



# **DRIVE TEST ROUTE**

Phase-1 Dates- 07<sup>th</sup> Oct 2024



Route Name: Mahe

District Name: Mont Fleuri

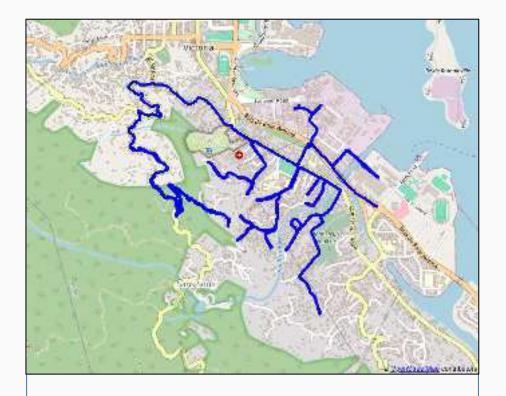
Region: Central

Island: Mahé

Drive Test Distance: 17.84 kms

Drive Test Duration: 01 hours,34 minutes,13 seconds

Phase-2 Dates- 21st Oct 2024



Route Name: Mahe

District Name: Mont Fleuri

Region: Central

Island: Mahé

Drive Test Distance: 19.21 kms

Drive Test Duration: 01 hours,25 minutes,55 seconds



#### **VOICE EXECUTIVE SUMMARY**

#### Phase-1

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

- The Call Setup Success Rate for Airtel is (99.16%), while for Operator CWS it is (97.41%).
- The Call Setup Time for Airtel is (6.77s), while for Operator CWS it is (8.11s)

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

- The Call Retainability for Airtel is (100.00%), while for CWS it is (93.55%).
- The MOS quality observed for Airtel is (3.02), and for CWS, it is (3.31).

#### Phase-2

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

- The Call Setup Success Rate for Airtel is (99.07%), while for Operator CWS it is (96.15%).
- The Call Setup Time for Airtel is (6.92s), while for Operator CWS it is (8.21s)

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

- The Call Retainability for Airtel is (100.00%), while for CWS it is (92.59%).
- The MOS quality observed for Airtel is (3.12), and for CWS, it is (3.47).



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

#### Phase-1

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

- Airtel SFTP DL is (7.40 Mbps), while SFTP UL is (4.26 Mbps), CWS SFTP DL is (3.12 Mbps), while
   SFTP UL is (2.44 Mbps)
- Airtel HTTP DL is (9.69 Mbps), HTTP Capacity DL is (12.94 Mbps), HTTP UL is (6.65 Mbps), and
   HTTP Capacity UL is (12.91 Mbps).
- CWS HTTP DL is (5.26 Mbps), HTTP Capacity DL is (14.71 Mbps), HTTP UL is (4.67 Mbps), and HTTP Capacity UL is (9.10 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (8.22s), <u>www.nbs.gov.sc</u> took
   (18.97s), and www.sbc.sc took (25.62s) on Airtel.
- On live web page testing for browsing, <a href="www.shein.com">www.shein.com</a> took (7.97s), <a href="www.nbs.gov.sc">www.nbs.gov.sc</a> took (16.18s), and <a href="www.sbc.sc">www.sbc.sc</a> took (20.40s) on CWS.
- On static browsing, Kepler Webpage took (4.62s), and Kepler Mobile took (1.78s) on Airtel.
- On static browsing, Kepler Webpage took (4.89s), and Kepler Mobile took (2.77s) on CWS.
- YouTube average resolution in Airtel is (967.85) pixels.
- YouTube average resolution in CWS is (1043.72) pixels.
- Airtel scored 51.30% in Carrier Aggregation (CA).
- CWS scored 24.06% in Carrier Aggregation (CA).

#### Phase-2

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

- Airtel SFTP DL is (4.84 Mbps), while SFTP UL is (4.86 Mbps), CWS SFTP DL is (5.29 Mbps), while
   SFTP UL is (3.86 Mbps)
- Airtel HTTP DL is (7.19 Mbps), HTTP Capacity DL is (6.96 Mbps), HTTP UL is (8.00 Mbps), and HTTP Capacity UL is (13.31 Mbps).
- CWS HTTP DL is (7.05 Mbps), HTTP Capacity DL is (25.57 Mbps), HTTP UL is (7.72 Mbps), and
   HTTP Capacity UL is (30.73 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (8.87s), <u>www.nbs.gov.sc</u> took
   (20.33s), and www.sbc.sc took (21.30s) on Airtel.
- On live web page testing for browsing, <a href="www.shein.com">www.shein.com</a> took (8.61s), <a href="www.nbs.gov.sc">www.nbs.gov.sc</a> took (17.70s), and <a href="www.sbc.sc">www.sbc.sc</a> took (18.13s) on CWS.
- On static browsing, Kepler Webpage took (4.68s), and Kepler Mobile took (1.89s) on Airtel.
- On static browsing, Kepler Webpage took (5.46s), and Kepler Mobile took (2.96s) on CWS.
- YouTube average resolution in Airtel is (1039.48) pixels.
- YouTube average resolution in CWS is (1022.02) pixels.
- Airtel scored 48.73% in Carrier Aggregation (CA).
- CWS scored 21.92% in Carrier Aggregation (CA).



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

#### Phase-1

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

- Airtel SFTP DL is (3.29 Mbps), while SFTP UL is (1.40 Mbps), CWS SFTP DL is (3.48 Mbps), while
   SFTP UL is (1.15 Mbps)
- Airtel HTTP DL is (3.40 Mbps), HTTP Capacity DL is (4.20 Mbps), HTTP UL is (2.36 Mbps), and HTTP
  Capacity UL is (4.81 Mbps).
- CWS HTTP DL is (3.19 Mbps), HTTP Capacity DL is (8.61 Mbps), HTTP UL is (2.22 Mbps), and HTTP
  Capacity UL is (5.18Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (14.22s), <u>www.nbs.gov.sc</u> took
   (16.78s), and <u>www.sbc.sc</u> took (22.56s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (12.67s), <u>www.nbs.gov.sc</u> took
   (11.01s), and <u>www.sbc.sc</u> took (13.63s) on CWS.
- On static browsing, Kepler Webpage took (4.67s), and Kepler Mobile took (2.12s) on Airtel.
- On static browsing, Kepler Webpage took (6.15s), and Kepler Mobile took (2.90s) on CWS.
- YouTube average resolution in Airtel is (838.84) pixels.
- YouTube average resolution in CWS is (972.01) pixels.

#### Phase-2

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

- Airtel SFTP DL is (3.36 Mbps), while SFTP UL is (1.41 Mbps), CWS SFTP DL is (3.08 Mbps), while SFTP UL is (1.07 Mbps)
- Airtel HTTP DL is (3.29 Mbps), HTTP Capacity DL is (3.81 Mbps), HTTP UL is (1.67 Mbps), and HTTP Capacity UL is (4.36 Mbps).
- CWS HTTP DL is (3.35 Mbps), HTTP Capacity DL is (5.81 Mbps), HTTP UL is (1.60 Mbps), and HTTP
  Capacity UL is (3.18 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (13.83s), <u>www.nbs.gov.sc</u> took
   (12.96s), and www.sbc.sc took (17.74s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (13.49s), <u>www.nbs.gov.sc</u> took (18.73s), and <u>www.sbc.sc</u> took (15.57s) on CWS.
- On static browsing, Kepler Webpage took (4.21s), and Kepler Mobile took (1.88s) on Airtel.
- On static browsing, Kepler Webpage took (11.20s), and Kepler Mobile took (4.93s) on CWS.
- YouTube average resolution in Airtel is (865.48) pixels.
- YouTube average resolution in CWS is (983.32) 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

Short Call Statistics						
Short Call Scenario Operator 1 Operator 2						
Voice KPIs	Airtel	cws				
Call Attempt	119	116				
Call Failed	1	3				
Call Connected	118	113				
CSSR[%]	99.16	97.41				
USCSR[%]	0.84	2.59				
CST [s] Alerting	6.77	8.11				
CST [s]Connected	7.02	8.30				

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

Call Setup Time (s)	Operators		Rank	
Call Setup Time (s)		cws	Airtel	cws
Overall CST (until ringing/alerting)	6.77	8.11	1	2
CS calls CST (until ringing/alerting)	5.27	8.71	1	2
CSFB calls CST (until ringing/alerting)	6.81	8.10	1	2
Overall CST (until Connect/Connect Acknowledge)	7.02	8.30	1	2
CS calls CST (until Connect/Connect Acknowledge)	5.48	8.86	1	2
CSFB calls CST (until Connect/Connect Acknowledge)	7.06	8.29	1	2

Short Call Statistics					
Short Call Scenario Operator 1 Operator					
Voice KPIs	Airtel	cws			
Call Attempt	107	104			
Call Failed	1	4			
Call Connected	106	100			
CSSR[%]	99.07	96.15			
USCSR[%]	0.93	3.85			
CST [s] Alerting	6.92	8.21			
CST [s]Connected	7.09	8.34			

