-25.8	6141.	RRCSM	Downlink	10:49:05.312	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
					7613. -118	10:49:03.755	1058x	256		6142.	RRCSM	Downlink	10:49:05.332	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
					7614. -117.4	10:49:04.079	1058x	256		6143.	RRCSM	Downlink	10:49:05.352	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
					7615.	10:49:04.079	1058x	256	-25.4	6144.	RRCSM	Downlink	10:49:05.352	BCCH	MASTER_INFORMATION_BLOCK
					7616. -118.3	10:49:04.755	1058x	256		6145.	RRCSM	Downlink	10:49:05.352	BCCH	SYSTEM_INFORMATION_BLOCK_TYF
					7617. -118.3	10:49:05.490	1058x	256		6146.	RRCSM	Downlink	10:49:08.313	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
					7618. -118.3	10:49:05.781	1058x	256		6147.	RRCSM	Downlink	10:49:08.313	BCCH	MASTER_INFORMATION_BLOCK
					7619. -118.3	10:49:06.548	1058x	256		6148.	RRCSM	Downlink	10:49:08.313	BCCH	SYSTEM_INFORMATION_BLOCK_TYF
					7620. -98.7	10:51:35.068	1069x	140		6149.	L3SM	Downlink	10:49:20.878	BCCH	SYSTEM_INFORMATION_TYPE_3
					7621.	10:51:35.068	1069x	140	-13.7	6150.	L3SM	Downlink	10:49:49.341	BCCH	SYSTEM_INFORMATION_TYPE_4
					7622. -105.3	10:51:35.454	1069x	140		6151.	RRCSM	Downlink	10:50:19.694	BCCH-BCH	MasterInformationBlock
					7623.	10:51:35.454	1069x	140	-14.7	6152.	RRCSM	Downlink	10:50:19.729	BCCH-SCH	SystemInformationBlockType1
					7624. -103.3	10:51:36.073	1069x	140		6153.	RRCSM	Downlink	10:50:22.255	BCCH-BCH	MasterInformationBlock
					7625.	10:51:36.073	1069x	140	-13.3	6154.	RRCSM	Downlink	10:50:22.289	BCCH-SCH	SystemInformationBlockType1
					7626. -99.3	10:51:37.073	1069x	140		6155.	RRCSM	Downlink	10:50:30.414	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
					7627.	10:51:37.073	1069x	140	-10	6156.	RRCSM	Downlink	10:50:30.414	BCCH	MASTER_INFORMATION_BLOCK
					7628. -103	10:51:37.687	1069x	140		6157.	RRCSM	Downlink	10:50:30.414	BCCH	SYSTEM_INFORMATION_BLOCK_TYF
					7629.	10:51:37.687	1069x	140	-12.7	6158.	L3SM	Downlink	10:50:37.807	BCCH	SYSTEM_INFORMATION_TYPE_3
					7630. -97.5	10:51:38.074	1069x	140		6159.	L3SM	Downlink	10:50:38.066	BCCH	SYSTEM_INFORMATION_TYPE_3
					7631.	10:51:38.074	1069x	140	-8.8	6160.	L3SM	Downlink	10:50:38.301	BCCH	SYSTEM_INFORMATION_TYPE_4
					7632. -92.2	10:51:38.757	1069x	140		6161.	L3SM	Downlink	10:50:39.007	BCCH	SYSTEM_INFORMATION_TYPE_3
					7633.	10:51:38.757	1069x	140	-5.6	6162.	RRCSM	Downlink	10:51:04.989	BCCH_BCH	SYSTEM_INFORMATION_BLOCK
					7634. -100.8	10:51:39.234	1069x	140		6163.	RRCSM	Downlink	10:51:04.989	BCCH	MASTER_INFORMATION_BLOCK
					7635.	10:51:39.234	1069x	140	-11	6164.	RRCSM	Downlink	10:51:04.989	BCCH	SYSTEM_INFORMATION_BLOCK_TYF
					7636. -96.2	10:51:39.754	1069x	140		6165.	L3SM	Downlink	10:51:08.172	BCCH	SYSTEM_INFORMATION_TYPE_4

## Analysis:

- This call drop event occurred on long call at 10:49:16:717 time when UE was latched with 3G network.
- After getting Alerting message at 10:48:09:060 time than Call drop happened.
- During the failure, UE was latched with PSC 256 and RF condition RSCP -118.3 dBm poor but Ec/No -25.4 dB are very poor.
- As per the Analysis the call setup drop event occurred due to poor coverage in the network.

# Phase-1 Call Drop Analysis 2 From MS9 Airtel MO

	Time	System	Serving band	Call type	1. best active RSCP	Time	Ch	SC	1. best active Ec/NO	Transf. dir.	Time	Subchannel	Message name
1.	10:49:16.717	UMTS FDD	2100	Voice call	14265. -97.1	11:36:00.540	10588	288		11686. Uplink	11:36:02.917	DCCH	MEASUREMENT_REPORT
2.	11:36:05.615	UMTS FDD	2100	Voice call	14266. -87.7	11:36:00.540	10588	288	-20	11687. Uplink	11:36:03.337	DCCH	MEASUREMENT_REPORT
					14267. -87.7	11:36:00.995	10588	288		11688. Uplink	11:36:03.437	DCCH	MEASUREMENT_REPORT
					14268. -90.5	11:36:01.507	10588	288	-12.3	11689. Downlink	11:36:03.534	DCCH	ACTIVE_SET_UPDATE
					14269. -90.5	11:36:01.507	10588	288		11690. Uplink	11:36:03.565	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					14270. -84.2	11:36:01.995	10588	288	-14.1	11691. Downlink	11:36:03.674	DCCH	MEASUREMENT_CONTROL
					14271. -84.2	11:36:01.995	10588	288		11692. Downlink	11:36:04.014	DCCH	RADIO_BEARER_SETUP
					14272. -78.4	11:36:02.832	10588	288	-7.3	11693. Uplink	11:36:04.367	DCCH	RADIO_BEARER_SETUP_COMPLETE
					14273. -78.4	11:36:02.832	10588	288		11694. Downlink	11:36:04.654	DCCH	RADIO_BEARER_RECONFIGURATION
					14274. -78.8	11:36:02.995	10588	288	-5.4	11695. Downlink	11:36:04.694	DCCH	DOWNLINK_DIRECT_TRANSFER
					14275. -78.8	11:36:02.995	10588	288		11696. Downlink	11:36:04.694	DCCH	PROGRESS
					14276. -79.6	11:36:03.516	10588	288	-3.3	11697. Uplink	11:36:04.695	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
					14277. -79.6	11:36:03.516	10588	288		11698. Downlink	11:36:05.214	DCCH	DOWNLINK_DIRECT_TRANSFER
					14278. -75.6	11:36:04.496	10588	288	-3.5	11699. Downlink	11:36:05.214	DCCH	ALERTING
					14279. -75.6	11:36:04.496	10588	288		11700. Downlink	11:36:05.534	DCCH	DOWNLINK_DIRECT_TRANSFER
					14280. -72.8	11:36:04.745	10588	288	-3.4	11701. Downlink	11:36:05.534	DCCH	CONNECT
					14281. -72.8	11:36:04.745	10588	288		11702. Uplink	11:36:05.535	DCCH	UPLINK_DIRECT_TRANSFER
					14282. -74.8	11:36:05.277	10588	288	-3.2	11703. Uplink	11:36:05.535	DCCH	CONNECT_ACKNOWLEDGE
					14283. -74.8	11:36:05.277	10588	288		11704. Downlink	11:36:05.614	DCCH	DOWNLINK_DIRECT_TRANSFER
					14284. -78.6	11:36:05.884	10588	288	-3.4	11705. Downlink	11:36:05.614	DCCH	DISCONNECT
					14285. -78.6	11:36:05.884	10588	288		11706. Uplink	11:36:05.615	DCCH	UPLINK_DIRECT_TRANSFER
					14286. -76.8	11:36:06.256	10588	288	-4.7	11707. Uplink	11:36:05.615	DCCH	RELEASE
					14287. -76.8	11:36:06.256	10588	288		11708. Downlink	11:36:05.734	DCCH	MEASUREMENT_CONTROL
					14288. -74	11:36:07.025	10588	288	-3	11709. Downlink	11:36:05.814	DCCH	SECURITY_MODE_COMMAND
					14289. -74	11:36:07.025	10588	288		11710. Uplink	11:36:05.815	DCCH	SECURITY_MODE_COMPLETE
					14290. -75.8	11:36:07.446	10588	288	-2.8	11711. Uplink	11:36:05.835	DCCH	MEASUREMENT_REPORT
					14291. -75.8	11:36:07.446	10588	288		11712. Downlink	11:36:06.054	DCCH	DOWNLINK_DIRECT_TRANSFER
					14292. -77.7	11:36:07.782	10588	288	-4.3	11713. Downlink	11:36:06.054	DCCH	RELEASE_COMPLETE
					14293. -77.7	11:36:07.782	10588	288		11714. Uplink	11:36:06.085	DCCH	MEASUREMENT_REPORT
					14294. -77.2	11:36:08.538	10588	288	-3	11715. Downlink	11:36:06.254	DCCH	DOWNLINK_DIRECT_TRANSFER
					14295. -77.2	11:36:08.538	10588	288		11716. Downlink	11:36:06.254	DCCH	ROUTING_AREA_UPDATE_ACCEPT
					14296. -76.2	11:36:08.765	10588	288	-2.9	11717. Uplink	11:36:06.256	DCCH	UPLINK_DIRECT_TRANSFER
					14297. -76.2	11:36:08.765	10588	288		11718. Uplink	11:36:06.256	DCCH	ROUTING_AREA_UPDATE_COMPLETE
					14298. -74.7	11:36:09.179	10588	288	-2.8	11719. Downlink	11:36:06.494	DCCH	RADIO_BEARER_RELEASE
					14299. -74.7	11:36:09.179	10588	288		11720. Downlink	11:36:06.614	DCCH	DOWNLINK_DIRECT_TRANSFER

### Analysis:

- This call drop event occurred on long call at 11:36:05:615 time when UE was latched with 3G network.
- After getting Alerting message at 11:36:05:614 time, core network responded with CC disconnect with Cause(31): Normal unspecified and Call drop happened.
- During the failure, UE was latched with PSC 288 and RF condition RSCP -74.8 dBm good but Ec/No -3.4 dB are very good.
- Need to check MT End.

```

DISCONNECT      3GPP TS 24.008 ver 15.4.0 Rel 15 (9.3.7.1)

M Protocol Discriminator (hex data: 3)
(0x3) Call control (call related SS message)
M Transaction Identifier (hex data: 8)
TI flag: 1 (the message is sent to the side that originates the TI)
TI value: 0
M Message Type (hex data: 25)
Message number: 37
M Cause (hex data: 02e29f)
Coding standard: Standard defined for the GSM PLMNs
Location: public network serving the local user
Cause (31): Normal, unspecified

Layer 3 data:
83 25 02 e2 9f
    
```

