



## **DRIVE TEST ROUTE**

Phase-1 Dates- 10<sup>th</sup> Oct 2024



Route Name: Mahe

District Name: Grande Anse Mahe

Region: West

Island: Mahé

Drive Test Distance: 33.17 kms

Drive Test Duration: 01 hours,57 minutes,45 seconds

Phase-2 Dates- 31st Oct 2024



Route Name: Mahe

District Name: Grand Anse

Region: West

Island: Mahé

Drive Test Distance: 30.89 kms

Drive Test Duration: 02 hours,15 minutes,03 seconds



#### **VOICE EXECUTIVE SUMMARY**

#### Phase-1

#### **Short Call Findings:**

- The Call Setup Success Rate for Airtel is (97.33%), while for Operator CWS it is (100.00%).
- The Call Setup Time for Airtel is (6.71s), while for Operator CWS it is (8.00s).

#### **Long Call Findings:**

- The Call Retainability for Airtel is (100.00%), while for CWS it is (97.37%).
- The MOS quality observed for Airtel is (3.10), and for CWS, it is (3.51).

#### Phase-2

#### **Short Call Findings:**

- The Call Setup Success Rate for Airtel is (98.83%), while for Operator CWS it is (98.79%).
- The Call Setup Time for Airtel is (6.46s), while for Operator CWS it is (8.05s)

#### **Long Call Findings:**

- The Call Retainability for Airtel is (91.30%), while for CWS it is (97.83%).
- The MOS quality observed for Airtel is (2.96), and for CWS, it is (3.54).



#### **4G PREFERRED DATA TEST – EXECUTIVE SUMMARY**

#### Phase-1

#### **4G Preferred Data Findings:**

- Airtel SFTP DL is (12.63 Mbps), while SFTP UL is (5.53 Mbps), CWS SFTP DL is (6.99 Mbps), while
   SFTP UL is (3.96 Mbps)
- Airtel HTTP DL is (18.95 Mbps), HTTP Capacity DL is (39.04 Mbps), HTTP UL is (8.73 Mbps), and
   HTTP Capacity UL is (16.19 Mbps).
- CWS HTTP DL is (9.25 Mbps), HTTP Capacity DL is (28.22 Mbps), HTTP UL is (6.04 Mbps), and HTTP Capacity UL is (12.67 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (6.85s), <u>www.nbs.gov.sc</u> took
   (18.52s), and www.sbc.sc took (17.91s) on Airtel.
- On live web page testing for browsing, <a href="www.shein.com">www.shein.com</a> took (6.43s), <a href="www.nbs.gov.sc">www.nbs.gov.sc</a> took (15.00s), and <a href="www.sbc.sc">www.sbc.sc</a> took (13.35s) on CWS.
- On static browsing, Kepler Webpage took (4.47s), and Kepler Mobile took (1.70s) on Airtel.
- On static browsing, Kepler Webpage took (4.62s), and Kepler Mobile took (2.70s) on CWS.
- YouTube average resolution in Airtel is (1066.73) pixels.
- YouTube average resolution in CWS is (1077.60) pixels.
- Airtel scored 44.92% in Carrier Aggregation (CA).
- CWS scored 38.26% in Carrier Aggregation (CA).

#### Phase-2

#### **4G Preferred Data Findings:**

- Airtel SFTP DL is (13.62 Mbps), while SFTP UL is (5.12 Mbps), CWS SFTP DL is (1.57 Mbps), while
   SFTP UL is (1.51 Mbps)
- Airtel HTTP DL is (17.82 Mbps), HTTP Capacity DL is (49.38 Mbps), HTTP UL is (9.47 Mbps), and
   HTTP Capacity UL is (18.93 Mbps).
- CWS HTTP DL is (1.91 Mbps), HTTP Capacity DL is (1.81 Mbps), HTTP UL is (1.87 Mbps), and HTTP
  Capacity UL is (5.86 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (6.44s), <u>www.nbs.gov.sc</u> took
   (17.27s), and <u>www.sbc.sc</u> took (16.01s) on Airtel.
- On live web page testing for browsing, <a href="https://www.shein.com">www.shein.com</a> took (17.85s), <a href="https://www.nbs.gov.sc">www.nbs.gov.sc</a> took (26.11s) on CWS.
- On static browsing, Kepler Webpage took (4.35s), and Kepler Mobile took (1.74s) on Airtel.
- On static browsing, Kepler Webpage took (5.77s), and Kepler Mobile took (2.98s) on CWS.
- YouTube average resolution in Airtel is (1013.02) pixels.
- YouTube average resolution in CWS is (788.49) pixels.
- Airtel scored 54.44% in Carrier Aggregation (CA).
- CWS scored 37.09% in Carrier Aggregation (CA).



#### **3G PREFERRED DATA TEST - EXECUTIVE SUMMARY**

#### Phase-1

#### **3G Preferred Data Test Findings:**

- Airtel SFTP DL is (5.41 Mbps), while SFTP UL is (1.46 Mbps), CWS SFTP DL is (3.87 Mbps), while
   SFTP UL is (1.01 Mbps)
- Airtel HTTP DL is (5.93 Mbps), HTTP Capacity DL is (7.70 Mbps), HTTP UL is (2.25 Mbps), and HTTP
   Capacity UL is (4.15 Mbps).
- CWS HTTP DL is (3.00 Mbps), HTTP Capacity DL is (10.52 Mbps), HTTP UL is (1.60 Mbps), and HTTP Capacity UL is (3.74 Mbps).
- On live web page testing for browsing, <a href="www.shein.com">www.shein.com</a> took (9.25s), <a href="www.nbs.gov.sc">www.nbs.gov.sc</a> took (10.80s), and <a href="www.sbc.sc">www.sbc.sc</a> took (13.33s) on Airtel.
- On live web page testing for browsing, <a href="www.shein.com">www.shein.com</a> took (8.41s), <a href="www.nbs.gov.sc">www.nbs.gov.sc</a> took (8.37s), and <a href="www.sbc.sc">www.sbc.sc</a> took (10.16s) on CWS.
- On static browsing, Kepler Webpage took (3.68s), and Kepler Mobile took (1.87s) on Airtel.
- On static browsing, Kepler Webpage took (5.55s), and Kepler Mobile took (3.16s) on CWS.
- YouTube average resolution in Airtel is (1041.86) pixels.
- YouTube average resolution in CWS is (1061,95) pixels.

#### Phase-2

#### **3G Preferred Data Test Findings:**

- Airtel SFTP DL is (5.52 Mbps), while SFTP UL is (1.67 Mbps), CWS SFTP DL is (3.90 Mbps), while
   SFTP UL is (1.05 Mbps)
- Airtel HTTP DL is (5.56 Mbps), HTTP Capacity DL is (8.42 Mbps), HTTP UL is (2.20 Mbps), and HTTP Capacity UL is (5.37 Mbps).
- CWS HTTP DL is (2.88 Mbps), HTTP Capacity DL is (11.54 Mbps), HTTP UL is (1.58 Mbps), and HTTP Capacity UL is (4.48 Mbps).
- On live web page testing for browsing, <a href="https://www.shein.com">www.shein.com</a> took (8.49s), <a href="https://www.nbs.gov.sc">www.nbs.gov.sc</a> took (10.42s), and <a href="https://www.sbc.sc">www.sbc.sc</a> took (10.72s) on Airtel.
- On live web page testing for browsing, <a href="https://www.shein.com">www.shein.com</a> took (6.97s), <a href="https://www.nbs.gov.sc">www.nbs.gov.sc</a> took (7.57s), and <a href="https://www.sbc.sc">www.sbc.sc</a> took (9.29s) on CWS.
- On static browsing, Kepler Webpage took (3.66s), and Kepler Mobile took (1.65s) on Airtel.
- On static browsing, Kepler Webpage took (5.47s), and Kepler Mobile took (2.44s) on CWS.
- YouTube average resolution in Airtel is (1035.55) pixels.
- YouTube average resolution in CWS is (1060.31) pixels.



## **TESTING METHODOLOGY**

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



## **VOICE TEST KPI STATISTICS (Short Call)**

#### Phase-1

<b>Short Call Statistics</b>						
Short Call Scenario Operator 1 Operator 2						
Voice KPIs	Airtel	cws				
Call Attempt	150	145				
Call Failed	4	0				
Call Connected	146	145				
CSSR[%]	97.33	100.00				
USCSR[%]	2.67	0.00				
CST [s] Alerting	6.71	8.00				
CST [s]Connected	7.00	8.19				

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

Short Call Statistics						
Short Call Scenario Operator 1 Operator						
Voice KPIs	Airtel	cws				
Call Attempt	171	165				
Call Failed	2	2				
Call Connected	169	163				
CSSR[%]	98.83	98.79				
USCSR	1.17	1.21				
CST [s] Alerting	6.46	8.05				
CST [s]Connected	6.74	8.24				

Call Setup Time (s)  Overall CST (until ringing/alerting)  CS calls CST (until ringing/alerting)  CSFB calls CST (until ringing/alerting)  Overall CST (until Connect/Connect Acknowledge)  CS calls CST (until Connect/Connect Acknowledge)	Operators		Rank	
	Airtel	cws	Airtel	cws
Overall CST (until ringing/alerting)	6.71	8.00	1	2
CS calls CST (until ringing/alerting)	6.69	15.90	1	2
CSFB calls CST (until ringing/alerting)	6.71	7.94	1	2
Overall CST (until Connect/Connect Acknowledge)	7.00	8.19	1	2
CS calls CST (until Connect/Connect Acknowledge)	7.05	17.14	1	2
CSFB calls CST (until Connect/Connect Acknowledge)	7.00	8.13	1	2

Call Setup Time (s)		Operators		Rank	
		cws	Airtel	cws	
Overall CST (until ringing/alerting)	6.46	8.05	1	2	
CS calls CST (until ringing/alerting)	5.66	11.63	1	2	
CSFB calls CST (until ringing/alerting)	6.76	7.98	1	2	
Overall CST (until Connect/Connect Acknowledge)	6.74	8.24	1	2	
CS calls CST (until Connect/Connect Acknowledge)	5.97	11.77	1	2	
CSFB calls CST (until Connect/Connect Acknowledge)	7.02	8.17	1	2	



## **VOICE TEST KPI STATISTICS (Long Call)**

#### Phase-1

Long Call Statistics					
Long Call Scenario Operator 1 Operator 2					
Airtel	cws				
39	38				
0	1				
39	37				
100.00	97.37				
0.00	2.63				
3.10	3.51				
	Operator 1  Airtel  39  0  39  100.00  0.00				

	Airtel short call	CWS short call	Airtel long call	CWS long call
CSFB Calls	137	144	32	38
CS Calls	13	1	7	0

Handover Statistics	Airtel MO	CWS MO
Handover Attempt	26	71
Handover Failure	0	0
Handover Success	26	71
HOSR %	100.00	100.00

Long Call Statistics						
Long Call Scenario Operator 1 Operator 2						
Voice KPIs	Airtel	cws				
Call Connected	46	46				
Call Dropped	4	1				
Call Completed	42	45				
CRR[%]	91.30	97.83				
DCR[%]	8.70	2.17				
MOS	2.96	3.54				

	Airtel short call	CWS short call	Airtel long call	CWS long call
CSFB Calls	125	162	44	46
CS Calls	46	3	2	0

Handover Statistics	Airtel MO	CWS MO
Handover Attempt	40	86
Handover Failure	9	0
Handover Success	31	86
HOSR %	77.50	100.00



# **DATA TEST KPI STATISTICS(4G Preferred)**

		Phase-1			Phase-2				
	DATA Scenario	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	SFTP DL (Mbps)	12.63	6.99	1	2	13.62	1.57	1	2
<b>E</b>	SFTP UL(Mbps)	5.53	3.96	1	2	5.12	1.51	1	2
ANSFI	HTTP DL(Mbps)	18.95	9.25	1	2	17.82	1.91	1	2
FILE TRANSFER	HTTP UL(Mbps)	8.73	6.04	1	2	9.47	1.87	1	2
臣	HTTP Capacity DL(Mbps)	39.04	28.22	1	2	49.38	1.81	1	2
	HTTP Capacity UL(Mbps)	16.19	12.67	1	2	18.93	5.86	1	2
	Overall Browser DL Time (s)	10.14	8.26	2	1	9.29	13.37	1	2
	Kepler Webpage DL Time (s)	4.47	4.62	1	2	4.35	5.77	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	1.70	2.70	1	2	1.74	2.98	1	2
BROV	www.shein.com Webpage DL Time (s)	6.85	6.43	2	1	6.44	17.85	1	2
	www.nbs.gov.sc Webpage DL Time (s)	18.52	15.00	2	1	17.27	16.12	2	1
	www.sbc.sc Webpage DL Time (s)	17.91	13.35	2	1	16.01	26.11	1	2
NCY	Avg Latency (ms)	267.74	197.05	2	1	268.78	202.88	2	1
LATENCY	Median Latency (ms)	157	196	1	2	183	205	1	2
38	YouTube Access Time (s)	4.99	1.73	2	1	5.54	3.95	2	1
YOUTUBE	YouTube Average Resolution (pixels)	1066.73	1077.60	2	1	1013.02	788.49	1	2
<b>X</b>	YouTube Success Ratio [%]	100.00	100.00	1	1	100.00	100.00	1	1



## 4G PREFERRED THROUGHPUT FILE ACCESS

### Phase-1

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
CETTO DI	Success	22	24	100.00	100.00
SFTP DL	Failure	0	0	0.00	0.00
CETPLU	Success	21	23	95.45	95.83
SFTP UL	Failure	1	1	4.55	4.17
	Success	23	22	100.00	100.00
HTTP DL	Failure	0	0	0.00	0.00
HTTP UL	Success	23	23	100.00	100.00
HIIPOL	Failure	0	0	0.00	0.00
LITTE Composite: DI	Success	21	22	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTD Conneith: III	Success	20	22	95.24	100.00
HTTP Capacity UL	Failure	1	0	4.76	0.00

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
CETT DI	Success	25	10	96.15	100.00
SFTP DL	Failure	1	0	3.85	0.00
SFTP UL	Success	26	14	100.00	93.33
SFIP OL	Failure	0	1	0.00	6.67
HTTP DL	Success	25	18	92.59	100.00
HIIF DL	Failure	2	0	7.41	0.00
HTTP UL	Success	27	18	100.00	100.00
HITPUL	Failure	0	0	0.00	0.00
HTTD Canacity DI	Success	25	17	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTD Canacity III	Success	24	11	96.00	64.71
HTTP Capacity UL	Failure	1	6	4.00	35.29



## 4G PREFERRED BROWSING FILE ACCESS

### Phase-1

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
Kanlar	Success	20	23	90.91	100.00
Kepler	Failure	2	0	9.09	0.00
Mahila Kanlar	Success	20	22	95.24	100.00
Mobile Kepler	Failure	1	0	4.76	0.00
www.shein.com	Success	22	23	100.00	100.00
www.snein.com	Failure	0	0	0.00	0.00
	Success	22	21	100.00	95.45
www.nbs.gov.sc	Failure	0	1	0.00	4.55
wayay she sa	Success	22	21	100.00	91.30
www.sbc.sc	Failure	0	2	0.00	8.70

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
Kanlar	Success	23	18	88.46	100.00
Kepler	Failure	3	0	11.54	0.00
Mahila Kanlar	Success	26	18	100.00	100.00
Mobile Kepler	Failure	0	0	0.00	0.00
www.shein.com	Success	25	18	96.15	100.00
www.siieiii.coiii	Failure	1	0	3.85	0.00
www.nbs.gov.sc	Success	26	18	100.00	100.00
www.iibs.gov.sc	Failure	0	0	0.00	0.00
www.chc.cc	Success	26	18	100.00	100.00
www.sbc.sc	Failure	0	0	0.00	0.00



## **4G PREFERRED LATENCY**

### Phase-1

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	43	45
	Average Latency [ms]	267.28	199.56
	Median Latency [ms]	157	200
Overall Latency Ping session status: Successful	Ping session status: Successful	43	45
Ping session status: Failed [Socket error]		0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
	Average Latency [ms]	418.57	173.09
	Median Latency [ms]	404	172
www.google.com	Ping session status: Successful	21	22
www.google.com	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Socket error]  Ping session status: Failed [Protocol error timeout]		0
	Packet Loss<1%	0.00	0.00
	Average Latency [ms]	122.86	224.87
	Median Latency [ms]	121	222
102 122 176 104	Ping session status: Successful	22	23
102.133.176.104 Ping sess	Ping session status: Failed [Socket error]	0	0
Ping session status: Failed [Protocol error tim		0	0
	Packet Loss<1%	0.00	0.00

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	50	36
	Average Latency [ms]	270.66	204.00
	Median Latency [ms]	259	202
Overall Latency	Ping session status: Successful	50	36
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	2	0
	Packet Loss<1%	3.85	0.00
	Average Latency [ms]	413.38	171.28
	Median Latency [ms]	411	170
www.googlo.com	Ping session status: Successful	24	18
www.google.com	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	0
	Packet Loss<1%	4.00	0.00
	Average Latency [ms]	138.92	236.72
	Median Latency [ms]	123	234
102 122 176 104	Ping session status: Successful	26	18
102.133.176.104	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	0
	Packet Loss<1%	3.70	0.00



## **4G PREFERRED YOUTUBE COMPARISON**

### Phase-1

LTE YOUTUBE Success Ratio							
KPIs	Airtel 4G	CWS 4G					
Attempt(Count)	23	23					
Success(Count)	23	23					
Failure(Count)	0	0					
YouTube Access Time (s)	4.99	1.73					
YouTube Average Resolution (pixels)	1066.73	1077.60					
YouTube Success Ratio [%]	100.00	100.00					

LTE YOUTUBE Success Ratio							
KPIs	Airtel 4G	CWS 4G					
Attempt(Count)	27	18					
Success(Count)	27	18					
Failure(Count)	0	0					
YouTube Access Time (s)	5.54	3.95					
YouTube Average Resolution (pixels)	1013.02	788.49					
YouTube Success Ratio [%]	100.00	100.00					



## **DATA TEST KPI STATISTICS (3G Preferred)**

		Phase-1			Phase-2				
	DATA Scenario	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
	SFTP DL (Mbps)	5.41	3.87	1	2	5.52	3.90	1	2
<b>&amp;</b>	SFTP UL(Mbps)	1.46	1.01	1	2	1.67	1.05	1	2
ANSFI	HTTP DL(Mbps)	5.93	3.00	1	2	5.56	2.88	1	2
FILE TRANSFER	HTTP UL(Mbps)	2.25	1.60	1	2	2.20	1.58	1	2
€	HTTP Capacity DL(Mbps)	7.70	10.52	2	1	8.42	11.54	2	1
	HTTP Capacity UL(Mbps)	4.15	3.74	1	2	5.37	4.48	1	2
	Overall Browser DL Time (s)	7.64	7.03	2	1	7.04	6.30	2	1
	Kepler Webpage DL Time (s)	3.68	5.55	1	2	3.66	5.47	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	1.87	3.16	1	2	1.65	2.44	1	2
BROV	www.shein.com Webpage DL Time (s)	9.25	8.41	2	1	8.49	6.97	2	1
	www.nbs.gov.sc Webpage DL Time (s)	10.80	8.37	2	1	10.42	7.57	2	1
	www.sbc.sc Webpage DL Time (s)	13.33	10.16	2	1	10.72	9.29	2	1
LATENCY	Avg Latency (ms)	264.26	190.32	2	1	270.42	200.72	2	1
LATE	Median Latency (ms)	176	195	1	2	166	197	1	2
	YouTube Access Time (s)	3.71	2.02	2	1	3.35	1.82	2	1
YOUTUBE	YouTube Average Resolution (pixels)	1041.86	1061.95	2	1	1035.55	1060.31	2	1
\ \ 	YouTube Success Ratio [%]	100.00	89.47	1	2	90.00	86.36	1	2



## **3G PREFERRED THROUGHPUT FILE ACCESS**

### Phase-1

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
CETTO DI	Success	20	14	100.00	93.33
SFTP DL	Failure	0	1	0.00	6.67
SFTP UL	Success	20	15	100.00	93.75
SFIPUL	Failure	0	1	0.00	6.25
	Success	20	18	100.00	100.00
HTTP DL	Failure	0	0	0.00	0.00
HTTP UL	Success	21	16	100.00	84.21
HITPOL	Failure	0	3	0.00	15.79
LITTE Compains DI	Success	19	17	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTD Conneith: III	Success	19	16	100.00	94.12
HTTP Capacity UL	Failure	0	1	0.00	5.88

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
SFTP DL	Success	16	19	94.12	100.00
	Failure	1	0	5.88	0.00
CETD III	Success	15	20	83.33	95.24
SFTP UL	Failure	3	1	16.67	4.76
HTTP DL	Success	17	20	94.44	95.24
	Failure	1	1	5.56	4.76
HTTP UL	Success	19	19	95.00	86.36
	Failure	1	3	5.00	13.64
HTTP Capacity DL	Success	17	20	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	16	18	88.89	90.00
	Failure	2	2	11.11	10.00



## **3G PREFERRED BROWSING FILE ACCESS**

### Phase-1

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Kepler	Success	19	17	100.00	94.44
	Failure	0	1	0.00	5.56
Mobile Kepler	Success	18	16	94.74	94.12
	Failure	1	1	5.26	5.88
www.shein.com	Success	18	16	90.00	88.89
	Failure	2	2	10.00	11.11
www.nbs.gov.sc	Success	17	14	89.47	87.50
	Failure	2	2	10.53	12.50
www.sbc.sc	Success	17	15	94.44	88.24
	Failure	1	2	5.56	11.76

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Kardar	Success	19	21	100.00	95.45
Kepler	Failure	0	1	0.00	4.55
	Success	17	19	100.00	90.48
Mobile Kepler	Failure	0	2	0.00	9.52
www.shein.com	Success	18	20	94.74	90.91
	Failure	1	2	5.26	9.09
www.nbs.gov.sc	Success	19	19	100.00	90.48
	Failure	0	2	0.00	9.52
www.sbc.sc	Success	18	18	94.74	85.71
	Failure	1	3	5.26	14.29



## **3G PREFERRED LATENCY**

### Phase-1

	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	37	31
	Average Latency [ms]	269.41	187.42
	Median Latency [ms]	299	182
Overall Latency	Ping session status: Successful	37	32
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	1
	Packet Loss<1%	2.63	3.03
	Average Latency [ms]	413.67	149.00
	Median Latency [ms]	410	146
	Ping session status: Successful	18	16
www.google.com	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	1
	Packet Loss<1%	0.00	5.88
	Average Latency [ms]	132.74	223.44
102.133.176.104	Median Latency [ms]	120	210
	Ping session status: Successful	19	16
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	0
Packet Loss<1%		5.00	0.00

	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	35	34
	Average Latency [ms]	282.37	191.50
	Median Latency [ms]	394	198
Overall Latency	Ping session status: Successful	35	34
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	3
	Packet Loss<1%	0.00	8.11
	Average Latency [ms]	415.29	151.44
www.google.com	Median Latency [ms]	409	143
	Ping session status: Successful	17	18
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	1
	Packet Loss<1%	0.00	5.26
	Average Latency [ms]	156.83	236.56
102.133.176.104	Median Latency [ms]	130	203
	Ping session status: Successful	18	16
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	2
	Packet Loss<1%	0.00	11.11



## **3G PREFERRED YOUTUBE COMPARISON**

### Phase-1

UMTS YOUTUBE Success Ratio				
KPIs	Airtel 3G	CWS 3G		
Attempt(Count)	21	19		
Success(Count)	21	17		
Failure(Count)	0	2		
YouTube Access Time (s)	3.71	2.02		
YouTube Average Resolution (pixels)	1041.86	1061.95		
YouTube Success Ratio [%]	100.00	89.47		

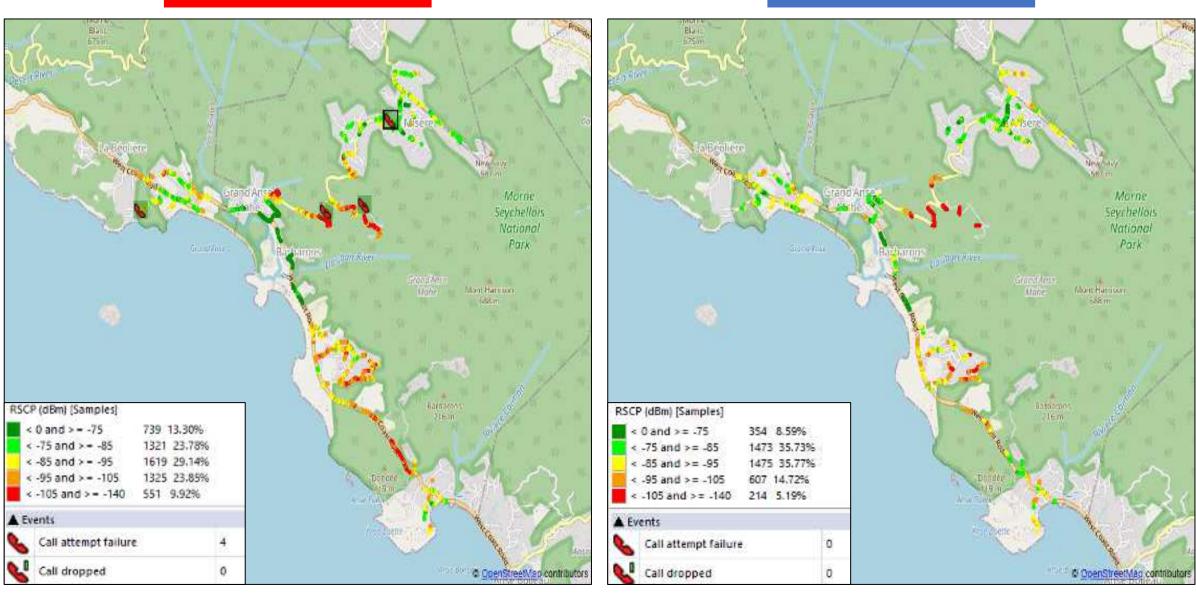
UMTS YOUTUBE Success Ratio				
KPIs	Airtel 3G	CWS 3G		
Attempt(Count)	20	22		
Success(Count)	18	19		
Failure(Count)	2	3		
YouTube Access Time (s)	3.35	1.82		
YouTube Average Resolution (pixels)	1035.55	1060.31		
YouTube Success Ratio [%]	90.00	86.36		



# **Voice Call Events**

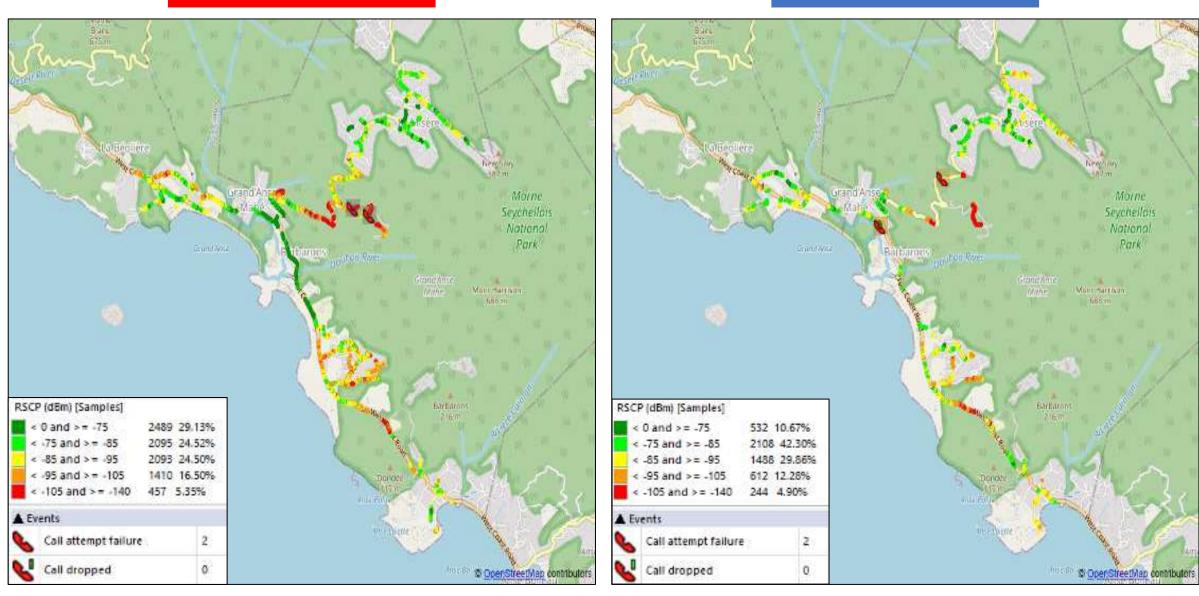
### Phase-1 SHORT CALL FAILURE EVENTS LOCATION vs RSCP