Call Setup Time (s)		Operators		Rank	
		cws	Airtel	cws	
Overall CST (until ringing/alerting)	6.92	8.21	1	2	
CS calls CST (until ringing/alerting)	8.04	9.86	1	2	
CSFB calls CST (until ringing/alerting)		8.16	1	2	
Overall CST (until Connect/Connect Acknowledge)	7.09	8.34	1	2	
CS calls CST (until Connect/Connect Acknowledge)	8.26	10.01	1	2	
CSFB calls CST (until Connect/Connect Acknowledge)	7.06	8.29	1	2	



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

### Phase-1

Long Call Statistics					
Long Call Scenario Operator 1 Operator 2					
Voice KPIs	Airtel	cws			
Call Connected	31	31			
Call Dropped	0	2			
Call Completed	31	29			
CRR[%]	100.00	93.55			
DCR[%]	0.00	6.45			
MOS	3.02	3.31			
Airtal short CMS short Airtal long CMS long					

	Airtel short call	CWS short call	Airtel long call	CWS long call
CSFB Calls	116	114	30	30
CS Calls	3	2	1	1

Handover Statistics	Airtel MO	CWS MO
Handover Attempt	61	133
Handover Failure	4	3
Handover Success	57	130
HOSR %	93.44	97.74

Long Call Statistics							
Long Call Scenario	Long Call Scenario Operator 1 Operator 2						
Voice KPIs	Voice KPIs Airte						
Call Connected	29	27					
Call Dropped	0	2					
Call Completed	29	25					
CRR[%]	100.00	92.59					
DCR[%]	0.00	7.41					
MOS	3.12	3.47					

	Airtel short call	CWS short call	Airtel long call	CWS long call
CSFB Calls	104	100	29	27
CS Calls	3	4	0	0

Handover Statistics	Airtel MO	CWS MO
Handover Attempt	61	84
Handover Failure	4	4
Handover Success	57	80
HOSR %	93.44	95.24



# **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)	7.40	3.12	1	2	4.84	5.29	2	1
<b>&amp;</b>	SFTP UL(Mbps)	4.26	2.44	1	2	4.86	3.86	1	2
ANSFI	HTTP DL(Mbps)	9.69	5.26	1	2	7.19	7.05	1	2
FILE TRANSFER	HTTP UL(Mbps)	6.65	4.67	1	2	8.00	7.72	1	2
置	HTTP Capacity DL(Mbps)	12.94	14.71	2	1	6.96	25.57	2	1
	HTTP Capacity UL(Mbps)	12.91	9.10	1	2	13.31	30.73	2	1
	Overall Browser DL Time (s)	11.65	9.69	2	1	11.71	10.47	2	1
	Kepler Webpage DL Time (s)	4.62	4.89	1	2	4.68	5.46	1	2
VSER	Mobile Kepler Webpage DL Time (s)	1.78	2.77	1	2	1.89	2.98	1	2
BROWSER	www.shein.com Webpage DL Time (s)	8.22	7.97	2	1	8.87	8.61	2	1
	www.nbs.gov.sc Webpage DL Time (s)	18.97	16.18	2	1	20.33	17.70	2	1
	www.sbc.sc Webpage DL Time (s)	25.62	20.40	2	1	21.30	18.13	2	1
NCY	Avg Latency (ms)	269.74	184.66	2	1	262.74	318.65	1	2
LATENCY	Median Latency (ms)	221	194	2	1	150	293	1	2
38	YouTube Access Time (s)	6.55	1.95	2	1	7.87	2.26	2	1
YOUTUBE	YouTube Average Resolution (pixels)	967.85	1043.72	2	1	1039.48	1022.02	1	2
Α	YouTube Success Ratio [%]	100.00	100.00	1	1	93.33	93.33	1	1



# 4G PREFERRED THROUGHPUT FILE ACCESS

# Phase-1

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
CETP DI	Success	17	16	100.00	100.00
SFTP DL	Failure	0	0	0.00	0.00
CETTLU	Success	17	17	100.00	100.00
SFTP UL	Failure	0	0	0.00	0.00
	Success	16	16	100.00	94.12
HTTP DL	Failure	0	1	0.00	5.88
HTTP UL	Success	16	16	94.12	100.00
HIIPOL	Failure	1	0	5.88	0.00
LITTE Composite: DI	Success	14	15	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTD Conneith: III	Success	15	14	100.00	93.33
HTTP Capacity UL	Failure	0	1	0.00	6.67

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
CETT DI	Success	12	14	85.71	100.00
SFTP DL	Failure	2	0	14.29	0.00
SFTP UL	Success	15	15	100.00	100.00
SFIP UL	Failure	0	0	0.00	0.00
HTTP DL	Success	15	15	100.00	100.00
niir DL	Failure	0	0	0.00	0.00
HTTP UL	Success	14	14	100.00	93.33
HIIPOL	Failure	0	1	0.00	6.67
HTTP Capacity DL	Success	13	14	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	12	12	92.31	85.71
HITP Capacity OL	Failure	1	2	7.69	14.29



# 4G PREFERRED BROWSING FILE ACCESS

# Phase-1

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
Kanlar	Success	14	15	87.50	100.00
Kepler	Failure	2	0	12.50	0.00
Mahila Kanlar	Success	15	15	100.00	100.00
Mobile Kepler	Failure	0	0	0.00	0.00
	Success	15	15	93.75	100.00
www.shein.com	Failure	1	0	6.25	0.00
ununun be gov se	Success	14	13	87.50	92.86
www.nbs.gov.sc	Failure	2	1	12.50	7.14
wayay she sa	Success	14	11	93.33	73.33
www.sbc.sc	Failure	1	4	6.67	26.67

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
Vanlar	Success	11	15	73.33	100.00
Kepler	Failure	4	0	26.67	0.00
Mahila Kanlar	Success	13	15	100.00	100.00
Mobile Kepler	Failure	0	0	0.00	0.00
www.shein.com	Success	14	15	100.00	100.00
www.snem.com	Failure	0	0	0.00	0.00
www.nbs.gov.sc	Success	14	15	100.00	100.00
www.iibs.gov.sc	Failure	0	0	0.00	0.00
www.sbc.sc	Success	13	14	92.86	93.33
	Failure	1	1	7.14	6.67



# **4G PREFERRED LATENCY**

# Phase-1

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	32	30
	Average Latency [ms]	264.91	192.57
	Median Latency [ms]	212	198
Overall Latency	Ping session status: Successful	32	30
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	1
	Packet Loss<1%	0.00	3.23
	Average Latency [ms]	406.60	172.80
	Median Latency [ms]	403	167
	Ping session status: Successful	15	15
www.google.com	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]	139.88	212.33
	Median Latency [ms]	136	208
102 122 176 104	Ping session status: Successful	17	15
102.133.176.104	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	1
	Packet Loss<1%	0.00	6.25

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	27	30
	Average Latency [ms]	262.30	305.23
	Median Latency [ms]	148	285
Overall Latency	Ping session status: Successful	27	30
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	0
	Packet Loss<1%	3.57	0.00
	Average Latency [ms]	410.85	210.67
	Median Latency [ms]	403	150
www.google.com	Ping session status: Successful	13	15
www.google.com	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]	124.36	399.80
	Median Latency [ms]	123	384
102.133.176.104	Ping session status: Successful	14	15
102.133.176.104	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	1	0
	Packet Loss<1%	6.67	0.00



# **4G PREFERRED YOUTUBE COMPARISON**

# Phase-1

LTE YOUTUBE Success Ratio							
KPIs	Airtel 4G	CWS 4G					
Attempt(Count)	17	16					
Success(Count)	17	16					
Failure(Count)	0	0					
YouTube Access Time (s)	6.55	1.95					
YouTube Average Resolution (pixels)	967.85	1043.72					
YouTube Success Ratio [%]	100.00	100.00					

LTE YOUTUBE Success Ratio						
KPIs	Airtel 4G	CWS 4G				
Attempt(Count)	15	15				
Success(Count)	14	14				
Failure(Count)	1	1				
YouTube Access Time (s)	7.87	2.26				
YouTube Average Resolution (pixels)	1039.48	1022.02				
YouTube Success Ratio [%]	93.33	93.33				



# **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)	3.29	3.48	2	1	3.36	3.08	1	2
<b>8</b>	SFTP UL(Mbps)	1.40	1.15	1	2	1.41	1.07	1	2
ANSFI	HTTP DL(Mbps)	3.40	3.19	1	2	3.29	3.35	2	1
FILE TRANSFER	HTTP UL(Mbps)	2.36	2.22	1	2	1.67	1.60	1	2
€	HTTP Capacity DL(Mbps)	4.20	8.61	2	1	3.81	5.81	2	1
	HTTP Capacity UL(Mbps)	4.81	5.18	2	1	4.36	3.18	1	2
	Overall Browser DL Time (s)	11.99	9.24	2	1	9.85	12.63	1	2
	Kepler Webpage DL Time (s)	4.67	6.15	1	2	4.21	11.20	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	2.12	2.90	1	2	1.88	4.93	1	2
BRO	www.shein.com Webpage DL Time (s)	14.22	12.67	2	1	13.83	13.49	2	1
	www.nbs.gov.sc Webpage DL Time (s)	16.78	11.01	2	1	12.96	18.73	1	2
	www.sbc.sc Webpage DL Time (s)	22.56	13.63	2	1	17.74	15.57	2	1
LATENCY	Avg Latency (ms)	301.33	200.91	2	1	278.97	218.51	2	1
LATE	Median Latency (ms)	395	196	2	1	302	181.5	2	1
BE .	YouTube Access Time (s)	4.30	2.11	2	1	4.09	5.99	1	2
YOUTUBE	YouTube Average Resolution (pixels)	838.84	972.01	2	1	865.48	983.32	2	1
, AC	YouTube Success Ratio [%]	100.00	93.33	1	2	100.00	58.33	1	2