# Phase-1 Call Drop Analysis 2 From MS10 Airtel MT

	1. best active RSCP	Time	Ch	SC	1. best active Ec/NO	Event ID	System	Transf. dir.	Time	Subchannel	Message name	
13756.	-60.6	11:35:00.822	3050	114		11061.	RRCSM	UMTS FDD	Uplink	11:36:03.859	DCCH	UPLINK_DIRECT_TRANSFER
13757.		11:35:00.822	3050	114	-2.8	11062.	L3SM	UMTS FDD	Uplink	11:36:03.859	DCCH	CALL_CONFIRMED
13758.	-65.5	11:35:01.350	3050	114		11063.	RRCSM	UMTS FDD	Downlink	11:36:03.859	DCCH	ACTIVE_SET_UPDATE
13759.		11:35:01.350	3050	114	-4.5	11064.	RRCSM	UMTS FDD	Uplink	11:36:03.859	DCCH	ACTIVE_SET_UPDATE_COMPLETE
13760.	-67.6	11:35:01.833	3050	114		11065.	RRCSM	UMTS FDD	Downlink	11:36:03.929	DCCH	MEASUREMENT_CONTROL
13761.		11:35:01.833	3050	114	-4.7	11066.	RRCSM	UMTS FDD	Downlink	11:36:03.939	DCCH	MEASUREMENT_CONTROL
13762.	-64.3	11:35:02.322	3050	114		11067.	RRCSM	UMTS FDD	Uplink	11:36:04.480	DCCH	MEASUREMENT_REPORT
13763.		11:35:02.322	3050	114	-3.3	11068.	RRCSM	UMTS FDD	Uplink	11:36:04.523	DCCH	MEASUREMENT_REPORT
13764.	-68.4	11:35:02.970	3050	114		11069.	RRCSM	UMTS FDD	Downlink	11:36:04.649	DCCH	RADIO_BEARER_SETUP
13765.		11:35:02.970	3050	114	-4.9	11070.	RRCSM	UMTS FDD	Uplink	11:36:04.883	DCCH	MEASUREMENT_REPORT
13766.	-69.1	11:35:03.350	3050	114		11071.	RRCSM	UMTS FDD	Uplink	11:36:05.002	DCCH	RADIO_BEARER_SETUP_COMPLETE
13767.		11:35:03.350	3050	114	-3.7	11072.	RRCSM	UMTS FDD	Uplink	11:36:05.003	DCCH	UPLINK_DIRECT_TRANSFER
13768.	-76	11:36:02.966	3050	114		11073.	L3SM	UMTS FDD	Uplink	11:36:05.003	DCCH	ALERTING
13769.		11:36:02.966	3050	114	-9	11074.	RRCSM	UMTS FDD	Uplink	11:36:05.225	DCCH	MEASUREMENT_REPORT
13770.	-76	11:36:03.419	3050	114		11075.	RRCSM	UMTS FDD	Uplink	11:36:05.234	DCCH	UPLINK_DIRECT_TRANSFER
13771.		11:36:03.419	3050	114	-6.8	11076.	L3SM	UMTS FDD	Uplink	11:36:05.234	DCCH	CONNECT
13772.	-76	11:36:03.922	3050	114		11077.	RRCSM	UMTS FDD	Downlink	11:36:05.289	DCCH	RADIO_BEARER_RECONFIGURATION
13773.		11:36:03.922	3050	114	-15.5	11078.	RRCSM	UMTS FDD	Uplink	11:36:05.331	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
13774.	-76	11:36:04.419	3050	114		11079.	RRCSM	UMTS FDD	Uplink	11:36:05.393	DCCH	MEASUREMENT_REPORT
13775.		11:36:04.419	3050	114	-19.1	11080.	RRCSM	UMTS FDD	Uplink	11:36:05.513	DCCH	MEASUREMENT_REPORT
13776.	-76	11:36:05.001	3050	114		11081.	RRCSM	UMTS FDD	Downlink	11:36:05.529	DCCH	DOWNLINK_DIRECT_TRANSFER
13777.		11:36:05.001	3050	114	-13.1	11082.	L3SM	UMTS FDD	Downlink	11:36:05.529	DCCH	CONNECT_ACKNOWLEDGE
13778.	-76	11:36:05.775	3050	114		11083.	RRCSM	UMTS FDD	Downlink	11:36:05.769	DCCH	RRC_CONNECTION_RELEASE
13779.		11:36:05.775	3050	114	-10.7	11084.	RRCSM	UMTS FDD	Uplink	11:36:05.769	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
13780.	-76	11:36:06.258	3050	114		11085.	RRCSM	UMTS FDD	Downlink	11:36:05.809	DCCH	RRC_CONNECTION_RELEASE
13781.		11:36:06.258	3050	114	-6	11086.	RRCSM	UMTS FDD	Uplink	11:36:05.809	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
13782.	-87.2	11:36:06.565	3050	114		11087.	RRCSM	UMTS FDD	Downlink	11:36:05.849	DCCH	RRC_CONNECTION_RELEASE
13783.		11:36:06.565	3050	114	-25.4	11088.	RRCSM	UMTS FDD	Downlink	11:36:06.225	BCCH_BCH	SYSTEM_INFORMATION_BCH
13784.	-87.2	11:36:08.208	3050	114		11089.	RRCSM	UMTS FDD	Downlink	11:36:06.225	BCCH_BCH	MASTER_INFORMATION_BLOCK
13785.		11:36:08.208	3050	114	-25.4	11090.	RRCSM	UMTS FDD	Downlink	11:36:06.226	BCCH_BCH	MASTER_INFORMATION_BLOCK
13786.	-65.1	11:36:09.770	3050	288		11091.	RRCSM	UMTS FDD	Downlink	11:36:06.226	BCCH_BCH	SCHEDULING_BLOCK_1
13787.		11:36:09.770	3050	288	-3.2	11092.	RRCSM	UMTS FDD	Downlink	11:36:06.226	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_1
13788.	-91	11:39:03.847	3050	114		11093.	RRCSM	UMTS FDD	Downlink	11:36:06.226	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
13789.		11:39:03.847	3050	114	-10.1	11094.	RRCSM	UMTS FDD	Downlink	11:36:06.226	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_5
13790.	-91	11:39:04.032	3050	114		11095.	RRCSM	UMTS FDD	Downlink	11:36:06.226	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_18
13791.		11:39:04.032	3050	114	-12.5	11096.	RRCSM	UMTS FDD	Downlink	11:36:06.305	BCCH_BCH	SYSTEM_INFORMATION_BCH

## Analysis:

- On MT End, During the setup fail, UE was latched with PSC 114 and RF condition RSCP -76 dBm is and EC/NO -13.1 which is good.
- On both MO And MT Side, RF Conditions seems OK Also there is no abnormal message regarding failure.
- Need to check from Network End.

# Phase-1 Call Drop Analysis 1 From MS11 CWS MO

	Time	System	Serving band	Call type	1. best active RSCP	Time	Ch	SC	1. best active Ec/NO	Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	12:03:36.599	UMTS FDD	2100	Voice call	14185. -84.9	12:03:30.857	10690	143		16145. RRCSM	UMTS FC Uplink		12:03:24.668	DCCH	MEASUREMENT_REPORT
					14186. -83.8	12:03:30.857	10690	143	-8.2	16146. RRCSM	UMTS FC Uplink		12:03:24.718	DCCH	MEASUREMENT_REPORT
					14187. -79.6	12:03:31.427	10690	102		16147. RRCSM	UMTS FC Uplink		12:03:24.899	DCCH	MEASUREMENT_REPORT
					14188. -70.9	12:03:31.427	10690	102	-10	16148. RRCSM	UMTS FC Downlink		12:03:25.226	DCCH	ACTIVE_SET_UPDATE
					14189. -73.3	12:03:31.877	10690	57		16149. RRCSM	UMTS FC Uplink		12:03:25.244	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					14190. -70.9	12:03:31.877	10690	57	-8.1	16150. RRCSM	UMTS FC Downlink		12:03:26.987	DCCH	MEASUREMENT_CONTROL
					14191. -73.3	12:03:32.446	10690	143		16151. RRCSM	UMTS FC Downlink		12:03:27.426	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					14192. -75.3	12:03:32.446	10690	143	-7.9	16152. RRCSM	UMTS FC Uplink		12:03:28.274	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					14193. -78	12:03:32.919	10690	143	-9	16153. RRCSM	UMTS FC Uplink		12:03:29.310	DCCH	MEASUREMENT_REPORT
					14194. -76.8	12:03:32.919	10690	143	-9	16154. RRCSM	UMTS FC Downlink		12:03:29.747	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					14195. -80.7	12:03:33.440	10690	57	-3.8	16155. RRCSM	UMTS FC Uplink		12:03:30.555	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					14196. -78	12:03:33.440	10690	57	-3.8	16156. RRCSM	UMTS FC Uplink		12:03:30.718	DCCH	MEASUREMENT_REPORT
					14197. -78	12:03:33.948	10690	57		16157. RRCSM	UMTS FC Downlink		12:03:30.787	DCCH	MEASUREMENT_CONTROL
					14198. -76.8	12:03:33.948	10690	57	-6.5	16158. RRCSM	UMTS FC Downlink		12:03:30.827	DCCH	MEASUREMENT_CONTROL
					14199. -78.9	12:03:34.538	10690	57	-7.8	16159. RRCSM	UMTS FC Downlink		12:03:30.867	DCCH	MEASUREMENT_CONTROL
					14200. -70.8	12:03:34.538	10690	57	-7.8	16160. RRCSM	UMTS FC Uplink		12:03:31.129	DCCH	MEASUREMENT_REPORT
					14201. -78.9	12:03:35.018	10690	143		16161. RRCSM	UMTS FC Downlink		12:03:31.467	DCCH	ACTIVE_SET_UPDATE
					14202. -70.8	12:03:35.018	10690	143	-7.8	16162. RRCSM	UMTS FC Uplink		12:03:31.484	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					14203. -80.7	12:03:35.557	10690	57		16163. RRCSM	UMTS FC Uplink		12:03:32.119	DCCH	MEASUREMENT_REPORT
					14204. -67.1	12:03:35.557	10690	57	-5.8	16164. RRCSM	UMTS FC Uplink		12:03:32.159	DCCH	MEASUREMENT_REPORT
					14205. -78	12:03:36.037	10690	57		16165. RRCSM	UMTS FC Uplink		12:03:33.011	DCCH	MEASUREMENT_REPORT
					14206. -78	12:03:36.037	10690	57	-7.4	16166. RRCSM	UMTS FC Downlink		12:03:33.266	DCCH	ACTIVE_SET_UPDATE
					14207. -89.1	12:03:36.749	10690	143		16167. RRCSM	UMTS FC Uplink		12:03:33.290	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					14208. -78	12:03:36.749	10690	143	-5.6	16168. RRCSM	UMTS FC Downlink		12:03:33.786	DCCH	MEASUREMENT_CONTROL
					14209. -89.1	12:03:37.161	10690	143	-7.5	16169. RRCSM	UMTS FC Downlink		12:03:36.506	DCCH	DOWNLINK_DIRECT_TRANSFER
					14210. -78	12:03:37.161	10690	143	-7.5	16170. L3SM	UMTS FC Downlink		12:03:36.506	DCCH	DISCONNECT
					14211. -80	12:03:37.714	10690	57		16171. RRCSM	UMTS FC Uplink		12:03:36.507	DCCH	UPLINK_DIRECT_TRANSFER
					14212. -80	12:03:37.714	10690	57	-7.2	16172. L3SM	UMTS FC Uplink		12:03:36.507	DCCH	RELEASE
					14213. -81.3	12:03:38.272	10690	143		16173. RRCSM	UMTS FC Uplink		12:03:36.668	DCCH	MEASUREMENT_REPORT
					14214. -80	12:03:38.272	10690	143	-14.6	16174. RRCSM	UMTS FC Uplink		12:03:36.727	DCCH	MEASUREMENT_REPORT
					14215. -80	12:06:09.053	10690	143		16175. RRCSM	UMTS FC Downlink		12:03:36.746	DCCH	DOWNLINK_DIRECT_TRANSFER
					14216. -80	12:06:09.053	10690	143	-7	16176. L3SM	UMTS FC Downlink		12:03:36.746	DCCH	RELEASE_COMPLETE
					14217. -80	12:06:09.555	10690	102		16177. RRCSM	UMTS FC Downlink		12:03:36.946	DCCH	RADIO_BEARER_RELEASE
					14218. -80	12:06:09.555	10690	102	-7.3	16178. RRCSM	UMTS FC Uplink		12:03:37.715	DCCH	RADIO_BEARER_RELEASE_COMPLETE
					14219. -80	12:06:10.076	10690	102		16179. RRCSM	UMTS FC Downlink		12:03:37.986	DCCH	MEASUREMENT_CONTROL
					14220. -80	12:06:10.076	10690	143	-11.6	16180. RRCSM	UMTS FC Downlink		12:03:38.026	DCCH	RRC_CONNECTION_RELEASE
					14221. -80	12:06:10.582	10690	102		16181. RRCSM	UMTS FC Uplink		12:03:38.027	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
					14222. -80	12:06:10.582	10690	102	-7.5						

- Analysis:**
- This call drop event occurred on long call at 12:03:36:599 time when UE was latched with 3G network.
  - After getting Alerting message at 12:03:12:906 time, core network responded with CC disconnect with Cause(27): Destination out of order and Call drop happened.
  - During the failure, UE was latched with PSC 57 and RF condition RSCP -80.7 dBm good but Ec/No -7.4 dB are very good.
  - Need to check MT End.

Downlink

DISCONNECT 3GPP TS 24.008 ver 15.4.0 Rel 15 (9.3.7.1)

M Protocol Discriminator (hex data: 3)  
 (0x3) Call control (call related SS message)

M Transaction Identifier (hex data: 8)  
 TI flag: 1 (the message is sent to the side that originates the TI)  
 TI value: 0

M Message Type (hex data: 25)  
 Message number: 37

M Cause (hex data: 02e09b)  
 Coding standard: Standard defined for the GSM PLMNs  
 Location: user  
 Cause (27): Destination out of order