#### **Airtel SC MO**



### Phase-2 SHORT CALL FAILURE EVENTS LOCATION vs RSCP

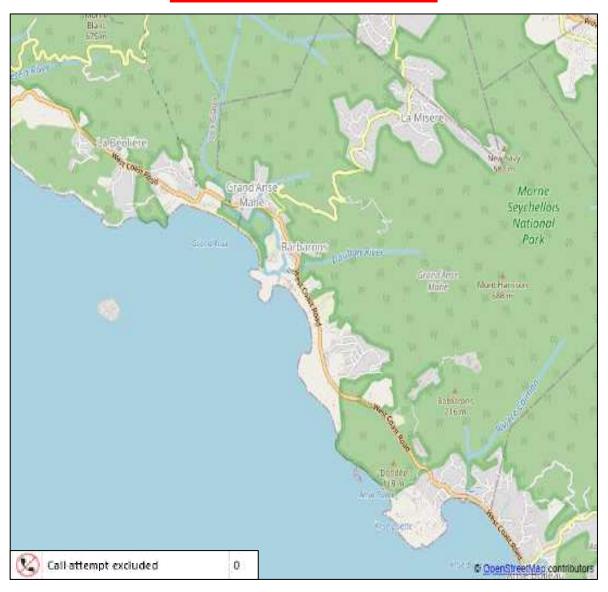
#### **Airtel SC MO**





### **Phase-1 SHORT CALL EXCLUDED EVENTS**

### **Airtel SC MO**







### **Phase-2 SHORT CALL EXCLUDED EVENTS**

### **Airtel SC MO**

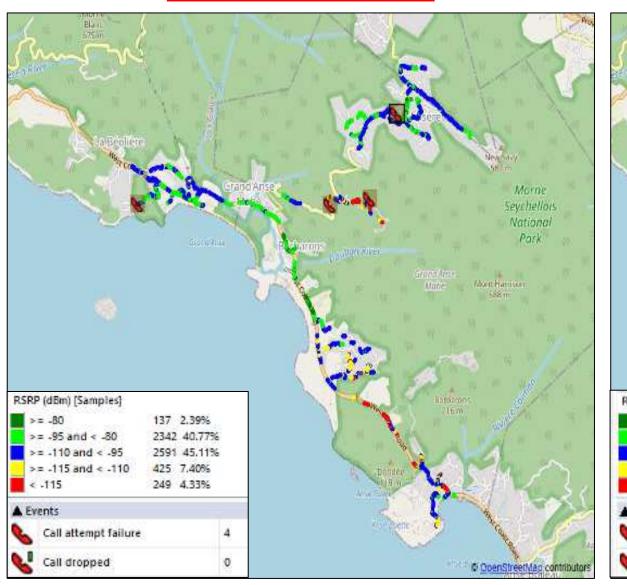


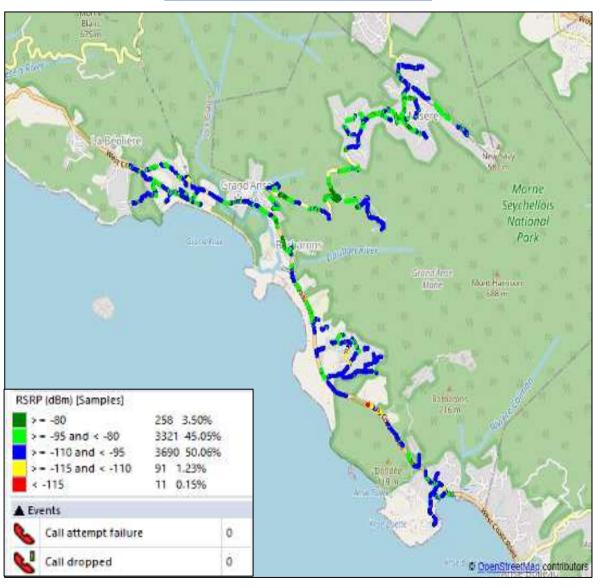




### Phase-1 SHORT CALL FAILURE EVENTS LOCATION vs RSRP

#### **Airtel SC MO**

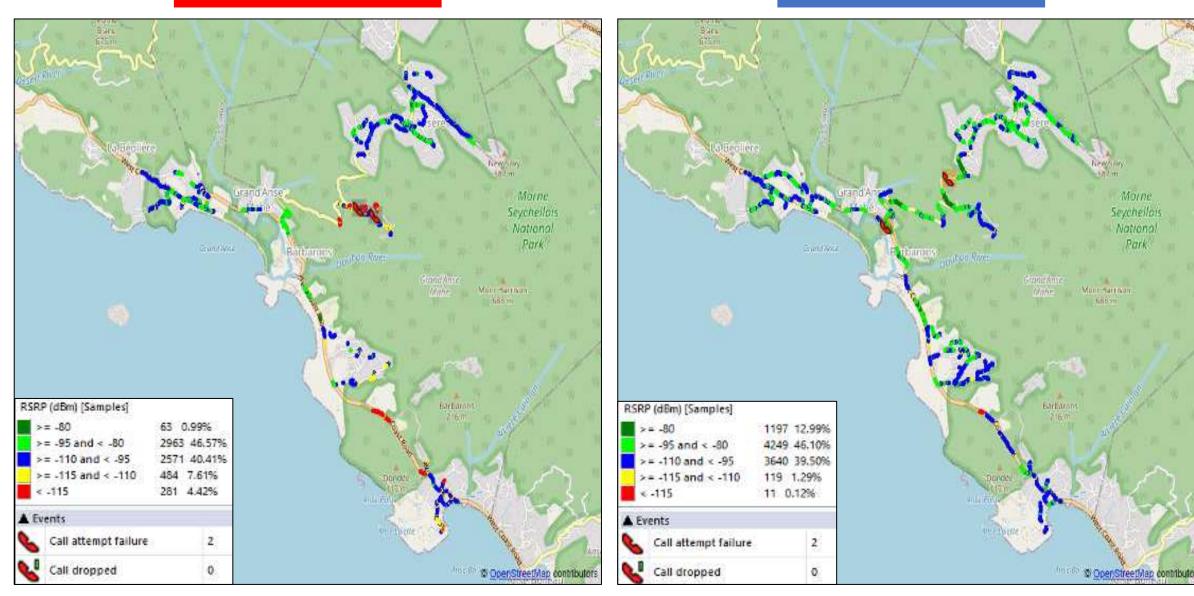






### Phase-2 SHORT CALL FAILURE EVENTS LOCATION vs RSRP

### **Airtel SC MO**



### Phase-1 LONG CALL FAILURE EVENTS LOCATION vs RSCP

#### **Airtel LC MO**

#### **CWS LC MO**

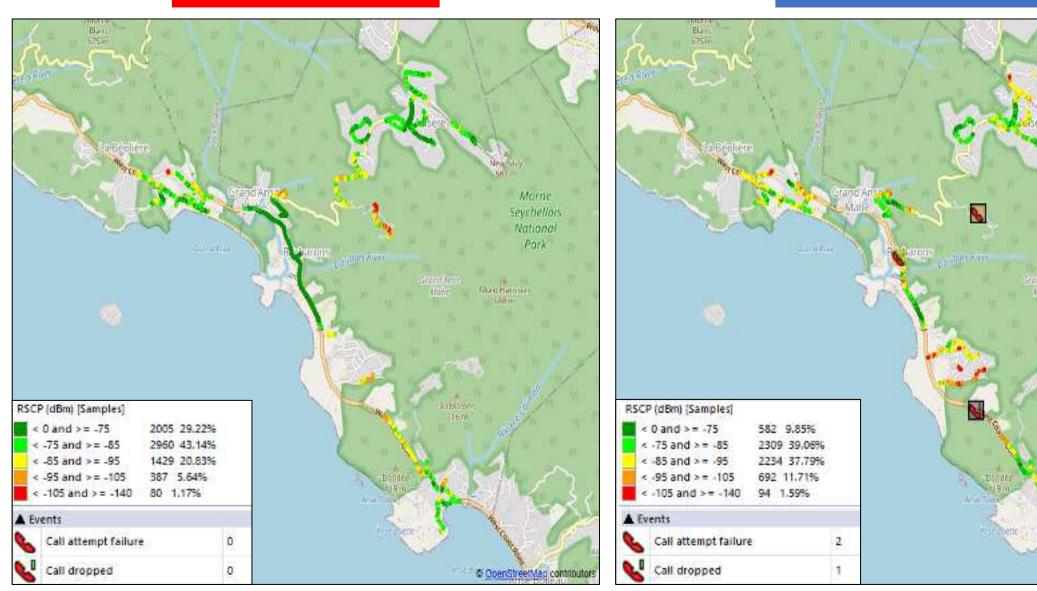
Morne

Seychellois

National

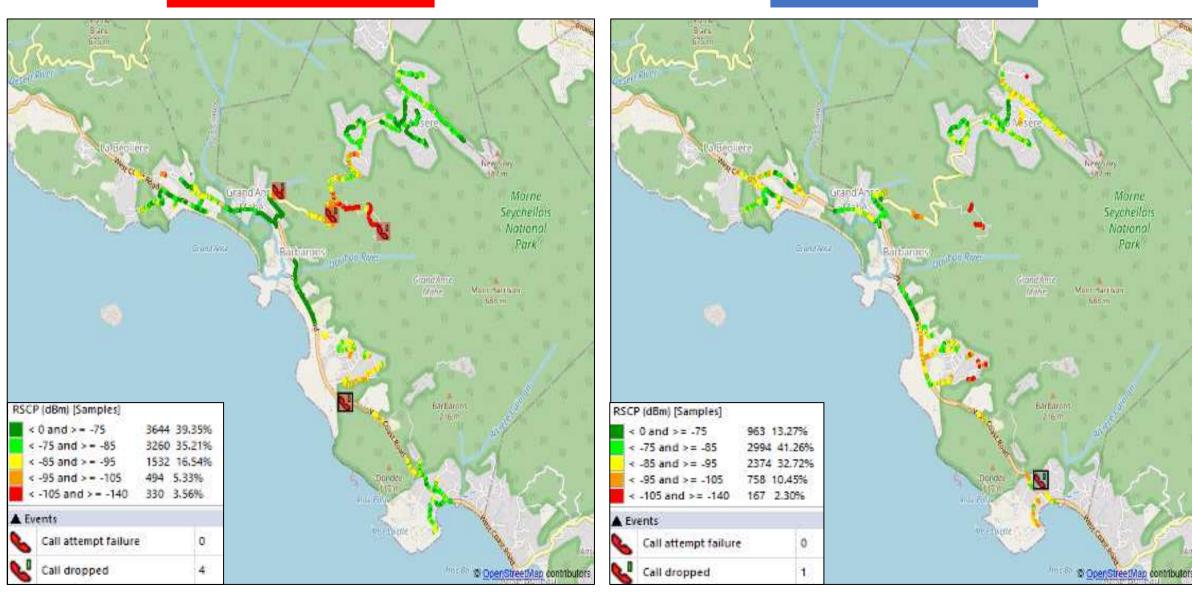
Park

© OpenStreetMag contribute



### Phase-2 LONG CALL FAILURE EVENTS LOCATION vs RSCP

#### **Airtel LC MO**

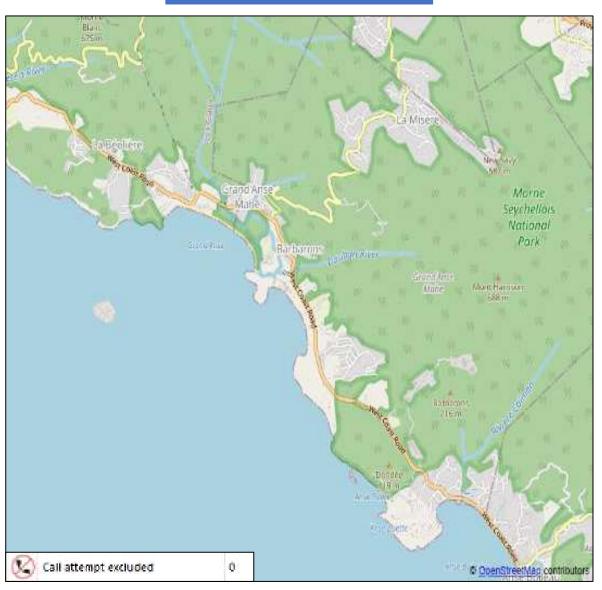




### **Phase-1 LONG CALL EXCLUDED EVENTS**

### **Airtel LC MO**

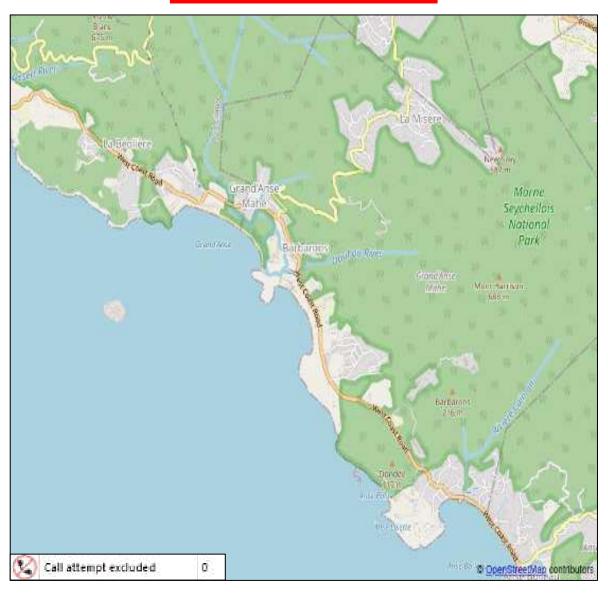






### **Phase-2 LONG CALL EXCLUDED EVENTS**

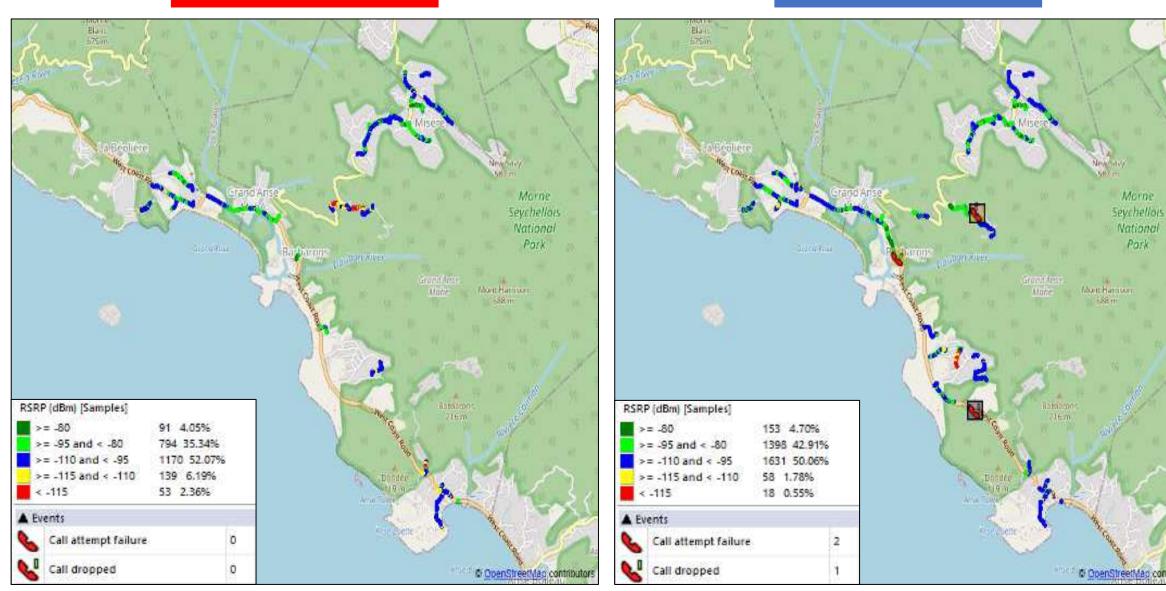
### **Airtel LC MO**





### Phase-1 LONG CALL FAILURE EVENTS LOCATION vs RSRP

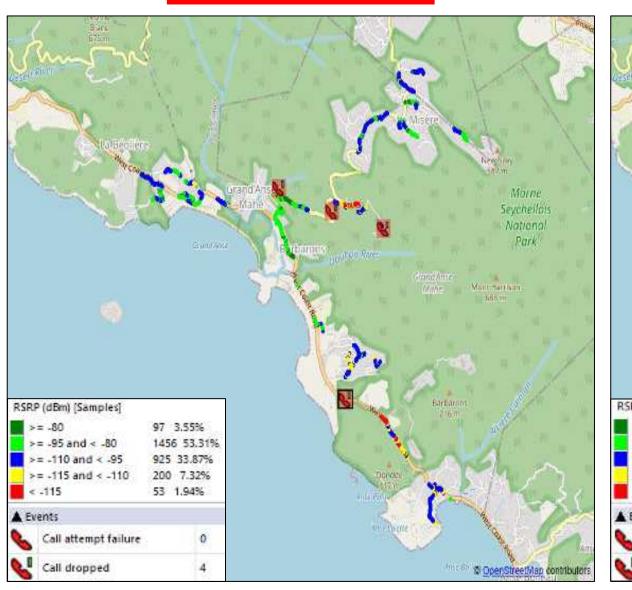
#### **Airtel LC MO**

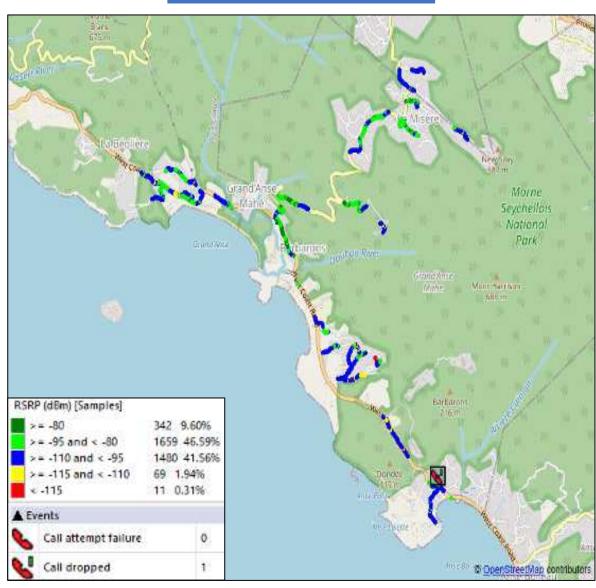




### Phase-2 LONG CALL FAILURE EVENTS LOCATION vs RSRP

#### **Airtel LC MO**



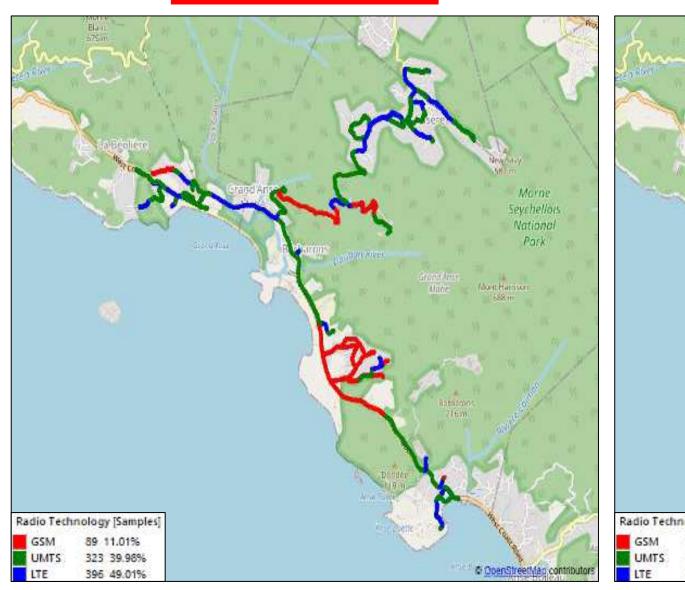


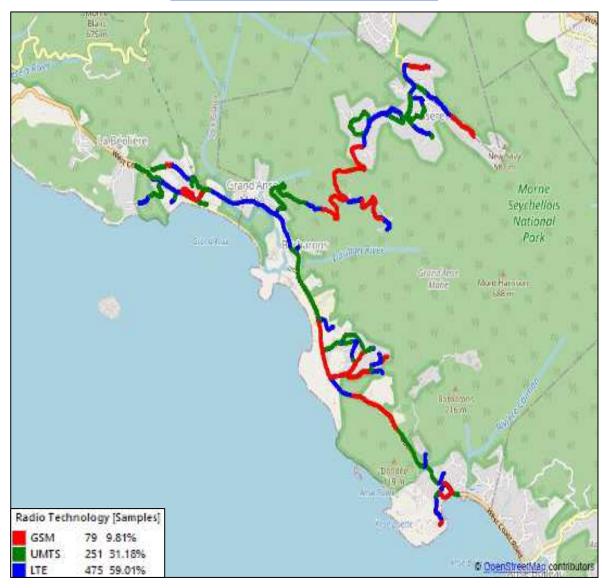


# **LONG CALL DRIVE PLOTS**

## **Phase-1 Long Call RADIO TECHNOLOGY PLOT**

### **Airtel LC MO**





## **Phase-2 Long Call RADIO TECHNOLOGY PLOT**

### **Airtel LC MO**

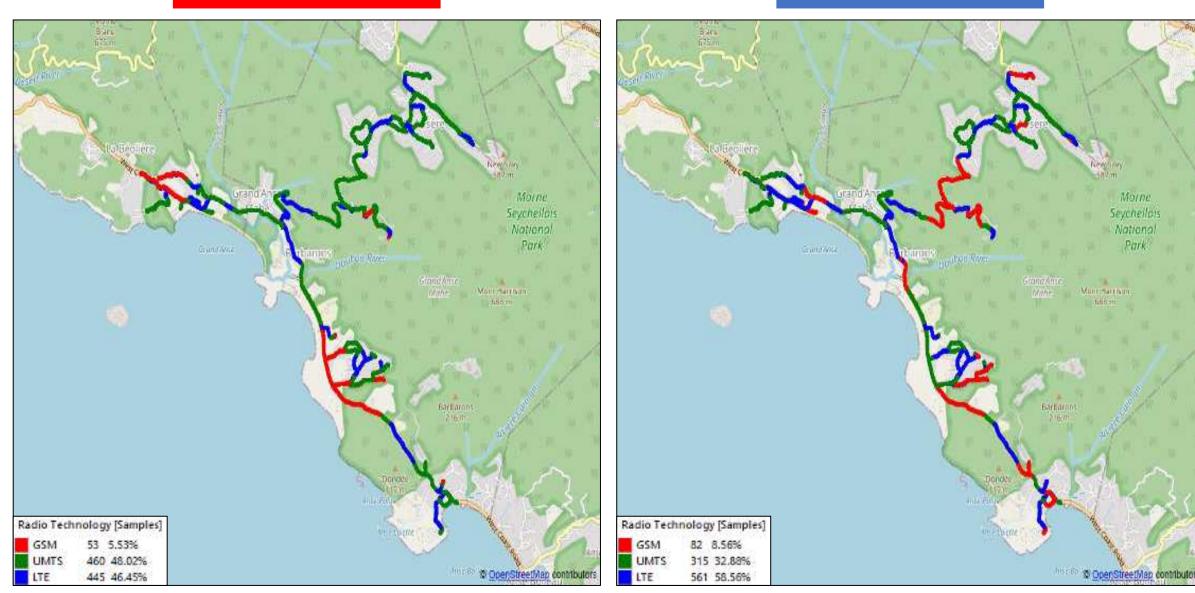
### **CWS LC MO**

Morne

Seychellois

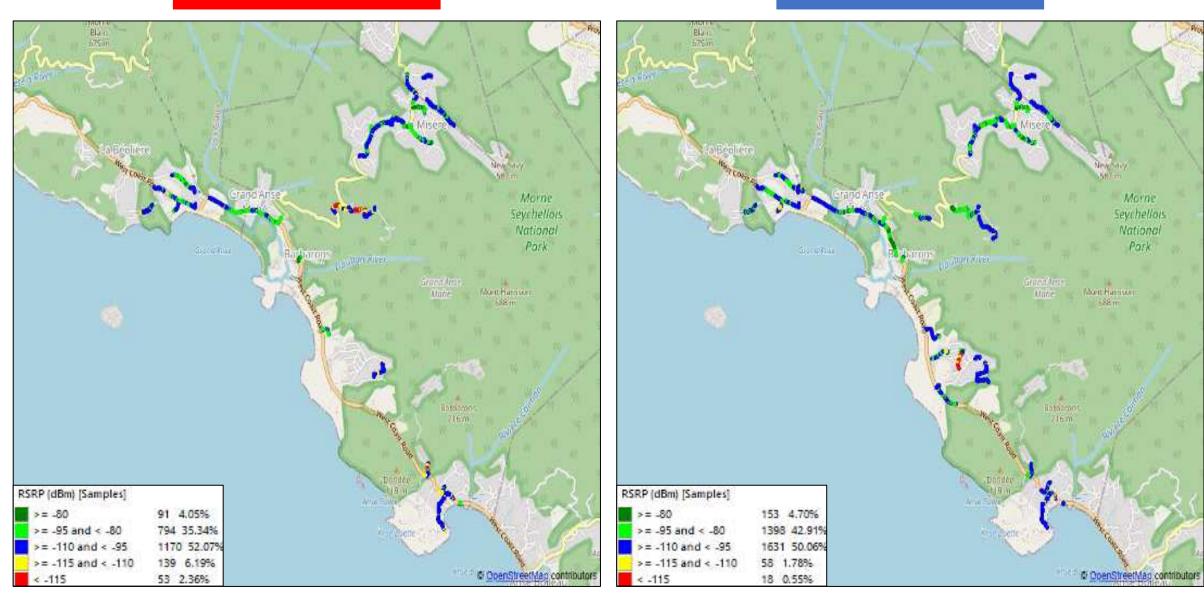
National

Park