# **3G PREFERRED THROUGHPUT FILE ACCESS**

# Phase-1

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
CETTO	Success	15	13	100.00	100.00
SFTP DL	Failure	0	0	0.00	0.00
CETTELL	Success	15	14	100.00	100.00
SFTP UL	Failure	0	0	0.00	0.00
	Success	15	14	100.00	93.33
HTTP DL	Failure	0	1	0.00	6.67
HTTP UL	Success	15	15	100.00	100.00
HITPOL	Failure	0	0	0.00	0.00
LITTE Compositor DI	Success	14	13	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTD Consolity III	Success	14	11	100.00	78.57
HTTP Capacity UL	Failure	0	3	0.00	21.43

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
SFTP DL	Success	14	4	100.00	100.00
SFIPDL	Failure	0	0	0.00	0.00
CETTILII	Success	13	4	92.86	100.00
SFTP UL	Failure	1	0	7.14	0.00
HTTP DL	Success	14	7	100.00	100.00
HITPUL	Failure	0	0	0.00	0.00
HTTP UL	Success	13	7	92.86	58.33
	Failure	1	5	7.14	41.67
HTTP Capacity DL	Success	13	11	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	12	8	100.00	80.00
	Failure	0	2	0.00	20.00



# **3G PREFERRED BROWSING FILE ACCESS**

# Phase-1

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Kepler	Success	13	14	100.00	93.33
	Failure	0	1	0.00	6.67
Mobile Kepler	Success	14	13	100.00	92.86
	Failure	0	1	0.00	7.14
www.shein.com	Success	13	13	92.86	86.67
	Failure	1	2	7.14	13.33
www.nbs.gov.sc	Success	14	14	100.00	100.00
	Failure	0	0	0.00	0.00
www.sbc.sc	Success	13	13	100.00	92.86
	Failure	0	1	0.00	7.14

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Kanlan	Success	14	5	100.00	45.45
Kepler	Failure	0	6	0.00	54.55
Mahila Kanlan	Success	13	10	100.00	90.91
Mobile Kepler	Failure	0	1	0.00	9.09
www.shein.com	Success	14	7	100.00	63.64
	Failure	0	4	0.00	36.36
www.nbs.gov.sc	Success	13	9	92.86	90.00
	Failure	1	1	7.14	10.00
www.sbc.sc	Success	11	8	84.62	72.73
	Failure	2	3	15.38	27.27



# **3G PREFERRED LATENCY**

# Phase-1

	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	20	27
Overall Latency	Average Latency [ms]	373.25	197.81
	Median Latency [ms]	404	195
	Ping session status: Successful	20	27
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	7	1
	Packet Loss<1%	25.93	3.57
	Average Latency [ms]	421.43	146.62
	Median Latency [ms]	412	144
www.google.com	Ping session status: Successful	14	13
www.google.com	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]	260.83	245.36
102.133.176.104	Median Latency [ms]	258	209
	Ping session status: Successful	6	14
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	7	1
Packet Loss<1%		53.85	6.67

	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	25	20
	Average Latency [ms]	292.44	212.58
	Median Latency [ms]	401	156
Overall Latency	Ping session status: Successful	25	20
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	2	0
	Packet Loss<1%	7.41	0.00
	Average Latency [ms]	413.54	148.00
	Median Latency [ms]	409	149
	Ping session status: Successful	13	11
www.google.com	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]	161.25	284.33
102.133.176.104	Median Latency [ms]	134	227
	Ping session status: Successful	12	9
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	2	0
	Packet Loss<1%	14.29	0.00



# **3G PREFERRED YOUTUBE COMPARISON**

# Phase-1

UMTS YOUTUBE Success Ratio				
KPIs	Airtel 3G	CWS 3G		
Attempt(Count)	14	15		
Success(Count)	14	14		
Failure(Count)	0	1		
YouTube Access Time (s)	4.30	2.11		
YouTube Average Resolution (pixels)	838.84	972.01		
YouTube Success Ratio [%]	100.00	93.33		

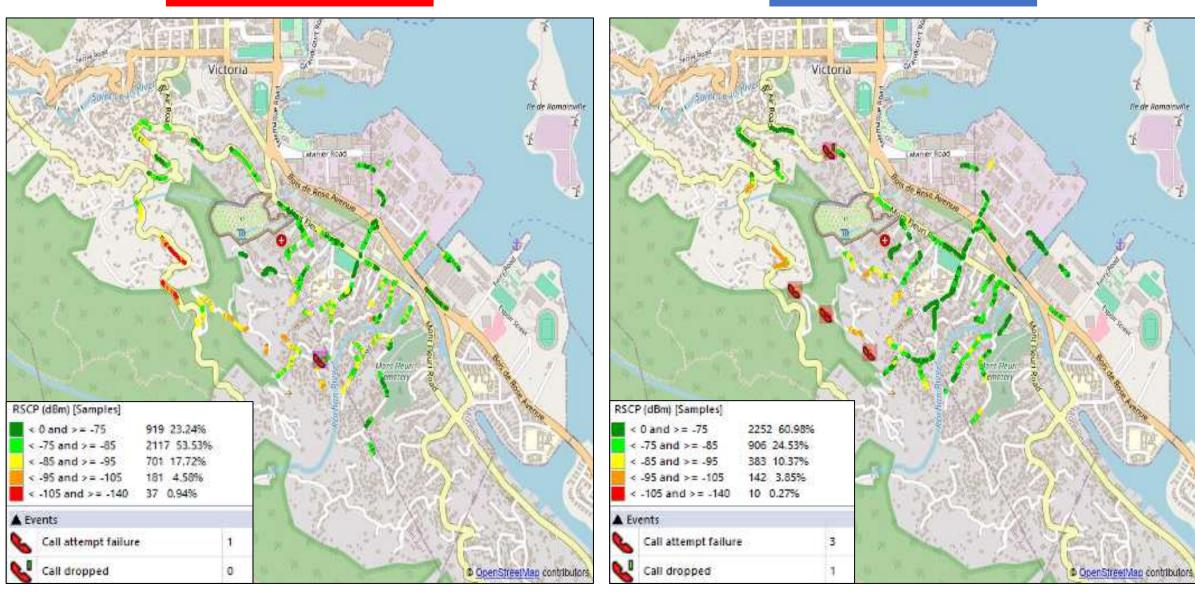
UMTS YOUTUBE Success Ratio				
KPIs	Airtel 3G	CWS 3G		
Attempt(Count)	14	12		
Success(Count)	14	7		
Failure(Count)	0	5		
YouTube Access Time (s)	4.09	5.99		
YouTube Average Resolution (pixels)	865.48	983.32		
YouTube Success Ratio [%]	100.00	58.33		



# **Voice Call Events**

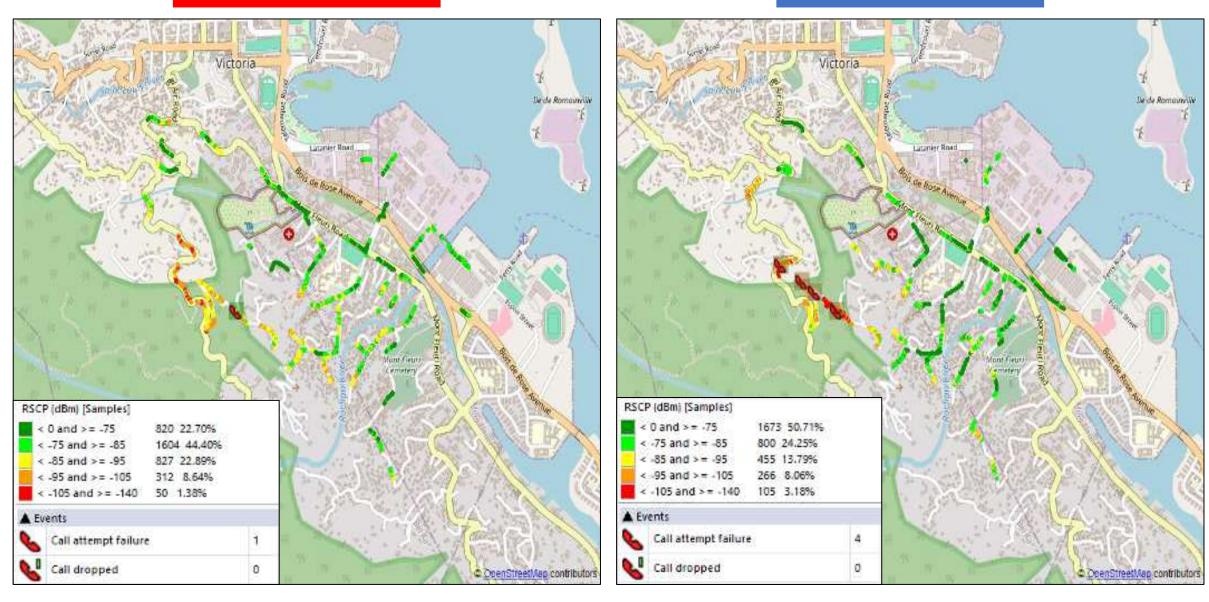
# Phase-1 SHORT CALL FAILURE EVENTS LOCATION vs RSCP