# Phase-1 Call Drop Analysis 1 From MS12 CWS MT

	1. best active RSCP	Time	Ch	SC	1. best active Ec/N	Event ID	System	Transf. dir.	Time	Subchannel	Message name	
12661.	-80.3	12:03:30.833	10690	143		17661.	RRCSM	UMTS FDD	Uplink	12:03:28.074	DCCH	ACTIVE_SET_UPDATE_COMPLETE
12662.		12:03:30.833	10690	143	-10.6	17662.	RRCSM	UMTS FDD	Uplink	12:03:28.215	DCCH	MEASUREMENT_REPORT
12663.	-80.8	12:03:31.333	10690	143		17663.	RRCSM	UMTS FDD	Downlink	12:03:28.502	DCCH	MEASUREMENT_CONTROL
12664.		12:03:31.333	10690	143	-9.6	17664.	RRCSM	UMTS FDD	Downlink	12:03:28.542	DCCH	MEASUREMENT_CONTROL
12665.	-76	12:03:31.870	10690	102		17665.	RRCSM	UMTS FDD	Uplink	12:03:29.214	DCCH	MEASUREMENT_REPORT
12666.		12:03:31.870	10690	102	-5.5	17666.	RRCSM	UMTS FDD	Downlink	12:03:29.302	DCCH	MEASUREMENT_CONTROL
12667.	-71.7	12:03:32.455	10690	143		17667.	RRCSM	UMTS FDD	Downlink	12:03:29.462	DCCH	ACTIVE_SET_UPDATE
12668.		12:03:32.455	10690	143	-6.2	17668.	RRCSM	UMTS FDD	Uplink	12:03:29.495	DCCH	ACTIVE_SET_UPDATE_COMPLETE
12669.	-75.3	12:03:32.833	10690	143		17669.	RRCSM	UMTS FDD	Uplink	12:03:29.800	DCCH	MEASUREMENT_REPORT
12670.		12:03:32.833	10690	143	-8.8	17670.	RRCSM	UMTS FDD	Uplink	12:03:29.835	DCCH	MEASUREMENT_REPORT
12671.	-78.1	12:03:33.493	10690	143		17671.	RRCSM	UMTS FDD	Uplink	12:03:31.265	DCCH	MEASUREMENT_REPORT
12672.		12:03:33.493	10690	143	-9.7	17672.	RRCSM	UMTS FDD	Uplink	12:03:31.354	DCCH	MEASUREMENT_REPORT
12673.	-84.9	12:03:33.833	10690	102		17673.	RRCSM	UMTS FDD	Downlink	12:03:31.542	DCCH	ACTIVE_SET_UPDATE
12674.		12:03:33.833	10690	102	-8.7	17674.	RRCSM	UMTS FDD	Uplink	12:03:31.554	DCCH	ACTIVE_SET_UPDATE_COMPLETE
12675.	-80.4	12:03:34.511	10690	143		17675.	RRCSM	UMTS FDD	Uplink	12:03:33.013	DCCH	MEASUREMENT_REPORT
12676.		12:03:34.511	10690	143	-12.1	17676.	RRCSM	UMTS FDD	Uplink	12:03:33.110	DCCH	MEASUREMENT_REPORT
12677.	-79.3	12:03:34.833	10690	143		17677.	RRCSM	UMTS FDD	Uplink	12:03:33.235	DCCH	MEASUREMENT_REPORT
12678.		12:03:34.833	10690	143	-8.1	17678.	RRCSM	UMTS FDD	Uplink	12:03:34.472	DCCH	MEASUREMENT_REPORT
12679.	-84.5	12:03:35.762	10690	102		17679.	RRCSM	UMTS FDD	Uplink	12:03:35.786	DCCH	MEASUREMENT_REPORT
12680.		12:03:35.762	10690	102	-9.6	17680.	RRCSM	UMTS FDD	Downlink	12:03:36.542	DCCH	RRC_CONNECTION_RELEASE
12681.	-75.6	12:03:36.153	10690	143		17681.	RRCSM	UMTS FDD	Uplink	12:03:36.543	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
12682.		12:03:36.153	10690	143	-6.8	17682.	RRCSM	UMTS FDD	Uplink	12:03:36.583	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
12683.	-94.9	12:03:36.815	10690	102		17683.	RRCSM	LTE FDD	Downlink	12:03:36.900	BCCH-BCH	MasterInformationBlock
12684.		12:03:36.815	10690	102	-23.7	17684.	RRCSM	LTE FDD	Downlink	12:03:36.924	BCCH-SCH	SystemInformationBlockType1
12685.	-81	12:06:13.214	10690	102		17685.	RRCSM	LTE FDD	Downlink	12:03:36.924	BCCH-SCH	SystemInformation - SIB2,SIB3
12686.		12:06:13.214	10690	102	-10.7	17686.	RRCSM	LTE FDD	Downlink	12:03:36.924	BCCH-SCH	SystemInformation - SIB5
12687.	-81	12:06:13.764	10690	102		17687.	L3SM	LTE FDD	Uplink	12:03:36.948		TRACKING_AREA_UPDATE_REQUEST
12688.		12:06:13.764	10690	102	-14.6	17688.	RRCSM	LTE FDD	Uplink	12:03:36.948	CCCH	RRCConnectionRequest
12689.	-81	12:06:14.448	10690	102		17689.	RRCSM	LTE FDD	Downlink	12:03:36.986	CCCH	RRCConnectionSetup
12690.		12:06:14.448	10690	102	-10.4	17690.	RRCSM	LTE FDD	Uplink	12:03:36.990	DCCH	RRCConnectionSetupComplete
12691.	-81	12:06:14.939	10690	102		17691.	RRCSM	LTE FDD	Downlink	12:03:37.188	DCCH	DLInformationTransfer
12692.		12:06:14.939	10690	102	-8.1	17692.	L3SM	LTE FDD	Downlink	12:03:37.188		TRACKING_AREA_UPDATE_ACCEPT
12693.	-81	12:06:15.448	10690	102		17693.	L3SM	LTE FDD	Uplink	12:03:37.191		TRACKING_AREA_UPDATE_COMPLETE
12694.		12:06:15.448	10690	102	-6.6	17694.	RRCSM	LTE FDD	Uplink	12:03:37.191	DCCH	ULInformationTransfer
12695.	-81	12:06:15.987	10690	102		17695.	RRCSM	LTE FDD	Downlink	12:03:37.207	DCCH	RRCConnectionRelease
12696.		12:06:15.987	10690	143	-9.2	17696.	RRCSM	LTE FDD	Downlink	12:03:38.418	PCCH	Paging
12697.	-77.2	12:06:16.448	10690	102		17697.	L3SM	LTE FDD	Uplink	12:03:38.418		SERVICE_REQUEST

## Analysis:

- On MT End, During the setup fail, UE was latched with PSC 143 and RF condition RSCP -75.6 dBm is and EC/NO -6.8 which is good.
- On both MO And MT Side, RF Conditions seems OK Also there is no abnormal message regarding failure.
- Need to check from Network End.

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

Call Attempt Failure cause from Airtel	Count
<b>Total Call Attempt Failure</b>	<b>2</b>
Poor Coverage	2

Call Attempt Failure cause from CWS	Count
<b>Total Call Attempt Failure</b>	<b>3</b>
Poor Coverage	2
Network End	1

Call Drop cause from Airtel	Count
<b>Total Call Drop</b>	<b>2</b>
Poor Coverage	1
Poor Quality	1

Call Drop cause from CWS	Count
<b>Total Call Drop</b>	<b>3</b>
Poor Coverage	1
Poor Quality	2

# Phase-2 Call Attempt Failure Analysis 1 From MS5 Airtel MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	12:42:21.647	UMTS FDD	2100	Tim	5118.	12:42:18.566	10588	256	-8.7		14398.	RRC SM	Uplink	12:42:20.290	CCCH	RRC_CONNECTION_REQUEST
2.	13:46:48.947	UMTS FDD	2100	Tim	5119.	12:42:19.078	10588	256			14399.	RRC SM	Downlink	12:42:20.308	BCCH_BCH	SYSTEM_INFORMATION_BCH
					5120.	12:42:19.078	10588	256	-9.4		14400.	RRC SM	Downlink	12:42:20.308	BCCH_BCH	MASTER_INFORMATION_BLOCK
					5121.	12:42:19.537	10588	256	-106.1		14401.	RRC SM	Downlink	12:42:20.408	BCCH_BCH	SYSTEM_INFORMATION_BCH
					5122.	12:42:19.537	10588	256	-9.3		14402.	RRC SM	Downlink	12:42:20.408	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
					5123.	12:42:19.957	10588	256	-113.7		14403.	RRC SM	Downlink	12:42:20.408	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					5124.	12:42:19.957	10588	256	-10.9		14404.	RRC SM	Downlink	12:42:20.468	CCCH	RRC_CONNECTION_SETUP
					5125.	12:42:20.480	10588	256	-107.1		14405.	RRC SM	Uplink	12:42:20.522	DCCH	RRC_CONNECTION_SETUP_COMPLETE
					5126.	12:42:20.480	10588	256	-10.6		14406.	RRC SM	Uplink	12:42:20.523	DCCH	INITIAL_DIRECT_TRANSFER
					5127.	12:42:21.167	10588	256			14407.	L3 SM	Uplink	12:42:20.523	DCCH	SERVICE_REQUEST
					5128.	12:42:21.167	10588	256	-6.9		14408.	RRC SM	Downlink	12:42:20.755	DCCH	MEASUREMENT_CONTROL
					5129.	12:42:21.647	10588	256	-111.8		14409.	RRC SM	Downlink	12:42:20.845	DCCH	MEASUREMENT_CONTROL
					5130.	12:42:21.647	10588	256	-10.9		14410.	RRC SM	Downlink	12:42:20.845	DCCH	MEASUREMENT_CONTROL
					5131.	12:42:22.276	10588	256	-105.8		14411.	RRC SM	Downlink	12:42:20.855	DCCH	MEASUREMENT_CONTROL
					5132.	12:42:22.276	10588	256	-6.9		14412.	RRC SM	Downlink	12:42:20.865	DCCH	MEASUREMENT_CONTROL
					5133.	12:42:22.836	10588	256	-106.4		14413.	RRC SM	Downlink	12:42:20.874	DCCH	MEASUREMENT_CONTROL
					5134.	12:42:22.836	10588	256	-7.4		14414.	RRC SM	Downlink	12:42:20.894	DCCH	SECURITY_MODE_COMMAND
					5135.	12:42:23.156	10588	256	-97.9		14415.	RRC SM	Uplink	12:42:20.895	DCCH	SECURITY_MODE_COMPLETE
					5136.	12:42:23.156	10588	256	-4.6		14416.	RRC SM	Uplink	12:42:20.966	DCCH	MEASUREMENT_REPORT
					5137.	12:42:23.896	10588	256	-104.8		14417.	RRC SM	Downlink	12:42:21.145	DCCH	RADIO_BEARER_SETUP
					5138.	12:42:23.896	10588	256	-6.6		14418.	RRC SM	Uplink	12:42:21.216	DCCH	MEASUREMENT_REPORT
					5139.	12:42:24.456	10588	256	-107.4		14419.	RRC SM	Uplink	12:42:21.532	DCCH	RADIO_BEARER_SETUP_COMPLETE
					5140.	12:42:24.456	10588	256	-8.5		14420.	RRC SM	Downlink	12:42:21.764	DCCH	MEASUREMENT_CONTROL
					5141.	12:42:24.926	10588	256	-111.8		14421.	RRC SM	Downlink	12:42:21.804	DCCH	MEASUREMENT_CONTROL
					5142.	12:42:24.926	10588	256	-12		14422.	RRC SM	Downlink	12:42:21.924	DCCH	RADIO_BEARER_RECONFIGURATION
					5143.	12:42:25.460	10588	256	-98		14423.	RRC SM	Uplink	12:42:21.966	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
					5144.	12:42:25.460	10588	256	-5.1		14424.	RRC SM	Uplink	12:42:23.086	DCCH	MEASUREMENT_REPORT
					5145.	12:42:25.966	10588	256	-102.6		14425.	RRC SM	Uplink	12:42:23.120	DCCH	MEASUREMENT_REPORT
					5146.	12:42:25.966	10588	256	-5.4		14426.	RRC SM	Uplink	12:42:23.525	DCCH	MEASUREMENT_REPORT
					5147.	12:42:26.456	10588	256	-99.9		14427.	RRC SM	Downlink	12:42:26.764	DCCH	RRC_CONNECTION_RELEASE
					5148.	12:42:26.456	10588	256	-6.7		14428.	RRC SM	Uplink	12:42:26.764	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
					5149.	12:42:26.872	10588	256	-99.1		14429.	RRC SM	Downlink	12:42:26.804	DCCH	RRC_CONNECTION_RELEASE
					5150.	12:42:26.872	10588	256	-5		14430.	RRC SM	Uplink	12:42:26.804	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
					5151.	12:42:27.060	10588	256	-110.1		14431.	RRC SM	Downlink	12:42:27.007	BCCH_BCH	SYSTEM_INFORMATION_BCH
					5152.	12:42:27.060	10588	256	-11.1		14432.	RRC SM	Downlink	12:42:27.027	BCCH_BCH	SYSTEM_INFORMATION_BCH
					5153.	12:42:27.956	10588	256	-116.3		14433.	RRC SM	Downlink	12:42:27.027	BCCH	MASTER_INFORMATION_BLOCK
					5154.	12:42:27.956	10588	256	-12.7		14434.	RRC SM	Downlink	12:42:27.028	BCCH_BCH	MASTER_INFORMATION_BLOCK

- Analysis:**
- This call failure event occurred on short call at 12:42:21:647 time when UE was latched with 3G network.
  - Initially call was attempt at 12:41:51:549 time, Call failure happened.
  - During the failure, UE was latched with PSC 256 and RF condition RSCP -111.8 dBm good but Ec/No -10.9 dB are very poor.
  - Call failed due to poor network coverage on the MO site. Network issues such as low signal strength or interference in the area are impacting call performance.