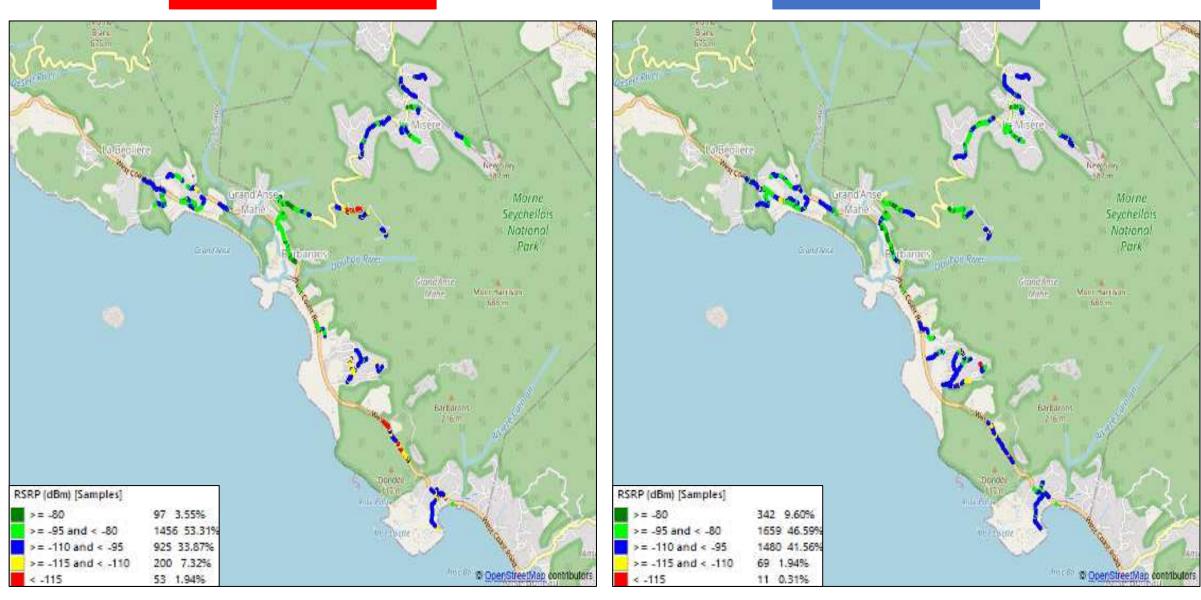
## **Phase-1 Long Call RSRP PLOT**

### Airtel LC MO



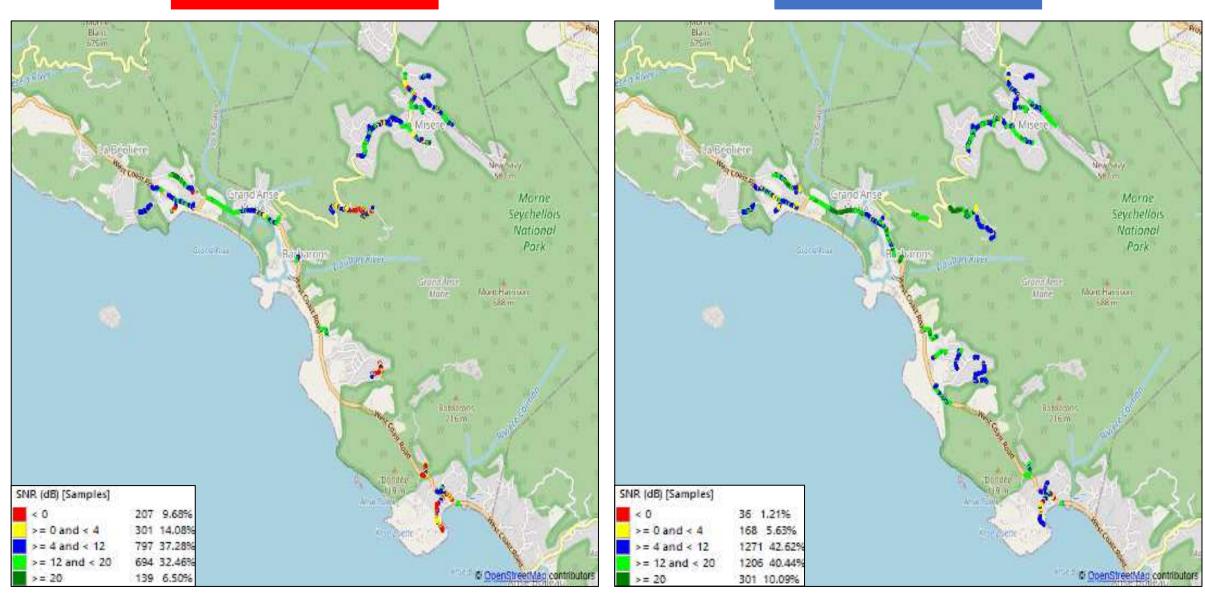
## **Phase-2 Long Call RSRP PLOT**

### Airtel LC MO



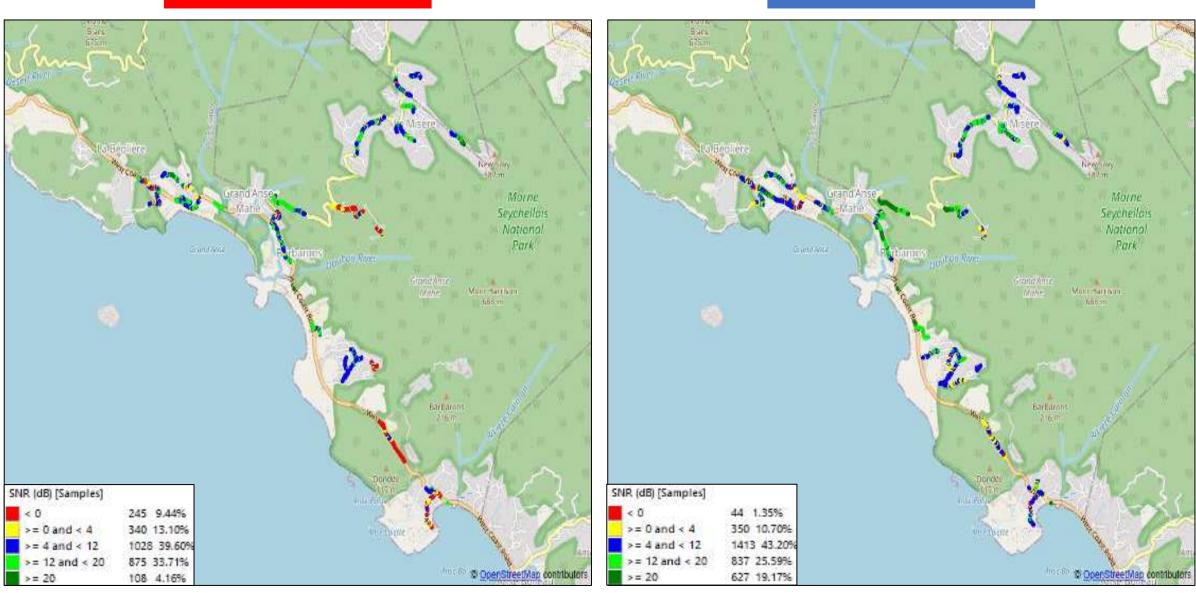
## **Phase-1 Long Call SINR PLOT**

#### **Airtel LC MO**



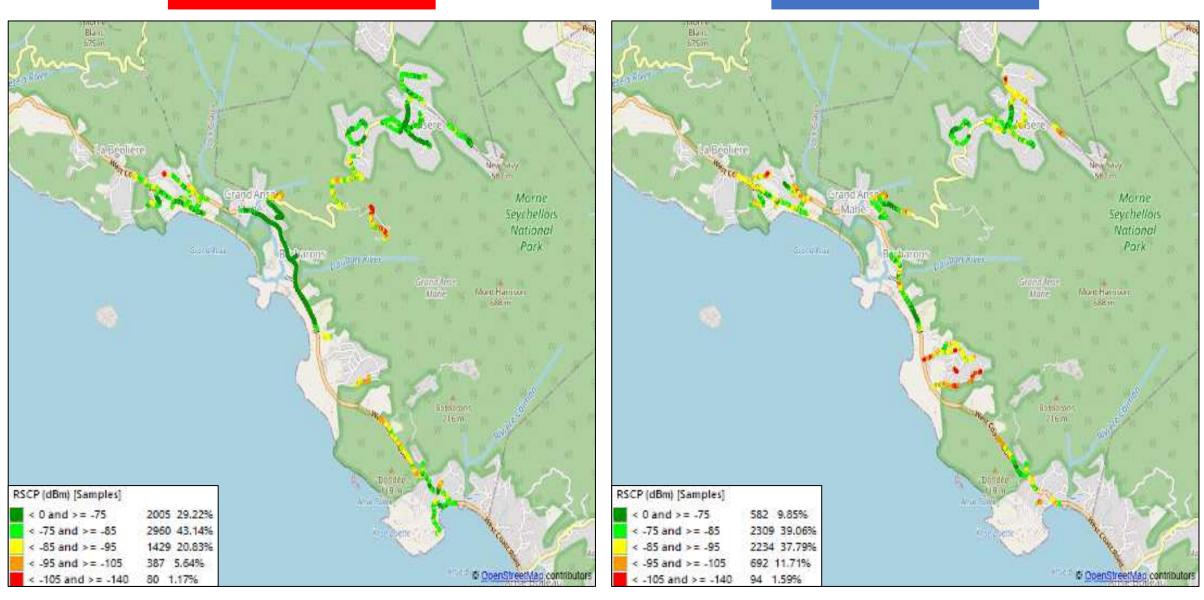
## **Phase-2 Long Call SINR PLOT**

#### **Airtel LC MO**



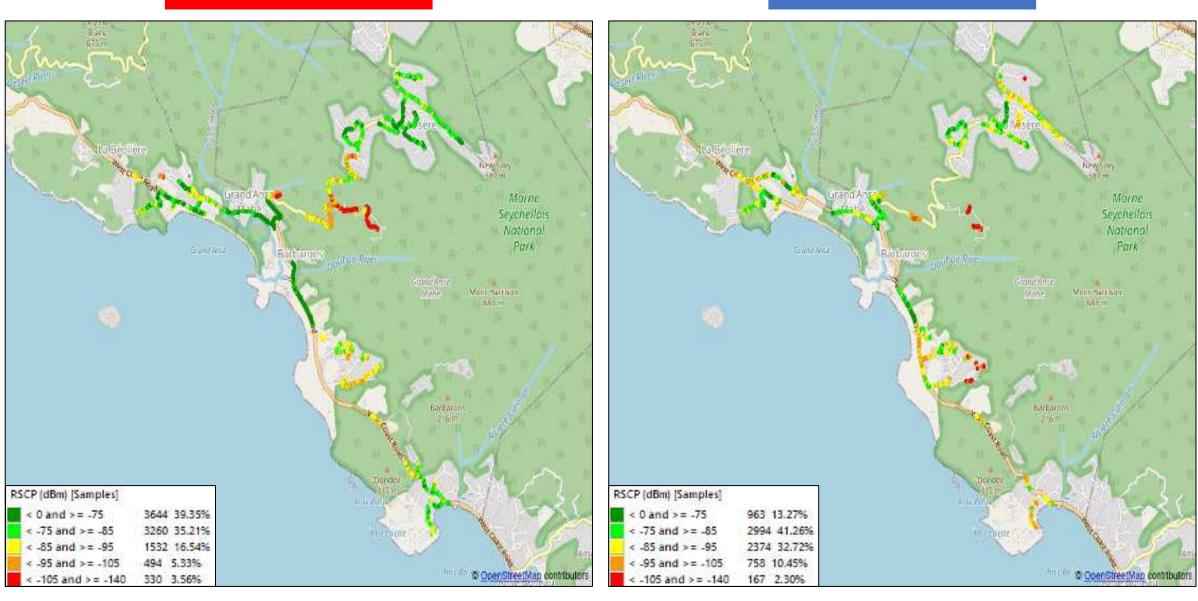
## **Phase-1 Long Call RSCP PLOT**

#### **Airtel LC MO**



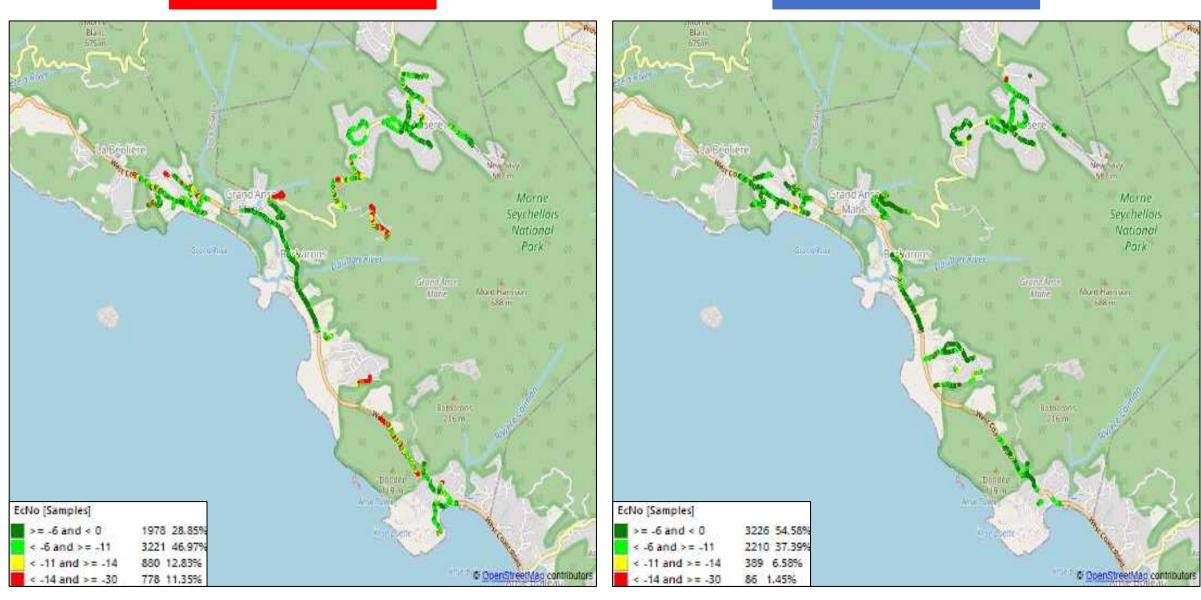
## **Phase-2 Long Call RSCP PLOT**

#### **Airtel LC MO**



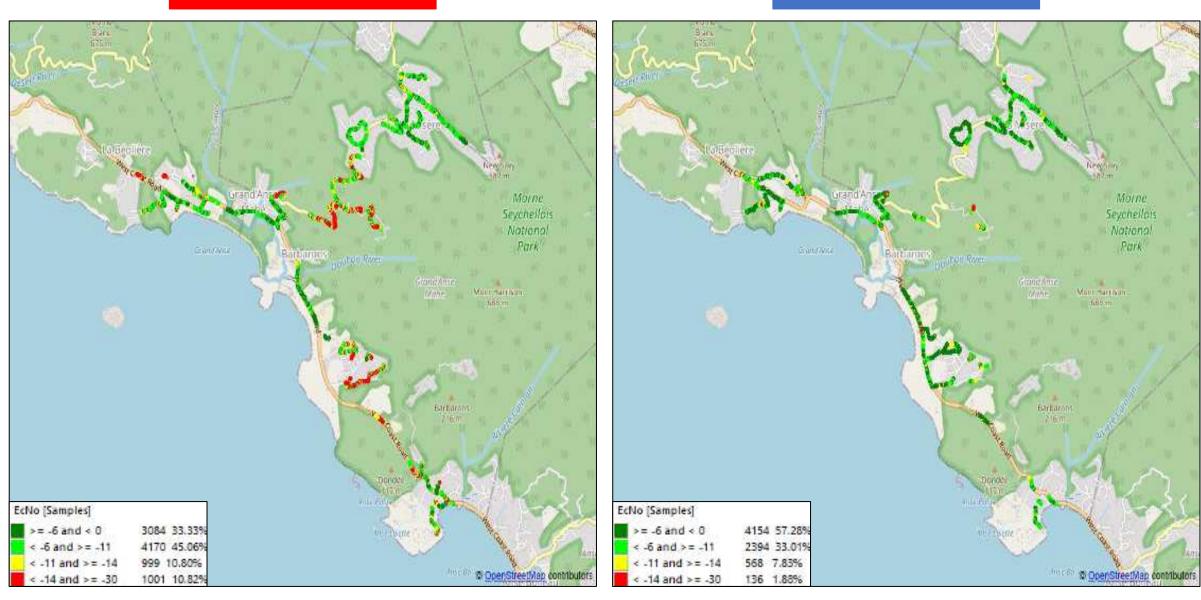
## Phase-1 Long Call EC/NO PLOT

#### **Airtel LC MO**



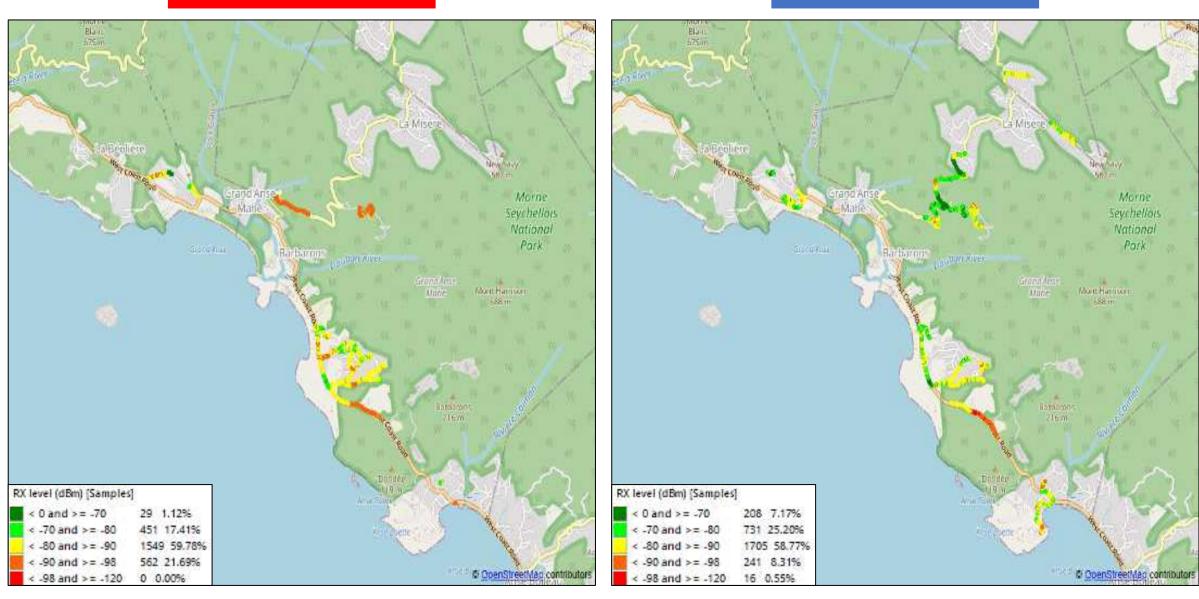
## Phase-2 Long Call EC/NO PLOT

#### **Airtel LC MO**



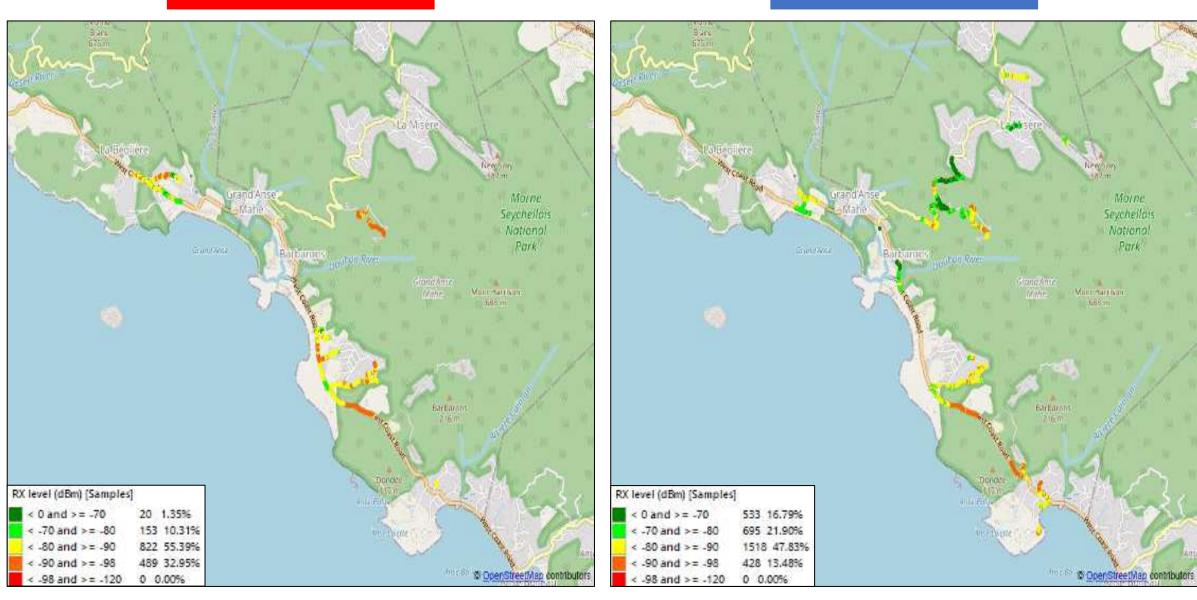
## **Phase-1 Long Call RX level sub PLOT**

#### **Airtel LC MO**



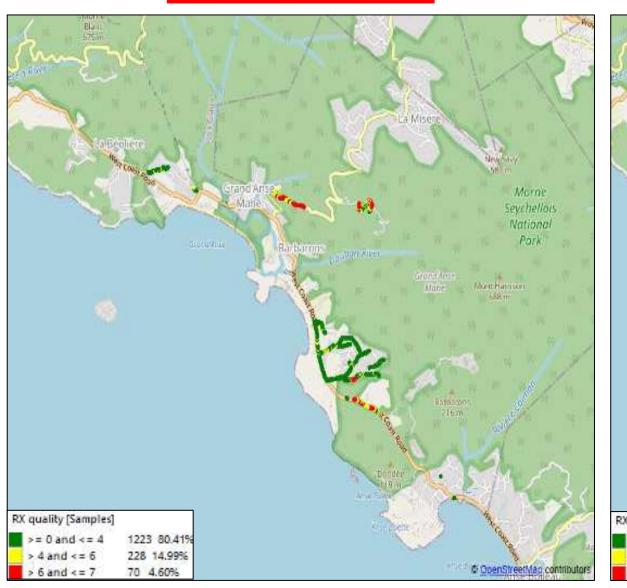
## **Phase-2 Long Call RX level sub PLOT**

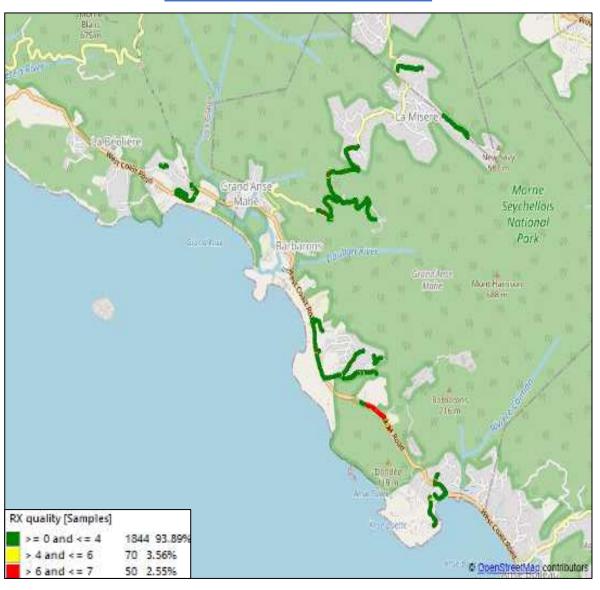
#### **Airtel LC MO**



## **Phase-1 Long Call RX quality sub PLOT**

#### **Airtel LC MO**





## **Phase-2 Long Call RX quality sub PLOT**

#### **Airtel LC MO**

#### **CWS LC MO**

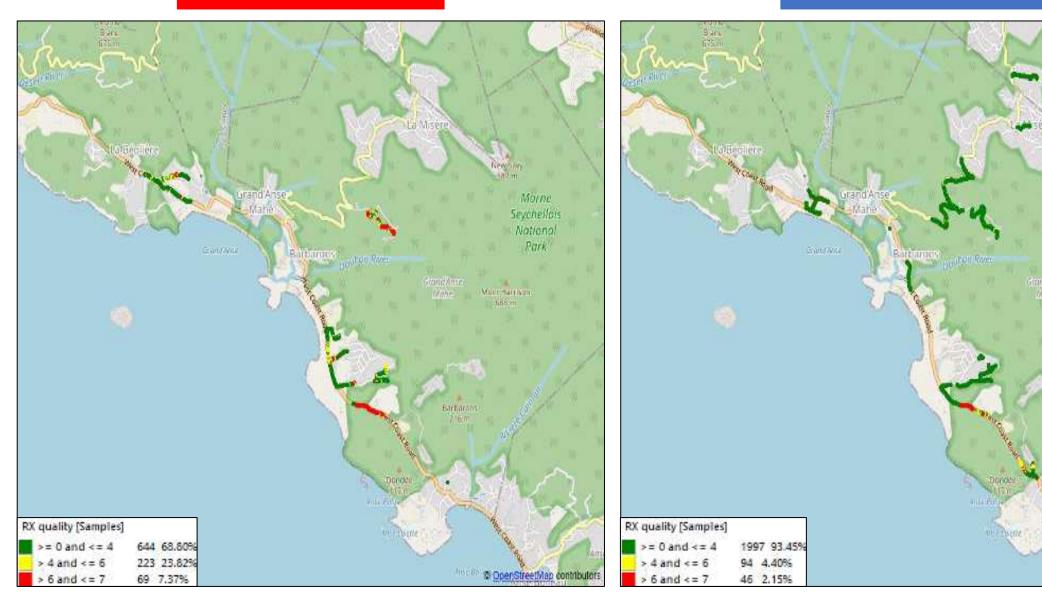
Morne

Seychellois

National

Park

OpenStreetMap contributor

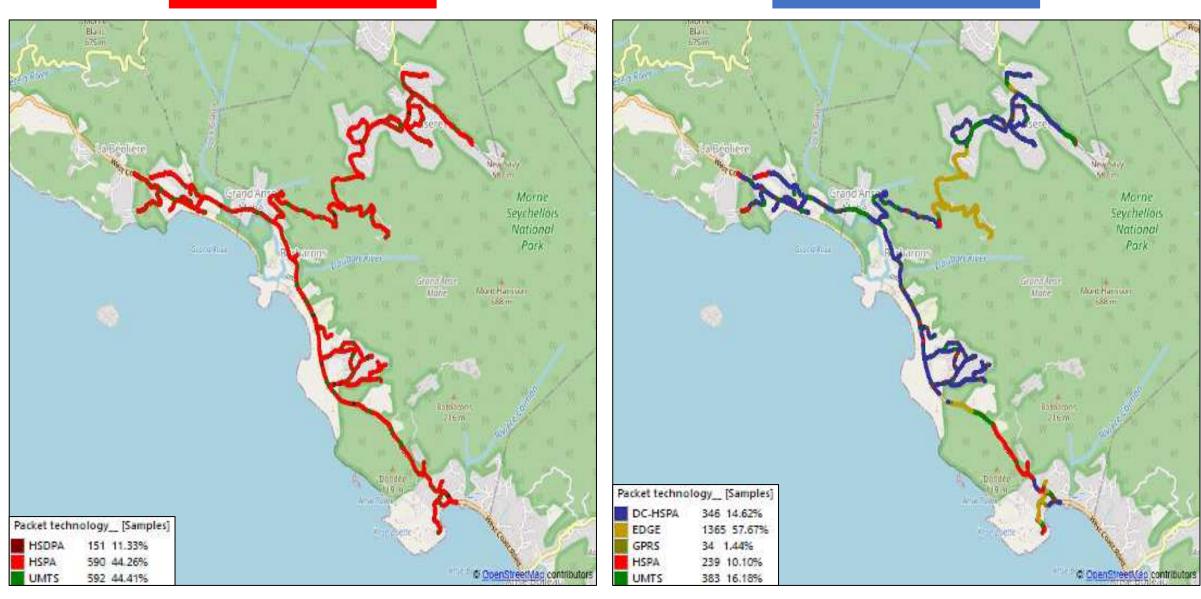




## **3G PREFERRED DATA DRIVE PLOTS**

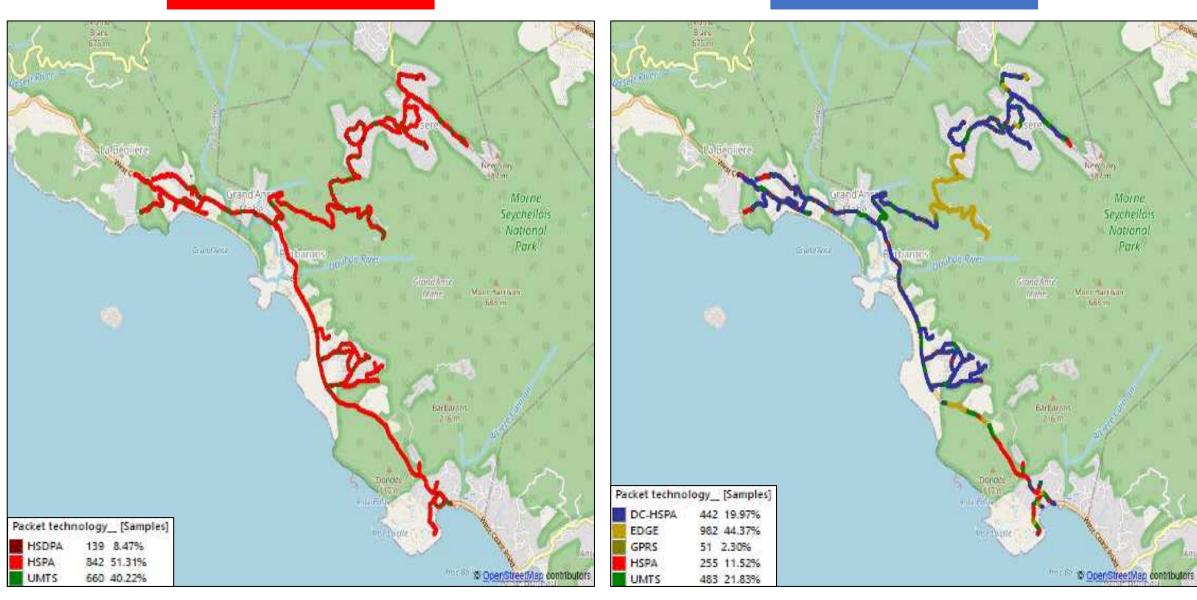
## Phase-1 3G PREFERRED DATA TEST - TECHNOLOGY PLOT

Airtel Data 3G



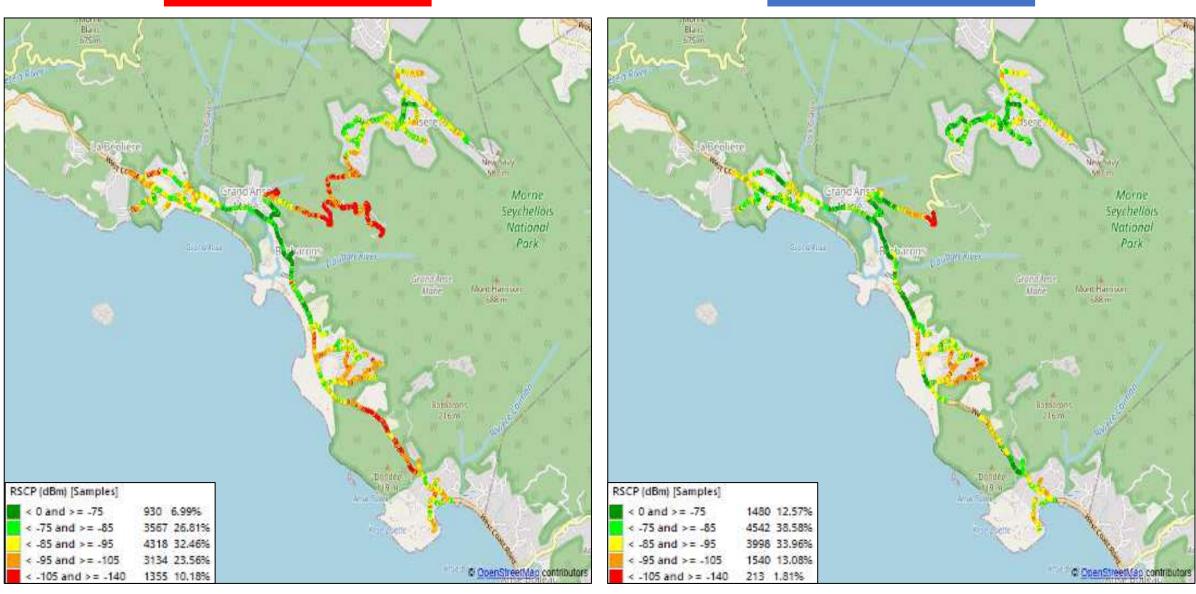
## Phase-2 3G PREFERRED DATA TEST - TECHNOLOGY PLOT

#### Airtel Data 3G



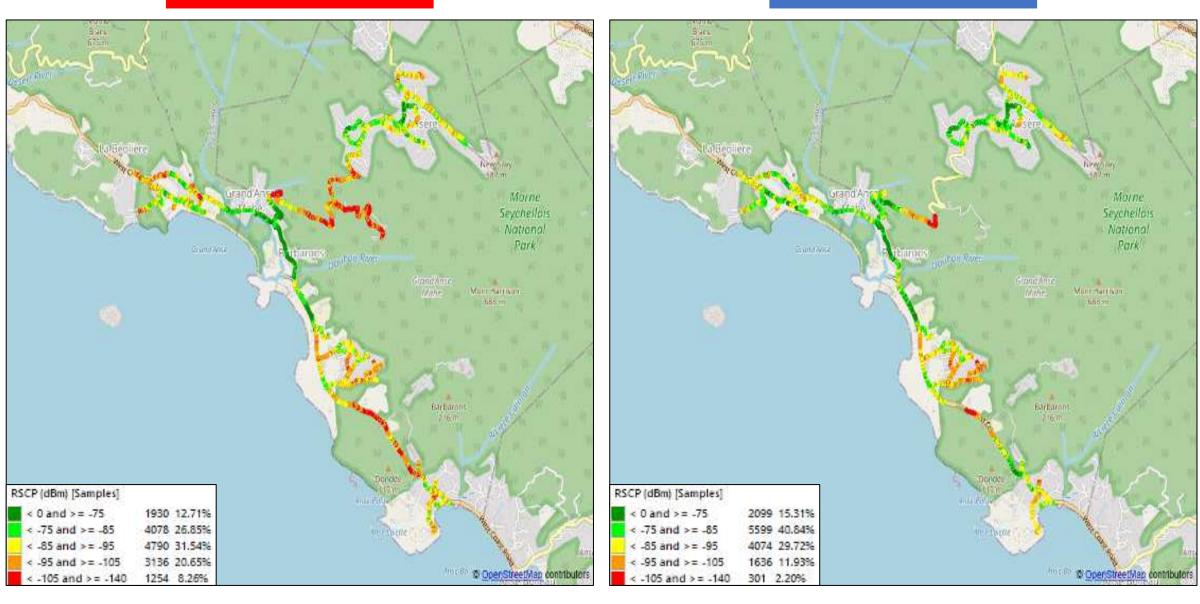
## Phase-1 3G PREFERRED DATA TEST - RSCP PLOT





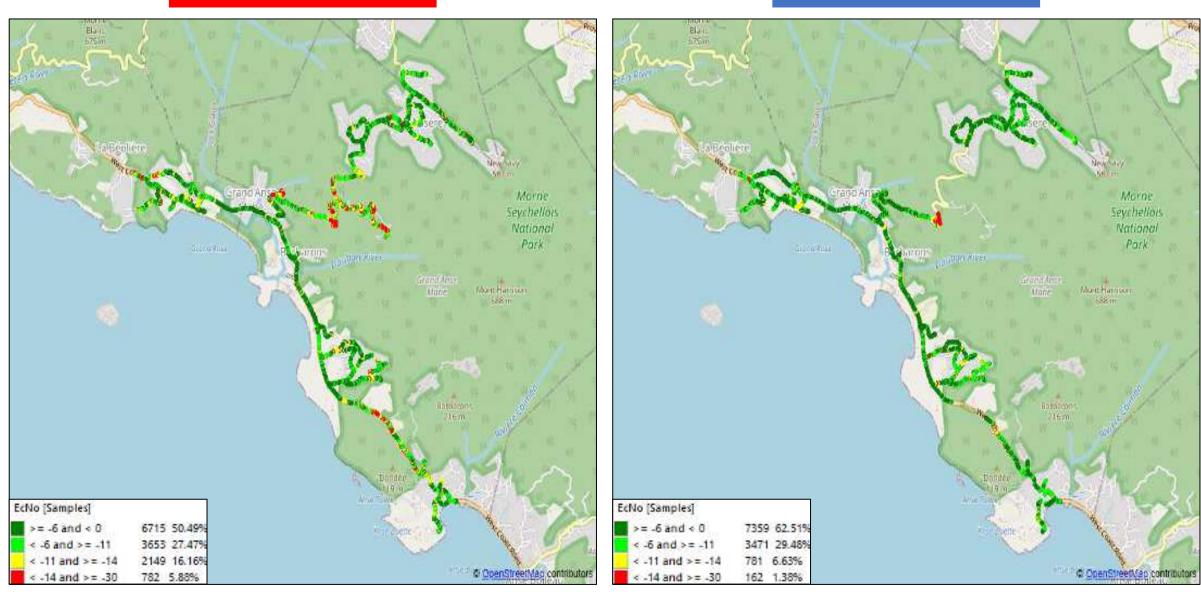
#### Phase-2 3G PREFERRED DATA TEST - RSCP PLOT