# Phase-2 SHORT CALL FAILURE EVENTS LOCATION vs RSCP

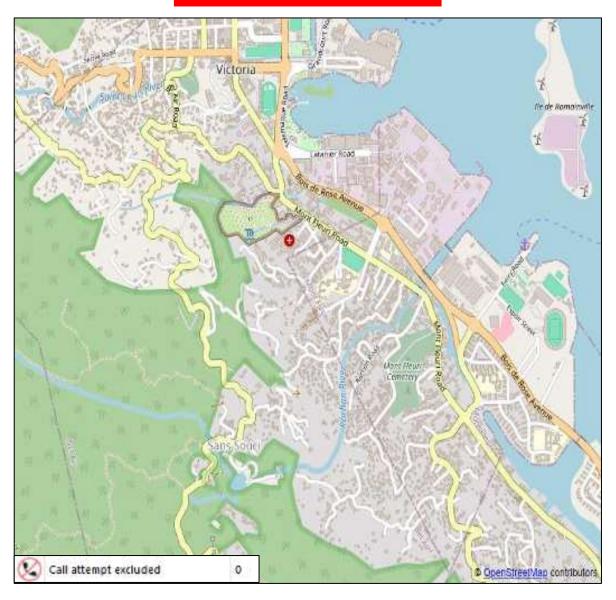
#### **Airtel SC MO**

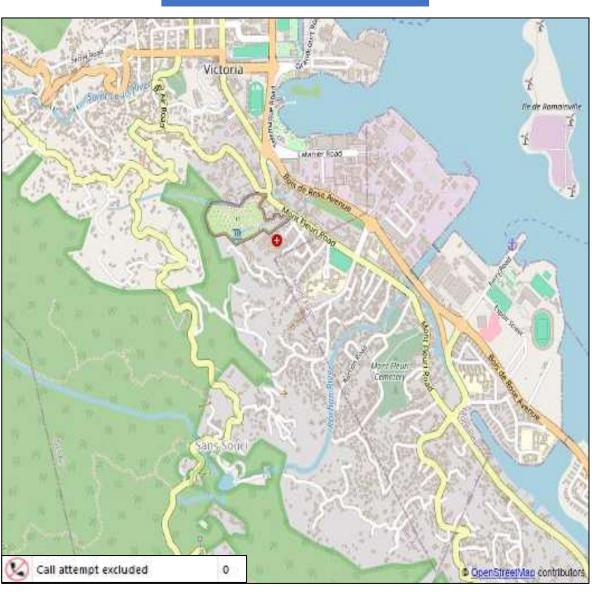




# **Phase-1 SHORT CALL EXCLUDED EVENTS**

# **Airtel SC MO**

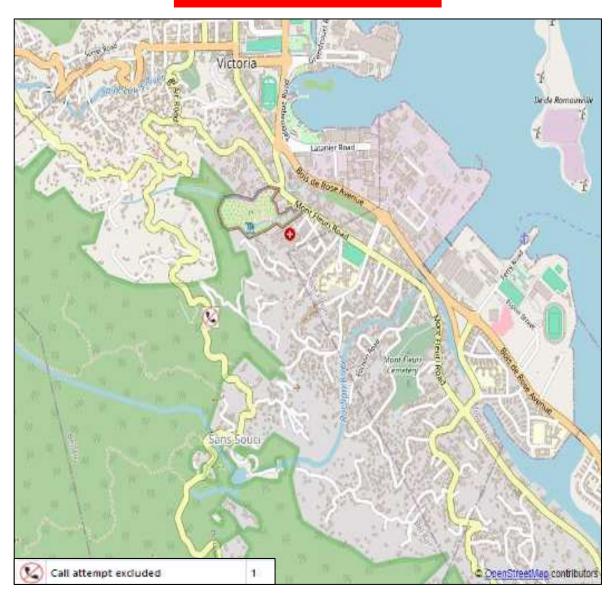






# **Phase-2 SHORT CALL EXCLUDED EVENTS**

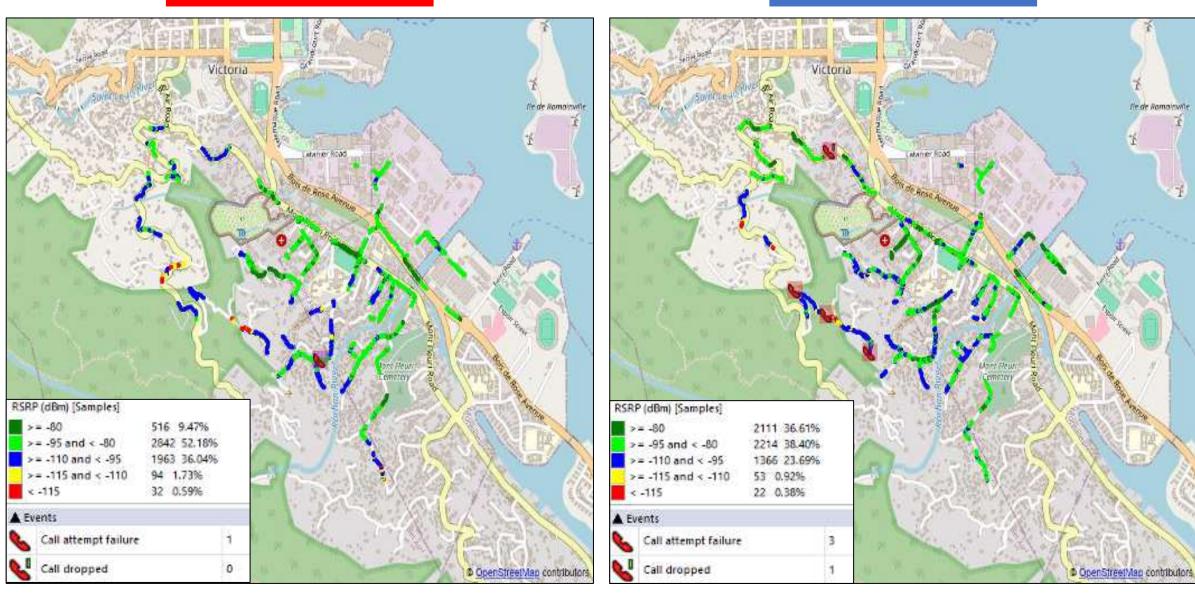
# **Airtel SC MO**





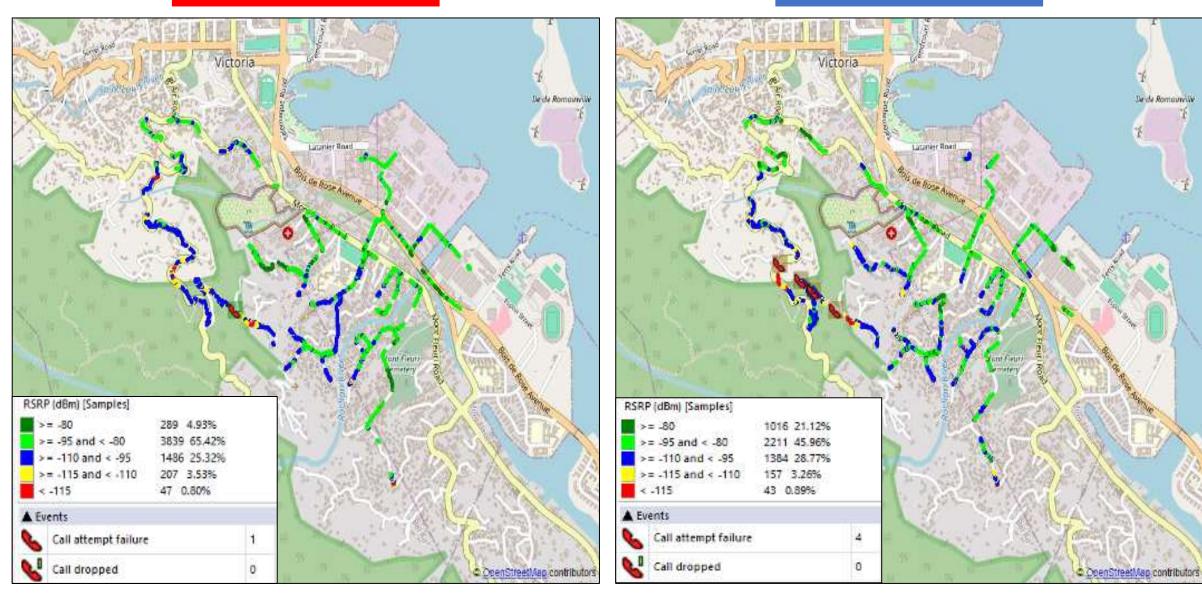
# Phase-1 SHORT CALL FAILURE EVENTS LOCATION vs RSRP