# Phase-2 Call Attempt Failure Analysis 2 From MS5 Airtel MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec		Event ID	System	Transf. dir.	Time	Subchannel	Message name	
1.	12:42:21.647	UMTS FDD	2100	Tim	13137.	-106.1	13:46:41.359	10588	72		34881.	RRCSM	UMTS FDD	Downlink	13:46:47.187	BCCH	MASTER_INFORMATION_BLOCK
2.	13:46:48.947	UMTS FDD	2100	Tim	13138.		13:46:41.359	10588	72	-8	34882.	RRCSM	UMTS FDD	Downlink	13:46:47.287	BCCH_BCH	SYSTEM_INFORMATION_BCH
					13139.	-106.6	13:46:42.020	10588	72		34883.	RRCSM	UMTS FDD	Downlink	13:46:47.287	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
					13140.		13:46:42.020	10588	72	-7.7	34884.	RRCSM	UMTS FDD	Downlink	13:46:47.287	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					13141.	-111.4	13:46:42.521	10588	72		34885.	RRCSM	UMTS FDD	Downlink	13:46:47.327	CCCH	RRC_CONNECTION_SETUP
					13142.		13:46:42.521	10588	72	-10.4	34886.	RRCSM	UMTS FDD	Uplink	13:46:47.381	DCCH	RRC_CONNECTION_SETUP_COMPLETE
					13143.	-105.7	13:46:43.141	10588	72		34887.	RRCSM	UMTS FDD	Uplink	13:46:47.382	DCCH	INITIAL_DIRECT_TRANSFER
					13144.		13:46:43.141	10588	72	-7.2	34888.	L3SM	UMTS FDD	Uplink	13:46:47.382	DCCH	SERVICE_REQUEST
					13145.	-111.6	13:46:43.590	10588	72		34889.	RRCSM	UMTS FDD	Downlink	13:46:47.614	DCCH	MEASUREMENT_CONTROL
					13146.		13:46:43.590	10588	72	-10.7	34890.	RRCSM	UMTS FDD	Downlink	13:46:47.684	DCCH	MEASUREMENT_CONTROL
					13147.	-115.7	13:46:44.185	10588	72		34891.	RRCSM	UMTS FDD	Downlink	13:46:47.684	DCCH	MEASUREMENT_CONTROL
					13148.		13:46:44.185	10588	72	-14.9	34892.	RRCSM	UMTS FDD	Downlink	13:46:47.694	DCCH	MEASUREMENT_CONTROL
					13149.	-108.6	13:46:44.663	10588	72		34893.	RRCSM	UMTS FDD	Downlink	13:46:47.704	DCCH	MEASUREMENT_CONTROL
					13150.		13:46:44.663	10588	72	-9.2	34894.	RRCSM	UMTS FDD	Downlink	13:46:47.714	DCCH	MEASUREMENT_CONTROL
					13151.	-119.5	13:46:45.229	10588	72		34895.	RRCSM	UMTS FDD	Downlink	13:46:47.734	DCCH	SECURITY_MODE_COMMAND
					13152.		13:46:45.229	10588	72	-18	34896.	RRCSM	UMTS FDD	Uplink	13:46:47.734	DCCH	SECURITY_MODE_COMPLETE
					13153.	-127.7	13:46:45.491	10588	72		34897.	RRCSM	UMTS FDD	Uplink	13:46:47.805	DCCH	MEASUREMENT_REPORT
					13154.		13:46:45.491	10588	72	-25.4	34898.	RRCSM	UMTS FDD	Downlink	13:46:48.004	DCCH	RADIO_BEARER_SETUP
					13155.	-122	13:46:46.197	10588	72		34899.	RRCSM	UMTS FDD	Uplink	13:46:48.055	DCCH	MEASUREMENT_REPORT
					13156.		13:46:46.197	10588	72	-19.2	34900.	RRCSM	UMTS FDD	Uplink	13:46:48.346	DCCH	MEASUREMENT_REPORT
					13157.	-123.8	13:46:47.131	10588	72		34901.	RRCSM	UMTS FDD	Uplink	13:46:48.394	DCCH	RADIO_BEARER_SETUP_COMPLETE
					13158.		13:46:47.131	10588	72	-20.9	34902.	RRCSM	UMTS FDD	Downlink	13:46:48.583	DCCH	MEASUREMENT_CONTROL
					13159.	-116.4	13:46:47.836	10588	72		34903.	RRCSM	UMTS FDD	Downlink	13:46:48.663	DCCH	MEASUREMENT_CONTROL
					13160.		13:46:47.836	10588	72	-16	34904.	RRCSM	UMTS FDD	Downlink	13:46:48.743	DCCH	RADIO_BEARER_RECONFIGURATION
					13161.	-116.8	13:46:48.385	10588	72		34905.	RRCSM	UMTS FDD	Uplink	13:46:48.786	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
					13162.		13:46:48.385	10588	72	-15.8	34906.	RRCSM	UMTS FDD	Uplink	13:46:49.726	DCCH	MEASUREMENT_REPORT
					13163.	-121.2	13:46:48.947	10588	72		34907.	RRCSM	UMTS FDD	Uplink	13:46:49.907	DCCH	MEASUREMENT_REPORT
					13164.		13:46:48.947	10588	72	-17.6	34908.	RRCSM	UMTS FDD	Downlink	13:46:49.943	DCCH	ACTIVE_SET_UPDATE
					13165.	-122.2	13:46:49.317	10588	72		34909.	RRCSM	UMTS FDD	Uplink	13:46:49.960	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					13166.		13:46:49.317	10588	72	-19.3	34910.	RRCSM	UMTS FDD	Uplink	13:46:49.997	DCCH	MEASUREMENT_REPORT
					13167.	-121.9	13:46:49.952	10588	72		34911.	RRCSM	UMTS FDD	Downlink	13:46:50.223	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					13168.		13:46:49.952	10588	72	-20.4	34912.	RRCSM	UMTS FDD	Uplink	13:46:50.266	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_COMPLETE
					13169.	-123	13:46:50.266	10588	342		34913.	RRCSM	UMTS FDD	Downlink	13:46:50.543	DCCH	MEASUREMENT_CONTROL
					13170.		13:46:50.266	10588	342	-20.2	34914.	RRCSM	UMTS FDD	Uplink	13:46:52.518	DCCH	MEASUREMENT_REPORT
					13171.	-123.5	13:46:50.954	10588	72		34915.	RRCSM	UMTS FDD	Downlink	13:46:52.623	DCCH	RRC_CONNECTION_RELEASE
					13172.		13:46:50.954	10588	72	-21.4	34916.	RRCSM	UMTS FDD	Uplink	13:46:52.624	DCCH	RRC_CONNECTION_RELEASE_COMPLETE

## Analysis:

- This call failure event occurred on short call at 13:46:48:947 time when UE was latched with 3G network.
- Initially call was attempt at 13:46:18:520 time, Call failure happened.
- During the failure, UE was latched with PSC 72 and RF condition RSCP -121.2 dBm good but Ec/No -17.6 dB are very poor.
- Call failed due to poor network coverage on the MO site. Network issues such as low signal strength or interference in the area are impacting call performance.

# Phase-2 Call Attempt Failure Analysis 1 From MS7 CWS MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	12:35:05.505	UMTS FDD	2100	Dr	2961.	-103.6	12:34:17.947	10690	136		9260.	L3SM	UMTS FC Uplink	12:34:52.501	DCCCH	ROUTING_AREA_UPDATE_REQUEST
2.	12:38:56.853	GSM	900	Not	2962.		12:34:17.947	10690	135	-13	9261.	RRCSM	UMTS FC Downlink	12:34:52.814	DCCCH	MEASUREMENT_CONTROL
3.	13:52:52.714	UMTS FDD	2100	Call	2963.	-99	12:34:18.230	10690	136		9262.	RRCSM	UMTS FC Downlink	12:34:52.824	DCCCH	SECURITY_MODE_COMMAND
					2964.		12:34:18.230	10690	136	-7.9	9263.	RRCSM	UMTS FC Uplink	12:34:52.824	DCCCH	SECURITY_MODE_COMPLETE
					2965.	-100.5	12:34:18.927	10690	136		9264.	RRCSM	UMTS FC Uplink	12:34:52.895	DCCCH	UPLINK_DIRECT_TRANSFER
					2966.		12:34:18.927	10690	136	-10.4	9265.	L3SM	UMTS FC Uplink	12:34:52.895	DCCCH	SETUP
					2967.	-102	12:34:52.296	10690	136		9266.	RRCSM	UMTS FC Downlink	12:34:52.944	DCCCH	DOWNLINK_DIRECT_TRANSFER
					2968.		12:34:52.296	10690	136	-18.5	9267.	L3SM	UMTS FC Downlink	12:34:52.944	DCCCH	TMSI_REALLOCATION_COMMAND
					2969.	-102	12:34:52.924	10690	136		9268.	RRCSM	UMTS FC Uplink	12:34:52.945	DCCCH	UPLINK_DIRECT_TRANSFER
					2970.		12:34:52.924	10690	136	-17.6	9269.	L3SM	UMTS FC Uplink	12:34:52.945	DCCCH	TMSI_REALLOCATION_COMPLETE
					2971.	-102	12:34:53.255	10690	136		9270.	RRCSM	UMTS FC Downlink	12:34:53.064	DCCCH	DOWNLINK_DIRECT_TRANSFER
					2972.		12:34:53.255	10690	136	-19.9	9271.	L3SM	UMTS FC Downlink	12:34:53.064	DCCCH	CALL_PROCEEDING
					2973.	-102	12:34:53.925	10690	136		9272.	RRCSM	UMTS FC Uplink	12:34:53.126	DCCCH	MEASUREMENT_REPORT
					2974.		12:34:53.925	10690	136	-14.8	9273.	RRCSM	UMTS FC Downlink	12:34:53.244	DCCCH	ACTIVE_SET_UPDATE
					2975.	-102	12:34:54.456	10690	136		9274.	RRCSM	UMTS FC Uplink	12:34:53.255	DCCCH	ACTIVE_SET_UPDATE_COMPLETE
					2976.		12:34:54.456	10690	136	-17.2	9275.	RRCSM	UMTS FC Uplink	12:34:53.616	DCCCH	MEASUREMENT_REPORT
					2977.	-102	12:34:54.977	10690	136		9276.	RRCSM	UMTS FC Downlink	12:34:53.714	DCCCH	MEASUREMENT_CONTROL
					2978.		12:34:54.977	10690	135	-14.8	9277.	RRCSM	UMTS FC Downlink	12:34:57.844	DCCCH	DOWNLINK_DIRECT_TRANSFER
					2979.	-102	12:34:55.455	10690	136		9278.	L3SM	UMTS FC Downlink	12:34:57.844	DCCCH	AUTHENTICATION_AND_CIPHERING_REQUEST
					2980.		12:34:55.455	10690	136	-15.5	9279.	RRCSM	UMTS FC Uplink	12:34:57.882	DCCCH	UPLINK_DIRECT_TRANSFER
					2981.	-102.3	12:34:55.956	10690	135		9280.	L3SM	UMTS FC Uplink	12:34:57.882	DCCCH	AUTHENTICATION_AND_CIPHERING_RESPONSE
					2982.		12:34:55.956	10690	135	-11.8	9281.	RRCSM	UMTS FC Downlink	12:34:58.164	DCCCH	SECURITY_MODE_COMMAND
					2983.	-105.3	12:34:56.476	10690	135		9282.	RRCSM	UMTS FC Uplink	12:34:58.164	DCCCH	SECURITY_MODE_COMPLETE
					2984.		12:34:56.476	10690	135	-14.5	9283.	RRCSM	UMTS FC Downlink	12:34:58.514	DCCCH	DOWNLINK_DIRECT_TRANSFER
					2985.	-112.5	12:34:57.076	10690	135		9284.	L3SM	UMTS FC Downlink	12:34:58.514	DCCCH	ROUTING_AREA_UPDATE_ACCEPT
					2986.		12:34:57.076	10690	135	-16.6	9285.	RRCSM	UMTS FC Uplink	12:34:58.516	DCCCH	UPLINK_DIRECT_TRANSFER
					2987.	-116.4	12:34:57.455	10690	136		9286.	L3SM	UMTS FC Uplink	12:34:58.516	DCCCH	ROUTING_AREA_UPDATE_COMPLETE
					2988.		12:34:57.455	10690	136	-17.1	9287.	RRCSM	UMTS FC Downlink	12:35:04.634	DCCCH	RADIO_BEARER_SETUP
					2989.	-113.7	12:34:57.955	10690	136		9288.	RRCSM	UMTS FC Uplink	12:35:04.857	DCCCH	RADIO_BEARER_SETUP_COMPLETE
					2990.		12:34:57.955	10690	136	-16.3	9289.	RRCSM	UMTS FC Downlink	12:35:05.104	DCCCH	MEASUREMENT_CONTROL
					2991.	-112.7	12:34:58.517	10690	136		9290.	RRCSM	UMTS FC Downlink	12:35:05.144	DCCCH	MEASUREMENT_CONTROL
					2992.		12:34:58.517	10690	136	-14.6	9291.	RRCSM	UMTS FC Downlink	12:35:05.184	DCCCH	MEASUREMENT_CONTROL
					2993.	-110.6	12:34:59.166	10690	135		9292.	RRCSM	UMTS FC Downlink	12:35:05.224	DCCCH	MEASUREMENT_CONTROL
					2994.		12:34:59.166	10690	135	-15.6	9293.	RRCSM	UMTS FC Downlink	12:35:05.304	DCCCH	DOWNLINK_DIRECT_TRANSFER
					2995.	-114.5	12:34:59.506	10690	136		9294.	L3SM	UMTS FC Downlink	12:35:05.304	DCCCH	DISCONNECT
					2996.		12:34:59.506	10690	136	-17.3	9295.	RRCSM	UMTS FC Uplink	12:35:05.438	DCCCH	UPLINK_DIRECT_TRANSFER

### Analysis:

- This call failure event occurred on short call at 12:35:05:505 time when UE was latched with 3G network.
- After sending "CM Service Request" message to core network, then core network responds with "Call Proceeding" message. After that call setup has been failed.
- During the failure, UE was latched with PSC 136 and RF condition RSCP -113.7 dBm poor but Ec/No -17.1 dB are very poor.
- Call failed due to poor network coverage and quality at the MO site. Low signal strength and degraded network quality are contributing to call failures.

# Phase-2 Call Attempt Failure Analysis 2 From MS7 CWS MO

	Time	System	Serving band		Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub		Transf. dir.	Time	Subchannel	Message name	
1.	12:35:05.505	UMTS FDD	2100	Dro	367.	12:38:05.262	-88	26	9	1	10		10268.	Uplink	12:38:42.993	DCCH	ROUTING_AREA_UPDATE_REQUEST
2.	12:38:56.853	GSM	900	Not	368.	12:38:05.262					0		10269.	Downlink	12:38:43.306	DCCH	MEASUREMENT_CONTROL
3.	13:52:52.714	UMTS FDD	2100	Call	369.	12:38:05.906	-90	26	9	1	10		10270.	Downlink	12:38:43.316	DCCH	SECURITY_MODE_COMMAND
					370.	12:38:06.222					2		10271.	Uplink	12:38:43.316	DCCH	SECURITY_MODE_COMPLETE
					371.	12:38:06.702	-91	26	9	1	10		10272.	Uplink	12:38:43.387	DCCH	UPLINK_DIRECT_TRANSFER
					372.	12:38:06.702					0		10273.	Uplink	12:38:43.387	DCCH	SETUP
					373.	12:38:07.182					0		10274.	Downlink	12:38:43.416	DCCH	DOWNLINK_DIRECT_TRANSFER
					374.	12:38:07.534							10275.	Downlink	12:38:43.416	DCCH	TMSI_REALLOCATION_COMMAND
					375.	12:38:54.927	-88	25	13	10	10		10276.	Uplink	12:38:43.417	DCCH	UPLINK_DIRECT_TRANSFER
					376.	12:38:54.927					0		10277.	Uplink	12:38:43.417	DCCH	TMSI_REALLOCATION_COMPLETE
					377.	12:38:55.245					0		10278.	Downlink	12:38:43.536	DCCH	DOWNLINK_DIRECT_TRANSFER
					378.	12:38:55.632	-79	25	13	10	10		10279.	Downlink	12:38:43.536	DCCH	CALL_PROCEEDING
					379.	12:38:55.632					0		10280.	Downlink	12:38:45.046	DCCH	RADIO_BEARER_SETUP
					380.	12:38:55.725					0		10281.	Uplink	12:38:45.319	DCCH	RADIO_BEARER_SETUP_COMPLETE
					381.	12:38:56.166	-74	25	13	1	10		10282.	Downlink	12:38:45.566	DCCH	MEASUREMENT_CONTROL
					382.	12:38:56.853	-78	25	13	1	10		10283.	Downlink	12:38:45.606	DCCH	MEASUREMENT_CONTROL
					383.	12:38:57.165					0		10284.	Downlink	12:38:45.646	DCCH	MEASUREMENT_CONTROL
					384.	12:38:57.598							10285.	Downlink	12:38:45.686	DCCH	MEASUREMENT_CONTROL
					385.	12:39:29.706					7		10286.	Downlink	12:38:45.846	DCCH	DOWNLINK_DIRECT_TRANSFER
					386.	12:39:29.925	-48	16	13	1			10287.	Downlink	12:38:45.846	DCCH	AUTHENTICATION_AND_CIPHERING_REQUEST
					387.	12:39:30.177					0		10288.	Uplink	12:38:45.885	DCCH	UPLINK_DIRECT_TRANSFER
					388.	12:39:30.399	-48	16	13	1			10289.	Uplink	12:38:45.885	DCCH	AUTHENTICATION_AND_CIPHERING_RESPONSE
					389.	12:39:31.119	-49	16	13	1			10290.	Downlink	12:38:46.326	DCCH	SECURITY_MODE_COMMAND
					390.	12:39:32.060	-48	16	13	1			10291.	Uplink	12:38:46.326	DCCH	SECURITY_MODE_COMPLETE
					391.	12:39:32.531	-52	16	13	1			10292.	Downlink	12:38:46.846	DCCH	DOWNLINK_DIRECT_TRANSFER
					392.	12:39:33.135	-58	16	13	1			10293.	Downlink	12:38:46.846	DCCH	ROUTING_AREA_UPDATE_ACCEPT
					393.	12:39:33.943	-57	16	13	1			10294.	Uplink	12:38:46.847	DCCH	UPLINK_DIRECT_TRANSFER
					394.	12:39:34.548	-59	16	13	1			10295.	Uplink	12:38:46.847	DCCH	ROUTING_AREA_UPDATE_COMPLETE
					395.	12:39:35.107	-59	16	13	1			10296.	Uplink	12:38:46.864	DCCH	MEASUREMENT_REPORT
					396.	12:39:35.489	-56	16	13	1			10297.	Uplink	12:38:47.498	DCCH	MEASUREMENT_REPORT
					397.	12:39:36.297	-56	16	13	1			10298.	Downlink	12:38:47.806	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					398.	12:39:37.239	-64	16	13	1			10299.	Uplink	12:38:48.598	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_COMPLETE
					399.	12:39:37.849	-55	16	13	1			10300.	Downlink	12:38:48.886	DCCH	MEASUREMENT_CONTROL
					400.	12:39:38.314	-51	16	13	1			10301.	Downlink	12:38:49.206	DCCH	MEASUREMENT_CONTROL
					401.	12:39:38.651	-52	16	13	1			10302.	Uplink	12:38:49.237	DCCH	MEASUREMENT_REPORT
					402.	12:39:39.358					0		10303.	Uplink	12:38:49.737	DCCH	MEASUREMENT_REPORT