#### **Airtel Data 3G**



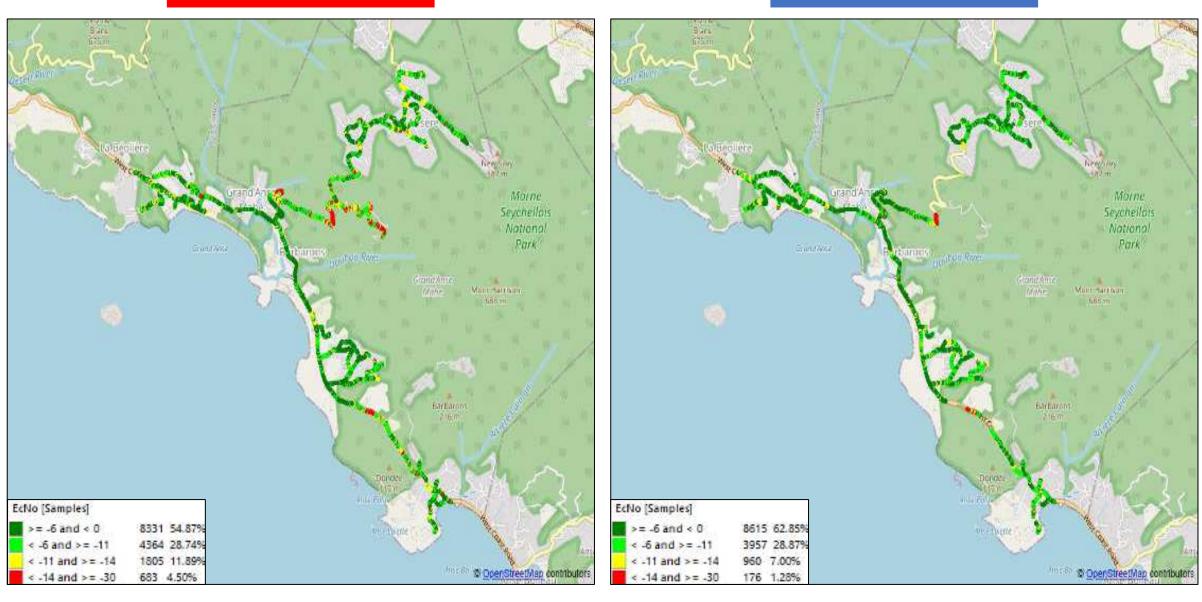
## Phase-1 3G PREFERRED DATA TEST - EC/NO PLOT

#### Airtel Data 3G



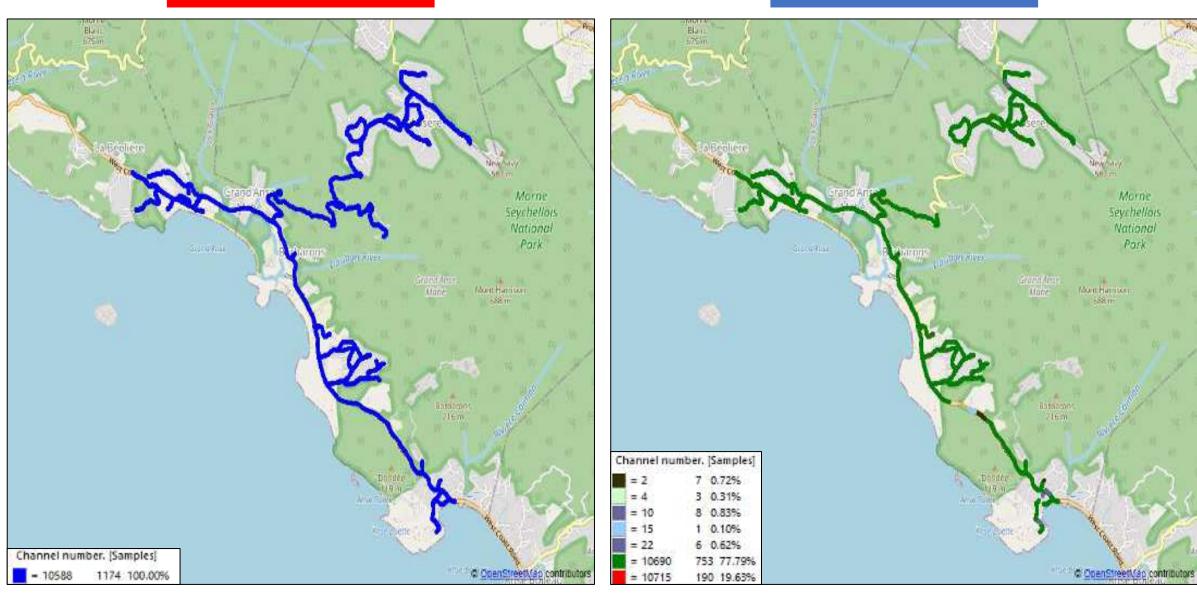
## Phase-2 3G PREFERRED DATA TEST - EC/NO PLOT

#### Airtel Data 3G



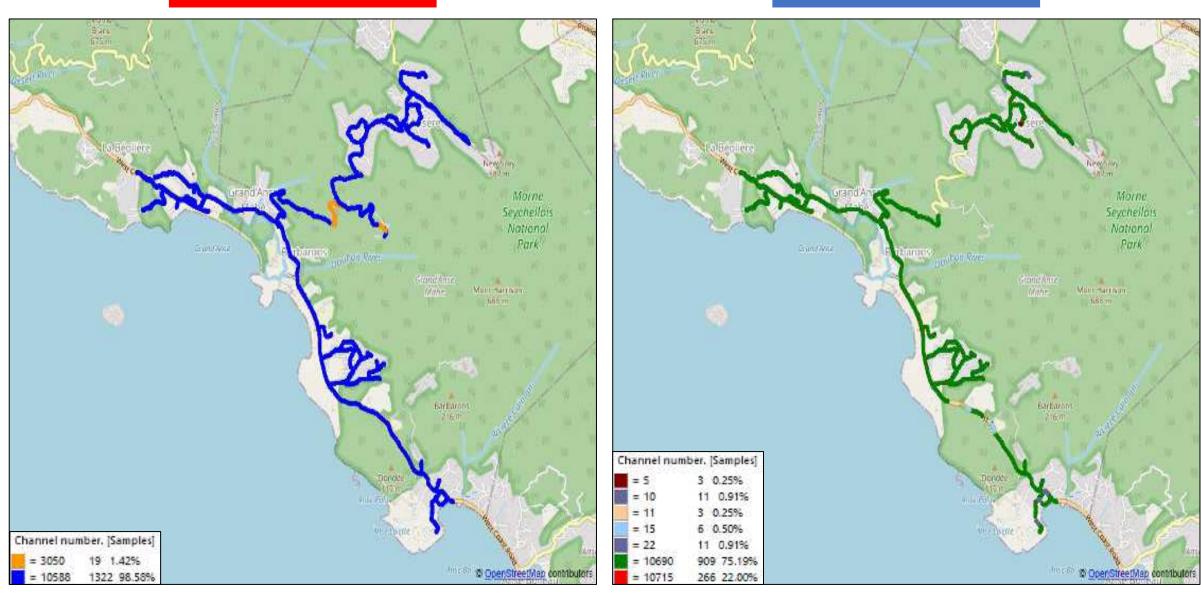
## Phase-1 3G PREFERRED DATA TEST - UARFCN PLOT

## Airtel Data 3G



## Phase-2 3G PREFERRED DATA TEST - UARFCN PLOT

Airtel Data 3G

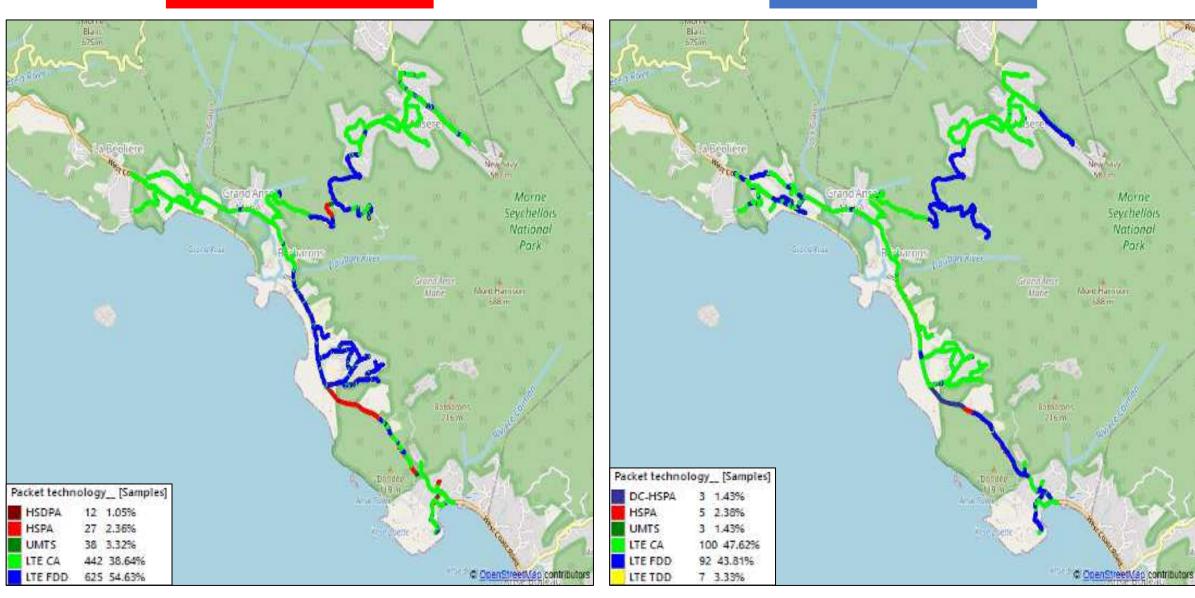




# 4G PREFERRED DATA DRIVE PLOTS

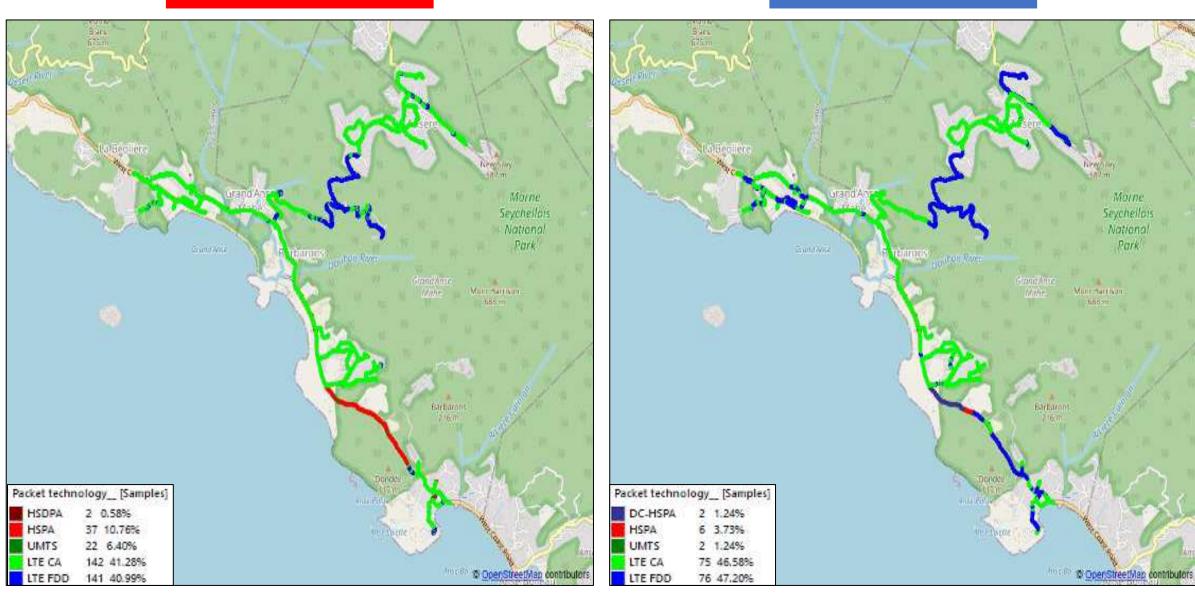
#### **Phase-1 4G PREFERRED DATA TEST - TECHNOLOGY PLOT**





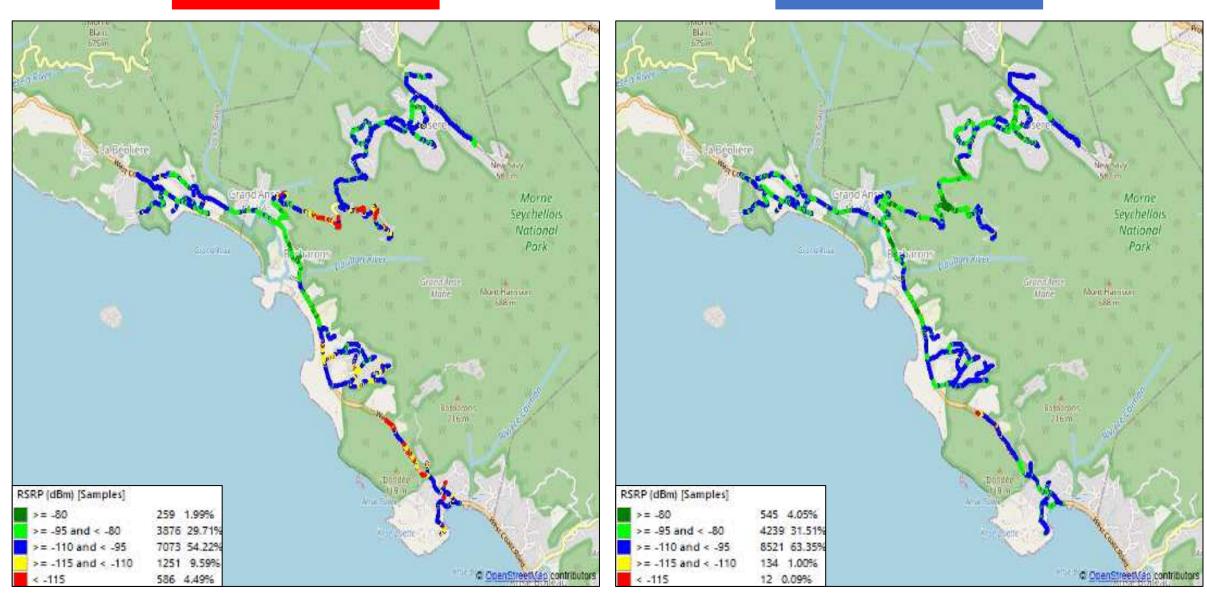
#### **Phase-2 4G PREFERRED DATA TEST - TECHNOLOGY PLOT**





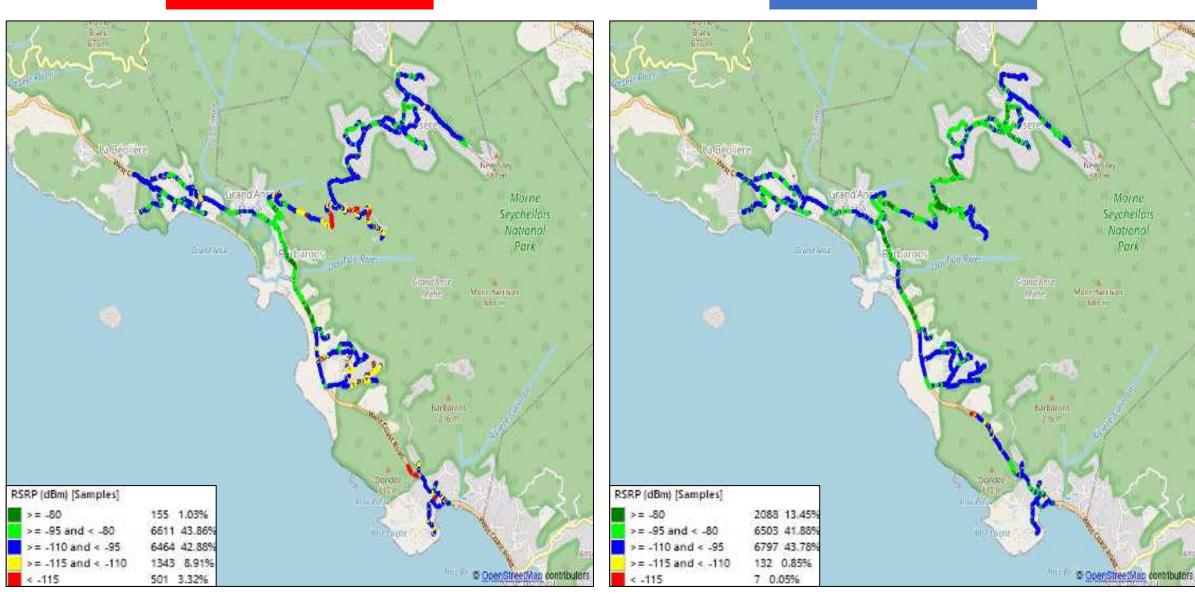
## Phase-1 4G PREFERRED DATA TEST - RSRP PLOT

#### Airtel Data 4G



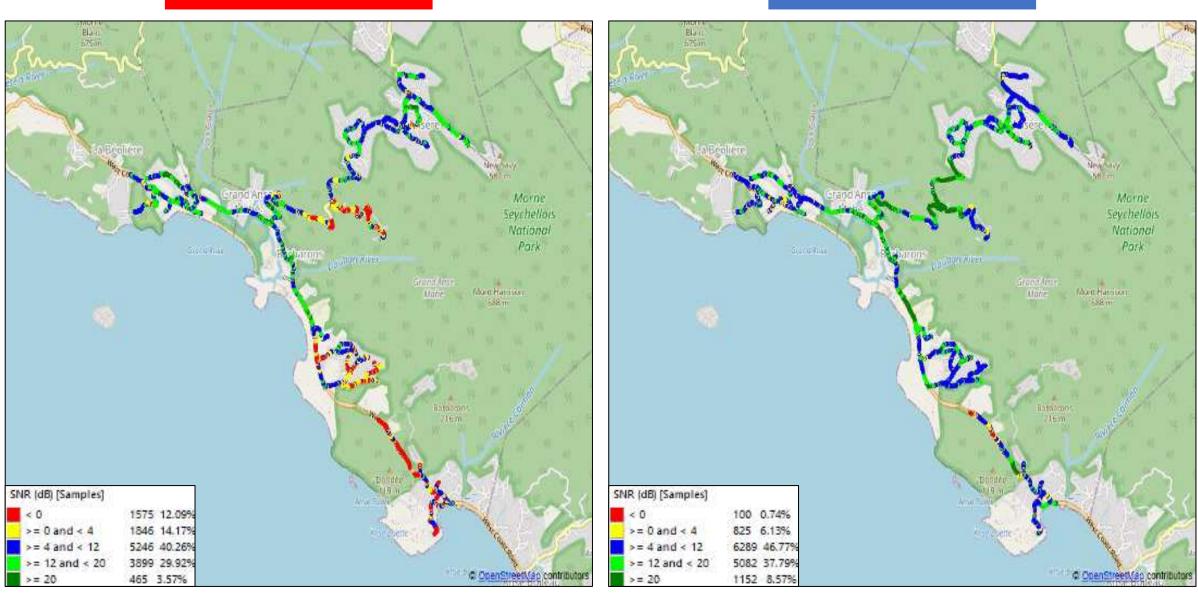
#### Phase-2 4G PREFERRED DATA TEST - RSRP PLOT

#### Airtel Data 4G



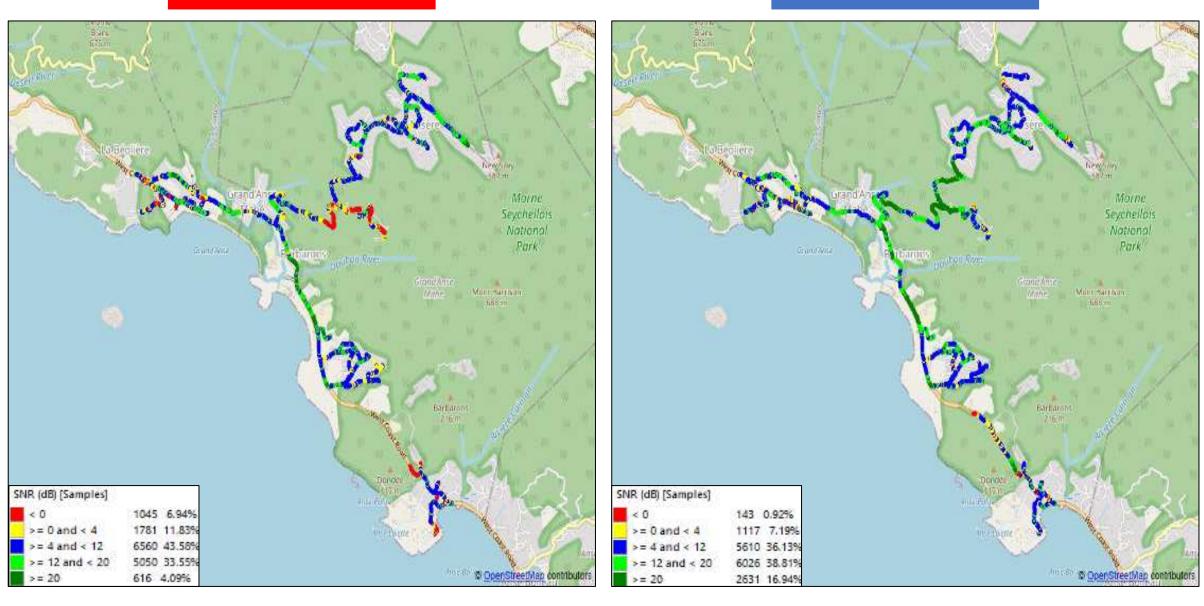
## Phase-1 4G PREFERRED DATA TEST - SINR PLOT

#### Airtel Data 4G



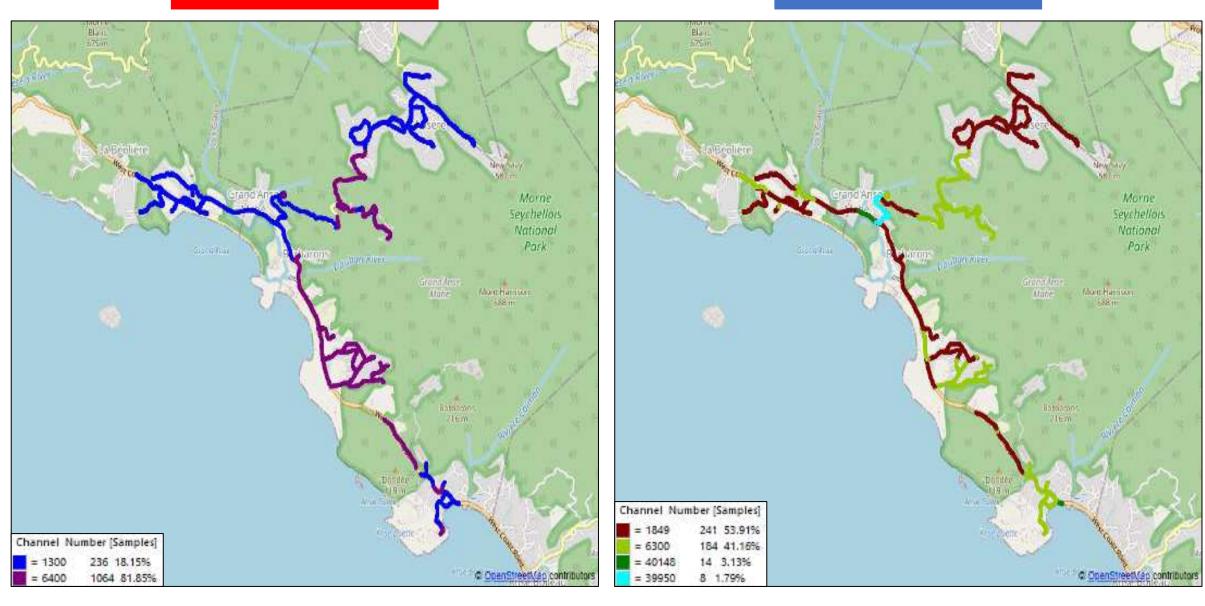
## Phase-2 4G PREFERRED DATA TEST - SINR PLOT

#### **Airtel Data 4G**



## Phase-1 4G PREFERRED DATA TEST - FREQUENCY BAND PLOT

#### Airtel Data 4G



## Phase-2 4G PREFERRED DATA TEST - FREQUENCY BAND PLOT

#### Airtel Data 4G

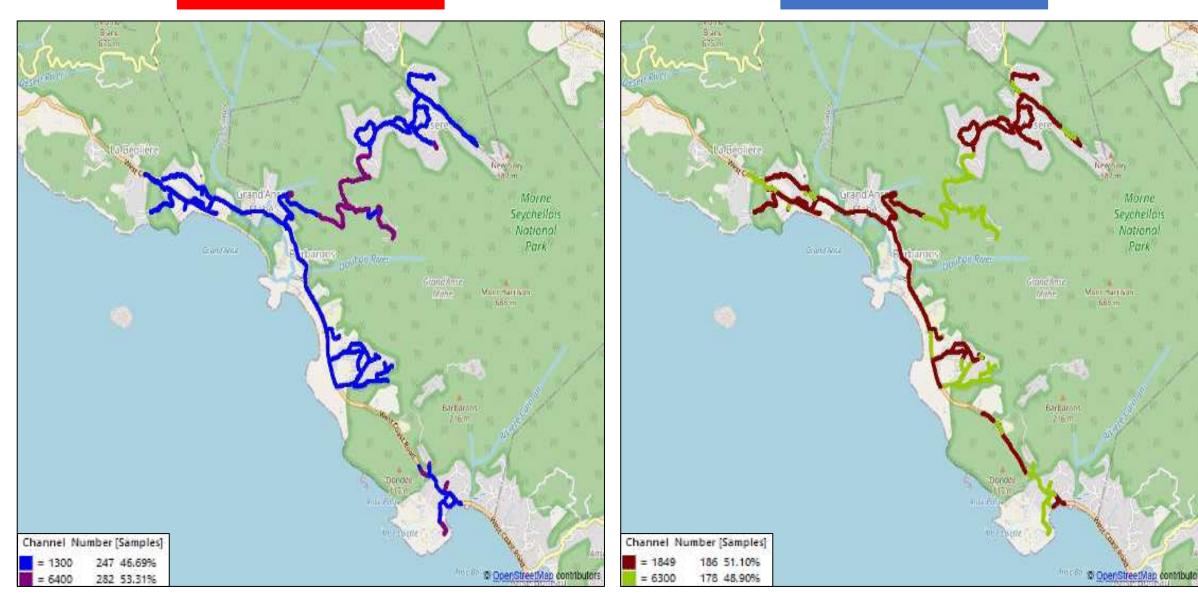
#### **CWS Data 4G**

Morne

Seychellois

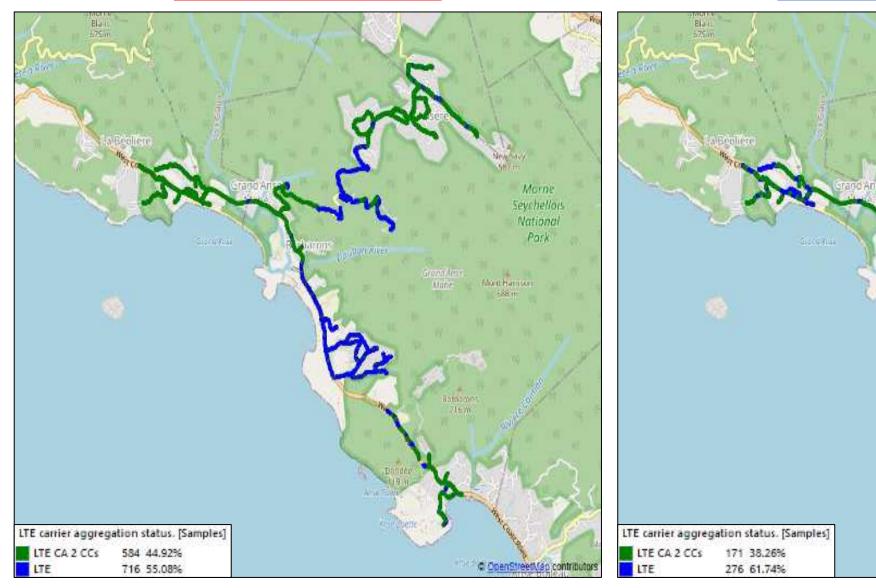
National

Park



#### Phase-1 4G PREFERRED DATA TEST - CARRIER AGGREGATION PLOT

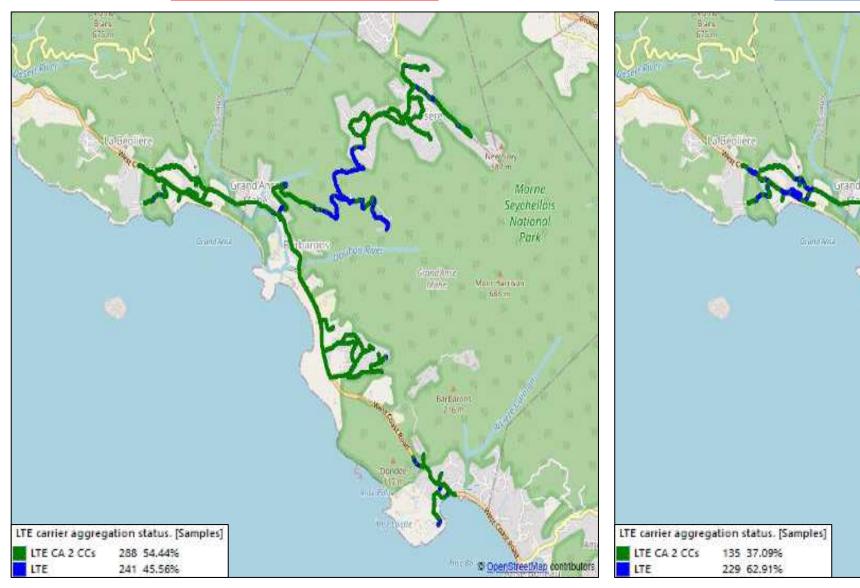
#### **Airtel Data 4G**





## Phase-2 4G PREFERRED DATA TEST - CARRIER AGGREGATION PLOT

#### **Airtel Data 4G**





## Phase-1 4G PREFERRED DATA TEST – BANDWIDTH PLOT

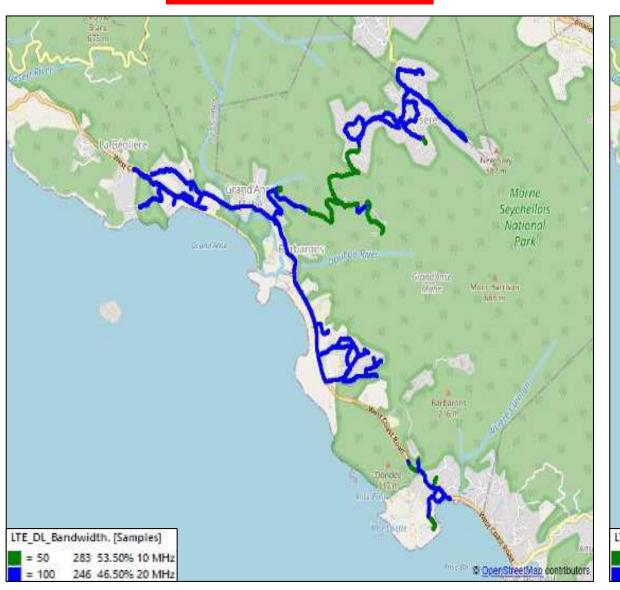
#### Airtel Data 4G

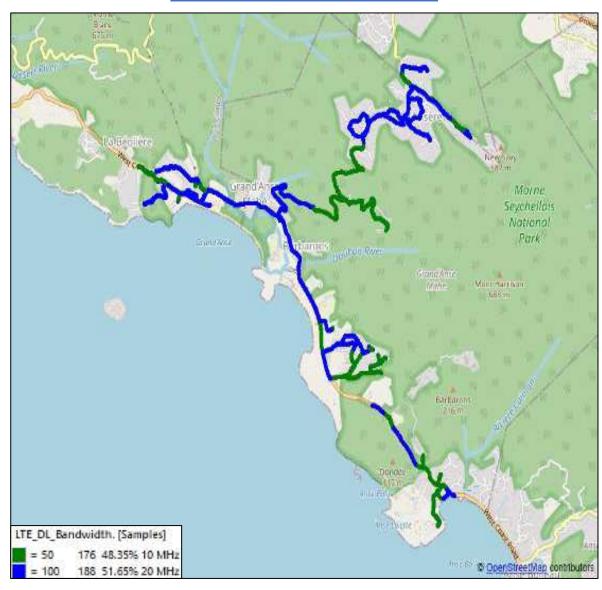




## Phase-2 4G PREFERRED DATA TEST – BANDWIDTH PLOT

#### Airtel Data 4G







# **Negative Event Analysis**



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

Call Attempt Failure cause from Airtel	Count			
Total Call Attempt Failure	4			
Poor Coverage	3			
Network End	1			