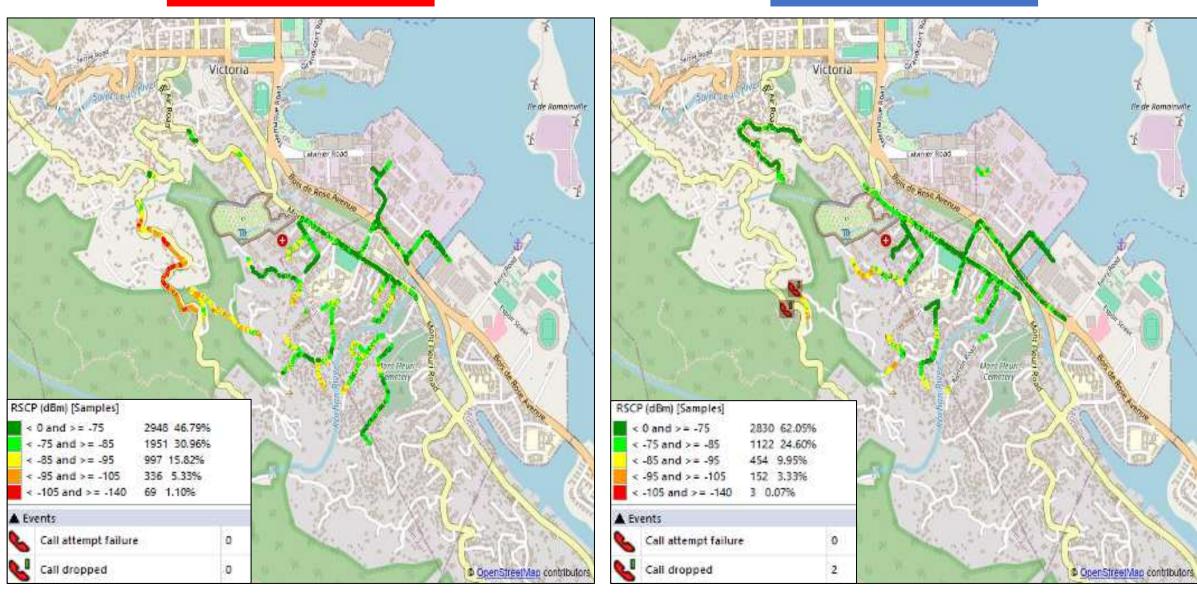
# Phase-2 SHORT CALL FAILURE EVENTS LOCATION vs RSRP





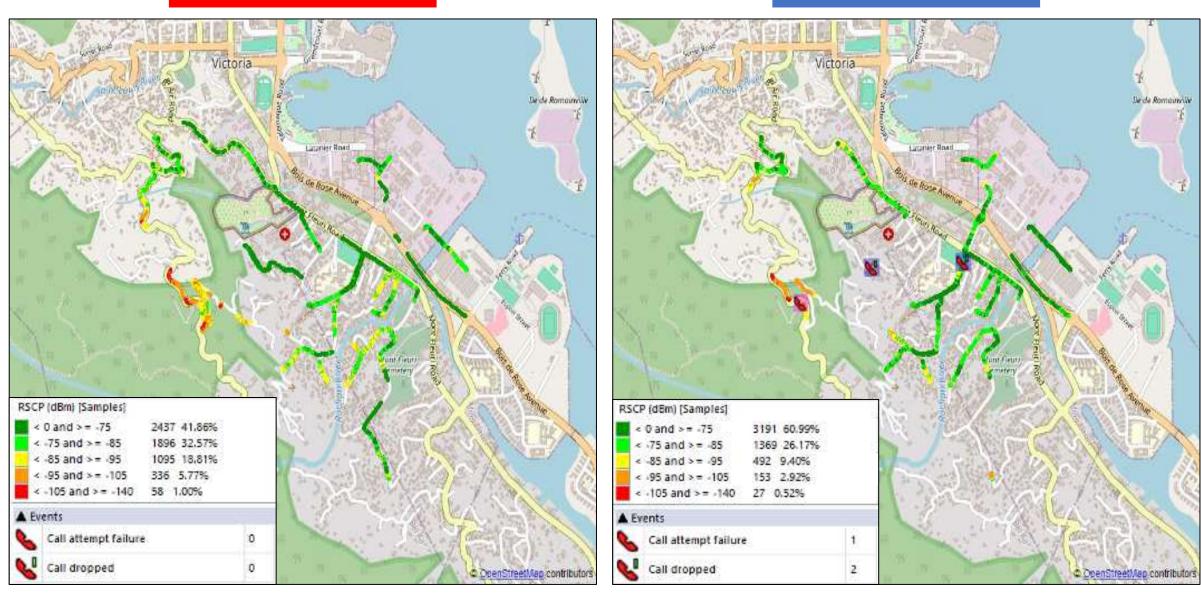
# Phase-1 LONG CALL FAILURE EVENTS LOCATION vs RSCP