### Analysis:

- This call failure event occurred on short call at 12:38:56:853 time when UE was latched with 2G network.
- After sending "CM Service Request" message to core network, then core network responds with "Call Proceeding" message. After that call setup has been failed.
- During the failure, UE was latched with ARFCN 25 and RF condition Rx lev -78 dBm good but Rx Rxqual 0 dB are very good.
- Need to check MT.

# Phase-2 Call Attempt Failure Analysis 2 From MS8 CWS MT

	1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		Event ID	System	Transf. dir.	Time	Subchannel	Message name	
2800.		12:38:37.670	10690	140	-6.2		10744.	RRCSM	UMTS FDD	Uplink	12:38:39.122	DCCH	MEASUREMENT_REPORT
2801.	-98.5	12:38:37.927	10690	140			10745.	RRCSM	UMTS FDD	Uplink	12:38:39.192	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
2802.		12:38:37.927	10690	140	-6.4		10746.	RRCSM	UMTS FDD	Downlink	12:38:39.589	DCCH	MEASUREMENT_CONTROL
2803.	-96	12:38:38.621	10690	140			10747.	RRCSM	UMTS FDD	Downlink	12:38:39.629	DCCH	MEASUREMENT_CONTROL
2804.		12:38:38.621	10690	140	-4.7		10748.	RRCSM	UMTS FDD	Downlink	12:38:39.669	DCCH	MEASUREMENT_CONTROL
2805.	-96.8	12:38:39.191	10690	140			10749.	RRCSM	UMTS FDD	Downlink	12:38:39.709	DCCH	MEASUREMENT_CONTROL
2806.		12:38:39.191	10690	140	-6		10750.	RRCSM	UMTS FDD	Downlink	12:38:39.709	DCCH	MEASUREMENT_CONTROL
2807.	-99.9	12:38:39.869	10690	140			10751.	RRCSM	UMTS FDD	Downlink	12:38:39.829	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
2808.		12:38:39.869	10690	140	-7		10752.	RRCSM	UMTS FDD	Uplink	12:38:39.922	DCCH	MEASUREMENT_REPORT
2809.	-94.2	12:38:40.141	10690	140			10753.	RRCSM	UMTS FDD	Uplink	12:38:40.160	DCCH	MEASUREMENT_REPORT
2810.		12:38:40.141	10690	140	-6.3		10754.	RRCSM	UMTS FDD	Uplink	12:38:40.220	DCCH	MEASUREMENT_REPORT
2811.	-105.7	12:38:40.869	10690	140			10755.	RRCSM	UMTS FDD	Uplink	12:38:40.461	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_COM
2812.		12:38:40.869	10690	140	-8.1		10756.	RRCSM	UMTS FDD	Downlink	12:38:40.749	DCCH	MEASUREMENT_CONTROL
2813.	-99.5	12:38:41.142	10690	140			10757.	RRCSM	UMTS FDD	Uplink	12:38:40.928	DCCH	MEASUREMENT_REPORT
2814.		12:38:41.142	10690	140	-6.2		10758.	RRCSM	UMTS FDD	Uplink	12:38:41.100	DCCH	MEASUREMENT_REPORT
2815.	-108.9	12:38:41.926	10690	140			10759.	RRCSM	UMTS FDD	Downlink	12:38:41.109	DCCH	MEASUREMENT_CONTROL
2816.		12:38:41.926	10690	140	-10		10760.	RRCSM	UMTS FDD	Uplink	12:38:41.600	DCCH	MEASUREMENT_REPORT
2817.	-108.9	12:38:42.110	10690	140			10761.	RRCSM	UMTS FDD	Uplink	12:38:42.100	DCCH	MEASUREMENT_REPORT
2818.		12:38:42.110	10690	140	-10		10762.	RRCSM	UMTS FDD	Uplink	12:38:42.110	DCCH	MEASUREMENT_REPORT
2819.	-122.3	12:38:42.460	10690	140			10763.	RRCSM	UMTS FDD	Downlink	12:38:42.509	DCCH	CELL_CHANGE_ORDER_FROM_UTRAN
2820.		12:38:42.460	10690	140	-25.4		10764.	RRCSM	UMTS FDD	Uplink	12:38:42.609	DCCH	MEASUREMENT_REPORT
2821.	-122.3	12:38:42.609	10690	140			10765.	L3SM	GSM	Downlink	12:38:42.829	BCCH	SYSTEM_INFORMATION_TYPE_2QUATER
2822.		12:38:42.609	10690	140	-25.4		10766.	L3SM	GSM	Downlink	12:38:43.064	BCCH	SYSTEM_INFORMATION_TYPE_3
2823.	-98.9	12:38:42.924	10690	140			10767.	L3SM	GSM	Downlink	12:38:43.297	BCCH	SYSTEM_INFORMATION_TYPE_4
2824.		12:38:42.924	10690	140	-5.2		10768.	L3SM	GSM	Downlink	12:38:43.343	CCCH	PAGING_REQUEST_TYPE_2
2825.	-75	12:39:37.561	10690	140			10769.	L3SM	GSM	Downlink	12:38:43.532	BCCH	SYSTEM_INFORMATION_TYPE_1
2826.		12:39:37.561	10690	140	-4.5		10770.	L3SM	GSM	Downlink	12:38:43.768	BCCH	SYSTEM_INFORMATION_TYPE_2
2827.	-75	12:39:38.236	10690	140			10771.	L3SM	GSM	Downlink	12:38:43.814	CCCH	PAGING_REQUEST_TYPE_1
2828.		12:39:38.236	10690	140	-4		10772.	L3SM	GSM	Downlink	12:38:44.280	CCCH	PAGING_REQUEST_TYPE_1
2829.	-75	12:39:38.713	10690	140			10773.	L3SM	GSM	Downlink	12:38:44.474	BCCH	SYSTEM_INFORMATION_TYPE_13
2830.		12:39:38.713	10690	140	-4.8		10774.	L3SM	GSM	Uplink	12:38:44.484	DCCH	LOCATION_UPDATING_REQUEST
2831.	-75	12:39:39.049	10690	140			10775.	L3SM	GSM	Downlink	12:38:44.532	CCCH	PAGING_REQUEST_TYPE_1
2832.		12:39:39.049	10690	140	-4.1		10776.	L3SM	GSM	Downlink	12:38:44.551	CCCH	PAGING_REQUEST_TYPE_1
2833.	-75	12:39:39.857	10690	140			10777.	L3SM	GSM	Downlink	12:38:44.624	CCCH	PAGING_REQUEST_TYPE_1
2834.		12:39:39.857	10690	140	-5.8		10778.	L3SM	GSM	Downlink	12:38:44.721	BCCH	SYSTEM_INFORMATION_TYPE_2QUATER
2835.	-75	12:39:40.046	10690	140			10779.	L3SM	GSM	Downlink	12:38:44.768	CCCH	PAGING_REQUEST_TYPE_1
2836.		12:39:40.046	10690	140	-6.5		10780.	L3SM	GSM	Downlink	12:38:44.860	CCCH	PAGING_REQUEST_TYPE_2

## Analysis:

- On MT End, During the setup fail, UE was latched with PSC 140 and RF condition RSCP -122.3 dBm is and EC/NO -25.4 which is poor.
- Call failed at the MT end due to poor network coverage. The terminating device experienced low signal strength, leading to call failure.

# Phase-2 Call Attempt Failure Analysis 3 From MS7 CWS MO

	Time	System	Serving band		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		System	Transf. dir.	Time	Subchannel	Message name	
1.	12:35:05.505	UMTS FDD	2100	Dro	9110.	13:52:13.923	10690	143	-7.1		27711.	UMTS FDD	Uplink	13:52:49.382	DCCH	ROUTING_AREA_UPDATE_REQUEST
2.	12:38:56.853	GSM	900	Nor	9111.	-90	13:52:14.261	10690	143		27712.	UMTS FDD	Downlink	13:52:49.645	DCCH	MEASUREMENT_CONTROL
3.	13:52:52.714	UMTS FDD	2100	Cal	9112.		13:52:14.261	10690	143	-9.2	27713.	UMTS FDD	Downlink	13:52:49.685	DCCH	SECURITY_MODE_COMMAND
					9113.	-84.2	13:52:15.001	10690	143		27714.	UMTS FDD	Uplink	13:52:49.685	DCCH	SECURITY_MODE_COMPLETE
					9114.		13:52:15.001	10690	143	-7.7	27715.	UMTS FDD	Uplink	13:52:49.766	DCCH	UPLINK_DIRECT_TRANSFER
					9115.	-86.5	13:52:15.601	10690	143		27716.	UMTS FDD	Uplink	13:52:49.766	DCCH	SETUP
					9116.		13:52:15.601	10690	143	-8.4	27717.	UMTS FDD	Downlink	13:52:49.795	DCCH	DOWNLINK_DIRECT_TRANSFER
					9117.	-80.1	13:52:15.921	10690	143		27718.	UMTS FDD	Downlink	13:52:49.795	DCCH	TMSI_REALLOCATION_COMMAND
					9118.		13:52:15.921	10690	143	-7	27719.	UMTS FDD	Uplink	13:52:49.796	DCCH	UPLINK_DIRECT_TRANSFER
					9119.	-87.7	13:52:16.461	10690	143		27720.	UMTS FDD	Uplink	13:52:49.796	DCCH	TMSI_REALLOCATION_COMPLETE
					9120.		13:52:16.461	10690	143	-7.5	27721.	UMTS FDD	Downlink	13:52:49.925	DCCH	DOWNLINK_DIRECT_TRANSFER
					9121.	-84.7	13:52:17.134	10690	143		27722.	UMTS FDD	Downlink	13:52:49.925	DCCH	CALL_PROCEEDING
					9122.		13:52:17.134	10690	143	-5.6	27723.	UMTS FDD	Uplink	13:52:50.587	DCCH	MEASUREMENT_REPORT
					9123.	-84	13:52:17.414	10690	143		27724.	UMTS FDD	Downlink	13:52:50.715	DCCH	ACTIVE_SET_UPDATE
					9124.		13:52:17.414	10690	143	-6.7	27725.	UMTS FDD	Uplink	13:52:50.726	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					9125.	-83.1	13:52:17.994	10690	143		27726.	UMTS FDD	Downlink	13:52:50.835	DCCH	MEASUREMENT_CONTROL
					9126.		13:52:17.994	10690	143	-6.2	27727.	UMTS FDD	Uplink	13:52:52.596	DCCH	UPLINK_DIRECT_TRANSFER
					9127.	-87.8	13:52:18.561	10690	143		27728.	UMTS FDD	Uplink	13:52:52.596	DCCH	DISCONNECT
					9128.		13:52:18.561	10690	143	-6.6	27729.	UMTS FDD	Downlink	13:52:52.714	DCCH	DOWNLINK_DIRECT_TRANSFER
					9129.	-82.9	13:52:19.103	10690	143		27730.	UMTS FDD	Downlink	13:52:52.714	DCCH	RELEASE
					9130.		13:52:19.103	10690	143	-5.4	27731.	UMTS FDD	Uplink	13:52:52.714	DCCH	UPLINK_DIRECT_TRANSFER
					9131.	-92	13:52:49.381	10690	102		27732.	UMTS FDD	Uplink	13:52:52.714	DCCH	RELEASE_COMPLETE
					9132.		13:52:49.381	10690	102	-11.9	27733.	UMTS FDD	Downlink	13:52:52.775	DCCH	DOWNLINK_DIRECT_TRANSFER
					9133.	-92	13:52:49.828	10690	102		27734.	UMTS FDD	Downlink	13:52:52.775	DCCH	AUTHENTICATION_AND_CIPHERING_REQUEST
					9134.		13:52:49.828	10690	102	-13.8	27735.	UMTS FDD	Uplink	13:52:52.812	DCCH	UPLINK_DIRECT_TRANSFER
					9135.	-92	13:52:50.327	10690	102		27736.	UMTS FDD	Uplink	13:52:52.812	DCCH	AUTHENTICATION_AND_CIPHERING_RESPONSE
					9136.		13:52:50.327	10690	102	-13	27737.	UMTS FDD	Downlink	13:52:52.855	DCCH	SIGNALLING_CONNECTION_RELEASE
					9137.	-92	13:52:50.874	10690	102		27738.	UMTS FDD	Uplink	13:52:52.856	DCCH	INITIAL_DIRECT_TRANSFER
					9138.		13:52:50.874	10690	102	-12.5	27739.	UMTS FDD	Uplink	13:52:52.856	DCCH	LOCATION_UPDATING_REQUEST
					9139.	-92	13:52:51.332	10690	102		27740.	UMTS FDD	Downlink	13:52:52.995	DCCH	DOWNLINK_DIRECT_TRANSFER
					9140.		13:52:51.332	10690	102	-12.8	27741.	UMTS FDD	Downlink	13:52:52.995	DCCH	IDENTITY_REQUEST
					9141.	-92	13:52:51.883	10690	102		27742.	UMTS FDD	Uplink	13:52:52.995	DCCH	UPLINK_DIRECT_TRANSFER
					9142.		13:52:51.883	10690	102	-13.5	27743.	UMTS FDD	Uplink	13:52:52.995	DCCH	IDENTITY_RESPONSE
					9143.	-92	13:52:52.325	10690	102		27744.	UMTS FDD	Downlink	13:52:53.085	DCCH	SECURITY_MODE_COMMAND
					9144.		13:52:52.325	10690	102	-11.4	27745.	UMTS FDD	Uplink	13:52:53.085	DCCH	SECURITY_MODE_COMPLETE
					9145.	-91.8	13:52:52.951	10690	102		27746.	UMTS FDD	Downlink	13:52:53.175	DCCH	DOWNLINK_DIRECT_TRANSFER