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

Call Drop cause from Airtel	Count
Total Call Drop	0

Call Drop cause from CWS	Count
Total Call Drop	1
Poor Coverage	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		4000	Event ID	System	Transf. dir.	Time	Subchannel	Message name
1,	15:05:07.332	UMTS FDD	900	Dro	5604.	-87.3	15:04:24.089	3050	307	ASSESSED NO.		16659.	RRCSM	UMTS FDD	Downlink	15:04:59.590	DCCH	MEASUREMENT_CONTROL
2.	15:27:32.614	UMTS FDD	2100	Nor	5605,		15:04:24.089	3050	307	-6.3		16660.	RRCSM	UMTS FDD	Downlink	15:04:59,630	DCCH	DOWNLINK_DIRECT_TRANSFER
3.	15:34:02.356	UMTS FDD	2100	Nor	5606.	-96.8	15:04:24.422	3050	307			16661.	L3SM	UMTS FDD	Downlink	15:04:59.630	DCCH	AUTHENTICATION_REQUEST
4,	16:03:48.087	UMTS FDD	900	Call	5607.		15:04:24.422	3050	307	-11.2	- 6	16662.	RRCSM	UMTS FDD	Uplink	15:04:59.682	DCCH	MEASUREMENT_REPORT
					5608.	-89.8	15:04:25.100	3050	307			16663.	RRCSM	UMTS FDD	Uplink	15:04:59.760	DCCH	UPLINK_DIRECT_TRANSFER
					5609.		15:04:25.100	3050	307	-7.1		16664.	L3SM	UMTS FDD	Uplink	15:04:59.760	DCCH	AUTHENTICATION_RESPONSE
					5610.	-87	15:04:25.422	3050	307			16665.	RRCSM	UMTS FDD	Downlink	15:04:59.850	DCCH	SECURITY_MODE_COMMAND
					5611.		15:04:25.422	3050	307	-6.2	2	16666.	RRCSM	UMTS FDD	Uplink	15:04:59.851	DCCH	SECURITY_MODE_COMPLETE
					5612.	-88.9	15:04:26,090	3050	307			16667.	RRCSM	UMTS FDD	Uplink	15:04:59,932	DCCH	MEASUREMENT_REPORT
					5613.		15:04:26.090	3050	307	-7		16668.	RRCSM	UMTS FDD	Downlink	15:04:59.951	DCCH	DOWNLINK_DIRECT_TRANSFER
					5614.	-89.2	15:04:26.424	3050	307			16669.	L3SM	UMTS FDD	Downlink	15:04:59.951	DCCH	IDENTITY_REQUEST
				- 1	5615.		15:04:26.424	3050	307	-6.6		16670.	RRCSM	UMTS FDD	Uplink	15:04:59.951	DCCH	UPLINK_DIRECT_TRANSFER
					5616.	-101.1	15:04:27.100	3050	307			16671.	L3SM	UMTS FDD	Uplink	15:04:59.951	DCCH	IDENTITY_RESPONSE
					5617.		15:04:27.100	3050	307	-15.5	- 13	16672.	RRCSM	UMTS FDD	Downlink	15:05:00.070	DCCH	DOWNLINK_DIRECT_TRANSFER
					5618.	-93	15:04:27.596	3050	307			16673.	L3SM	UMTS FDD	Downlink	15:05:00.070	DCCH	LOCATION_UPDATING_ACCEPT
					5619.		15:04:27.596	3050	307	-10.8		16674.	RRCSM	UMTS FDD	Uplink	15:05:00.072	DCCH	UPLINK_DIRECT_TRANSFER
					5620.	-87	15:04:59.342	3050	307		3	16675.	L3SM	UMTS FDD	Uplink	15:05:00.072	DCCH	CM_SERVICE_REQUEST
					5621.		15:04:59.342	3050	307	-7		16676.	RRCSM	UMTS FDD	Downlink	15:05:00.180	DCCH	DOWNLINK_DIRECT_TRANSFER
					5622.	-87	15:04:59,732	3050	307	1	-	16677.	L3SM	UMTS FDD	Downlink	15:05:00.180	DCCH	CM_SERVICE_ACCEPT
					5623.		15:04:59.732	3050	307	-7.1		16678.	RRCSM	UMTS FDD	Uplink	15:05:00.181	DCCH	UPLINK_DIRECT_TRANSFER
					5624.	-87	15:05:00.420	3050	307		-	16679.	L3SM	UMTS FDD	Uplink	15:05:00.181	DCCH	SETUP
					5625.		15:05:00.420	3050	307	-6.3		16680.	RRCSM	UMTS FDD	Downlink	15:05:00.310	DCCH	DOWNLINK_DIRECT_TRANSFER
					5626.	-87	15:05:00.987	3050	307			16681.	L3SM	UMTS FDD	Downlink	15:05:00.310	DCCH	CALL_PROCEEDING
					5627.		15:05:00.987	3050	307	-5,5		16682.	RRCSM	UMTS FDD	Downlink	15:05:00.440	DCCH	RADIO_BEARER_SETUP
					5628.	-87	15:05:01.421	3050	307		3	16683.	RRCSM	UMTS FDD	Uplink	15:05:00.802	DCCH	MEASUREMENT_REPORT
					5629.	C/16/	15:05:01.421	3050	307	-8.9		16684.	RRCSM	UMTS FDD	Uplink	15:05:00.803	DCCH	RADIO_BEARER_SETUP_COMPLETE
					5630,	-87	15:05:01.731	3050	307		B	16685,	RRCSM	UMTS FDD	Uplink	15:05:00.987	DCCH	MEASUREMENT_REPORT
					5631.		15:05:01.731	3050	307	-6.9	3	16686.	RRCSM	UMTS FDD	Uplink	15:05:00.987	DCCH	MEASUREMENT_REPORT
					5632.	-87	15:05:02.423	3050	307			16687.	RRCSM	UMTS FDD	Downlink	15:05:01.171	DCCH	RADIO_BEARER_RECONFIGURATION
					5633,		15:05:02,423	3050	307	-7,1		16688.	RRCSM	UMTS FDD	Downlink	15:05:01.211	DCCH	DOWNLINK_DIRECT_TRANSFER
					5634.	-88.6	15:05:02.732	3050	307			16689.	L3SM	UMTS FDD	Downlink	15:05:01.211	DCCH	PROGRESS
					5635.		15:05:02.732	3050	307	-10.1		16690.	RRCSM	UMTS FDD	Uplink	15:05:01.213	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
					5636.	-89.7	15:05:03.492	3050	307			16691.	RRCSM	UMTS FDD	Downlink	15:05:07.331	DCCH	DOWNLINK_DIRECT_TRANSFER
					5637.		15:05:03.492		307	-7.8		16692.	L3SM	UMTS FDD		15:05:07.331		DISCONNECT
					5638.	-94	15:05:04.221	3050	307			16693.	RRCSM	UMTS FDD	Uplink	15:05:07,332	DCCH	UPLINK_DIRECT_TRANSFER
					5639.	200	15:05:04.221	3050	307	-10.2		16694.	L3SM	UMTS FDD	Uplink	15:05:07.332	DCCH	RELEASE
					5640.	-92	15:05:04.474	3050	307	0.000	٠	16695,	RRCSM	UMTS FDD	Downlink	15:05:07.531	DCCH	MEASUREMENT_CONTROL

#### **Analysis:**

- This call failure event occurred on short call at 15:05:07:332 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 307 and RF condition RSCP -87 dBm and Ec/No -7.1 dB both are good.
- Need to check at MT end.



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

	Time	Cell type	Band	Band (MHz)	Ch	PCI	RSRP	SNR	*		Event ID	System	Transf. dir.	Time	Subchannel	Message name
7342.	15:04:56.525							10.8		16580.	L3SM	LTE FDD	Uplink	15:05:03.174		PDN_CONNECTIVITY_REQUEST
7343.	15:04:58.440	Serving	B20	800	6400	143	-97.1			16581.	RRCSM	LTE FDD	Uplink	15:05:03.174	CCCH	RRCConnectionRequest
7344.	15:04:59.501									16582.	RRCSM	LTE FDD	Downlink	15:05:03.225	CCCH	RRCConnectionSetup
7345.	15:05:00.529	Serving	B20	800	6400	143	-97.1			16583.	RRCSM	LTE FDD	Uplink	15:05:03.229	DCCH	RRCConnectionSetupComplete
7346.	15:05:03.639	Serving	820	800	6400	143	-97.8			16584.	RRCSM	LTE FDD	Downlink	15:05:03.271	DCCH	DLInformationTransfer
7347.	15:05:03.639							9.5		16585.	L3SM	LTE FDD	Downlink	15:05:03.271		ESM_INFORMATION_REQUEST
7348.	15:05:03.922	Serving	B20	800	6400	143	-95.7			16586.	L3SM	LTE FDD	Uplink	15:05:03.271		ESM_INFORMATION_RESPONSE
7349.	15:05:03.922							10.1		16587.	RRCSM	LTE FDD	Uplink	15:05:03.272	DCCH	ULInformationTransfer
7350.	15:05:04.651	Serving	B20	800	6400	143	-96			16588.	RRCSM	LTE FDD	Downlink	15:05:03.376	DCCH	SecurityModeCommand
7351.	15:05:04.651							11.9		16589.	RRCSM	LTE FDD	Uplink	15:05:03.377	DCCH	SecurityModeComplete
7352.	15:05:05.127	Serving	B20	800	6400	143	-95,7			16590.	RRCSM	LTE FDD	Downlink	15;05:03.392	DCCH	UECapabilityEnquiry
7353.	15:05:05.127							12.3		16591.	RRCSM	LTE FDD	Uplink	15:05:03.395	DCCH	UECapabilityInformation
7354.	15:05:05.634	Serving	B20	800	6400	143	-97.1			16592.	RRCSM	UMTS FDD	Uplink	15:05:03.395		INTER_RAT_HANDOVER_INFO
7355.	15:05:05.634							11.6		16593.	RRCSM	LTE FDD	Downlink	15:05:03,419	DCCH	RRCConnectionReconfiguration
7356.	15:05:06.172	Serving	B20	800	6400	143	-96.9			16594.	RRCSM	LTE FDD	Uplink	15:05:03.430	DCCH	RRCConnectionReconfigurationComplete
7357.	15:05:06.172							11.2		16595.	L3SM	LTE FDD	Downlink	15:05:03.430		ACTIVATE_DEFAULT_EPS_BEARER_CONTEXT_REQUEST
7358.	15:05:06.616	Serving	B20	800	6400	143	-95.3			16596.	L3SM	LTE FDD	Downlink	15:05:03.430		ATTACH_ACCEPT
7359.	15:05:06.616							12		16597,	L3SM	LTE FDD	Uplink	15:05:03.435		ATTACH_COMPLETE
7360.	15:05:07.163	Serving	B20	800	6400	143	-95,6			16598.	L3SM	LTE FDD	Uplink	15:05:03.435		ACTIVATE_DEFAULT_EPS_BEARER_CONTEXT_ACCEPT
7361.	15:05:07.163							11.8		16599.	RRCSM	LTE FDD	Uplink	15:05:03.436	DCCH	ULInformationTransfer
7362.	15:05:07.758	Serving	B20	800	6400	143	-96		$\Box$	16600.	RRCSM	LTE FDD	Downlink	15:05:03.465	DCCH	DLInformationTransfer
7363.	15:05:07.758							10.2		16601.	L3SM	LTE FDD	Downlink	15:05:03.465		EMM_INFORMATION
7364.	15:05:08.282	Serving	B20	800	6400	143	-97.9			16602.	RRCSM	LTE FDD	Uplink	15:05:03.557	DCCH	MeasurementReport
7365.	15:05:08.282							10.1		16603.	RRCSM	LTE FDD	Downlink	15:05:03.581	DCCH	RRCConnectionReconfiguration
7366.	15:05:08.724	Serving	B20	800	6400	143	-97.9			16604.	RRCSM	LTE FDD	Uplink	15:05:03.597	DCCH	RRCConnectionReconfigurationComplete
7367.	15:05:08.724							10.6		16605.	RRCSM	LTE FDD	Downlink	15:05:18.279	DCCH	RRCConnectionRelease
7368.	15:05:09.324	Serving	B20	800	6400	143	-98.1			16606.	RRCSM	LTE FDD	Downlink	15:05:23.484	PCCH	Paging
7369.	15:05:09.324							8.8		16607.	L3SM	LTE FDD	Uplink	15:05:23,485		SERVICE_REQUEST
7370.	15:05:09.721	Serving	B20	800	6400	143	-96.9			16608.	RRCSM	LTE FDD	Uplink	15:05:23.485	CCCH	RRCConnectionRequest
7371.	15:05:09.721							10.3		16609.	RRCSM	LTE FDD	Downlink	15:05:23.545	CCCH	RRCConnectionSetup
7372.	15:05:10.417	Serving	B20	800	6400	143	-98.8			16610.	RRCSM	LTE FDD	Uplink	15:05:23.549	DCCH	RRCConnectionSetupComplete
7373.	15:05:10.417							9.8		16611.	RRCSM	LTE FDD	Downlink	15:05:23.584	DCCH	SecurityModeCommand
7374.	15:05:10.810	Serving	B20	800	6400	143	-96.6			16612.	RRCSM	LTE FDD	Uplink	15:05:23.585	DCCH	SecurityModeComplete
7375.	15:05:10.810							8.8		16613.	RRCSM	LTE FDD	Downlink	15:05:23.588	DCCH	RRCConnectionReconfiguration
7376.	15:05:11.382	Serving	B20	800	6400	143	-97.4	ENC APP		16614.	RRCSM	LTE FDD	Uplink	15:05:23.601	DCCH	RRCConnectionReconfigurationComplete
7377.	15:05:11.382							7.5		16615.	RRCSM	LTE FDD	Downlink	15:05:23.623	DCCH	UECapabilityEnquiry

#### **Analysis:**

- On MT End, During the setup fail, UE was latched with PCI 85 and RF condition RSRP -95.6 dBm and SINR 11.8 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 Attempt Failure Analysis 2 From MS5 Airtel MO

10-	Time	System	Serving band			1. best active RSCP	Time	Ch	SC	1. best			Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	15:05:07.332	UMTS FDD	900	Dro	7542.		15:27:25.224	10562	328	-13.1	2	22541.	RRCSM	UMTS FDD	Uplink	15:27:14.105	DCCH	MEASUREMENT_REPORT
2.	15:27:32.614	UMTS FDD	2100	Nor	7543.	-120.5	15:27:25.902	10562	328		2	22542	RRCSM	UMTS FDD	Downlink	15:27:14.380	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
3.	15:34:02:356	UMTS FDD	2100	Nor	7544.		15:27:25.902	10562	328	-21.6	2	22543.	RRCSM	UMTS FDD	Uplink	15:27:14.642	DCCH	MEASUREMENT_REPORT
4.	16:03:48.087	UMTS FDD	900	Call	7545	-103.9	15:27:26.313	10562	328		2	22544.	RRCSM	UMTS FDD	Uplink	15:27:14.705	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_COMPLETE
	***************************************				7546.		15:27:26,313	10562	328	-13,4	2	22545.	RRCSM	UMTS FDD	Uplink	15:27:14.744	DCCH	MEASUREMENT_REPORT
				ſ	7547.	-109.9	15:27:26.915	10562	328	6000	2	22546.	RRCSM	UMTS FDD	Downlink	15:27:14.860	DCCH	ACTIVE_SET_UPDATE
					7548.		15:27:26.915	10562	328	-8.3	2	22547.	RRCSM	UMTS FDD	Uplink	15:27:14.902	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					7549.	-111.6	15:27:27.372	10562	328		2	22548.	RRCSM	UMTS FDD	Downlink	15:27:15.060	DCCH	MEASUREMENT_CONTROL
					7550,		15:27:27.372	10562	328	-11.7	2	22549.	RRCSM	UMTS FDD	Downlink	15:27:15.180	DCCH	ACTIVE_SET_UPDATE
					7551.	-118.6	15:27:27.983	10562	328		2	22550.	RRCSM	UMTS FDD	Uplink	15:27:15.207	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					7552.		15:27:27.983	10562	328	-19.3	2	22551.	RRCSM	UMTS FDD	Downlink	15:27:15.420	DCCH	MEASUREMENT_CONTROL
					7553.	-114.6	15:27:28.371	10562	328		. 2	22552.	RRCSM	UMTS FDD	Downlink	15:27:15.540	DCCH	SECURITY_MODE_COMMAND
					7554.		15:27:28.371	10562	328	-11	2	22553.	RRCSM	UMTS FDD	Uplink	15:27:15.541	DCCH	SECURITY_MODE_COMPLETE
				- 1	7555.	-106.4	15:27:28.905	10562	328		2	22554.	RRCSM	UMTS FDD	Uplink	15:27:15.605	DCCH	MEASUREMENT_REPORT
					7556.		15:27:28.905	10562	328	.9	2	22555.	RRCSM	UMTS FDD	Downlink	15:27:15.660	DCCH	DOWNLINK_DIRECT_TRANSFER
					7557.	-111.6	15:27:29.427	10562	328		2	22556.	L3SM	UMTS FDD	Downlink	15:27:15.660	DCCH	IDENTITY_REQUEST
					7558,		15:27:29.427	10562	328	-13.6	2	22557.	RRCSM	UMTS FDD	Uplink	15:27:15.661	DCCH	UPLINK_DIRECT_TRANSFER
					7559.	-113	15:27:29.909	10562	328	5.192	2	22558.	L3SM	UMTS FDD	Uplink	15:27:15.661	DCCH	IDENTITY_RESPONSE
					7560.	3 (	15:27:29.909	10562	328	-14	2	22559.	RRCSM	UMTS FDD	Uplink	15:27:15.661	DCCH	UPLINK_DIRECT_TRANSFER
					7561.	-113.4	15:27:30.495	10562	328		2	22560.	L3SM	UMTS FDD	Uplink	15:27:15.661	DCCH	SETUP
					7562.		15:27:30.495	10562	328	-10.5	2	22561.	RRCSM	UMTS FDD	Downlink	15:27:15.860	DCCH	ACTIVE_SET_UPDATE
					7563.	-117.7	15:27:30.945	10562	328		2	22562.	RRCSM	UMTS FDD	Uplink	15:27:15.897	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					7564.		15:27:30.945	10562	328	-13.9	2	22563.	RRCSM	UMTS FDD	Downlink	15:27:15.940	DCCH	DOWNLINK_DIRECT_TRANSFER
					7565.	-112.5	15:27:31.566	10562	328		2	22564.	L35M	UMTS FDD	Downlink	15:27:15.940	DCCH	CALL_PROCEEDING
					7566.		15:27:31.566	10562	328	-14.1	J 2	22565.	RRCSM	UMTS FDD	Uplink	15:27:16.004	DCCH	MEASUREMENT_REPORT
					7567.	-106.9	15:27:32,134	10562	328		2	22566.	RRCSM	UMTS FDD	Downlink	15:27:16.298	DCCH	MEASUREMENT_CONTROL
					7568.		15:27:32.134	10562	328	-10.1	2	22567.	RRCSM	UMTS FDD	Downlink	15:27:16.299	DCCH	ACTIVE_SET_UPDATE
					7569.	-112	15:27:32.625	10562	328	MAKE !	2	22568.	RRCSM	UMTS FDD	Uplink	15:27:16.300	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					7570.		15:27:32.625	10562	328	-13.9	2	22569.	RRCSM	UMTS FDD	Downlink	15:27:16,624	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7571.	-106.5	15:27:33.240	10562	328		2	22570.	RRCSM	UMTS FDD	Downlink	15:27:16.624	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
					7572.		15:27:33.240	10562	328	-9.3	2	22571.	RRCSM	UMTS FDD	Downlink	15:27:16.624	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
					7573,	-118.2	15:27:33.701	10562	328		2	22572.	RRCSM	UMTS FDD	Downlink	15:27:16.624	DCCH	MEASUREMENT_CONTROL
					7574.		15:27:33.701	10562	328	-18.2	2	22573.	RRCSM	UMTS FDD	Downlink	15:27:16.624	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7575.	-91	15:28:04.393	3050	328		2	22574.	RRCSM	UMTS FDD	Downlink	15:27:16.624	BCCH_BCH	SYSTEM_INFORMATION_BCH
					7576.		15:28:04.393			-13.4	2	22575.	RRCSM			15:27:16.624		SYSTEM_INFORMATION_BCH
					7577.	-91	15:28:04.866	3050	328		2	22576.	RRCSM	UMTS FDD	Downlink	15:27:16.624	BCCH	MASTER_INFORMATION_BLOCK
					7578,		15:28:04.866	3050	328	-18.1	- 2	22577.	RRCSM	UMTS FDD	Downlink	15:27:16.625	BCCH_BCH	SYSTEM_INFORMATION_BCH
				- 1	****				7777		-	4-10-1	narabidomi.		DISTROMENT.		MODES (COOK	

- This call failure event occurred on short call at 15:27:32:614 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 328 and RF condition RSCP -118.6 dBm and Ec/No -19.3 dB are very poor.
- As per the analysis call failed happened due to poor coverage of the network.



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

	Time	System	Serving band			1. best active RSCP	Time	Ch	SC	1. best 4		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	15:05:07.332	UMTS FDD	900	Dro	8559.	-109.1	15:33:57.987	10562	328	Arodenso	25595	RRCSM	UMTS FDD	Uplink	15:33:46.028	DCCH	INITIAL_DIRECT_TRANSFER
2.	15:27:32.614	UMTS FDD	2100	Not	8560.		15:33:57.987	10562	328	-8.3	25596.	L3SM	UMTS FDD	Uplink	15:33:46.028	DCCH	ROUTING_AREA_UPDATE_REQUEST
3.	15:34:02:356	UMTS FDD	2100	No	8561,	-109.6	15:33:58.573	10562	328		25597.	RRCSM	UMTS FDD	Downlink	15:33:46.028	DCCH	MEASUREMENT_CONTROL
4.	16:03:48.087	UMTS FDD	900	Call	8562,		15:33:58.573	10562	328	-9.6	25598.	RRCSM	UMTS FDD	Downlink	15:33:46.028	DCCH	MEASUREMENT_CONTROL
					8563,	-117.9	15:33:58,988	10562	328		25599.	RRCSM	UMTS FDD	Downlink	15:33:46.028	DCCH	MEASUREMENT_CONTROL
					8564.	Unvitor.	15:33:58.988	10562	328	-15.6	25600.	RRCSM	UMTS FDD	Downlink	15:33:46.028	DCCH	MEASUREMENT_CONTROL
					8565.	-110,3	15:33:59.525	10562	328		25601	RRCSM	UMTS FDD	Downlink	15:33:46.028	DCCH	MEASUREMENT_CONTROL
					8566.		15:33:59.525	10562	328	-10.5	25602	RRCSM	UMTS FDD	Downlink	15:33:46.028	DCCH	DOWNLINK_DIRECT_TRANSFER
					8567.	-109.1	15:34:00.044	10562	328		25603.	L35M	UMTS FDD	Downlink	15:33:46.028	DCCH	AUTHENTICATION_REQUEST
					8568.		15:34:00.044	10562	328	-8.7	25604.	RRCSM	UMTS FDD	Uplink	15:33:46.029	DCCH	UPLINK_DIRECT_TRANSFER
					8569.	-105.3	15:34:00.573	10562	328		25605.	L3SM	UMTS FDD	Uplink	15:33:46.029	DCCH	AUTHENTICATION_RESPONSE
					8570.		15:34:00.573	10562	328	-7.7	25606.	RRCSM	UMTS FDD	Downlink	15:33:46.320	DCCH	SECURITY_MODE_COMMAND
					8571.	-116.3	15:34:00.987	10562	328		25607.	RRCSM	UMTS FDD	Uplink	15:33:46,320	DCCH	SECURITY_MODE_COMPLETE
					8572.		15:34:00.987	10562	328	-14.2	25608.	RRCSM	UMTS FDD	Uplink	15:33:46.320	DCCH	UPLINK_DIRECT_TRANSFER
					8573.	-110.4	15:34:01.788	10562	328		25609.	L3SM	UMTS FDD	Uplink	15:33:46.320	DCCH	SETUP
					8574.		15:34:01.788	10562	328	-10.5	25610.	RRCSM	UMTS FDD	Downlink	15:33:46.321	DCCH	DOWNLINK_DIRECT_TRANSFER
					8575,	-106.6	15:34:02.289	10562	328		25611.	L3SM	UMTS FDD	Downlink	15:33:46.321	DCCH	IDENTITY_REQUEST
					8576.		15:34:02.289	10562	328	-7,6	25612	RRCSM	UMTS FDD	Uplink	15:33:46.321	DCCH	UPLINK_DIRECT_TRANSFER
					8577.	-114.9	15:34:02.811	10562	328		25613.	L3SM	UMTS FDD	Uplink	15:33:46.321	DCCH	IDENTITY_RESPONSE
					8578.		15:34:02.811	10562	328	-14	25614.	RRCSM	UMTS FDD	Downlink	15:33:46.558	DCCH	DOWNLINK_DIRECT_TRANSFER
					8579.	-93	15:34:33.788	3050	307		25615.	L35M	UMTS FDD	Downlink	15:33:46.558	DCCH	CALL_PROCEEDING
					8580.		15:34:33.788	3050	307	-10.2	25616	RRCSM	UMTS FDD	Uplink	15:33:46.757	DCCH	MEASUREMENT_REPORT
					8581.	-93	15:34:34.373	3050	307		25617.	RRCSM	UMTS FDD	Uplink	15:33:48.030	DCCH	MEASUREMENT_REPORT
					8582.		15:34:34.373	3050	307	-9.7	25618.	RRCSM	UMTS FDD	Uplink	15:33:50.028	DCCH	MEASUREMENT_REPORT
					8583.	-93	15:34:34.850	3050	307		25619.	RRCSM	UMTS FDD	Downlink	15:33:52.027	DCCH	RADIO_BEARER_SETUP
					8584.		15:34:34.850	3050	307	-14.7	25620.	RRCSM	UMTS FDD	Uplink	15:33:52.029	DCCH	RADIO_BEARER_SETUP_COMPLETE
					8585.	-93	15:34:35.479	3050	307		25621.	RRCSM	UMTS FDD	Downlink	15:33:52.321	DCCH	RADIO_BEARER_RECONFIGURATION
					8586.		15:34:35.479	3050	307	+14.7	25622	RRCSM	UMTS FDD	Downlink	15:33:52.321	DCCH	DOWNLINK_DIRECT_TRANSFER
					8587.	-93	15:34:36,109	3050	307		25623.	L3SM	UMTS FDD	Downlink	15:33:52.321	DCCH	PROGRESS
					8588.		15:34:36.109	3050	307	-15	25624	RRCSM	UMTS FDD	Uplink	15:33:52.322	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
					8589.	-93	15:34:36.469	3050	307		25625.	RRCSM	UMTS FDD	Downlink	15:33:52.928	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					8590,		15:34:36,469	3050	307	-16.3	25626.	RRCSM	UMTS FDD	Uplink	15:33:52.928	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_COMPLETE
					8591,	-93	15:34:37.089	3050	307		25627.	RRCSM	UMTS FDD	Uplink	15:33:53.379	DCCH	MEASUREMENT_REPORT
					8592.		15:34:37.089	3050	307	-16.6	25628	RRCSM	UMTS FDD	Downlink	15:33:53.788	DCCH	MEASUREMENT_CONTROL
					8593.	-97.2	15:34:37.748	3050	307		25629.	RRCSM	UMTS FDD	Downlink	15:33:55.030	DCCH	SECURITY_MODE_COMMAND
					8594,		15:34:37.748	3050	307	-13.7	25630.	RRCSM	UMTS FDD	Uplink	15:33:55.030	DCCH	SECURITY_MODE_COMPLETE
					8595,	-101.5	15:34:38.078	3050	307	À	25631.	RRCSM	UMTS FDD	Downlink	15:33:55.088	DCCH	DOWNLINK_DIRECT_YRANSFER
-					9.5	00.00			Proofile			discount.		DEC SOURCE		1000	traps to the training Parameter Translation are a

- This call failure event;356 occurred on short call at 15:34:02 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 328 and RF condition RSCP -117.9 dBm and Ec/No -15.6 dB are very poor.
- As per the analysis call failed happened due to poor coverage of the network.