# Phase-2 LONG CALL FAILURE EVENTS LOCATION vs RSCP

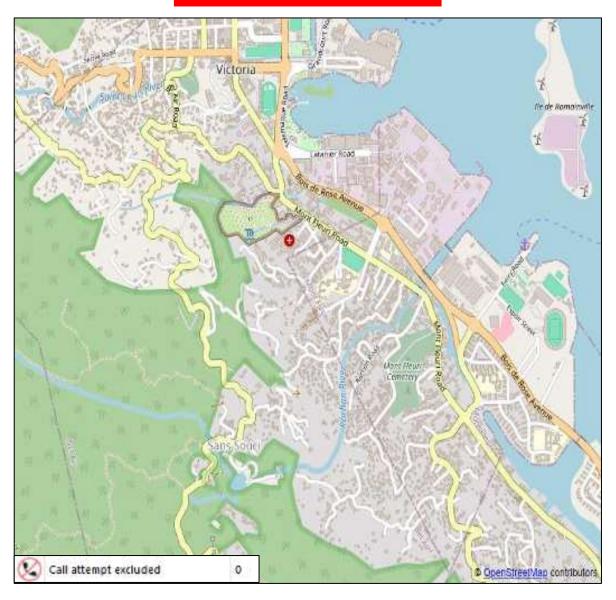
#### **Airtel LC MO**

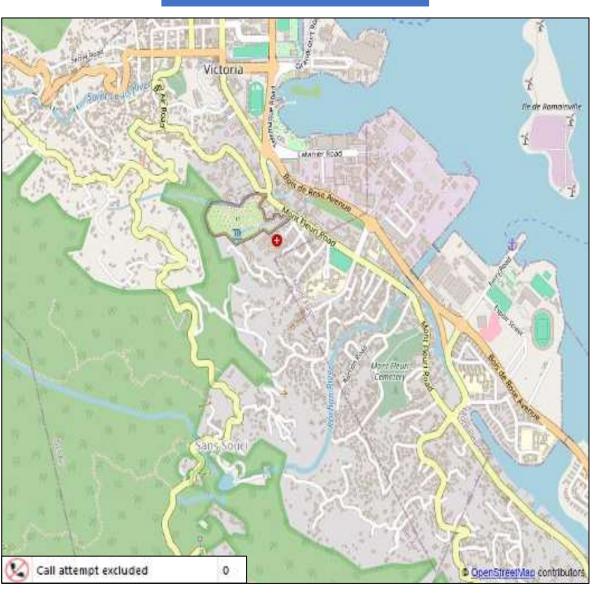




# **Phase-1 LONG CALL EXCLUDED EVENTS**

# **Airtel LC MO**



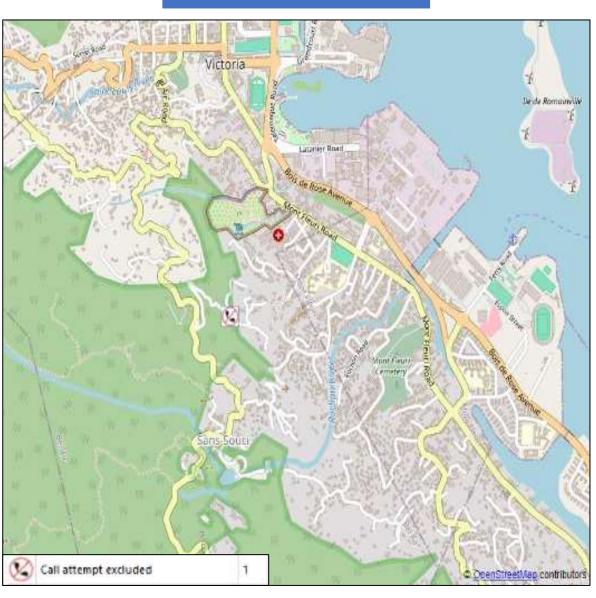




# **Phase-2 LONG CALL EXCLUDED EVENTS**

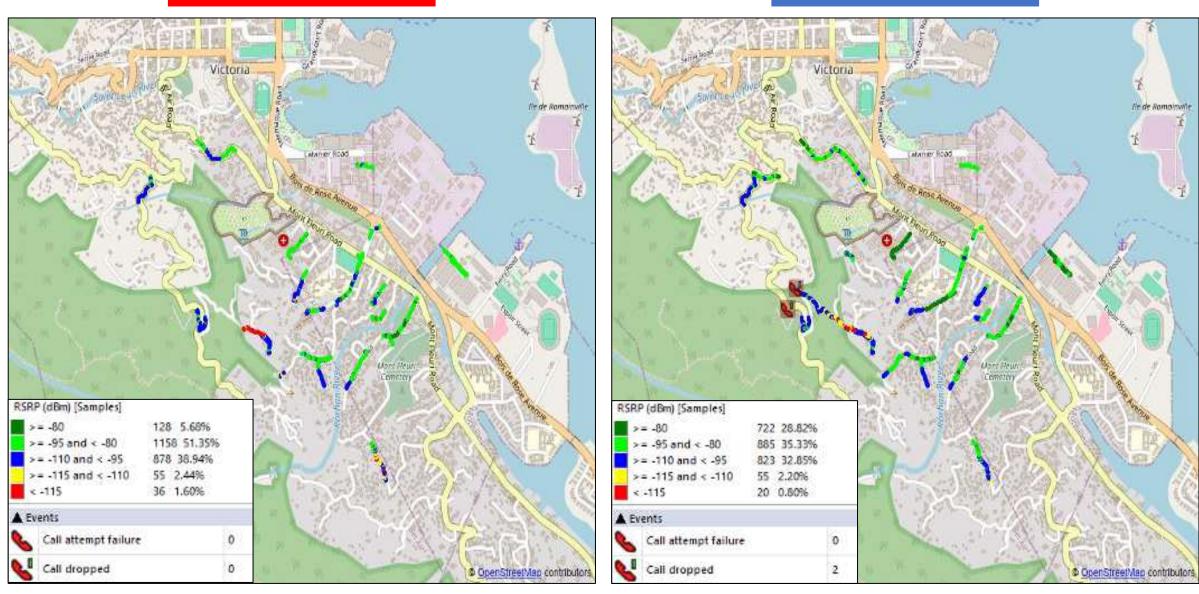
# **Airtel LC MO**





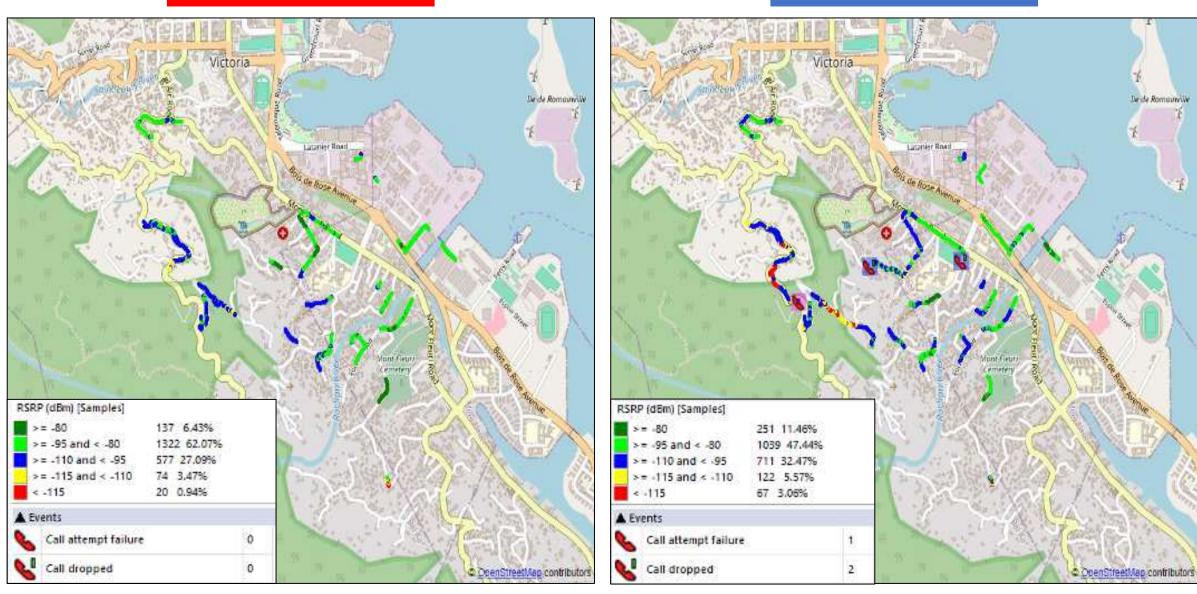
# Phase-1 LONG CALL FAILURE EVENTS LOCATION vs RSRP





# Phase-2 LONG CALL FAILURE EVENTS LOCATION vs RSRP



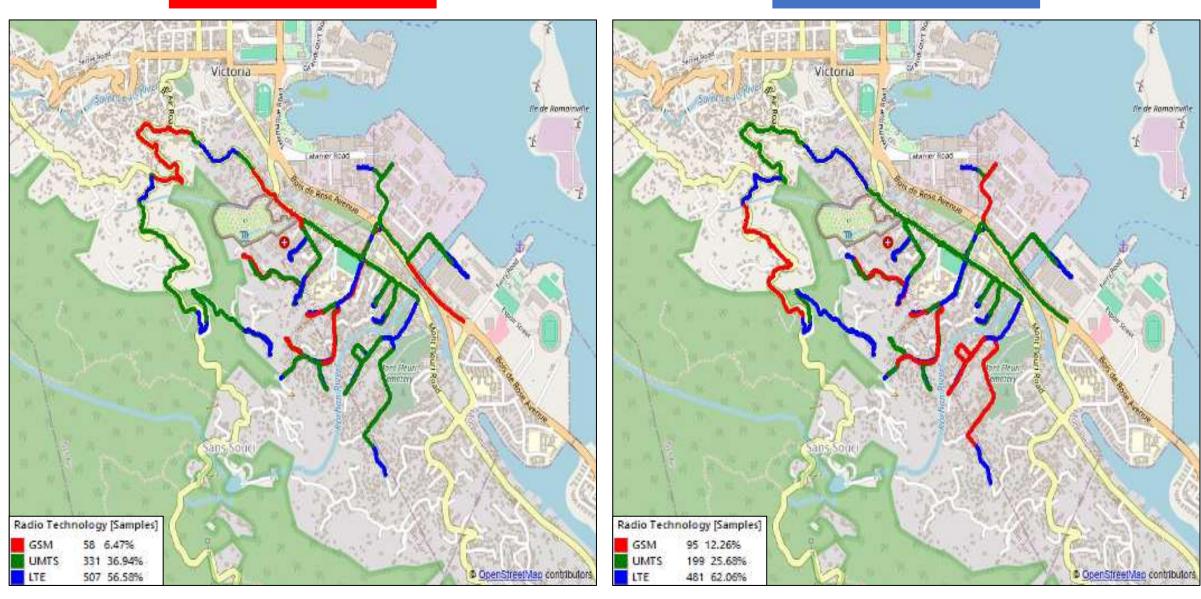




# **LONG CALL DRIVE PLOTS**

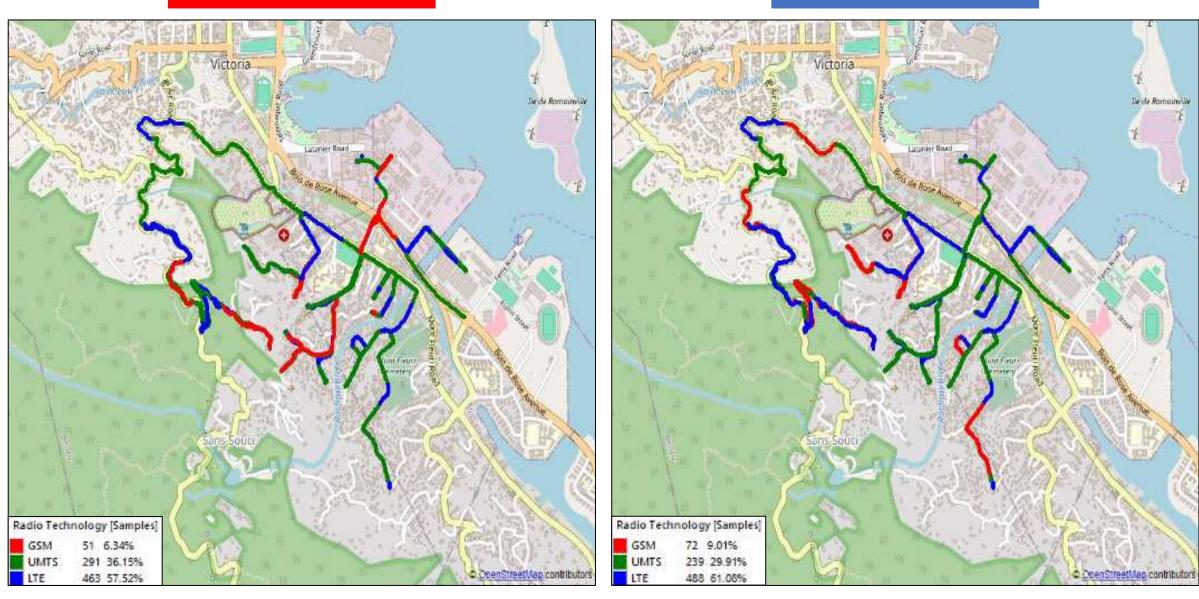
# **Phase-1 Long Call RADIO TECHNOLOGY PLOT**