### Analysis:

- This call failure event occurred on short call at 13:52:52:714 time when UE was latched with 3G network.
- After sending "CM Service Request" message to core network, then core network responds with "Call Proceeding" message. After that call setup has been failed.
- During the failure, UE was latched with PSC 102 and RF condition RSCP -92 dBm poor but Ec/No -11.4 dB are very poor.
- Need to check MT.

# Phase-2 Call Attempt Failure Analysis 3 From MS8 CWS MT

	Time	Band (MHz)	Ch	PCI	RSRP	SNR		Event ID	System	Transf. dir.	Time	Subchannel	Message name	
15757.	13:52:36.904					9.7		28543.	RRCSM	LTE FDD	Downlink	13:52:32.561	PCCH	Paging
15758.	13:52:37.437	800	6300	136	-90.1			28544.	RRCSM	LTE FDD	Downlink	13:52:35.121	PCCH	Paging
15759.	13:52:37.437					11.6		28545.	RRCSM	LTE FDD	Downlink	13:52:37.681	PCCH	Paging
15760.	13:52:37.953	800	6300	136	-90.3			28546.	RRCSM	LTE FDD	Downlink	13:52:38.961	PCCH	Paging
15761.	13:52:37.953					9.7		28547.	RRCSM	LTE FDD	Downlink	13:52:40.241	PCCH	Paging
15762.	13:52:38.335	800	6300	136	-91.5			28548.	RRCSM	LTE FDD	Downlink	13:52:40.554	DCCH	RRConnectionRelease
15763.	13:52:38.335					12.2		28549.	RRCSM	LTE FDD	Downlink	13:52:40.721	PCCH	Paging
15764.	13:52:38.961	800	6300	136	-90.6			28550.	RRCSM	LTE FDD	Downlink	13:52:47.122	PCCH	Paging
15765.	13:52:38.961					15.1		28551.	RRCSM	LTE FDD	Downlink	13:52:48.402	PCCH	Paging
15766.	13:52:39.336	800	6300	136	-89.8			28552.	RRCSM	LTE FDD	Downlink	13:52:50.962	PCCH	Paging
15767.	13:52:39.336					15.7		28553.	RRCSM	LTE FDD	Downlink	13:52:52.242	PCCH	Paging
15768.	13:52:39.953	800	6300	136	-89.4			28554.	L3SM	LTE FDD	Uplink	13:52:52.243		EXTENDED_SERVICE_REQUEST
15769.	13:52:39.953					14.7		28555.	RRCSM	LTE FDD	Uplink	13:52:52.243	CCCH	RRConnectionRequest
15770.	13:52:40.597	800	6300	136	-90.7			28556.	RRCSM	LTE FDD	Downlink	13:52:52.298	CCCH	RRConnectionSetup
15771.	13:52:40.597					12.9		28557.	RRCSM	LTE FDD	Uplink	13:52:52.302	DCCH	RRConnectionSetupComplete
15772.	13:52:40.953	800	6300	136	-94.8			28558.	RRCSM	LTE FDD	Downlink	13:52:52.316	DCCH	SecurityModeCommand
15773.	13:52:40.953					8.9		28559.	RRCSM	LTE FDD	Uplink	13:52:52.318	DCCH	SecurityModeComplete
15774.	13:52:42.024	800	6300	136	-86.7			28560.	RRCSM	LTE FDD	Downlink	13:52:52.318	DCCH	RRConnectionReconfiguration
15775.	13:52:42.024					15.6		28561.	RRCSM	LTE FDD	Uplink	13:52:52.320	DCCH	RRConnectionReconfigurationComplete
15776.	13:52:42.069	800	6300	136	-86.7			28562.	RRCSM	LTE FDD	Downlink	13:52:52.348	DCCH	UECapabilityEnquiry
15777.	13:52:43.516	800	6300	136	-86.9			28563.	RRCSM	LTE FDD	Uplink	13:52:52.349	DCCH	UECapabilityInformation
15778.	13:52:43.516					17		28564.	RRCSM	UMTS FDD	Uplink	13:52:52.349		INTER_RAT_HANDOVER_INFO
15779.	13:52:44.564	800	6300	136	-92.4			28565.	RRCSM	LTE FDD	Downlink	13:52:52.349	DCCH	RRConnectionReconfiguration
15780.	13:52:44.564					12		28566.	RRCSM	LTE FDD	Uplink	13:52:52.350	DCCH	RRConnectionReconfigurationComplete
15781.	13:52:46.013	800	6300	136	-95			28567.	RRCSM	LTE FDD	Uplink	13:52:52.723	DCCH	MeasurementReport
15782.	13:52:46.013					12.1		28568.	RRCSM	LTE FDD	Uplink	13:52:52.723	DCCH	MeasurementReport
15783.	13:52:46.397	800	6300	136	-95			28569.	RRCSM	LTE FDD	Uplink	13:52:52.795	DCCH	MeasurementReport
15784.	13:52:47.126	800	6300	136	-95.5			28570.	RRCSM	LTE FDD	Uplink	13:52:52.795	DCCH	MeasurementReport
15785.	13:52:47.126					14.6		28571.	RRCSM	LTE FDD	Downlink	13:52:52.844	DCCH	RRConnectionRelease
15786.	13:52:48.637	800	6300	136	-94.8			28572.	RRCSM	UMTS FDD	Downlink	13:52:52.844	BCCH	SYSTEM_INFORMATION_CONTAINER
15787.	13:52:48.637					13.8		28573.	RRCSM	UMTS FDD	Downlink	13:52:52.844	BCCH	SYSTEM_INFORMATION_CONTAINER
15788.	13:52:49.953	800	6300	136	-96.3			28574.	RRCSM	UMTS FDD	Downlink	13:52:52.844	BCCH	SYSTEM_INFORMATION_CONTAINER
15789.	13:52:49.953					12.1		28575.	RRCSM	UMTS FDD	Downlink	13:52:52.844	BCCH	SYSTEM_INFORMATION_CONTAINER
15790.	13:52:51.016	800	6300	136	-96			28576.	RRCSM	UMTS FDD	Downlink	13:52:52.844	BCCH	SYSTEM_INFORMATION_CONTAINER
15791.	13:52:51.016					11.8		28577.	RRCSM	UMTS FDD	Downlink	13:52:52.844	BCCH	SYSTEM_INFORMATION_CONTAINER
15792.	13:52:52.659	800	6300	136	-96.4			28578.	RRCSM	UMTS FDD	Downlink	13:52:52.844	BCCH	SYSTEM_INFORMATION_CONTAINER
15793.	13:52:52.659					12.2		28579.	RRCSM	UMTS FDD	Downlink	13:52:52.844	BCCH	SYSTEM_INFORMATION_CONTAINER

## Analysis:

- On MT End, During the setup fail, UE was latched with PSC 136 and RF condition RSCP -96.4 dBm is and EC/NO 12.2 which is poor.
- As per the analysis call failure happened from network end.

# Phase-2 Call Drop Analysis 1 From MS9 Airtel MO

	Time	System	Serving band	Call type		1. best active RSCP	Time	Ch	SC	1. best active Ec/N		Event ID	System	Transf. dir.	Time	Subchannel	Message name	
1.	12:38:00.687	UMTS FDD	2100	Voice call	7297.	-123.6	12:37:41.922	10588	256			4742.	RRCSM	UMTS FDD	Uplink	12:37:14.033	DCCH	MEASUREMENT_REPORT
2.	13:45:19.655	GSM	900	Voice call	7298.		12:37:41.922	10588	256	-25.9		4743.	RRCSM	UMTS FDD	Uplink	12:37:14.442	DCCH	MEASUREMENT_REPORT
					7299.	-125.3	12:37:42.438	10588	256			4744.	RRCSM	UMTS FDD	Uplink	12:37:15.322	DCCH	MEASUREMENT_REPORT
					7300.	-122.9	12:37:43.002	10588	256			4745.	RRCSM	UMTS FDD	Uplink	12:37:18.902	DCCH	MEASUREMENT_REPORT
					7301.		12:37:43.002	10588	256	-24.7		4746.	RRCSM	UMTS FDD	Uplink	12:37:20.891	DCCH	MEASUREMENT_REPORT
					7302.	-122.4	12:37:43.389	10588	256			4747.	RRCSM	UMTS FDD	Uplink	12:37:28.169	DCCH	MEASUREMENT_REPORT
					7303.		12:37:43.389	10588	256	-24.7		4748.	RRCSM	UMTS FDD	Uplink	12:37:35.869	DCCH	MEASUREMENT_REPORT
					7304.	-119.3	12:37:44.069	10588	256			4749.	RRCSM	UMTS FDD	Downlink	12:37:49.226	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7305.		12:37:44.069	10588	256	-19		4750.	RRCSM	UMTS FDD	Downlink	12:37:49.226	BCCH	SCHEDULING_BLOCK_1
					7306.	-122.9	12:37:44.362	10588	256			4751.	RRCSM	UMTS FDD	Downlink	12:37:49.246	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7307.		12:37:44.362	10588	256	-25.6		4752.	RRCSM	UMTS FDD	Downlink	12:37:49.246	BCCH	MASTER_INFORMATION_BLOCK
					7308.	-123.5	12:37:44.922	10588	256			4753.	RRCSM	UMTS FDD	Downlink	12:37:49.246	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					7309.		12:37:44.922	10588	256	-25.8		4754.	RRCSM	UMTS FDD	Downlink	12:37:50.026	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7310.	-123.3	12:37:45.301	10588	256			4755.	RRCSM	UMTS FDD	Downlink	12:37:50.046	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7311.		12:37:45.301	10588	256	-25.6		4756.	RRCSM	UMTS FDD	Downlink	12:37:50.046	BCCH	MASTER_INFORMATION_BLOCK
					7312.	-125.2	12:37:46.079	10588	256			4757.	RRCSM	UMTS FDD	Downlink	12:37:50.046	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					7313.	-124	12:37:46.422	10588	256			4758.	RRCSM	UMTS FDD	Downlink	12:37:50.286	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7314.	-125	12:37:47.110	10588	256			4759.	RRCSM	UMTS FDD	Downlink	12:37:50.286	BCCH	MASTER_INFORMATION_BLOCK
					7315.	-123.3	12:37:47.809	10588	256			4760.	RRCSM	UMTS FDD	Downlink	12:37:50.286	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					7316.		12:37:47.809	10588	256	-25.6		4761.	L3SM	GSM	Downlink	12:38:05.409	BCCH	SYSTEM_INFORMATION_TYPE_3
					7317.	-123.7	12:37:48.109	10588	256			4762.	RRCSM	LTE FDD	Downlink	12:39:07.636	BCCH-BCH	MasterInformationBlock
					7318.		12:37:48.109	10588	256	-24.9		4763.	RRCSM	LTE FDD	Downlink	12:39:07.660	BCCH-SCH	SystemInformationBlockType1
					7319.	-123.9	12:37:48.673	10588	256			4764.	RRCSM	LTE FDD	Downlink	12:39:10.676	BCCH-BCH	MasterInformationBlock
					7320.		12:37:48.673	10588	256	-25.9		4765.	RRCSM	LTE FDD	Downlink	12:39:10.700	BCCH-SCH	SystemInformationBlockType1
					7321.	-123.9	12:37:49.127	10588	256			4766.	RRCSM	UMTS FDD	Downlink	12:39:17.684	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7322.		12:37:49.127	10588	256	-25.9		4767.	RRCSM	UMTS FDD	Downlink	12:39:17.684	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2
					7323.	-123.9	12:37:50.137	10588	256			4768.	RRCSM	UMTS FDD	Downlink	12:39:17.684	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
					7324.		12:37:50.137	10588	256	-25.9		4769.	RRCSM	UMTS FDD	Downlink	12:39:17.704	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7325.	-111.2	12:40:34.056	10715	136			4770.	RRCSM	UMTS FDD	Downlink	12:39:17.724	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7326.		12:40:34.056	10715	136	-16.1		4771.	RRCSM	UMTS FDD	Downlink	12:39:17.744	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7327.	-111.1	12:40:34.457	10715	136			4772.	RRCSM	UMTS FDD	Downlink	12:39:17.744	BCCH	MASTER_INFORMATION_BLOCK
					7328.		12:40:34.457	10715	136	-16.3		4773.	RRCSM	UMTS FDD	Downlink	12:39:17.744	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					7329.	-113.8	12:40:34.929	10715	136			4774.	L3SM	GSM	Downlink	12:39:29.201	BCCH	SYSTEM_INFORMATION_TYPE_3
					7330.		12:40:34.929	10715	136	-18.8		4775.	L3SM	GSM	Downlink	12:39:29.437	BCCH	SYSTEM_INFORMATION_TYPE_4
					7331.	-93.6	12:40:36.611	10690	140			4776.	L3SM	GSM	Downlink	12:39:29.501	BCCH	SYSTEM_INFORMATION_TYPE_4
					7332.		12:40:36.611	10690	140	-5.8		4777.	L3SM	GSM	Downlink	12:39:30.143	BCCH	SYSTEM_INFORMATION_TYPE_3
					7333.	-94.5	12:40:37.004	10690	140			4778.	RRCSM	UMTS FDD	Downlink	12:40:00.244	BCCH_BCH	SYSTEM_INFORMATION_BCH

## Analysis:

- This call drop event occurred on long call at 12:38:00:687 time when UE was latched with 3G network.
- After getting Alerting message at 12:36:56:379 time than Call drop happened.
- During the failure, UE was latched with PSC 256 and RF condition RSCP -123.9 dBm poor but Ec/No -25.9 dB are very poor.
- As per the Analysis the call setup drop event occurred due to poor coverage in the network.