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

100	Time	System	Serving band		7.41	1. best active RSCP	Time	Ch	SC	1. best 🛎		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	15:05:07.332	UMTS FDD	900	Dro	11044.		16:03:10.790	3050	291	4.1	32984.	RRCSM	UMTS FDD	Uplink	16:03:47.211	DCCH	UPLINK_DIRECT_TRANSFER
2.	15:27:32.614	UMTS FDD	2100	Not	11045.	-74.1	16:03:11.332	3050	291		32985.	L3SM	UMTS FDD	Uplink	16:03:47.211	DCCH	AUTHENTICATION_RESPONSE
3.	15:34:02.356	UMTS FDD	2100	Nor	11046.		16:03:11.332	3050	291	4	32986.	RRCSM	UMTS FDD	Downlink	16:03:47.307	DCCH	SECURITY_MODE_COMMAND
4.	16:03:48.087	UMTS FDD	900	Call	11047.	-66.9	16:03:11.790	3050	291		32987.	RRCSM	UMTS FDD	Uplink	16:03:47.308	DCCH	SECURITY_MODE_COMPLETE
					11048,		16:03:11.790	3050	291	4.1	32988.	RRCSM	UMTS FDD	Downlink	16:03:47,407	DCCH	DOWNLINK_DIRECT_TRANSFER
					11049.	-68.9	16:03:12.378	3050	291		32989.	L3SM	UMTS FDD	Downlink	16:03:47.407	DCCH	IDENTITY_REQUEST
					11050.		16:03:12.378	3050	291	4	32990.	RRCSM	UMTS FDD	Uplink	16:03:47.408	DCCH	UPLINK_DIRECT_TRANSFER
					11051.	-66.7	16:03:12.790	3050	291		32991.	L3SM	UMTS FDD	Uplink	16:03:47.408	DCCH	IDENTITY_RESPONSE
					11052.		16:03:12.790	3050	291	4.7	32992.	RRCSM	UMTS FDD	Uplink	16:03:47.419	DCCH	MEASUREMENT_REPORT
				- []	11053.	-84.4	16:03:13.382	3050	291		32993.	RRCSM	UMTS FDD	Downlink	16:03:47.527	DCCH	DOWNUNK_DIRECT_TRANSFER
					11054.		16:03:13.382	3050	291	-9.9	32994.	L3SM	UMTS FDD	Downlink	16:03:47.527	DCCH	LOCATION_UPDATING_ACCEPT
					11055.	-72	16:03:13.803	3050	291		32995.	RRCSM	UMTS FDD	Uplink	16:03:47.529	DCCH	UPLINK_DIRECT_TRANSFER
					11056.		16:03:13.803	3050	291	-6.1	32996.	L3SM	UMTS FDD	Uplink	16:03:47.529	DCCH	CM_SERVICE_REQUEST
					11057,	-75.6	16:03:14.470	3050	291		32997.	RRCSM	UMTS FDD	Downlink	16:03:47.647	DCCH	DOWNLINK_DIRECT_TRANSFER
					11058.		16:03:14.470	3050	291	-4.2	32998.	L3SM	UMTS FDD	Downlink	16:03:47.647	DCCH	CM_SERVICE_ACCEPT
				- 18	11059.	-76.9	16:03:15,110	3050	291		32999.	RRCSM	UMTS FDD	Uplink	16:03:47,648	DCCH	UPLINK_DIRECT_TRANSFER
					11060.		16:03:15.110	3050	291	-6.5	33000.	L3SM	UMTS FDD	Uplink	16:03:47.648	DCCH	SETUP
					11061.	-83	16:03:46.941	3050	291		33001.	RRCSM	UMTS FDD	Downlink	16:03:47.757	DCCH	DOWNLINK_DIRECT_TRANSFER
					11062.		16:03:46,941	3050	291	-7.6	33002.	135M	UMTS FDD	Downlink	16:03:47.757	DCCH	CALL_PROCEEDING
					11063.	-83	16:03:47.506	3050	291		33003.	RRCSM	UMTS FDD	Uplink	16:03:48.087	DCCH	UPLINK_DIRECT_TRANSFER
				- 8	11064.		16:03:47.506	3050	291	-6.8	33004.	L3SM	UMTS FDD	Uplink	16:03:48.087	DCCH	DISCONNECT
					11065.	-83	16:03:48.202	3050	291		33005.	RRCSM	UMTS FDD	Downlink	16:03:48.177	DCCH	DOWNLINK_DIRECT_TRANSFER
					11056.		16:03:48.202	3050	291	-6.2	33006.	L3SM	UMTS FDD	Downlink	16:03:48.177	DCCH	RELEASE
					11067,	-83	16:03:48.657	3050	291		33007.	RRCSM	UMTS FDD	Uplink	16:03:48.178	DCCH	UPLINK_DIRECT_TRANSFER
					11068.		16:03:48.657	3050	291	-6.6	33008.	L35M	UMTS FDD	Uplink	16:03:48.178	DCCH	RELEASE_COMPLETE
					11069.	-83	16:03:49.020	3050	291		33009.	RRCSM	UMTS FDD	Downlink	16:03:48.257	DCCH	MEASUREMENT_CONTROL
					11070.		16:03:49.020	3050	291	-5.6	33010.	RRCSM	UMTS FDD	Uplink	16:03:48.268	DCCH	MEASUREMENT_REPORT
					11071.	-83	16:03:49.474	3050	291		33011.	RRCSM	UMTS FDD	Downlink	16:03:48.277	DCCH	SIGNALLING_CONNECTION_RELEASE
					11072.		16:03:49.474	3050	291	-8,1	33012	RRCSM	UMTS FDD	Downlink	16:03:48.317	DCCH	SECURITY_MODE_COMMAND
					11073.	-83	16:03:50.070	3050	291		33013.	RRCSM	UMTS FDD	Uplink	16:03:48.318	DCCH	SECURITY_MODE_COMPLETE
					11074.		16:03:50.070	3050	291	-6.8	33014.	RRCSM	UMTS FDD	Uplink	16:03:48.340	DCCH	MEASUREMENT_REPORT
					11075.	-86.5	16:03:50.474	3050	291		33015.	RRCSM	UMTS FDD	Uplink	16:03:48.359	DCCH	MEASUREMENT_REPORT
					11076.		16:03:50.474	3050	291	-7.9	33016.	RRCSM	UMTS FDD	Uplink	16:03:48.380	DCCH	MEASUREMENT_REPORT
					11077.	-89.5	16:03:50.967	3050	291		33017.	RRCSM	UMTS FDD	Downlink	16:03:48.537	DCCH	DOWNLINK_DIRECT_TRANSFER
					11078.		16:03:50.967	3050	291	-8.9	33018.	L3SM	UMTS FDD	Downlink	16:03:48.537	DCCH	ROUTING_AREA_UPDATE_ACCEPT
					11079.	-84.8	16:03:52.525	3050	291	- 3	33019.	RRCSM	UMTS FDD	Uplink	16:03:48.539	DCCH	UPLINK_DIRECT_TRANSFER
					11080.		16:03:52.525	3050	291	-6 ¥	33020.	L3SM	UMTS FDD	Uplink	16:03:48.539	DCCH	ROUTING_AREA_UPDATE_COMPLETE
					FIGURE CO., Sept.			100	100		And the last last	five terms	and the second second	121507777		COMP	WASCONIAC STRANGESCONDUCTION OF CO.

- This call failure event occurred on short call at 16:03:48:087 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 291 and RF condition RSCP -83 dBm and Ec/No -6.8 dB both are good.
- Need to check at MT end.



## Phase-1 Call Attempt Failure Analysis 4 From MS6 Airtel MT

	Time	Cell type	Band	Band (MHz)	Ch	PCI	RSRP	SNR	*		Event ID	System	Transf. dir.	Time	Subchannel	Message name ▲
13095.	16:03:39,240	Serving	B20	800	6400	141	-89.3	1		30181.	RRCSM	LTE FDD	Uplink	16:03:40.179	DCCH	MeasurementReport
13096.	16:03:39.240							3.9		30182.	RRCSM	LTE FDD	Downlink	16:03:40.192	DCCH	RRCConnectionReconfiguration
13097.	16:03:39.525	Serving	B20	800	6400	141	-90.6			30183.	RRCSM	LTE FDD	Uplink	16:03:40.193	DCCH	RRCConnectionReconfigurationComplete
13098.	16:03:39.525							4.6		30184.	RRCSM	LTE FDD	Downlink	16:03:40.239	DCCH	RRCConnectionReconfiguration
13099.	16:03:40.287	Serving	B20	800	6400	143	-86,3			30185.	RRCSM	LTE FDD	Uplink	16:03:40.240	DCCH	RRCConnectionReconfigurationComplete
13100.	16:03:40.287							7.9		30186.	RRCSM	LTE FDD	Downlink	16:03:40.317	BCCH-SCH	SystemInformationBlockType1
13101.	16:03:40.831	Serving	B20	800	6400	143	-86.6			30187.	RRCSM	LTE FDD	Uplink	16:03:40.731	DCCH	MeasurementReport
13102,	16:03:40.831							13.7		30188.	RRCSM	LTE FDD	Downlink	16:03:40.750	DCCH	RRCConnectionReconfiguration
13103.	16:03:41.327	Serving	B20	800	6400	143	-86.4			30189.	RRCSM	LTE FDD	Uplink	16:03:40.765	DCCH	RRCConnectionReconfigurationComplete
13104.	16:03:41.327							11.2		30190.	RRCSM	LTE FDD	Uplink	16:03:41.433	DCCH	MeasurementReport
13105.	16:03:41.677	Serving	B3	1800	1300	143	-91.6			30191.	RRCSM	LTE FDD	Downlink	16:03:41.503	DCCH	RRCConnectionReconfiguration
13106.	16:03:41.677							11.8		30192.	RRCSM	LTE FDD	Uplink	16:03:41.526	DCCH	RRCConnectionReconfigurationComplete
13107.	16:03:42.039	Serving	B3	1800	1300	143	-91.9			30193.	RRCSM	LTE FDD	Downlink	16:03:41.557	BCCH-SCH	SystemInformationBlockType1
13106,	16:03:42.039							11.2		30194.	RRCSM	LTE FDD	Downlink	16:03:41.558	BCCH-SCH	SystemInformation - SIB2, SIB3
13109.	16:03:43.721	Serving	B3	1800	1300	143	-99.1			30195.	RRCSM	LTE FDD	Downlink	16:03:41.571	DCCH	RRCConnectionReconfiguration
13110.	16:03:43.721							5.3		30196.	RRCSM	LTE FDD	Uplink	16:03:41.575	DCCH	RRCConnectionReconfigurationComplete
13111.	16:03:44.383	Serving	B3	1800	1300	143	-105.1			30197.	RRCSM	LTE FDD	Uplink	16:03:41.617	DCCH	MeasurementReport
13112.	16:03:44.383							10.8		30198.	RRCSM	LTE FDD	Uplink	16:03:41.617	DCCH	MeasurementReport
13113.	16:03:45.837	Serving	B3	1800	1300	143	-103.3			30199.	RRCSM	LTE FDD	Downlink	16:03:41.626	DCCH	RRCConnectionRelease
13114.	16:03:45.837							6.6		30200.	RRCSM	LTE FDD	Downlink	16:03:48.083	PCCH	Paging
13115.	16:03:47.313	Serving	B3	1800	1300	143	-103.7			30201.	L3SM	LTE FDD	Uplink	16:03:48.084		EXTENDED_SERVICE_REQUEST
13116.	16:03:47.313							2		30202.	RRCSM	LTE FDD	Uplink	16:03:48.084	CCCH	RRCConnectionRequest
13117.	16:03:48.190	Serving	B3	1800	1300	143	-106.1			30203.	RRCSM	LTE FDD	Downlink	16:03:48.155	CCCH	RRCConnectionSetup
13118.	16:03:48.190							4.8		30204.	RRCSM	LTE FDD	Uplink	16:03:48.158	DCCH	RRCConnectionSetupComplete
13119,	16:03:48.539	Serving	B3	1800	1300	143	-103.€			30205.	RRCSM	LTE FDD	Downlink	16:03:48.203	DCCH	SecurityModeCommand
13120.	16:03:48.539							2.3		30206.	RRCSM	LTE FDD	Uplink	16:03:48.204	DCCH	SecurityModeComplete
13121.	16:03:55.021	Serving	B3	1800	1300	143	-104,6			30207.	RRCSM	LTE FDD	Downlink	16:03:48.218	DCCH	UECapabilityEnquiry
13122.	16:03:55.021									30208.	RRCSM	LTE FDD	Uplink	16:03:48.219	DCCH	UECapabilityInformation
13123.	16:03:55.309	Serving	B3	1800	1300	143	-105.€			30209.	RRCSM	UMTS FDD	Uplink	16:03:48.219		INTER_RAT_HANDOVER_INFO
13124.	16:03:55.309							-0.3		30210.	RRCSM	LTE FDD	Downlink	16:03:48.249	DCCH	RRCConnectionReconfiguration
13125.	16:03:56.311	Serving	B3	1800	1300	143	-105.7			30211.	RRCSM	LTE FDD	Uplink	16:03:48.260	DCCH	RRCConnectionReconfigurationComplete
13126.	16:03:56.311							2.9		30212.	RRCSM	LTE FDD	Downlink	16:03:48.282	DCCH	RRCConnectionReconfiguration
13127.	16:03:57.379	Serving	B3	1800	1300	143	-105.5			30213.	RRCSM	LTE FDD	Uplink	16:03:48.282	DCCH	RRCConnectionReconfigurationComplete
13128.	16:03:57.379							2.5		30214.	RRCSM	LTE FDD	Uplink	16:03:48.428	DCCH	MeasurementReport
13129.	16:03:58.816	Serving	B3	1800	1300	143	-102.5			30215.	RRCSM	LTE FDD	Downlink	16:03:48.459	DCCH	RRCConnectionRelease
13130.	16:03:58.816							-3.5		30216.	RRCSM	UMTS FDD	Downlink	16:03:48.792	BCCH_BCH	SYSTEM_INFORMATION_BCH

- On MT End, During the setup fail, UE was latched with PCI 143 and RF condition RSRP -105.1 dBm is poor and SINR 10.8 dB which is ok.
- As per the analysis call failed happened due to poor coverage of the network.



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

Time System Serving band Call	Time R	exLev sub	ARFCN B	SIC RXQ sub		CONTROL OF	System	Transf. dir.	Time	Subchannel	Message name
1. 14:30:31.888 GSM 900 Voi 890. 1	4:30:07.396 -	96	26 2	5		3140.	GSM	Uplink	14:30:10.243	SACCH	MEASUREMENT_REPORT
891. 1	4:30:07.843 -	97	26 2	5		3141.	GSM	Uplink	14:30:10.723	SACCH	MEASUREMENT_REPORT
892. 1	4:30:08,369 -	97	26 2			3142.	GSM	Uplink	14:30:11.203	SACCH	MEASUREMENT_REPORT
893. 1	4:30:08.803 -	98	26 2			3143,	GSM	Uplink	14:30:11.683	SACCH	MEASUREMENT_REPORT
894. 1	4:30:09.430 -	97	26 2			3144.	GSM	Uplink	14:30:12.163	SACCH	MEASUREMENT_REPORT
895. 1	4:30:09.869 -	98	26 2	5		3145.	GSM	Uplink	14:30:12.643	SACCH	MEASUREMENT_REPORT
896. 1	4:30:10.487 -	98	26 2	5	-	3146.	GSM	Uplink	14:30:13.123	SACCH	MEASUREMENT_REPORT
897. 1	4:30:11.203 -	98 2	26 29			3147.	GSM	Uplink	14:30:13.603	SACCH	MEASUREMENT_REPORT
898. 1	4:30:12.163 -	98 2	26 20	5		3148.	GSM	Uplink	14:30:14.083	SACCH	MEASUREMENT_REPORT
899. 1	4:30:13.123 -	98	26 2	5-		3149.	GSM	Downlink	14:30:14.517	SACCH	MEASUREMENT_INFORMATION
900. 1	4:30:13.667 -	99 2	26 2	5		3150.	GSM	Uplink	14:30:14.563	SACCH	MEASUREMENT_REPORT
901. 1	4:30:14.394 -	97	26 2	5		3151.	GSM	Uplink	14:30:15.043	SACCH	MEASUREMENT_REPORT
902. 1	4:30:14.563 -	98	26 2	5		3152.	GSM	Uplink	14:30:15.523	SACCH	MEASUREMENT_REPORT
903. 1	4:30:14.563			7		3153.	GSM	Uplink	14:30:16.003	SACCH	MEASUREMENT_REPORT
904. 1	4:30:15.043			7		3154.	GSM	Uplink	14:30:16.483	SACCH	MEASUREMENT_REPORT
905. 1	4:30:15.287 -	98	26 2	ŝ		3155.	GSM	Uplink	14:30:16.963	SACCH	MEASUREMENT_REPORT
906, 1	4:30:15.587 -	99	26 2	5		3156.	GSM	Downlink	14:30:17.397	SACCH	SYSTEM_INFORMATION_TYPE_STER
907. 1	4:30:16.390	99	26 2	5		3157.	GSM	Uplink	14:30:17.443	SACCH	MEASUREMENT_REPORT
908. 1	4:30:16.963 -	97 2	26 2	5		3158.	GSM	Downlink	14:30:17,877	SACCH	SYSTEM_INFORMATION_TYPE_6
909.	4:30:17.443			6		3159.	GSM	Uplink	14:30:17.923	SACCH	MEASUREMENT_REPORT
910. 1	4:30:17,687 -	97	26 2	5		3160.	GSM	Downlink	14:30:18.357	SACCH	MEASUREMENT_INFORMATION
911. 1	4:30:17.923			4		3161.	ĞSM	Uplink	14:30:18.403	SACCH	MEASUREMENT_REPORT
912. 1	4:30:18.397 -	93	26 2	j.		3162.	GSM	Uplink	14:30:18.883	SACCH	MEASUREMENT_REPORT
913. 1	4:30:18.403			5		3163,	GSM	Uplink	14:30:19.363	SACCH	MEASUREMENT_REPORT
914. 1	4:30:18.883			7		3164.	GSM	Uplink	14:30:19.843	SACCH	MEASUREMENT_REPORT
915. 1	4:30:18.887	98 3	26 2	5		3165.	GSM	Uplink	14:30:20.323	SACCH	MEASUREMENT_REPORT
916. 1	4:30:19.396 -	98 7	26 2	i		3166.	GSM	Uplink	14:30:20.803	SACCH	MEASUREMENT_REPORT
917. 1	4:30:19.843 -	96	26 2			3167.	GSM	Downlink	14:30:21,237	SACCH	SYSTEM_INFORMATION_TYPE_STER
918. 1	4:30:20.397 -	98	26 2	i i		3168.	GSM	Uplink	14:30:21.283	SACCH	MEASUREMENT_REPORT
919.	4:30:20.867 -	98 2	26 2			3169.	GSM	Uplink	14:30:21.763	SACCH	MEASUREMENT_REPORT
	4:30:21.397 -		26 2			3170.	GSM	Uplink	14:30:22.243	SACCH	MEASUREMENT_REPORT
	4:30:21.846		26 2			3171.	GSM	Uplink	14:30:22.723	SACCH	MEASUREMENT_REPORT
The second secon	4:30:22.427 -		26 20			3172.	GSM	Uplink	14:30:23.203	SACCH	MEASUREMENT_REPORT
	4:30:22.930	500	26 2	5		3173.	GSM	Uplink	14:30:23.683	SACCH	MEASUREMENT_REPORT
924. 1	4:30:23.470 -	99	26 2	i		3174.	GSM	Uplink	14:30:24.163	SACCH	MEASUREMENT_REPORT

- This call drop event occurred on long call at 14:30:31:888 time when UE was latched with 2G network.
- After getting Alerting message at 14:28:53:158 time than Call drop happened.
- During the session UE was latched with ARFCN 25 and RF condition Rx Level -97 dBm and Rx Qual 7 dB both are poor.
- As per the analysis call drop happened due to poor coverage of the network.



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

Call Attempt Failure cause from Airtel	Count
Total Call Attempt Failure	2
Poor Coverage	2

Call Attempt Failure cause from CWS	Count
Total Call Attempt Failure	2
Poor Coverage	1
Network End	1

Call Drop cause from Airtel	Count
Total Call Drop	4
Poor quality	1

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



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

	Time	System	Serving band	Cal		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO	•		Transf. dir.	Time	Subchannel	Message name
17	12:28:46.240	UMTS FDD	2100	No	11295.		12:28:38.601	10588	328	-7,3		26199.	Uplink	12:28:28.661	DCCH	SETUP
2.	12:33:39.214	UMTS FDD	2100	Not	11296.	-107	12:28:39.151	10588	328			26200.	Uplink	12:28:28.673	DCCH	MEASUREMENT_REPORT
					11297.		12:28:39.151	10588	328	-9.8		26201.	Downlink	12:28:28.680	DCCH	DOWNLINK_DIRECT_TRANSFER
					11298,	-102.6	12:28:39.593	10588	328			26202.	Downlink	12:28:28.680	DCCH	SERVICE_ACCEPT
					11299.		12:28:39.593	10588	328	-8.8		26203.	Downlink	12:28:28.800	DCCH	RADIO_BEARER_SETUP
					11300.	-107	12:28:40.133	10588	328			26204.	Downlink	12:28:28.820	DCCH	DOWNLINK_DIRECT_TRANSFER
					11301,		12:28:40.133	10588	328	-11.5		26205.	Downlink	12:28:28.820	DCCH	CALL_PROCEEDING
					11302.	-112.8	12:28:40.601	10588	328			26206,	Uplink	12:28:29.172	DCCH	RADIO_BEARER_SETUP_COMPLETE
					11303.	-All-All-	12:28:40.601	10588	328	-15,9		26207.	Uplink	12:28:29.322	DCCH	MEASUREMENT_REPORT
					11304.	-96.7	12:28:41.310	10588	328			26208.	Downlink	12:28:29.400	DCCH	MEASUREMENT_CONTROL
					11305.		12:28:41.310	10588	328	-6.1		26209,	Downlink	12:28:29.440	DCCH	MEASUREMENT_CONTROL
					11306.	-100.1	12:28:41.650	10588	328			26210.	Downlink	12:28:29,560	DCCH	RADIO_BEARER_RECONFIGURATION
					11307,		12:28:41.650	10588	328	-8.9		26211.	Uplink	12:28:29.602	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
					11308.	-93.6	12:28:42.304	10588	328			26212.	Downlink	12:28:29,920	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					11309.		12:28:42.304	10588	328	-7.6		26213.	Uplink	12:28:29.962	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_COMPLETE
					11310.	-98.1	12:28:42.653	10588	51			26214.	Uplink	12:28:30.682	DCCH	MEASUREMENT_REPORT
					11311.		12:28:42.653	10588	51	-6.4		26215.	Uplink	12:28:30.723	DCCH	MEASUREMENT_REPORT
					11312.	-94.3	12:28:43.212	10588	51			26216.	Downlink	12:28:30.760	DCCH	MEASUREMENT_CONTROL
					11313.		12:28:43.212	10588	51	-6.8		26217.	Downlink	12:28:31.799	DCCH	MEASUREMENT_CONTROL
					11314.	-96.5	12:28:43.814	10588	51			26218.	Uplink	12:28:34.209	DCCH	MEASUREMENT_REPORT
					11315.		12:28:43.814	10588	51	-5.9		26219.	Downlink	12:28:34.240	DCCH	RADIO_BEARER_RELEASE
					11316.	-102.6	12:28:44.203	10588	328			26220.	Uplink	12:28:34.643	DCCH	RADIO_BEARER_RELEASE_COMPLETE
					11317.		12:28:44.203	10588	328	-8.9		26221.	Downlink	12:28:34.750	DCCH	MEASUREMENT_CONTROL
					11318.	-104.5	12:28:44.943	10588	328	100.00		26222.	Downlink	12:28:34.760	DCCH	MEASUREMENT_CONTROL
					11319.		12:28:44.943	10588	328	-9.3	_	26223.	Downlink	12:28:34.780	DCCH	RADIO_EEARER_RECONFIGURATION
					11320.	-98.9	12:28:45.450	10588	328			26224.	Uplink	12:28:34.802	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
					11321,		12:28:45.450	10588	328	-7.7		26225.	Downlink	12:28:34.950	DCCH	ACTIVE_SET_UPDATE
					11322.	-100.4	12:28:45.943	10588	328			26226.	Uplink	12:28:34.972	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					11323.		12:28:45.943	10588	328	4.7		26227.	Downlink	12:28:35.110	DCCH	MEASUREMENT_CONTROL
					11324,	-99	12:28:46.392	10588	328			26228.	Downlink	12:28:35.240	DCCH	RADIO_BEARER_SETUP
					11325.		12:28:46.392	10588	328	-7.8		26229.	Uplink	12:28:35,593	DCCH	RADIO_BEARER_SETUP_COMPLETE
					11326.	-100.1	12:28:46.990	10588	328			26230.	Uplink	12:28:35.697	DCCH	INITIAL_DIRECT_TRANSFER
					11327.		12:28:46.990	10588	328	-6.9		26231.	Uplink	12:28:35.697	DCCH	SERVICE_REQUEST
					11328.	-101.9	12:28:47.354	10588	328			26232.	Downlink	12:28:35.880	DCCH	RADIO_BEARER_RECONFIGURATION
					11329,		12:28:47.354	10588	328	-8.7		26233.	Uplink	12:28:35.922	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE
					11330.	-109.3	12:28:47.948	10588	51			26234,	Downlink	12:28:35.960	DCCH	DOWNLINK_DIRECT_TRANSFER
					11331.	30920	12:28:47.948	10588	51	-10.9		26235.	Downlink	12:28:35.960	DCCH	PROGRESS

- This call failure event occurred on short call at 12:28:46:240 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 328 and RF condition RSCP -100.4 dBm is poor and Ec/No -7.7 dB are very good.
- As per the analysis call failed happened due to poor coverage of the network.