# **Airtel LC MO**



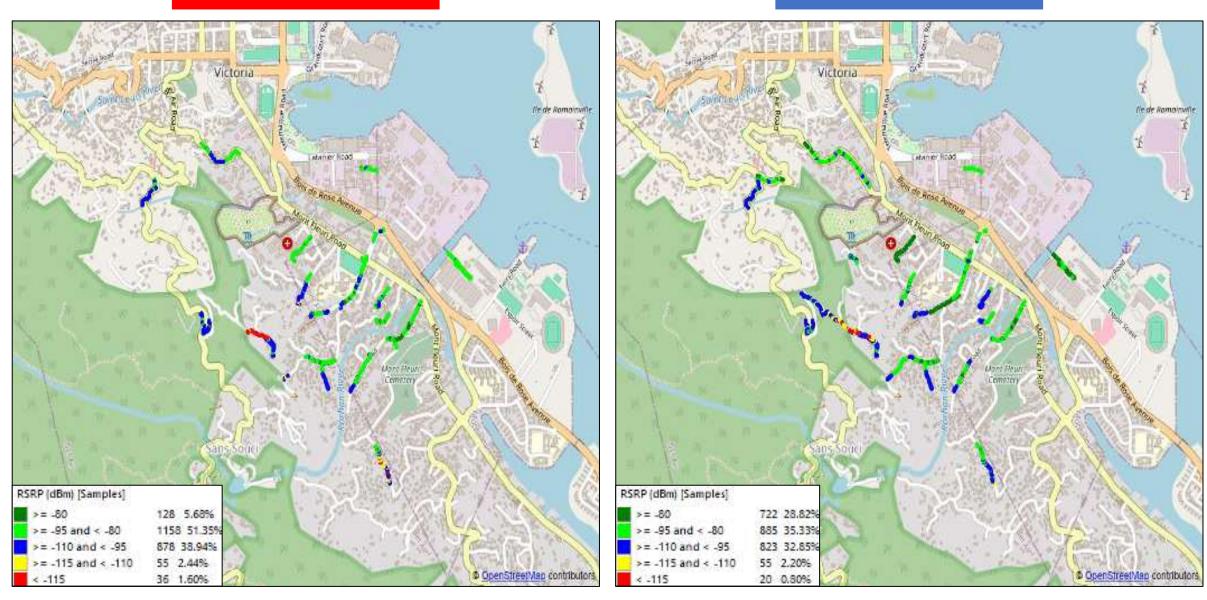
# **Phase-2 Long Call RADIO TECHNOLOGY PLOT**