# Phase-2 Call Drop Analysis 2 From MS9 Airtel MO

	Time	System	Serving band	Call type		Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub		System	Transf. dir.	Time	Subchannel	Message name	
1.	12:38:00.687	UMTS FDD	2100	Voice call	3227.	13:44:58.946	-98	93	58	50000	1			15121.	GSM	Downlink	13:44:18.054	SACCH	MEASUREMENT_INFORMATION
2.	13:45:19.655	GSM	900	Voice call	3228.	13:44:59.865	-99	93	58	50000	1			15122.	GSM	Uplink	13:44:18.100	SACCH	MEASUREMENT_REPORT
					3229.	13:45:00.405	-99	93	58	50000	1			15123.	GSM	Downlink	13:44:18.534	SACCH	SYSTEM_INFORMATION_TYPE_6
					3230.	13:45:00.843	-98	93	58	50000	1			15124.	GSM	Uplink	13:44:18.580	SACCH	MEASUREMENT_REPORT
					3231.	13:45:01.424	-99	93	58	50000	1			15125.	GSM	Downlink	13:44:19.014	SACCH	SYSTEM_INFORMATION_TYPE_5
					3232.	13:45:01.945	-99	93	58	50000	1			15126.	GSM	Uplink	13:44:19.060	SACCH	MEASUREMENT_REPORT
					3233.	13:45:02.504	-100	93	58	50000	1			15127.	GSM	Downlink	13:44:19.494	SACCH	MEASUREMENT_INFORMATION
					3234.	13:45:03.013	-99	93	58	50000	1			15128.	GSM	Uplink	13:44:19.540	SACCH	MEASUREMENT_REPORT
					3235.	13:45:03.525	-99	93	58	50000	1			15129.	GSM	Downlink	13:44:19.974	SACCH	SYSTEM_INFORMATION_TYPE_6
					3236.	13:45:04.180	-98	93	58	50000	1			15130.	GSM	Uplink	13:44:20.020	SACCH	MEASUREMENT_REPORT
					3237.	13:45:05.140	-99	93	58	50000	1			15131.	GSM	Uplink	13:44:20.500	SACCH	MEASUREMENT_REPORT
					3238.	13:45:06.127	-98	93	58	50000	1			15132.	GSM	Downlink	13:44:20.934	SACCH	MEASUREMENT_INFORMATION
					3239.	13:45:07.060	-97	93	58	50000	1			15133.	GSM	Uplink	13:44:20.980	SACCH	MEASUREMENT_REPORT
					3240.	13:45:07.540	-98	93	58	50000	1			15134.	GSM	Downlink	13:44:21.414	SACCH	SYSTEM_INFORMATION_TYPE_6
					3241.	13:45:08.024	-95	93	58	50000	1			15135.	GSM	Uplink	13:44:21.460	SACCH	MEASUREMENT_REPORT
					3242.	13:45:08.500						6		15136.	GSM	Downlink	13:44:21.894	SACCH	SYSTEM_INFORMATION_TYPE_5
					3243.	13:45:08.763	-96	93	58	50000	1			15137.	GSM	Uplink	13:44:21.940	SACCH	MEASUREMENT_REPORT
					3244.	13:45:08.980						7		15138.	GSM	Downlink	13:44:22.374	SACCH	MEASUREMENT_INFORMATION
					3245.	13:45:09.206	-97	93	58	50000	1			15139.	GSM	Uplink	13:44:22.420	SACCH	MEASUREMENT_REPORT
					3246.	13:45:09.945	-98	93	58	50000	1			15140.	GSM	Downlink	13:44:22.854	SACCH	SYSTEM_INFORMATION_TYPE_6
					3247.	13:45:10.447	-97	93	58	50000	1			15141.	GSM	Uplink	13:44:22.900	SACCH	MEASUREMENT_REPORT
					3248.	13:45:10.946	-98	93	58	50000	1			15142.	GSM	Downlink	13:44:23.334	SACCH	SYSTEM_INFORMATION_TYPE_5
					3249.	13:45:11.945	-96	93	58	50000	1			15143.	GSM	Uplink	13:44:23.380	SACCH	MEASUREMENT_REPORT
					3250.	13:45:12.340						6		15144.	GSM	Downlink	13:44:23.814	SACCH	MEASUREMENT_INFORMATION
					3251.	13:45:12.506	-95	93	58	50000	1			15145.	GSM	Uplink	13:44:23.860	SACCH	MEASUREMENT_REPORT
					3252.	13:45:12.820						7		15146.	GSM	Downlink	13:44:24.294	SACCH	SYSTEM_INFORMATION_TYPE_6
					3253.	13:45:13.027	-98	93	58	50000	1			15147.	GSM	Uplink	13:44:24.340	SACCH	MEASUREMENT_REPORT
					3254.	13:45:13.567	-98	93	58	50000	1			15148.	GSM	Downlink	13:44:24.774	SACCH	SYSTEM_INFORMATION_TYPE_5
					3255.	13:45:14.013	-99	93	58	50000	1			15149.	GSM	Uplink	13:44:24.820	SACCH	MEASUREMENT_REPORT
					3256.	13:45:14.763	-99	93	58	50000	1			15150.	GSM	Downlink	13:44:25.254	SACCH	MEASUREMENT_INFORMATION
					3257.	13:45:15.727	-98	93	58	50000	1			15151.	GSM	Uplink	13:44:25.300	SACCH	MEASUREMENT_REPORT
					3258.	13:45:16.743	-97	93	58	50000	1			15152.	GSM	Downlink	13:44:25.734	SACCH	SYSTEM_INFORMATION_TYPE_6
					3259.	13:45:17.167	-99	93	58	50000	1			15153.	GSM	Uplink	13:44:25.780	SACCH	MEASUREMENT_REPORT
					3260.	13:45:18.011	-97	93	58	50000	1			15154.	GSM	Downlink	13:44:26.214	SACCH	SYSTEM_INFORMATION_TYPE_5
					3261.	13:45:18.284	-97	93	58	50000	1			15155.	GSM	Uplink	13:44:26.260	SACCH	MEASUREMENT_REPORT
					3262.	13:45:19.004	-98	93	58	50000	1			15156.	GSM	Downlink	13:44:26.694	SACCH	MEASUREMENT_INFORMATION
					3263.	13:45:19.260								15157.	GSM	Uplink	13:44:26.740	SACCH	MEASUREMENT_REPORT

## Analysis:

- This call drop event occurred on long call at 13:45:19:655 time when UE was latched with 2G network.
- After getting Alerting message at 13:43:49:167 time than Call drop happened.
- During the failure, UE was latched with ARFCN 6 and RF condition Rxlev -88 dBm is good and Rxqual 7 which is poor.
- As per the Analysis the call setup drop event occurred due to poor quality in the network.

# Phase-2 Call Drop Analysis 1 From MS11 CWS MO

	Time	System	Serving band	Call type		Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub ▲		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	12:11:36.120	GSM	900	Voice call	794.	12:11:24.560	-96	26	16	1	10		2741.	L3SM	GSM	Uplink	12:11:29.799	SACCH	MEASUREMENT_REPORT
2.	12:34:14.077	UMTS FDD	2100	Voice call	795.	12:11:24.999	-95	26	16	1	10		2742.	L3SM	GSM	Downlink	12:11:30.233	SACCH	MEASUREMENT_INFORMATION
3.	12:41:09.054	GSM	900	Voice call	796.	12:11:24.999						6	2743.	L3SM	GSM	Uplink	12:11:30.279	SACCH	MEASUREMENT_REPORT
					797.	12:11:25.479	-97	26	16	1	10		2744.	L3SM	GSM	Uplink	12:11:30.759	SACCH	MEASUREMENT_REPORT
					798.	12:11:25.479						7	2745.	L3SM	GSM	Downlink	12:11:31.193	SACCH	SYSTEM_INFORMATION_TYPE_5
					799.	12:11:25.959						6	2746.	L3SM	GSM	Uplink	12:11:31.239	SACCH	MEASUREMENT_REPORT
					800.	12:11:26.102	-95	26	16	1	10		2747.	L3SM	GSM	Uplink	12:11:31.719	SACCH	MEASUREMENT_REPORT
					801.	12:11:26.439						7	2748.	L3SM	GSM	Downlink	12:11:32.153	SACCH	SYSTEM_INFORMATION_TYPE_6
					802.	12:11:26.540	-98	26	16	1	10		2749.	L3SM	GSM	Uplink	12:11:32.199	SACCH	MEASUREMENT_REPORT
					803.	12:11:27.039	-98	26	16	1	10		2750.	L3SM	GSM	Uplink	12:11:32.679	SACCH	MEASUREMENT_REPORT
					804.	12:11:27.500	-97	26	16	1	10		2751.	L3SM	GSM	Uplink	12:11:33.159	SACCH	MEASUREMENT_REPORT
					805.	12:11:27.948	-97	26	16	1	10		2752.	L3SM	GSM	Downlink	12:11:33.593	SACCH	MEASUREMENT_INFORMATION
					806.	12:11:28.622	-96	26	16	1	10		2753.	L3SM	GSM	Uplink	12:11:33.639	SACCH	MEASUREMENT_REPORT
					807.	12:11:29.000	-96	26	16	1	10		2754.	L3SM	GSM	Downlink	12:11:33.999	DCCH	HANDOVER_COMMAND
					808.	12:11:29.863	-96	26	16	1	10		2755.	L3SM	GSM	Uplink	12:11:34.322	SACCH	MEASUREMENT_REPORT
					809.	12:11:30.380	-96	26	16	1	10		2756.	L3SM	GSM	Uplink	12:11:34.363	DCCH	HANDOVER_FAILURE
					810.	12:11:30.842	-96	26	16	1	10		2757.	L3SM	GSM	Downlink	12:11:34.363	SACCH	SYSTEM_INFORMATION_TYPE_5
					811.	12:11:31.940	-96	26	16	1	10		2758.	L3SM	GSM	Downlink	12:11:34.363	SACCH	SYSTEM_INFORMATION_TYPE_5TER
					812.	12:11:32.240	-96	26	16	1	10		2759.	L3SM	GSM	Downlink	12:11:34.363	SACCH	SYSTEM_INFORMATION_TYPE_6
					813.	12:11:32.948	-96	26	16	1	10		2760.	L3SM	GSM	Uplink	12:11:34.599	SACCH	MEASUREMENT_REPORT
					814.	12:11:33.200	-96	26	16	1	10		2761.	L3SM	GSM	Downlink	12:11:35.033	SACCH	SYSTEM_INFORMATION_TYPE_5
					815.	12:11:34.008	-96	26	16	1	10		2762.	L3SM	GSM	Uplink	12:11:35.079	SACCH	MEASUREMENT_REPORT
					816.	12:11:34.322	-96	26	16	1	10		2763.	L3SM	GSM	Uplink	12:11:35.559	SACCH	MEASUREMENT_REPORT
					817.	12:11:34.940	-95	26	16	1	10		2764.	L3SM	GSM	Uplink	12:11:35.606	DCCH	CM_RE-ESTABLISHMENT_REQUEST
					818.	12:11:35.605	-95	26	16	1	10		2765.	L3SM	GSM	Downlink	12:11:36.115	BCCH	SYSTEM_INFORMATION_TYPE_3
					819.	12:11:35.605							2766.	L3SM	GSM	Downlink	12:11:36.348	BCCH	SYSTEM_INFORMATION_TYPE_4
					820.	12:11:38.507	-88	2	18	1	0		2767.	L3SM	GSM	Downlink	12:11:36.445	CCCH	PAGING_REQUEST_TYPE_1
					821.	12:11:38.507						0	2768.	L3SM	GSM	Downlink	12:11:36.588	BCCH	SYSTEM_INFORMATION_TYPE_13
					822.	12:11:38.978						3	2769.	L3SM	GSM	Downlink	12:11:36.819	BCCH	SYSTEM_INFORMATION_TYPE_2QUATER
					823.	12:11:39.093	-91	2	18	1	0		2770.	L3SM	GSM	Downlink	12:11:37.059	BCCH	SYSTEM_INFORMATION_TYPE_3
					824.	12:11:39.449						0	2771.	L3SM	GSM	Downlink	12:11:37.289	BCCH	SYSTEM_INFORMATION_TYPE_4
					825.	12:11:39.564	-84	2	18	1	0		2772.	L3SM	GSM	Downlink	12:11:37.525	BCCH	SYSTEM_INFORMATION_TYPE_1
					826.	12:11:39.919						5	2773.	L3SM	GSM	Downlink	12:11:37.760	BCCH	SYSTEM_INFORMATION_TYPE_2
					827.	12:11:40.122	-88	2	18	1	0		2774.	L3SM	GSM	Uplink	12:11:37.775	DCCH	LOCATION_UPDATING_REQUEST
					828.	12:11:40.390						1	2775.	L3SM	GSM	Downlink	12:11:37.929	CCCH	IMMEDIATE_ASSIGNMENT
					829.	12:11:40.593	-84	2	18	1	0		2776.	L3SM	GSM	Downlink	12:11:38.151	SACCH	SYSTEM_INFORMATION_TYPE_5
					830.	12:11:40.861						0	2777.	L3SM	GSM	Uplink	12:11:38.239	DCCH	CLASSMARK_CHANGE

- Analysis:**
- This call drop event occurred on long call at 12:11:36:120 time when UE was latched with 2G network.
  - After getting Alerting message at 12:09:48:708 time than Call drop happened.
  - During the failure, UE was latched with ARFCN 26 and RF condition Rxlev -95 dBm is good and Rxqual 7 which is poor.
  - As per the Analysis the call setup drop event occurred due to poor quality in the network.