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

	System	Serving band	Cal	1. best active RSCP	Time	Ch	20	1. best active Ec/NO	*	Transf. dir.	Time	Subchannel	Message name
2:28:46.240	UMTS FDD	2100	Not 11862	-107.9	12:33:29.411	10588	328	-	277	3. Downlink	12:33:21.744	DCCH	MEASUREMENT_CONTROL
2:33:39,214	UMTS FDD	2100	No. 11863		12:33:29.411	10588	328	-11.5	277	4. Downlink	12:33:21.754	DCCH	MEASUREMENT_CONTROL
			11864	-103.2	12:33:30.057	10588	328		277	5. Downlink	12:33:21.764	DCCH	MEASUREMENT_CONTROL
			11865		12:33:30.057	10588	328	-7.3	277	6. Downlink	12:33:21.804	DCCH	DOWNLINK_DIRECT_TRANSFER
			11866	-111.2	12:33:30.575	10588	328		277	7. Downlink	12:33:21.804	DCCH	AUTHENTICATION_REQUEST
			11867		12:33:30.575	10588	307	-12.8	277	8. Uplink	12:33:21.897	DCCH	UPLINK_DIRECT_TRANSFER
			11868	-109.7	12:33:31.039	10588	328		277	9. Uplink	12:33:21.897	DCCH	AUTHENTICATION_RESPONSE
			11869		12:33:31.039	10588	328	-10.4	277	0. Downlink	12:33:22.004	DCCH	SECURITY_MODE_COMMAND
			11870	-111,2	12:33:31,425	10588	328		277	1. Uplink	12:33:22.004	DCCH	SECURITY_MODE_COMPLETE
			11871	POTATA-1	12:33:31.425	10588	328	-13	277	2. Downlink	12:33:22.104	DCCH	DOWNLINK_DIRECT_TRANSFER
			11872	-117.6	12:33:32.017	10588	328		277	3. Downlink	12:33:22.104	DCCH	IDENTITY_REQUEST
			11873	10000	12:33:32.017	10588	328	-19.5	277	4. Uplink	12:33:22.105	DCCH	UPLINK_DIRECT_TRANSFER
			11874	-110	12:33:32.627	10588	328		277	5. Uplink	12:33:22.105	DCCH	IDENTITY_RESPONSE
			11875		12:33:32.627	10588	328	-11.8	277	6. Downlink	12:33:22.214	DCCH	DOWNLINK_DIRECT_TRANSFER
			- Street, St. Con, Sept Street	-102.2	A property of the property of the				277	Annual Control of the last			LOCATION_UPDATING_ACCEPT
			11877		12:33:33.334	10588	328	-7.2	277	8. Uplink	12:33:22.215	DCCH	UPLINK_DIRECT_TRANSFER
			100000000000000000000000000000000000000	-109.2					- International dis-	100000000000000000000000000000000000000	The state of the state of the state of		CM_SERVICE_REQUEST
			-	- FAME N				-9.3	mile migrate				DOWNLINK_DIRECT_TRANSFER
			10191010101010101	-108					PEANING	Marin S. A.			CM_SERVICE_ACCEPT
			11881		12:33:34.367	10588	328	-9.9	694/444	MARKET TO TO SOLO INC.			UPLINK_DIRECT_TRANSFER
			deline transportation of	-107.3	12:33:34.895	10588	307			- Committee of the second		The same area	SETUP
			11883		12:33:34.895	10588	328	-8	and and part of the	The second second		- Indiana de la companya del companya de la companya del companya de la companya	DOWNLINK_DIRECT_TRANSFER
			-	-104.9					277	5. Downlink	12:33:22.464	DCCH	CALL_PROCEEDING
			-	20012000				-7.6	Septiment and a				MEASUREMENT_REPORT
			11886	-98.8	William property and the Confederation		100071		277	7. Uplink	12:33:23.685	DCCH	MEASUREMENT_REPORT
			11887	21035				-6.4	277	8. Downlink			RADIO_BEARER_SETUP
			11888	·103					277	9. Uplink	12:33:28.327	DCCH	MEASUREMENT_REPORT
			ARRESTS NO.					-8.2	277	0. Uplink	12:33:28.607	DCCH	RADIO_BEARER_SETUP_COMPLETE
			11890	-106.7	12:33:36.904	10588	328		277	1. Downlink	12:33:28.894	DCCH	RADIO_BEARER_RECONFIGURATION
			himmon participation and					-9,3	277	2. Downlink	12:33:28.934	DCCH	DOWNLINK_DIRECT_TRANSFER
			11892	-110.3	12:33:37.395	10588	328		277	3. Downlink	12:33:28.934	DCCH	PROGRESS
			-	and the second				-10.3	277				RADIO_BEARER_RECONFIGURATION_COMPLETE
			CONTRACTOR SALES	-108,8					-	The second second second second second			ACTIVE_SET_UPDATE
			STATE OF THE PERSON NAMED IN	- 100 M				-12	277				ACTIVE_SET_UPDATE_COMPLETE
			Industrial Park	1000						PROVINCE STATE			MEASUREMENT_CONTROL
			11897		12:33:38,384	10588	328	-6.6	277	8. Downlink	12:33:29.694	DCCH	MEASUREMENT_CONTROL
			2:28:46.240 UMTS FDD 2100	#33:39.214 UMTS FDD 2100 Not 11863. 11864. 11865. 11866. 11867. 11868. 11870. 11871. 11872. 11873. 11874. 11875. 11876. 11879. 11880. 11881. 11882. 11883. 11884. 11885. 11887. 11888. 11889. 11889. 11890. 11891. 11892. 11893. 11894. 11895. 11895. 11895. 11895. 11896.	11863. 11864103,2 11865. 11866111,2 11867. 11868109,7 11869. 11870111,2 11871. 11872117,6 11873. 11874110 11875. 11876102,2 11877. 11878109,2 11879. 11880108 11881. 11882107,3 11883. 11884104,9 11885. 1188698,8 11887. 11888103 11889106,7 11891. 11892110,3 11893. 11894106,8	1883:39.214 UMTS FDD 2100 No 11863. 12:33:29.411 1864103.2 12:33:30.057 11865. 12:33:30.575 11866111.2 12:33:30.575 11868109.7 12:33:31.039 11870111.2 12:33:31.425 11871. 12:33:31.425 11872117.6 12:33:32.017 11873. 12:33:32.017 11874110 12:33:32.027 11875. 12:33:32.627 11876102.2 12:33:33.334 11877. 11878109.2 12:33:33.334 11879. 12:33:33.399 11880108 12:33:33.699 11881. 12:33:33.699 11882107.3 12:33:33.699 11883. 12:33:35.904 11884104.9 12:33:35.904 11888. 103 12:33:35.904 11889106.7 12:33:36.904 11890106.7 12:33:36.904 11891. 12:33:36.904 11892110.3 12:33:36.904 11899106.7 12:33:36.904 11899106.7 12:33:36.904 11899106.7 12:33:36.904 11899106.7 12:33:36.904 11899106.8 12:33:7.965 11899106.8 12:33:7.965 11899106.8 12:33:7.965 11899106.8 12:33:7.965 11899106.8 12:33:7.965	1863    1864   -103.2   12:33:29.411   10588   1865   12:33:30.57   10588   1866   -111.2   12:33:30.57   10588   1866   -111.2   12:33:30.57   10588   1866   -111.2   12:33:30.57   10588   1866   -109.7   12:33:31.039   10580   11869   12:33:31.039   10580   11870   -111.2   12:33:31.425   10588   11871   12:33:31.425   10588   11872   -117.6   12:33:32.017   10588   11872   -117.6   12:33:32.017   10588   11874   -110   12:33:32.627   10588   11875   12:33:32.627   10588   11875   12:33:33.34   10580   11877   12:33:33.34   10580   11878   -109.2   12:33:33.39   10580   11879   12:33:33.49   10588   11881   12:33:34.367   10588   11882   -107.3   12:33:34.895   10588   11882   -107.3   12:33:34.895   10588   11885   12:33:35.904   10588   11886   -98.8   12:33:35.904   10588   11887   12:33:35.904   10588   11888   -104.9   12:33:35.904   10588   11889   12:33:35.904   10588   11889   12:33:35.904   10588   11889   12:33:35.904   10588   11889   12:33:35.904   10588   11889   12:33:35.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.7   12:33:36.904   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.395   10588   11890   -106.8   12:33:37.396   10588   11890   -106.8   12:33:37.396   10588   11890   -106.8   12:33:37.39	183339.214   UMTS FDD   2100   Noi   11863.   12:33:29.411   10588   328   11864   -103.2   12:33:30.057   10588   328   11865   12:33:30.057   10588   328   11867   12:33:30.575   10588   326   11867   12:33:31.039   10588   328   11869   12:33:31.039   10588   328   11870   -111.2   12:33:31.425   10588   328   11871   12:33:31.425   10588   328   11874   -110   12:33:32.627   10588   328   11875   11875   12:33:32.627   10588   328   11875   11876   -102.2   12:33:33.34   10588   328   11877   11878   -109.2   12:33:33.699   10588   307   11880   -108   12:33:33.699   10588   328   11884   -104.9   12:33:33.445   10588   328   11884   -104.9   12:33:33.544   10588   328   11887   11888   -104.9   12:33:33.544   10588   328   11887   12:33:33.544   10588   328   11888   -104.9   12:33:33.544   10588   328   11887   12:33:33.544   10588   328   11887   12:33:33.544   10588   328   11888   -104.9   12:33:33.544   10588   328   11887   12:33:33.590   10588   328   11887   12:33:33.590   10588   328   11887   12:33:33.590   10588   328   11887   12:33:33.590   10588   328   11887   12:33:33.590   10588   328   11887   12:33:33.590   10588   328   11887   12:33:33.590   10588   328   11887   12:33:33.590   10588   328   11887   12:33:33.590   10588   328   11889   12:33:33.590   10588   328   11889   12:33:33.590   10588   328   11889   12:33:33.590   10588   328   11889   12:33:33.590   10588   328   11889   12:33:33.590   10588   328   11889   12:33:33.590   10588   328   11889   12:33:33.590   10588   328   11889   12:33:33.590   10588   328   11890   106.7   12:33:33.590   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33.990   10588   328   11890   106.7   12:33:33	1863   1233:9.214   UMTS FOD   2100   No.   11863   1233:29.411   10588   328   -11.5   11865   12:33:30.057   10588   328   -7.3   11866   -111.2   12:33:30.575   10588   328   -7.3   11867   12:33:30.575   10588   328   -12.8   11869   12:33:31.039   10588   328   -12.8   11869   12:33:31.039   10588   328   -10.4   11870   -111.2   12:33:31.039   10588   328   -10.4   11871   12:33:31.425   10588   328   -13   11872   -117.6   12:33:32.017   10588   328   -13   11872   -117.6   12:33:32.017   10588   328   -19.5   11875   12:33:32.627   10588   328   -19.5   11875   12:33:32.627   10588   328   -19.5   11875   12:33:33.637   10588   328   -11.8   11875   12:33:33.637   10588   328   -11.8   11875   12:33:33.639   10588   307   -11877   12:33:33.639   10588   307   -11879   12:33:33.639   10588   307   -9.3   11880   -108   12:33:34.367   10588   328   -19.5   11884   -104.9   12:33:35.4367   10588   328   -19.5   11885   12:33:35.4367   10588   328   -19.5   11885   12:33:35.4367   10588   328   -19.5   11885   12:33:35.4367   10588   328   -19.5   11886   -108   12:33:35.344   10588   328   -19.5   11885   12:33:35.4367   10588   328   -19.5   11885   12:33:35.347   10588   328   -19.5   11886   -108   12:33:35.344   10588   328   -19.5   11888   -103   12:33:35.944   10588   328   -10.3   11889   -106.7   12:33:35.944   10588   328   -10.3   11891   12:33:37.964   10588   328   -10.3   11892   -106.8   12:33:37.964   10588   328   -10.3   11894   -106.8   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   10588   328   -10.3   11895   12:33:37.964   1058	11863	1862   1864   -103.2   123329.411   10588   328   -11.5   27764   Downlink   27765   Downlink   27766   Downlink   27776   Downlink   27776   Downlink   27777   Downlink   27778   Downlink   27779   Do	1864   1032	11864   103.2

- This call failure event occurred on short call at 12:33:39:214 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 307 and RF condition RSCP -111.2 dBm and Ec/No -10.4 dB are very poor.
- As per the analysis call failed happened due to poor coverage of the network.



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

	Time	System	Serving	band		Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub 🔺		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1,	12:35:10.055	GSM	900	Call	1200.	12:34:57,248						3	19431.	L3SM	GSM	Downlink	12:34:47.149	DCCH	IDENTITY_REQUEST
2.	13:08:16.615	UMTS FDD	2100	Dro	1201.	12:34:57.719						3	19432.	L3SM	GSM	Uplink	12:34:47.149	DCCH	IDENTITY_RESPONSE
					1202.	12:34:57.741	-92	20	20	1			19433.	L3SM	GSM	Uplink	12:34:47.362	SACCH	MEASUREMENT_REPORT
					1203.	12:34:58.189						2	19434.	L3SM	GSM	Downlink	12:34:47.385	DCCH	MM_STATUS
					1204.	12:34:58.660						6	19435.	L3SM	GSM	Downlink	12:34:47,532	SACCH	SYSTEM_INFORMATION_TYPE_6
					1205.	12:34:58.683	-96	20	20	1			19436.	L3SM	GSM	Downlink	12:34:47.620	DCCH	IDENTITY_REQUEST
					1206.	12:34:59.154	-95	20	20	1			19437.	L3SM	GSM	Uplink	12:34:47.620	DCCH	IDENTITY_RESPONSE
					1207,	12:34:59.601						7	19438.	L3SM	GSM	Uplink	12:34:47.832	SACCH	MEASUREMENT_REPORT
					1208.	12:34:59.624	-96	20	20	1			19439.	L3SM	GSM	Downlink	12:34:47.855	DCCH	CIPHERING_MODE_COMMAND
					1209.	12:35:00,072						5	19440.	L3SM	GSM	Uplink	12:34:47.860	DCCH	CIPHERING_MODE_COMPLETE
					1210.	12:35:00.145	-95	20	20	1			19441.	L3SM	GSM	Downlink	12:34:48.003	SACCH	SYSTEM_INFORMATION_TYPE_5
					1211.	12:35:00.543						7	19442.	L3SM	GSM	Downlink	12:34:48.091	DCCH	LOCATION_UPDATING_ACCEPT
					1212.	12:35:00.714	-97	20	20	1			19443.	L3SM	GSM	Uplink	12:34:48.091	DCCH	TMSI_REALLOCATION_COMPLET
					1213.	12:35:01.272	-97	20	20	1			19444.	L3SM	GSM	Uplink	12:34:48.092	DCCH	CM_SERVICE_REQUEST
					1214.	12:35:01.507	-97	20	20	1			19445.	L3SM	GSM	Uplink	12:34:48.303	SACCH	MEASUREMENT_REPORT
					1215.	12:35:02.376	-98	20	20	1			19446.	L3SM	GSM	Downlink	12:34:48.474	SACCH	SYSTEM_INFORMATION_TYPE_5T
					1216.	12:35:03.068	-99	20	20	1			19447.	L3SM	GSM	Downlink	12:34:48.561	DCCH	CM_SERVICE_ACCEPT
					1217,	12:35:03.392	-98	20	20	1			19448.	L3SM	GSM	Uplink	12:34:48.562	DCCH	SETUP
					1218.	12:35:04.032	-99	20	20	1			19449.	L3SM	GSM	Uplink	12:34:48.774	SACCH	MEASUREMENT_REPORT
					1219.	12:35:04.376	-99	20	20	1			19450.	L3SM	GSM	Downlink	12:34:48.944	SACCH	SYSTEM_INFORMATION_TYPE_6
					1220.	12:35:05.034	-99	20	20	1			19451.	L3SM	GSM	Downlink	12:34:49.032	DCCH	CALL_PROCEEDING
					1221.	12:35:05.533	-98	20	20	1			19452.	L3SM	GSM	Uplink	12:34:49.245	SACCH	MEASUREMENT_REPORT
					1222.	12:35:06.034	-99	20	20	1			19453.	L3SM	GSM	Downlink	12:34:49.415	SACCH	SYSTEM_INFORMATION_TYPE_5
					1223.	12:35:06.663	-99	20	20	1			19454.	L3SM	GSM	Uplink	12:34:49.716	SACCH	MEASUREMENT_REPORT
					1224.	12:35:07.605	-99	20	20	1			19455.	L3SM	GSM	Downlink	12:34:49.886	SACCH	SYSTEM_INFORMATION_TYPE_5T
					1225.	12:35:08.098	-99	20	20	1			19456.	L3SM	GSM	Uplink	12:34:50.186	SACCH	MEASUREMENT_REPORT
					1226.	12:35:08.717	-99	20	20	1			19457.	L35M	GSM	Downlink	12:34:50.357	SACCH	SYSTEM_INFORMATION_TYPE_6
					1227.	12:35:09.209	-99	20	20	1		100	19458.	L3SM	GSM	Uplink	12:34:50.657	SACCH	MEASUREMENT_REPORT
					1228.	12:35:09.209	100						19459,	L3SM	GSM	Downlink	12:34:50.828	SACCH	SYSTEM_INFORMATION_TYPE_5
					1229.	12:35:12.963	-70	3	18	1	0		19460.	L3SM	GSM	Uplink	12:34:51.128	SACCH	MEASUREMENT_REPORT
					1230.	12:35:13.350	-70	3	18	1	0		19451.	L3SM	GSM	Downlink	12:34:51.298	SACCH	SYSTEM_INFORMATION_TYPE_5T
					1231.	12:35:14.034	-69	3	18	1	0		19462.	L3SM	GSM	Uplink	12:34:51.599	SACCH	MEASUREMENT_REPORT
					1232.	12:35:14.434	-69	3	18	1	0		19463,	L3SM	GSM	Downlink	12:34:51.769	SACCH	SYSTEM_INFORMATION_TYPE_6
					1233.	12:35:15.035	-69	3	18	1	0		19464.	L3SM	GSM	Uplink	12:34:52.069	SACCH	MEASUREMENT_REPORT
					1234.	12:35:15.481	-69	3	18	1	0		19465.	L3SM	GSM	Downlink	12:34:52,240	SACCH	SYSTEM_INFORMATION_TYPE_5
					1235.	12:35:16.035	-69	3	18	1	0		19466.	L3SM	GSM	Uplink	12:34:52.540	SACCH	MEASUREMENT_REPORT
					1236.	12:35:16.454	-70	3	18	1	0		19467.	L3SM	GSM	Downlink	12:34:52.711	SACCH	SYSTEM_INFORMATION_TYPE_5T

- This call failure event occurred on short call at 12:35:10:055 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 session UE was latched with ARFCN 20 and RF condition Rx Level -99 dBm and Rx Qual 7 dB both are poor.
- As per the analysis call failed happened due to poor coverage of the network.



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

	Time	System	Serving band			1. best active RSCP	Time	Ćh	SC	1. best active Ec/N0 🔺		Event ID	System	Transf. dir.	Time	Subchannel	Message name
1.	12:35:10.055	GSM	900	Call	8526,		13:08:07.934	10690	359	4.8	25510.	RRCSM	UMTS FDD	Uplink	13:08:07,965	DCCH	UPLINK_DIRECT_TRANSFER
2.	13:08:16.615	UMTS FDD	2100	Dro	8527.	-72	13:08:08.281	10690	359		25511,	L3SM	UMTS FDD	Uplink	13:08:07.965	DCCH	TMSI_REALLOCATION_COMPLET
					8528.		13:08:08.281	10690	359	-3.9	25512.	RRCSM	UMTS FDD	Downlink	13:08:08.084	DCCH	DOWNLINK_DIRECT_TRANSFER
					8529.	-72	13:08:08.985	10690	359		25513.	LBSM	UMTS FDD	Downlink	13:08:08.084	DCCH	CALL_PROCEEDING
					8530.		13:08:08.985	10690	359	4.7	25514.	RRCSM	UMTS FDD	Downlink	13:08:11.544	DCCH	RADIO_BEARER_SETUP
					8531.	-72	13:08:09.237	10690	359		25515.	RRCSM	UMTS FDD	Uplink	13:08:11.817	DCCH	RADIO_BEARER_SETUP_COMPLE
					8532.	1101	13:08:09.237	10690	359	4.5	25516.	RRCSM	UMTS FDD	Downlink	13:08:12.064	DCCH	MEASUREMENT_CONTROL
					8533.	-72	13:08:09.985	10690	359		25517.	RRCSM	UMTS FDD	Downlink	13:08:12.104	DCCH	MEASUREMENT_CONTROL
					8534.	1000	13:08:09.985	10690	359	-5	25518.	RRCSM	UMTS FDD	Downlink	13:08:12.144	DCCH	MEASUREMENT_CONTROL
					8535.	-72	13:08:10.376	10690	359		25519.	RRCSM	UMTS FDD	Downlink	13:08:12.184	DCCH	MEASUREMENT_CONTROL
					8536.		13:08:10.376	10690	359	-4.7	25520.	RRCSM	UMTS FDD	Downlink	13:08:12.344	DCCH	DOWNLINK_DIRECT_TRANSFER
					8537.	-72	13:08:10.677	10690	359		25521,	L3SM	UMTS FDD	Downlink	13:08:12.344	DCCH	AUTHENTICATION_AND_CIPHER
					8538.		13:08:10.677	10690	359	-6	25522.	RRCSM	UMTS FDD	Uplink	13:08:12,382	DCCH	UPLINK_DIRECT_TRANSFER
					8539.	-71.4	13:08:11.485	10690	359		25523.	L3SM	UMTS FDD	Uplink	13:08:12.382	DCCH	AUTHENTICATION_AND_CIPHERI
					8540.		13:08:11.485	10690	359	-3.4	25524.	RRCSM	UMTS FDD	Downlink	13:08:12,784	DCCH	SECURITY_MODE_COMMAND
					8541,	-73.2	13:08:12.002	10690	359		25525.	RRCSM	UMTS FDD	Uplink	13:08:12.784	DCCH	SECURITY_MODE_COMPLETE
					8542.	1000	13:08:12.002	10690	359	4.3	25526.	RRCSM	UMTS FDD	Uplink	13:08:13.356	DCCH	MEASUREMENT_REPORT
					8543.	-72.5	13:08:12.306	10690	359		25527.	RRCSM	UMTS FDD	Uplink	13:08:13.406	DCCH	MEASUREMENT_REPORT
					8544.		13:08:12.306	10690	359	-3.3	25528.	RRCSM	UMTS FDD	Downlink	13:08:13.424	DCCH	DOWNLINK_DIRECT_TRANSFER
					8545.	-72.8	13:08:13.025	10690	359		25529.	L3SM	UMTS FDD	Downlink	13:08:13.424	DCCH	ROUTING_AREA_UPDATE_ACCEP
					8546.		13:08:13.025	10690	359	-3,9	25530.	RRCSM	UMTS FDD	Uplink	13:08:13,426	DCCH	UPLINK_DIRECT_TRANSFER
					8547.	-72.4	13:08:13.485	10690	359		25531,	L3SM	UMTS FDD	Uplink	13:08:13,426	DCCH	ROUTING_AREA_UPDATE_COMP
					8548.		13:08:13.485	10690	359	-3.9	25532.	RRCSM	UMTS FDD	Uplink	13:08:13.429	DCCH	UPLINK_DIRECT_TRANSFER
					8549.	-70.3	13:08:13.985	10690	359		25533.	L3SM	UMTS FDD	Uplink	13:08:13.429	DCCH	SERVICE_REQUEST
					8550.		13:08:13.985	10690	359	-3.2	25534.	RRCSM	UMTS FDD	Downlink	13:08:13.744	DCCH	DOWNLINK_DIRECT_TRANSFER
					8551,	-70.6	13:08:14.485	10690	359		25535.	L3SM	UMTS FDD	Downlink	13:08:13.744	DCCH	SERVICE_ACCEPT
					8552.	14334	13:08:14.485	10690	359	-3.7	25536.	RRCSM	UMTS FDD	Downlink	13:08:14.064	DCCH	RADIO_BEARER_SETUP
					8553.	-69.4	13:08:15.206	10715	359		25537.	RRCSM	UMTS FDD	Uplink	13:08:14.773	DCCH	RADIO_BEARER_SETUP_COMPLE
					8554.		13:08:15.206	10715	359	-3.1	25538.	RRCSM	UMTS FDD	Downlink	13:08:14.984	DCCH	MEASUREMENT_CONTROL
					8555.	-69.4	13:08:15.716	10690	359		25539.	RRCSM	UMTS FDD	Downlink	13:08:15.024	DCCH	MEASUREMENT_CONTROL
					8556.		13:08:15.716	10715	359	-3.5	25540.	RRCSM	UMTS FDD	Downlink	13:08:15.104	DCCH	DOWNLINK_DIRECT_TRANSFER
					8557.	-70.6	13:08:16.267	10715	359	_	25541,	L3SM	UMTS FDD	Downlink	13:08:15.104	DCCH	MODIFY_PDP_CONTEXT_REQUES
					8558.		13:08:16.267	10715	359	-34	25542.	RRCSM	UMTS FDD	Uplink	13:08:15.105	DCCH	UPLINK_DIRECT_TRANSFER
					8559.	-71.3	13:08:16.765	10690	359		25543.	L3SM	UMTS FDD	Uplink	13:08:15.105	DCCH	MODIFY_PDP_CONTEXT_ACCEPT
					8560.	4	13:08:16.765	10715	359	4.2	25544.	RRCSM	UMTS FDD	Uplink	13:08:16.267	DCCH	MEASUREMENT_REPORT
					8561.	-68.9	13:08:17.266	10690	359		25545.	RRCSM	UMTS FDD	Uplink	13:08:16.307	DCCH	MEASUREMENT_REPORT
					8562.		13:08:17.266	10715	359	-3,4	25546.	RRCSM	UMTS FDD	Downlink	13:08:16.504	DCCH	DOWNLINK_DIRECT_TRANSFER

- This call failure event occurred on short call at 13:08:16:615 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 359 and RF condition RSCP -70.6 dBm and Ec/No -3.4 dB are very good.
- Need to check at MT end.



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

	1. best active RSCP	Time	Ch	sc	1. best active Ec/N0	_		Event ID	System	Transf. dir.	Time	Subchannel	Message name
6359.	-73	13:08:11.130	1117/11	-	1. Dest active como		24352.	RRCSM	UMTS FDD	Downlink	13:08:10.969	and the second of the second	MEASUREMENT CONTROL
6360.		13:08:11.130			-6.4		24353.	RRCSM	UMTS FDD	7.7	13:08:10.989		SECURITY MODE COMMAND
6361.	-73	13:08:11.630					24354.	RRCSM	UMTS FDD	Uplink	13:08:10.989		SECURITY_MODE_COMPLETE
6362.	1000	13:08:11.630		STATE OF THE STATE OF	-6.2		24355.	RRCSM	UMTS FDD	Downlink	13:08:11.089		DOWNLINK_DIRECT_TRANSFER
6363.	-73	13:08:12.141	the latest series	All the Carl Car			24356.	L35M	UMTS FDD		13:08:11.089		TMSI_REALLOCATION_COMMAND
6364.	1	13:08:12.141		STORYE.	-5.8		24357.	RRCSM	UMTS FDD	12.2	13:06:11.090		UPLINK_DIRECT_TRANSFER
6365.	-73	13:08:12.631			1000		24358.	L35M	UMTS FDD	Uplink	13:08:11.090		TMSI_REALLOCATION_COMPLETE
6366.		13:08:12.631	THE PERSON NAMED IN		-5		24359.	RRCSM	UMTS FDD	Downlink	13:08:11.199		DOWNLINK DIRECT_TRANSFER
6367.	-73	13:08:13.104		-			24360.	L3SM	UMTS FDD	Downlink	13:08:11.199	March 1	SETUP
6368.	N/C=	13:08:13.104			-5.8		24361.	RRCSM	UMTS FDD	Uplink	13:08:11.200		UPLINK_DIRECT_TRANSFER
6369.	-74	13:08:14.001	10690	359			24362.	L3SM	UMTS FDD	Uplink	13:08:11.200		CALL CONFIRMED
6370.	- CANA	13:08:14.001	10690		-5.9		24363.	RRCSM	UMTS FDD	Uplink	13:08:11.200		UPLINK DIRECT TRANSFER
6371.	-72.1	13:08:14.130	10690	359	and the same of th		24364.	L3SM	UMTS FDD	Uplink	13:08:11.200		ALERTING
6372.		13:08:14.130	2000	Time.	-5.8		24365.	RRCSM	UMTS FDD		13:08:11.292		MEASUREMENT_REPORT
6373.	-74.3	13:08:14.641	10690	359			24366.	RRCSM	UMTS FDD		13:08:11.365	1/2/2/3000 C	UPLINK_DIRECT_TRANSFER
6374.		13:08:14.641			-5.8		24367.	L3SM	UMTS FDD	Uplink	13:08:11.365	DCCH	CONNECT
6375.	-73.3	13:08:15.401	10690	359			24368.	RRCSM	UMTS FDD	Downlink	13:08:11.429	DCCH	ACTIVE_SET_UPDATE
6376.	10-109-0	13:08:15.401	10690	359	-6.9		24369.	RRCSM	UMTS FDD	Uplink	13:08:11.440	DCCH	ACTIVE_SET_UPDATE_COMPLETE
6377.	-74.2	13:08:16.001	10690	359			24370.	RRCSM	UMTS FDD	Downlink	13:08:15.999	DCCH	DOWNLINK_DIRECT_TRANSFER
6378.		13:08:16.001	10690	359	-6.4		24371.	L3SM	UMTS FDD	Downlink	13:06:15.999	DCCH	AUTHENTICATION_AND_CIPHERING_REQUEST
6379.	-72.9	13:08:16.291	10690	359			24372.	RRCSM	UMTS FDD	Uplink	13:08:16.037	DCCH	UPLINK_DIRECT_TRANSFER
6380.		13:08:16.291	10690	359	-6		24373.	L3SM	UMTS FDD	Uplink	13:08:16.037	DCCH	AUTHENTICATION AND CIPHERING RESPONSE
6381.	-73	13:08:17.002	10690	359			24374.	RRCSM	UMTS FDD	Downlink	13:08:17.840	BCCH_BCH	SYSTEM_INFORMATION_BCH
6382.	W/CC	13:08:17.002	10690	359	-6		24375.	RRCSM	UMTS FDD	Downlink	13:08:17.840	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2
6383.	-72.3	13:08:17.604	10690	359			24376.	RRCSM	UMTS FDD	Downlink	13:08:17.840	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
6384.	The state of	13:08:17.604	10690	359	-5.5		24377.	RRCSM	UMTS FDD	Downlink	13:08:17.860	BCCH_BCH	SYSTEM_INFORMATION_BCH
6385.	-72.6	13:08:18.000	10690	359			24378,	RRCSM	UMTS FDD	Downlink	13:08:17.880	BCCH_BCH	SYSTEM_INFORMATION_BCH
6386.		13:08:18,000	10690	359	-5.8		24379.	RRCSM	UMTS FDD	Downlink	13:08:17,900	BCCH_BCH	SYSTEM_INFORMATION_BCH
6387.	-72.9	13:08:18.562	10690	359			24380.	RRCSM	UMTS FDD	Downlink	13:08:17.900	BCCH	MASTER_INFORMATION_BLOCK
6388.		13:08:18.562	10690	359	-7		24381,	RRCSM	UMTS FDD	Downlink	13:08:17.900	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7
6389.	-73.1	13:08:19.079	10690	359			24382.	RRCSM	UMTS FDD	Downlink	13:08:18.000	BCCH_BCH	SYSTEM_INFORMATION_BCH
6390.	10000000	13:08:19.079	10690	359	-5.5	-	24383.	RRCSM	UMTS FDD	Downlink	13:08:18.000	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2
6391.	-74	13:08:19.610	10690	359			24384.	RRCSM	UMTS FDD	Downlink	13:06:18.000	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3
6392.		13:08:19.610	10690	359	-5.6		24385.	RRCSM	UMTS FDD	Downlink	13:06:18.180	BCCH_BCH	SYSTEM_INFORMATION_BCH
6393.	-74	13:08:20.198	10690	359			24386.	RRCSM	UMTS FDD	Downlink	13:08:18.200	BCCH_BCH	SYSTEM_INFORMATION_BCH
6394.		13:08:20.198	10690	359	-5.7		24387.	RRCSM	UMTS FDD	Downlink	13:08:18.220	BCCH BCH	SYSTEM INFORMATION BCH

- On MT End, During the setup fail, UE was latched with PSC 359 and RF condition RSCP -72.9 dBm and EC/NO -6 dB both are ok.
- Need to check from Network End.