# Phase-2 Call Drop Analysis 2 From MS11 CWS MO

	Time	System	Serving band	Call type		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO		System	Transf. dir.	Time	Subchannel	Message name	
1.	12:11:36.120	GSM	900	Voice call	5585.	-99.2	12:34:10.158	10690	136			5762.	UMTS FDD	Uplink	12:34:05.198	DCCH	MEASUREMENT_REPORT
2.	12:34:14.077	UMTS FDD	2100	Voice call	5586.		12:34:10.158	10690	136	-15		5763.	UMTS FDD	Downlink	12:34:05.437	DCCH	MEASUREMENT_CONTROL
3.	12:41:09.054	GSM	900	Voice call	5587.	-100.5	12:34:10.298	10690	135			5764.	UMTS FDD	Downlink	12:34:05.597	DCCH	MEASUREMENT_CONTROL
					5588.		12:34:10.298	10690	135	-14.2		5765.	UMTS FDD	Uplink	12:34:06.438	DCCH	MEASUREMENT_REPORT
					5589.	-100.8	12:34:11.028	10690	135			5766.	UMTS FDD	Uplink	12:34:07.039	DCCH	MEASUREMENT_REPORT
					5590.		12:34:11.028	10690	135	-14.5		5767.	UMTS FDD	Uplink	12:34:07.309	DCCH	MEASUREMENT_REPORT
					5591.	-100.8	12:34:11.158	10690	135			5768.	UMTS FDD	Uplink	12:34:07.438	DCCH	MEASUREMENT_REPORT
					5592.		12:34:11.158	10690	135	-14.5		5769.	UMTS FDD	Uplink	12:34:08.438	DCCH	MEASUREMENT_REPORT
					5593.	-98.4	12:34:11.298	10690	135			5770.	UMTS FDD	Uplink	12:34:08.439	DCCH	MEASUREMENT_REPORT
					5594.		12:34:11.298	10690	135	-13.5		5771.	UMTS FDD	Uplink	12:34:08.491	DCCH	MEASUREMENT_REPORT
					5595.	-98.4	12:34:11.331	10690	135			5772.	UMTS FDD	Downlink	12:34:08.757	DCCH	ACTIVE_SET_UPDATE
					5596.		12:34:11.331	10690	135	-13.5		5773.	UMTS FDD	Uplink	12:34:08.779	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					5597.	-99.2	12:34:11.929	10690	143			5774.	UMTS FDD	Downlink	12:34:09.077	DCCH	MEASUREMENT_CONTROL
					5598.		12:34:11.929	10690	143	-12.7		5775.	UMTS FDD	Downlink	12:34:09.158	DCCH	MEASUREMENT_CONTROL
					5599.	-99.2	12:34:12.158	10690	143			5776.	UMTS FDD	Downlink	12:34:09.237	DCCH	ACTIVE_SET_UPDATE
					5600.		12:34:12.158	10690	143	-12.7		5777.	UMTS FDD	Uplink	12:34:09.259	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					5601.	-102.4	12:34:12.528	10690	135			5778.	UMTS FDD	Uplink	12:34:10.158	DCCH	MEASUREMENT_REPORT
					5602.		12:34:12.528	10690	135	-15.9		5779.	UMTS FDD	Uplink	12:34:11.158	DCCH	MEASUREMENT_REPORT
					5603.	-102.9	12:34:13.048	10690	143			5780.	UMTS FDD	Uplink	12:34:11.331	DCCH	MEASUREMENT_REPORT
					5604.		12:34:13.048	10690	143	-14.4		5781.	UMTS FDD	Uplink	12:34:11.509	DCCH	MEASUREMENT_REPORT
					5605.	-102.9	12:34:13.158	10690	143			5782.	UMTS FDD	Uplink	12:34:12.158	DCCH	MEASUREMENT_REPORT
					5606.		12:34:13.158	10690	143	-14.4		5783.	UMTS FDD	Uplink	12:34:13.158	DCCH	MEASUREMENT_REPORT
					5607.	-102.9	12:34:13.309	10690	143			5784.	UMTS FDD	Uplink	12:34:13.309	DCCH	MEASUREMENT_REPORT
					5608.		12:34:13.309	10690	143	-14.4		5785.	UMTS FDD	Downlink	12:34:14.077	DCCH	RRC_CONNECTION_RELEASE
					5609.	-100.4	12:34:13.668	10690	135			5786.	UMTS FDD	Uplink	12:34:14.077	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
					5610.		12:34:13.668	10690	135	-14.1		5787.	UMTS FDD	Uplink	12:34:14.118	DCCH	RRC_CONNECTION_RELEASE_COMPLETE
					5611.	-100.4	12:34:14.193	10690	143			5788.	UMTS FDD	Downlink	12:34:14.314	BCCH_BCH	SYSTEM_INFORMATION_BCH
					5612.		12:34:14.193	10690	143	-13.4		5789.	UMTS FDD	Downlink	12:34:14.314	BCCH	MASTER_INFORMATION_BLOCK
					5613.	-106	12:34:14.577	10690	135			5790.	UMTS FDD	Downlink	12:34:14.314	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					5614.		12:34:14.577	10690	135	-18		5791.	UMTS FDD	Downlink	12:34:14.474	BCCH_BCH	SYSTEM_INFORMATION_BCH
					5615.	-106.4	12:34:14.956	10690	135			5792.	UMTS FDD	Downlink	12:34:14.474	BCCH	MASTER_INFORMATION_BLOCK
					5616.		12:34:14.956	10690	135	-16.2		5793.	UMTS FDD	Downlink	12:34:14.474	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					5617.	-106.5	12:34:15.546	10690	135			5794.	UMTS FDD	Downlink	12:34:14.494	BCCH_BCH	SYSTEM_INFORMATION_BCH
					5618.		12:34:15.546	10690	135	-15.1		5795.	UMTS FDD	Downlink	12:34:14.734	BCCH_BCH	SYSTEM_INFORMATION_BCH
					5619.	-109	12:34:15.958	10690	135			5796.	UMTS FDD	Downlink	12:34:14.734	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2
					5620.		12:34:15.958	10690	135	-17.9		5797.	UMTS FDD	Downlink	12:34:14.734	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
					5621.	-114.6	12:34:16.579	10690	135			5798.	UMTS FDD	Downlink	12:34:14.754	BCCH_BCH	SYSTEM_INFORMATION_BCH

## Analysis:

- This call drop event occurred on long call at 12:34:14:077 time when UE was latched with 3G network.
- After getting Alerting message at 12:33:55:638 time than Call drop happened.
- During the failure, UE was latched with PSC 135 and RF condition RSCP -100.4 dBm poor but Ec/No -14.1 dB are very poor.
- As per the Analysis the call setup drop event occurred due to poor coverage in the network.

# Phase-2 Call Drop Analysis 1 From MS11 CWS MO

	Time	System	Serving band	Call type	Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub		System	Transf. dir.	Time	Subchannel	Message name	
1.	12:11:36.120	GSM	900	Voice call	1217.	12:40:42.718	-91	25	13	1	10		6728.	GSM	Downlink	12:40:44.965	SACCH	MEASUREMENT_INFORMATION
2.	12:34:14.077	UMTS FDD	2100	Voice call	1218.	12:40:43.114	-88	25	13	1	10		6729.	GSM	Uplink	12:40:45.012	SACCH	MEASUREMENT_REPORT
3.	12:41:09.054	GSM	900	Voice call	1219.	12:40:43.572					5		6730.	GSM	Downlink	12:40:45.445	SACCH	MEASUREMENT_INFORMATION
					1220.	12:40:43.636	-92	25	13	1	10		6731.	GSM	Uplink	12:40:45.491	SACCH	MEASUREMENT_REPORT
					1221.	12:40:44.051					1		6732.	GSM	Downlink	12:40:45.925	SACCH	MEASUREMENT_INFORMATION
					1222.	12:40:44.052	-91	25	13	1	10		6733.	GSM	Uplink	12:40:45.971	SACCH	MEASUREMENT_REPORT
					1223.	12:40:44.532	-91	25	13	1	10		6734.	GSM	Downlink	12:40:46.405	SACCH	SYSTEM_INFORMATION_TYPE_5
					1224.	12:40:44.532					0		6735.	GSM	Uplink	12:40:46.451	SACCH	MEASUREMENT_REPORT
					1225.	12:40:45.012					4		6736.	GSM	Downlink	12:40:46.885	SACCH	SYSTEM_INFORMATION_TYPE_5TER
					1226.	12:40:45.147	-93	25	13	1	10		6737.	GSM	Uplink	12:40:46.932	SACCH	MEASUREMENT_REPORT
					1227.	12:40:45.491					0		6738.	GSM	Downlink	12:40:47.365	SACCH	SYSTEM_INFORMATION_TYPE_6
					1228.	12:40:45.598	-93	25	13	1	10		6739.	GSM	Uplink	12:40:47.411	SACCH	MEASUREMENT_REPORT
					1229.	12:40:45.971					0		6740.	GSM	Downlink	12:40:47.845	SACCH	MEASUREMENT_INFORMATION
					1230.	12:40:46.359	-96	25	13	1	10		6741.	GSM	Uplink	12:40:47.891	SACCH	MEASUREMENT_REPORT
					1231.	12:40:46.889	-89	25	13	1	10		6742.	GSM	Downlink	12:40:48.325	SACCH	MEASUREMENT_INFORMATION
					1232.	12:40:46.932					0		6743.	GSM	Uplink	12:40:48.371	SACCH	MEASUREMENT_REPORT
					1233.	12:40:47.411					0		6744.	GSM	Uplink	12:40:48.851	SACCH	MEASUREMENT_REPORT
					1234.	12:40:47.457	-85	25	13	1	10		6745.	GSM	Uplink	12:40:49.331	SACCH	MEASUREMENT_REPORT
					1235.	12:40:47.891					1		6746.	GSM	Uplink	12:40:49.811	SACCH	MEASUREMENT_REPORT
					1236.	12:40:48.371					6		6747.	GSM	Downlink	12:40:50.245	SACCH	SYSTEM_INFORMATION_TYPE_5
					1237.	12:40:48.436	-95	25	13	1	10		6748.	GSM	Uplink	12:40:50.291	SACCH	MEASUREMENT_REPORT
					1238.	12:40:48.851					7		6749.	GSM	Downlink	12:40:50.725	SACCH	SYSTEM_INFORMATION_TYPE_5TER
					1239.	12:40:48.879	-95	25	13	1	10		6750.	GSM	Uplink	12:40:50.771	SACCH	MEASUREMENT_REPORT
					1240.	12:40:49.378	-97	25	13	1	10		6751.	GSM	Downlink	12:40:51.205	SACCH	SYSTEM_INFORMATION_TYPE_6
					1241.	12:40:49.811					7		6752.	GSM	Uplink	12:40:51.251	SACCH	MEASUREMENT_REPORT
					1242.	12:40:50.019	-97	25	13	1	10		6753.	GSM	Uplink	12:40:51.731	SACCH	MEASUREMENT_REPORT
					1243.	12:40:50.296	-97	25	13	1	10		6754.	GSM	Uplink	12:40:52.211	SACCH	MEASUREMENT_REPORT
					1244.	12:40:50.938	-97	25	13	1	10		6755.	GSM	Uplink	12:40:52.691	SACCH	MEASUREMENT_REPORT
					1245.	12:40:51.252	-96	25	13	1	10		6756.	GSM	Uplink	12:40:53.171	SACCH	MEASUREMENT_REPORT
					1246.	12:40:51.976	-97	25	13	1	10		6757.	GSM	Uplink	12:40:53.651	SACCH	MEASUREMENT_REPORT
					1247.	12:40:52.253	-97	25	13	1	10		6758.	GSM	Downlink	12:40:54.085	SACCH	SYSTEM_INFORMATION_TYPE_5
					1248.	12:40:53.199	-98	25	13	1	10		6759.	GSM	Uplink	12:40:54.131	SACCH	MEASUREMENT_REPORT
					1249.	12:40:53.679	-97	25	13	1	10		6760.	GSM	Uplink	12:40:54.611	SACCH	MEASUREMENT_REPORT
					1250.	12:40:54.478	-96	25	13	1	10		6761.	GSM	Uplink	12:40:55.091	SACCH	MEASUREMENT_REPORT
					1251.	12:40:54.999	-96	25	13	1	10		6762.	GSM	Uplink	12:40:55.571	SACCH	MEASUREMENT_REPORT
					1252.	12:40:55.571	-97	25	13	1	10		6763.	GSM	Uplink	12:40:56.051	SACCH	MEASUREMENT_REPORT
					1253.	12:40:56.051	-98	25	13	1	10		6764.	GSM	Uplink	12:40:56.531	SACCH	MEASUREMENT_REPORT

## Analysis:

- This call drop event occurred on long call at 12:41:09:054 time when UE was latched with 2G network.
- After getting Alerting message at 12:39:57:561 time than Call drop happened.
- During the failure, UE was latched with ARFCN 25 and RF condition Rxlev -97 dBm is good and Rxqual 7 which is poor.
- As per the Analysis the call setup drop event occurred due to poor quality in the network.

**THANKS**