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

Ť.	Time	System	Serving band	Call type		Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub	A ,		Transf. dir.	Time	Subchannel	Message name
17	11:40:46.766	GSM	900	Voice call	89.	11:40:17.362	-93	100	49	50000	4	ALCOHOLOGICAL DES		3355.	Downlink	11:40:13.956	SACCH	MEASUREMENT_INFORMATION
2.	12:23:42.790	UMTS FDD	900	Voice call	90.	11:40:18.027	-92	100	49	50000	4		= 4	3356,	Uplink	11:40:14.002	SACCH	MEASUREMENT_REPORT
3,	12:25:58.580	UMTS FDD	900	Voice call	91.	11:40:18.345	-93	100	49	50000	4		4	3357.	Downlink	11:40:14.436	SACCH	SYSTEM_INFORMATION_TYPE_6
4,	12:29:56.199	GSM	900	Voice call	92.	11:40:19.033	-93	100	49	50000	4			3358.	Uplink	11:40:14.482	SACCH	MEASUREMENT_REPORT
					93.	11:40:19.305	-93	100	49	50000	4			3359,	Downlink	11:40:14.916	SACCH	SYSTEM_INFORMATION_TYPE_6
					94.	11:40:20.035	-95	100	49	50000	4			3360.	Uplink	11:40:14.962	SACCH	MEASUREMENT_REPORT
					95.	11:40:20.450	-93	100	49	50000	4			3361.	Uplink	11:40:15.442	SACCH	MEASUREMENT_REPORT
					96.	11:40:21.034	-95	100	49	50000	4			3362.	Downlink	11:40:15.876	SACCH	SYSTEM_INFORMATION_TYPE_5
					97.	11:40:21.202						6		3363.	Uplink	11:40:15.922	SACCH	MEASUREMENT_REPORT
					98.	11:40:21.682	-94	100	49	50000	4			3364,	Uplink	11:40:16.402	SACCH	MEASUREMENT_REPORT
					99.	11:40:21.682						7		3365.	Uplink	11:40:16.882	SACCH	MEASUREMENT_REPORT
					100.	11:40:22.642	-93	100	49	50000	4			3366,	Uplink	11:40:17.362	SACCH	MEASUREMENT_REPORT
					101.	11:40:23.122						ő		3367.	Downlink	11:40:17.796	SACCH	SYSTEM_INFORMATION_TYPE_6
					102.	11:40:23.150	-92	100	49	50000	4			3368,	Uplink	11:40:17,842	SACCH	MEASUREMENT_REPORT
					103.	11:40:23.602	-93	100	49	50000	4			3369.	Uplink	11:40:18.322	SACCH	MEASUREMENT_REPORT
					104.	11:40:23.602						7		3370,	Uplink	11:40:18.802	SACCH	MEASUREMENT_REPORT
					105.	11:40:24.082	-94	100	49	50000	4			3371,	Uplink	11:40:19.282	SACCH	MEASUREMENT_REPORT
					106.	11:40:24.562	-94	100	49	50000	4			3372.	Uplink	11:40:19.762	SACCH	MEASUREMENT_REPORT
					107.	11:40:25.042	-94	100	49	50000	4			3373.	Downlink	11:40:20.196	SACCH	SYSTEM_INFORMATION_TYPE_6
					108.	11:40:25.975	-94	100	49	50000	4		-	3374.	Uplink	11:40:20.242	SACCH	MEASUREMENT_REPORT
					109.	11:40:26.482	-95	100	49	50000	4			3375.	Downlink	11:40:20.676	SACCH	SYSTEM_INFORMATION_TYPE_6
					110.	11:40:26.962	-94	100	49	50000				3376.	Uplink	11:40:20.722	SACCH	MEASUREMENT_REPORT
					111.	11:40:27.442	-95	100	49	50000				3377.	Downlink	11:40:21.156	SACCH	SYSTEM_INFORMATION_TYPE_5
					112.	11:40:28.034	-95	100	49	50000				3378.	Uplink	11:40:21.202	SACCH	MEASUREMENT_REPORT
					113.	11:40:28.947	-95	100	49	50000	4			3379.	Downlink	11:40:21.636	SACCH	SYSTEM_INFORMATION_TYPE_5
					114.	11:40:29.427	-94	100	49	50000				3380,	Uplink	11:40:21.682	SACCH	MEASUREMENT_REPORT
					115.	11:40:30.032		100	49	50000				3381,	Uplink	11:40:22.162	SACCH	MEASUREMENT_REPORT
					116.	11:40:30.322		100	49	50000				3382.	Downlink	11:40:22.596	SACCH	MEASUREMENT_INFORMATION
					117.	11:40:30.968		100	49	50000				3383.	Uplink	11;40:22.642		MEASUREMENT_REPORT
					118.	11:40:31.508	-95	100	49	50000	4			3384.	Downlink	11:40:23.076		SYSTEM_INFORMATION_TYPE_6
					119.	11:40:32.035		100	49	50000				3385.	Uplink	11:40:23.122	SACCH	MEASUREMENT_REPORT
					120.	11:40:32.722		100	49	50000				3386.	Uplink	11:40:23.602	SACCH	MEASUREMENT_REPORT
					121.	11:40:33.682		100	49	50000				3387.	Uplink	11:40:24.082		MEASUREMENT_REPORT
					122.	11:40:34.642	-94	100	49	50000	4			3388.	Uplink	11:40:24.562	SACCH	MEASUREMENT_REPORT
					123.	11:40:35.122	-95	100	49	50000				3389.	Uplink	11:40:25.042	SACCH	MEASUREMENT_REPORT
					124.	11:40:35.667		100	49	50000				3390.	Uplink	11:40:25.522		MEASUREMENT_REPORT
					125.	11:40:36.087	-95	100	49	50000	4			3391,	Downlink	11:40:25.956	SACCH	SYSTEM_INFORMATION_TYPE_6

- This call drop event occurred on long call at 11:40:46:766 time when UE was latched with 2G network.
- After getting Alerting message at 11:39:50:838 time than Call drop happened.
- During the session UE was latched with ARFCN 100 and RF condition Rx Level -93 dBm is good and Rx Qual 7 dB is poor.
- As per the analysis call drop happened due to poor quality of the network.



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

	Time	System	Serving ban	d Call type		1. best active RSCP	Time	Ch	SC	1. best active Ec/NO	e nerv	Event ID	System	Transf. dir.	Time	Subchannel	Message name •
1,	11:40:46.766	GSM	900	Voice call	10313.	-97.9	12:23:37,459	3050	431		8941.	RRCSM	UMTS FDD	Downlink	12:22:54.629	DCCH	ACTIVE_SET_UPDATE
2.	12:23:42.790	UMTS FOD	900	Voice call	10314.		12:23:37.459	3050	431	-19.2	8942.	RRCSM	UMTS FDD	Uplink	12:22:54.641	DCCH	ACTIVE_SET_UPDATE_COMPLETE
3.	12:25:58.580	UMTS FDD	900	Voice call	10315.	-100	12:23:38.039	3050	431		8943.	RRCSM	UMTS FDD	Downlink	12:22:54.909	DCCH	MEASUREMENT_CONTROL
4,	12:29:56.199	GSM	900	Voice call	10316.		12:23:38.039	3050	431	-21	8944,	RRCSM	UMTS FDD	Uplink	12:22:56.282	DCCH	MEASUREMENT_REPORT
					10317.	-98.5	12:23:38.413	3050	447		8945.	RRCSM	UMTS FDD	Downlink	12:22:56.509	DCCH	ACTIVE_SET_UPDATE
					10318.		12:23:38.413	3050	447	-19.5	8946.	RRCSM	UMTS FDD	Uplink	12:22:56.541	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					10319.	-99.9	12:23:39.039	3050	431		8947.	RRCSM	UMTS FDD	Downlink	12:22:56.749	DCCH	MEASUREMENT_CONTROL
					10320.		12:23:39.039	3050	431	-20.5	8948.	RRCSM	UMTS FDD	Uplink	12:23:04.982	DCCH	MEASUREMENT_REPORT
					10321.	-101.8	12:23:39.368	3050	431		8949.	RRCSM	UMTS FDD	Downlink	12:23:05.229	DCCH	ACTIVE_SET_UPDATE
					10322.		12:23:39.368	3050	431	-23.6	8950,	RRCSM	UMTS FDD	Uplink	12:23:05.241	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					10323.	-99.4	12:23:39.992	3050	431		8951.	RRCSM	UMTS FDD	Downlink	12:23:05.509	DCCH	MEASUREMENT_CONTROL
					10324.		12:23:39.992	3050	431	-20.5	8952.	RRCSM	UMTS FDD	Uplink	12:23:24.682	DCCH	MEASUREMENT_REPORT
					10325.	-102.9	12:23:40.499	3050	431		8953.	RRCSM	UMTS FDD	Downlink	12:23:24.909	DCCH	ACTIVE_SET_UPDATE
					10326.		12:23:40.499	3050	431	-23.7	8954.	RRCSM	UMTS FDD	Uplink	12:23:24.941	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					10327.	-101.5	12:23:40.976	3050	431		8955,	RRCSM	UMTS FDD	Downlink	12:23:25.149	DCCH	MEASUREMENT_CONTROL
					10328.	1/1-2/02	12:23:40.976	3050	431	-22.2	8956.	RRCSM	UMTS FDD	Uplink	12:23:27.442	DCCH	MEASUREMENT_REPORT
					10329.	-104,8	12:23:41.432	3050	447		8957.	RRCSM	UMTS FDD	Downlink	12:23:27.669	DCCH	ACTIVE_SET_UPDATE
					10330.		12:23:41.432	3050	447	-25.9	8958	RRCSM	UMTS FDD	Uplink	12:23:27.681	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					10331.	-102.6	12:23:42.071	3050	447		8959.	RRCSM	UMTS FDD	Downlink	12:23:27.949	DCCH	MEASUREMENT_CONTROL =
					10332.		12:23:42.071	3050	447	-23.8	8960	RRCSM	UMTS FDD	Uplink	12:23:34.312	DCCH	MEASUREMENT_REPORT
					10333.	-101.4	12:23:42.452	3050	431		8961.	RRCSM	UMTS FDD	Uplink	12:23:34.481	DCCH	MEASUREMENT_REPORT
					10334.		12:23:42.452	3050	431	-22.5	8962.	RRCSM	UMTS FDD	Downlink	12:23:34.829	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					10335.	-102.5	12:23:43.143	3050	431		8963.	RRCSM	UMTS FDD	Uplink	12:23:34.871	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_CO
					10336.		12:23:43.143	3050	431	-23.9	8964.	RRCSM	UMTS FDD	Downlink	12:23:35.509	DCCH	MEASUREMENT_CONTROL
					10337.	-102.1	12:23:43.639	3050	447		8965.	RRCSM	UMTS FDD	Uplink	12:23:36.001	DCCH	MEASUREMENT_REPORT
					10338.	0781000	12:23:43.639	3050	447	-23.7	8966.	RRCSM	UMTS FDD	Uplink	12:23:36.599	DCCH	MEASUREMENT_REPORT
					10339.	-102	12:23:44.118	3050	447		8967.	RRCSM	UMTS FDD	Uplink	12:23:37.321	DCCH	MEASUREMENT_REPORT
					10340.		12:23:44.118	3050	447	-23.3	8968.	RRCSM	UMTS FDD	Downlink	12:23:42.789	DCCH	DOWNLINK_DIRECT_TRANSFER
					10341.	-102.2	12:23:44.590	3050	431		8969,	L3SM	UMTS FDD	Downlink	12:23:42.789	DCCH	DISCONNECT
					10342.		12:23:44.590	3050	431	-23.1	8970.	RRCSM	UMTS FDD	Uplink	12:23:42.790	DCCH	UPLINK_DIRECT_TRANSFER
					10343.	-102.3	12:23:45.099	3050	447		8971.	L3SM	UMTS FDD	Uplink	12:23:42.790	DCCH	RELEASE
					10344.		12:23:45.099	3050	447	-23.7	8972.	RRCSM	UMTS FDD	Uplink	12:23:42.889	DCCH	MEASUREMENT_REPORT
					10345.	-102.7	12:23:45.672	3050	447		8973.	RRCSM	UMTS FDD	Downlink	12:23:43.029	DCCH	DOWNLINK_DIRECT_TRANSFER
					10346.	3100000	12:23:45.672	3050	447	-23.6	8974.	L3SM	UMTS FDD	Downlink	12:23:43.029	DCCH	RELEASE_COMPLETE
					10347.	-104.2	12:23:46.108	3050	447		8975.	RRCSM	UMTS FDD	Downlink	12:23:48.282	BCCH_BCH	SYSTEM_INFORMATION_BCH
					10348.		12:23:46.108	3050	447	-24.9	8976.	RRCSM	UMTS FDD	Downlink	12:23:48.302	BCCH_BCH	SYSTEM_INFORMATION_BCH
					10349.	-104.2	12:23:46.975	3050	431		8977.	RRCSM	UMTS FDD	Downlink	12:23:48.302	BCCH	MASTER_INFORMATION_BLOCK -

- This call drop event occurred on long call at 12:23:42:790 time when UE was latched with 3G network.
- After getting Alerting message at 12:22:01:750 time than Call drop happened.
- During the session UE was latched with PSC 431 and RF condition RSCP -101.4 dBm and Ec/No -22.5 dB are very poor.
- As per the analysis call drop happened due to poor quality of the network.



## Phase-2 Call Drop Analysis 3 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,	11:40:46.766	GSM	900	Voice call	10585.	-102.1	12:25:53.390	3050	46	-	9245.	RRCSM	UMTS FDD	Downlink	12:25:05.381	DCCH	SIGNALLING_CONNECTION_RELEASE
2.	12:23:42.790	UMTS FDD	900	Voice call	10586.	50000	12:25:53.390	3050	46	-23	9246.	RRCSM	UMTS FDD	Uplink	12:25:06.193	DCCH	MEASUREMENT_REPORT
3.	12:25:58.580	UMTS FDD	900	Voice call	10587.	-100,6	12:25:53.883	3050	46		9247,	RRCSM	UMTS FDD	Downlink	12:25:06.421	DCCH	ACTIVE_SET_UPDATE
4.	12:29:56.199	GSM	900	Voice call	10588.	reconst.	12:25:53.883	3050	46	-21.2	9248.	RRCSM	UMTS FDD	Uplink	12:25:06.452	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					10589.	-99,4	12:25:54.379	3050	46		9249.	RRCSM	UMTS FDD	Downlink	12;25:06.701	DCCH	MEASUREMENT_CONTROL
					10590,		12:25:54.379	3050	46	-19.9	9250.	RRCSM	UMTS FDD	Uplink	12:25:08,023	DCCH	MEASUREMENT_REPORT
					10591.	-101.8	12:25:54.979	3050	46		9251.	RRCSM	UMTS FDD	Uplink	12:25:12.234	DCCH	MEASUREMENT_REPORT
					10592.		12:25:54.979	3050	46	-22.4	9252.	RRCSM	UMTS FDD	Downlink	12:25:12.501	DCCH	ACTIVE_SET_UPDATE
					10593.	-102.5	12:25:55.390	3050	307		9253.	RRCSM	UMTS FDD	Uplink	12:25:12.513	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					10594.	0000000	12:25:55.390	3050	307	-22.6	9254.	RRCSM	UMTS FDD	Downlink	12:25:12.901	DCCH	MEASUREMENT_CONTROL
					10595.	-103.9	12:25:56.041	3050	307		9255.	RRCSM	UMTS FDD	Uplink	12:25:15.922	DCCH	MEASUREMENT_REPORT
					10596.		12:25:56,041	3050	307	-24.5	9256.	RRCSM	UMTS FDD	Uplink	12:25:28.692	DCCH	MEASUREMENT_REPORT
					10597.	-103	12:25:56.390	3050	46		9257.	RRCSM	UMTS FDD	Uplink	12:25:31.302	DCCH	MEASUREMENT_REPORT
					10598.		12:25:56.390	3050	46	-23.6	9258.	RRCSM	UMTS FDD	Uplink	12:25:34.063	DCCH	MEASUREMENT_REPORT
					10599.	-97.8	12:25:57.042	3050	46		9259.	RRCSM	UMTS FDD	Downlink	12:25:34.301	DCCH	ACTIVE_SET_UPDATE
					10600.	-00000	12:25:57.042	3050	46	-18.9	9260.	RRCSM	UMTS FDD	Uplink	12:25:34.332	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					10601.	-98.9	12:25:57.522	3050	46		9261.	RRCSM	UMTS FDD	Downlink	12:25:34.581	DCCH	MEASUREMENT_CONTROL
					10602.		12:25:57.522	3050	46	-19.9	9262.	RRCSM	UMTS FDD	Uplink	12:25:43.935	DCCH	MEASUREMENT_REPORT
					10603.	-97.7	12:25:58.043	3050	46		9263.	RRCSM	UMTS FDD	Downlink	12:25:44.261	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION
					10604.		12:25:58.043	3050	46	-18.9	9264.	RRCSM	UMTS FDD	Uplink	12:25:44.303	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_C
					10605.	-100.8	12:25:58.820	3050	46		9265.	RRCSM	UMTS FDD	Downlink	12:25:44.781	DCCH	MEASUREMENT_CONTROL
					10606.	200000	12:25:58.820	3050	46	-21.2	9266.	RRCSM	UMTS FDD	Uplink	12:25:45.164	DCCH	MEASUREMENT_REPORT
					10607.	-102.7	12:25:59.074	3050	307		9267.	RRCSM	UMTS FDD	Uplink	12:25:47.023	DCCH	MEASUREMENT_REPORT
					10608.		12:25:59.074	3050	307	-23.3	9268.	RRCSM	UMTS FDD	Downlink	12:25:47.260	DCCH	ACTIVE_SET_UPDATE
					10609.	-101.6	12:25:59.671	3050	46		9269.	RRCSM	UMTS FDD	Uplink	12:25:47.292	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					10610.		12:25:59.671	3050	46	-23.2	9270.	RRCSM	UMTS FDD	Downlink	12:25:47.540	DCCH	MEASUREMENT_CONTROL
					10611.	-103.2	12:26:00.160	3050	46		9271.	RRCSM	UMTS FDD	Downlink	12:25:47.700	DCCH	MEASUREMENT_CONTROL
					10612.		12:26:00.160	3050	46	-24.9	9272.	RRCSM	UMTS FDD	Downlink	12:25:58.579	DCCH	DOWNLINK_DIRECT_TRANSFER
					10613.	-101.1	12:26:00.631	3050	46		9273.	L3SM	UMTS FDD	Downlink	12:25:58.579	DCCH	DISCONNECT
					10614.		12:26:00.631	3050	46	-22	9274.	RRCSM	UMTS FDD	Uplink	12:25:58.580	DCCH	UPLINK_DIRECT_TRANSFER
					10615.	-105.3	12:26:01.158	3050	46		9275.	L35M	UMTS FDD	Uplink	12:25:58.580	DCCH	RELEASE
					10616.		12:26:01.158			-25.9	9276.	RRCSM	UMTS FDD	Downlink	12:25:58.819	DCCH	DOWNLINK_DIRECT_TRANSFER
					10617.	-95.1	12:26:01.669	3050	46		9277.	L3SM	UMTS FDD	Downlink	12:25:58.819	DCCH	RELEASE_COMPLETE
					10618.		12:26:01.669			-16.9	9278.	RRCSM	UMTS FDD	Downlink	12:25:58.980	DCCH	RRC_CONNECTION_RELEASE
					10619.	-90.7	12:26:02.339				9279.	RRCSM	UMTS FDD		12:25:58.980		RRC_CONNECTION_RELEASE_COMPLETE
					10620.	-CM//	12:26:02.339			-13.6	9280.	100000000000000000000000000000000000000	UMTS FDD		12:25:59.020		RRC CONNECTION RELEASE COMPLETE

- This call drop event occurred on long call at 12:25:58:580 time when UE was latched with 3G network.
- After getting Alerting message at 12:25:03:661 time than Call drop happened.
- During the session UE was latched with PSC 46 and RF condition RSCP -97.7 dBm and Ec/No -18.9 dB are very poor.
- As per the analysis call drop happened due to poor quality of the network.



## Phase-2 Call Drop Analysis 4 From MS9 Airtel MO

	Time	-	Serving band	Call type		Time	RxLev sub	ARFCN	BSIC	-		RXQ sub	•		Transf. dir.	the second second second	Subchannel	Message name
1.	11:40:46.766	PORTA PORTA DE	900	Voice call	1677.	12:29:37.768		112	31	50000				9981.	Uplink	12;29:44.004	OHOO STORY	MEASUREMENT_REPORT
2,	12:23:42.790			Voice call	1678.	12:29:38.244	-95	112	31	50000	4			9982.	Uplink	12:29:44.484		MEASUREMENT_REPORT
3.	12:25:58.580			Voice call	1679.	12:29:38.244						7		9983.	Uplink	12:29:44.964	SACCH	MEASUREMENT_REPORT
4.	12:29:56.199	GSM	900	Voice call	1680.	12:29:38.788	-94	112	31	50000	4			9984.	Uplink	12:29:45.443	SACCH	MEASUREMENT_REPORT
					1681.	12:29:39.291	-96	112	31	50000	4			9985.	Downlink	12:29:45.877	SACCH	SYSTEM_INFORMATION_TYPE_6
					1682.	12:29:40.042	-95	112	31	50000	4			9986.	Uplink	12:29:45.924	SACCH	MEASUREMENT_REPORT
					1683.	12:29:40.164	-94	112	31	50000	4			9987.	Uplink	12:29:46.404	SACCH	MEASUREMENT_REPORT
					1684.	12:29:41.040	-94	112	31	50000	4			9988.	Uplink	12:29:46.883	SACCH	MEASUREMENT_REPORT
					1685.	12:29:41.631	-96	112	31	50000	4			9989.	Uplink	12:29:47.364	SACCH	MEASUREMENT_REPORT
					1686.	12:29:42.084						6		9990.	Uplink	12:29:47.844	SACCH	MEASUREMENT_REPORT
					1687.	12:29:42.185	-95	112	31	50000	4			9991.	Uplink	12:29:48.323	SACCH	MEASUREMENT_REPORT
					1688.	12:29:42.564						7		9992.	Uplink	12:29:48.803	SACCH	MEASUREMENT_REPORT
					1689.	12:29:43.039	-95	112	31	50000	4			9993.	Uplink	12:29:49.283	SACCH	MEASUREMENT_REPORT
					1690.	12:29:43.044						6		9994.	Uplink	12:29:49.763	SACCH	MEASUREMENT_REPORT
					1691.	12:29:43.524	-97	112	31	50000	4			9995.	Uplink	12:29:50.244	SACCH	MEASUREMENT_REPORT
					1692.	12:29:43.524						7		9996.	Uplink	12:29:50.723	SACCH	MEASUREMENT_REPORT
					1693.	12:29:44.042	-94	112	31	50000	4			9997.	Downlink	12:29:51.157	SACCH	SYSTEM_INFORMATION_TYPE_6
					1694.	12:29:44.488	-96	112	31	50000	4			9998.	Uplink	12:29:51.204	SACCH	MEASUREMENT_REPORT
					1695.	12:29:45.043	-95	112	31	50000	4			9999.	Uplink	12:29:51.683	SACCH	MEASUREMENT_REPORT
					1696.	12:29:45.568	-97	112	31	50000	4			10000.	Uplink	12:29:52.163	SACCH	MEASUREMENT_REPORT
					1697.	12:29:46.043	-96	112	31	50000	4			10001.	Uplink	12:29:52.643	SACCH	MEASUREMENT_REPORT
					1698.	12:29:46.565	-96	112	31	50000	4			10002.	Uplink	12:29:53.123	SACCH	MEASUREMENT_REPORT
					1699.	12:29:47.045	9:47.045 -96	112	31	50000	4			10003.	Uplink	12:29:53.603	SACCH	MEASUREMENT_REPORT
					1700.	12:29:47.589	-97	112	31	50000	4			10004	Uplink	12:29:54.083	SACCH	MEASUREMENT_REPORT
					1701.	12:29:48.106	-95	112	31	50000	4			10005.	Uplink	12:29:54.564	SACCH	MEASUREMENT_REPORT
					1702.	12:29:48.982	-96	112	31	50000	4			10006.	Uplink	12:29:55.043	SACCH	MEASUREMENT_REPORT
					1703.	12:29:50.040	-96	112	31	50000	4			10007.	Uplink	12:29:55.523	SACCH	MEASUREMENT_REPORT
					1704.	12:29:50.289	-96	112	31	50000	4			10008,	Uplink	12:29:55.976	DCCH	CM_RE-ESTABLISHMENT_REQUEST
					1705.	12:29:51.043	-97	112	31	50000	4			10009,	Downlink	12:30:00.639	BCCH	SYSTEM_INFORMATION_TYPE_3
					1706.	12:29:51.286	-96	112	31	50000	4			10010.	Downlink	12:30:00.778	BCCH	SYSTEM_INFORMATION_TYPE_3
					1707.	12:29:52.042		112	31	50000	4			10011.	Downlink	12:30:26.065		SYSTEM_INFORMATION_TYPE_3
					1708.	12:29:52.246	-95	112	31	50000	4			10012.	title to hat be used to	12:30:26,194	BCCH	SYSTEM_INFORMATION_TYPE_3
					1709.	12:29:53.031		112	31	50000				10013.	and the second second second	12:30:31.589	THE RESERVE THE PERSON NAMED IN COLUMN 1	MasterInformationBlock
					1710.	12:29:53.691	-95	112	31	50000				10014.	Downlink	12:30:31.613		SystemInformationBlockType1
					1711.	12:29:54.669		112	31	50000				10015.	MI PLANTES SENTENCES OF PARTY	12:30:31.613		SystemInformation - SIB2, SIB3
					1712.	12:29:55.491	-96	112	31	50000	4			10016.	Uplink	12:30:31.627		TRACKING_AREA_UPDATE_REQUEST

- This call drop event occurred on long call at 12:29:56:199 time when UE was latched with 2G network.
- After getting Alerting message at 12:28:06:962 time than Call drop happened.
- During the session UE was latched with ARFCN 112 and RF condition Rx Level -95 dBm is good and Rx Qual 6 dB is poor.
- As per the analysis call drop happened due to poor quality of the network.



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

Time System Serving band Call t	ype Cal		Time	RxLev sub	ARFCN	BSIC	LAC	RAC	RXQ sub	٨		Event ID	System	Transf, dir,	Time	Subchannel	Message name
1. 11:35:41.839 GSM 900 Voice	call One	575.	11:35:32.426	-88	24	22	1	10		7.0	2767.	L3SM	GSM	Uplink	11:35:33.700	SACCH	MEASUREMENT_REPORT
W 10 1 Sec Markhold III Sec Market		576.	11:35:32.740						3		2768.	L3SM	GSM	Downlink	11:35:34.134	SACCH	SYSTEM_INFORMATION_TYPE_5
		577.	11:35:33.063	-92	24	22	1	10			2769.	L3SM	GSM	Uplink	11:35:34.180	SACCH	MEASUREMENT_REPORT
		578.	11:35:33.220						0		2770.	L3SM	GSM	Downlink	11:35:34.614	SACCH	SYSTEM_INFORMATION_TYPE_STER
		579.	11:35:33.700	-89	24	22	1	10		_	2771,	L3SM	GSM	Uplink	11:35:34.660	SACCH	MEASUREMENT_REPORT
	- 8	580.	11:35:33,700						3		2772.	L3SM	GSM	Downlink	11:35:35.094	SACCH	SYSTEM_INFORMATION_TYPE_6
		581,	11:35:34,180						5		2773.	L3SM	GSM	Uplink	11:35:35.140	SACCH	MEASUREMENT_REPORT
	ii.	582.	11:35:34.660						0		2774.	L3SM	GSM	Downlink	11:35:35.574	SACCH	MEASUREMENT_INFORMATION
		583.	11:35:34.683	-86	24	22	1	10			2775.	L3SM	GSM	Uplink	11:35:35.620	SACCH	MEASUREMENT_REPORT
		584.	11:35:35.504	-85	24	22	1	10			2776.	L3SM	GSM	Downlink	11:35:36.054	SACCH	MEASUREMENT_INFORMATION
	- 1	585.	11:35:36.100	-89	24	22	1	10			2777.	L3SM	G5M	Uplink	11:35:36,100	SACCH	MEASUREMENT_REPORT
		586.	11:35:36,580	-88	24	22	1	10			2778.	L3SM	GSM	Downlink	11:35:36.534	SACCH	MEASUREMENT_INFORMATION
		587.	11:35:36.580						1		2779.	L3SM	GSM	Uplink	11:35:36.580	SACCH	MEASUREMENT_REPORT
		588.	11:35:37.060	-93	24	22	1	10			2780.	M2E1	GSM	Downlink	11:35:37.014	SACCH	MEASUREMENT_INFORMATION
		589.	11:35:37.060						3		2781.	L3SM	GSM	Uplink	11:35:37.060	SACCH	MEASUREMENT_REPORT
		590.	11:35:37.544	-93	24	22	1	10			2782.	L3SM	GSM	Downlink	11:35:37.494	SACCH	MEASUREMENT_INFORMATION
	- 8	591.	11:35:38.020						0		2783.	L3SM	GSM	Uplink	11:35:37.540	SACCH	MEASUREMENT_REPORT
		592,	11:35:38,287	-88	24	22	1	10			2784.	L3SM	GSM	Downlink	11:35:37.974	SACCH	SYSTEM_INFORMATION_TYPE_5
	i.	593.	11:35:38.980	-88	24	22	1	10			2785.	L3SM	GSM	Uplink	11:35:38.020	SACCH	MEASUREMENT_REPORT
		594.	11:35:39.460	-92	24	22	1	10			2786,	L3SM	GSM	Downlink	11:35:38.454	SACCH	SYSTEM_INFORMATION_TYPE_STER
		595.	11:35:39.460						6		2787.	L3SM	GSM	Uplink	11:35:38.500	SACCH	MEASUREMENT_REPORT
	1	596.	11:35:39.940	-89	24	22	1	10			2788.	L3SM	GSM	Downlink	11:35:38.934	SACCH	SYSTEM_INFORMATION_TYPE_6
		597.	11:35:39.940						4		2789.	L3SM	GSM	Uplink	11:35:38,980	SACCH	MEASUREMENT_REPORT
		598.	11:35:40.420	-89	24	22	1	10			2790.	L3SM	GSM	Downlink	11:35:39.414	SACCH	MEASUREMENT_INFORMATION
		599.	11:35:40.420						0		2791.	L3SM	GSM	Uplink	11:35:39.460	SACCH	MEASUREMENT_REPORT
		600.	11:35:40.900						2		2792.	L3SM	GSM	Downlink	11:35:39.894	SACCH	MEASUREMENT_INFORMATION
		601.	11:35:40,983	-91	24	22	1	10			2793.	L3SM	GSM	Uplink	11:35:39.940	SACCH	MEASUREMENT_REPORT
		602.	11:35:41.380	-89	24	22	1	10			2794.	L3SM	GSM	Downlink	11:35:40.374	SACCH	MEASUREMENT_INFORMATION
		603.	11:35:42.149								2795.	L3SM	G5M	Uplink	11:35:40.420	SACCH	MEASUREMENT_REPORT
	li li	604,	11:37:01.958	-88	26	26	10	10			2796.	L3SM	GSM	Downlink	11:35:40.854	SACCH	MEASUREMENT_INFORMATION
		605.	11:37:01.958						7		2797.	L3SM	GSM	Uplink	11:35:40.900	SACCH	MEASUREMENT_REPORT
		606.	11:37:02.415	-84	26	26	10	10			2798.	L3SM	GSM	Downlink	11:35:41.334	SACCH	MEASUREMENT_INFORMATION
	1	607.	11:37:02.415						0		2799.	L3SM	GSM	Uplink	11:35:41.380	SACCH	MEASUREMENT_REPORT
		608.	11:37:03,229						0		2800.	L3SM	GSM	Downlink	11:35:41.588	DCCH	DISCONNECT
		609.	11:37:03.230	+81	26	26	1	10			2801.	L3SM	GSM	Uplink	11:35:41.588	DCCH	RELEASE
	li	610.	11:37:03.274						0	-	2802.	L3SM	GSM	Downlink	11:35:41.839	DCCH	RELEASE_COMPLETE

- This call drop event occurred on long call at 11:35:41:839 time when UE was latched with 2G network.
- After getting Alerting message at 11:33:48:016 time than Call drop happened.
- During the session UE was latched with ARFCN 24 and RF condition Rx Level -92 dBm is good and Rx Qual 6 dB is poor.
- As per the analysis call drop happened due to poor quality of the network.



# **THANKS**