# **Airtel LC MO**



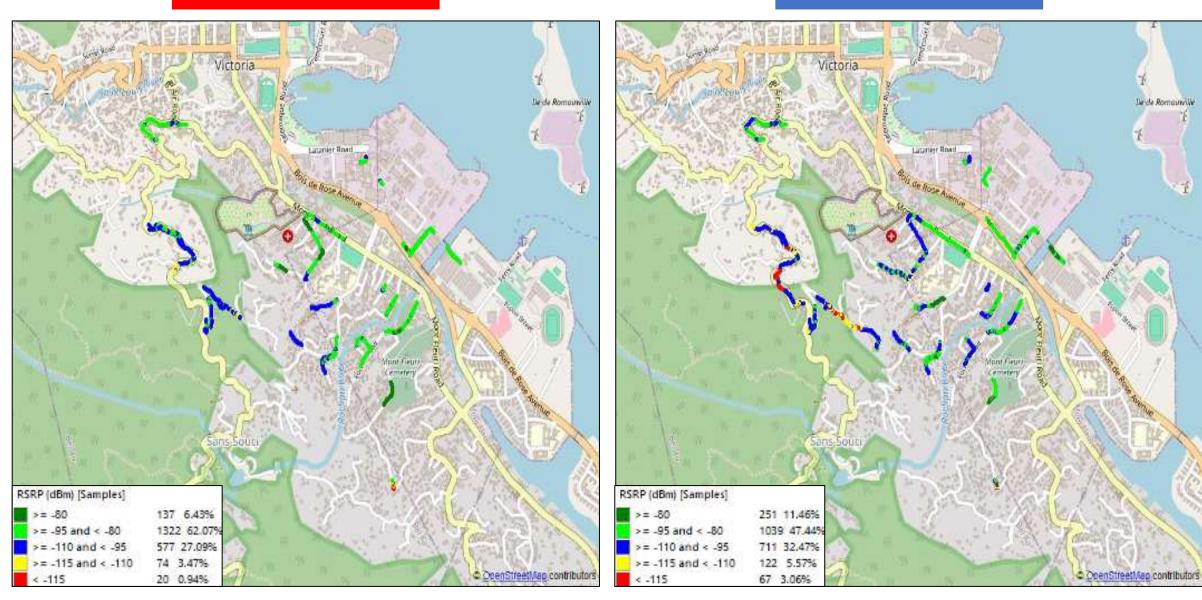
# **Phase-1 Long Call RSRP PLOT**

# **Airtel LC MO**



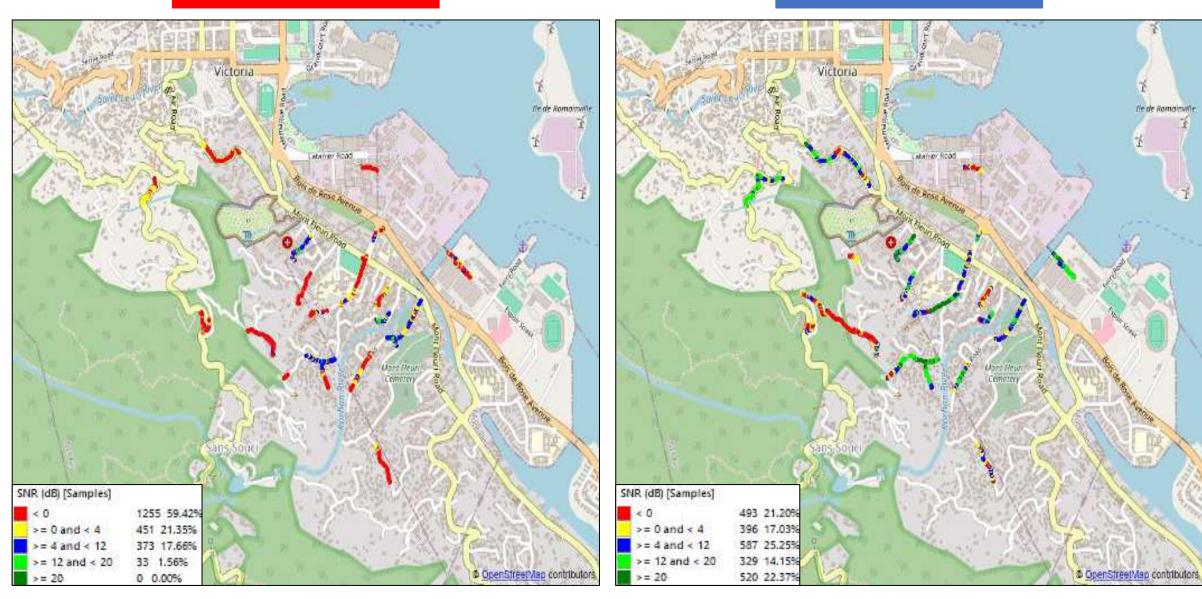
# **Phase-2 Long Call RSRP PLOT**

# **Airtel LC MO**



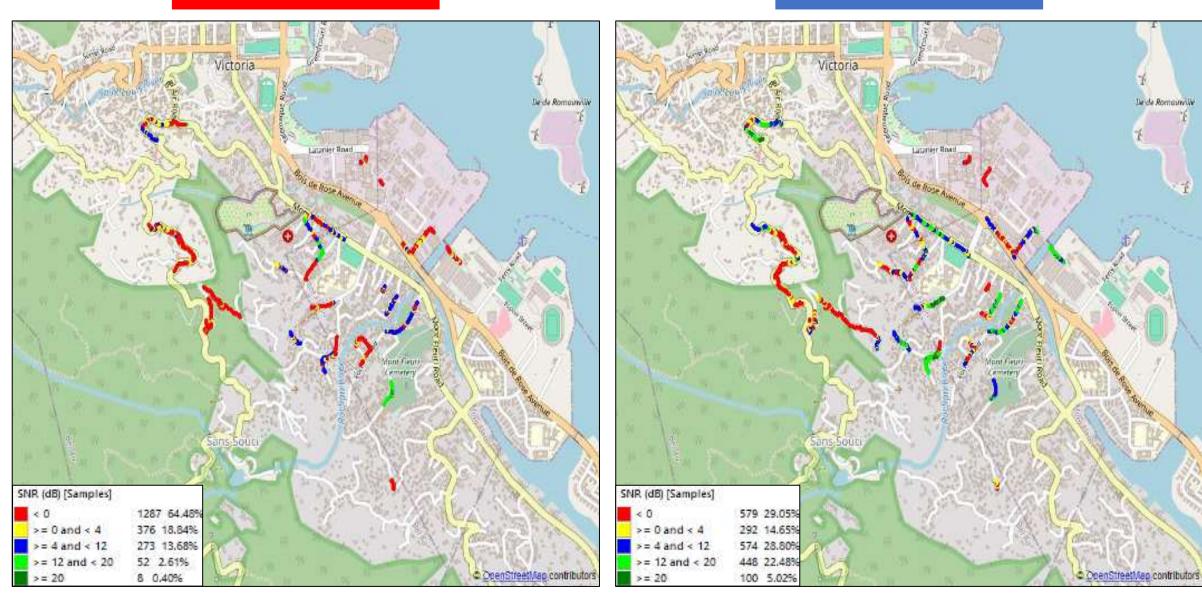
# **Phase-1 Long Call SINR PLOT**

## **Airtel LC MO**



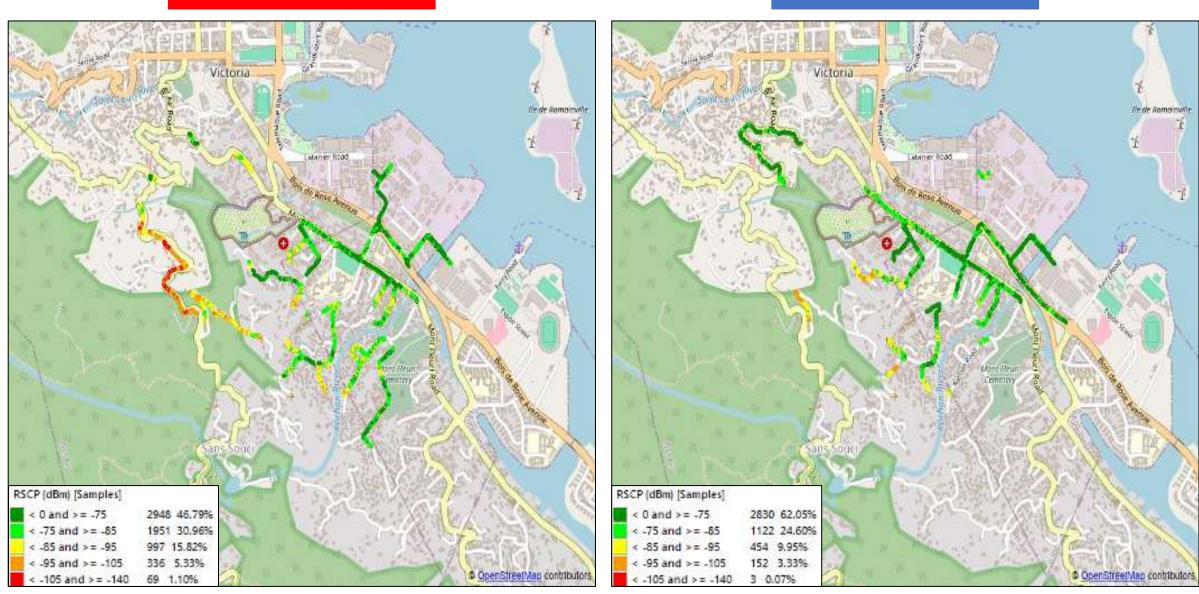
# **Phase-2 Long Call SINR PLOT**

## **Airtel LC MO**



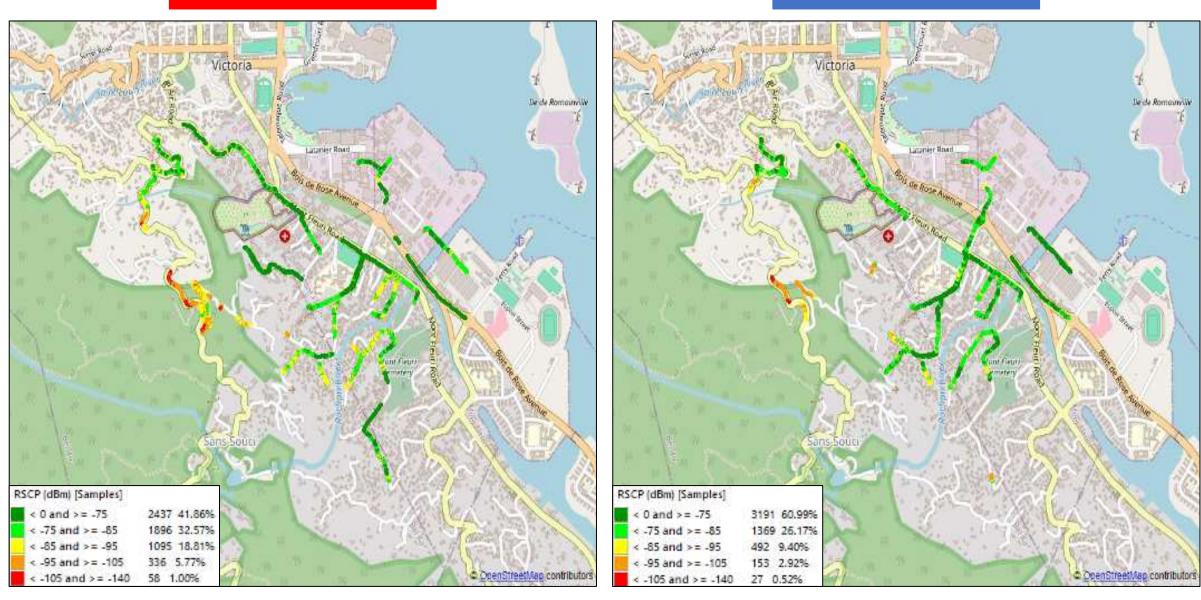
# **Phase-1 Long Call RSCP PLOT**

## **Airtel LC MO**



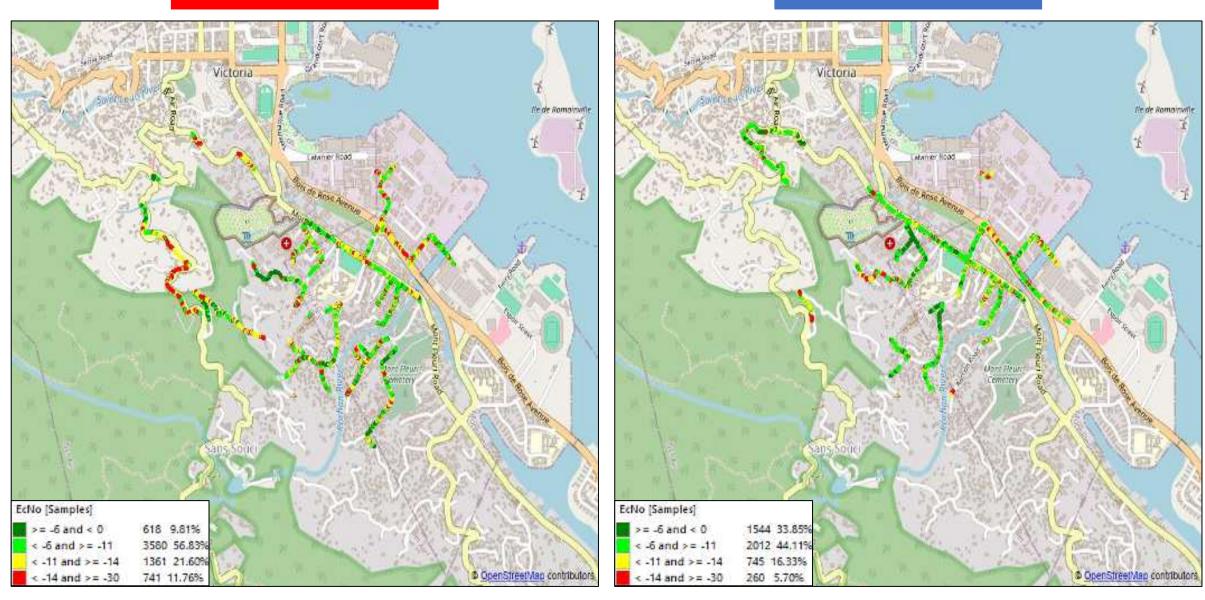
# **Phase-2 Long Call RSCP PLOT**

## Airtel LC MO



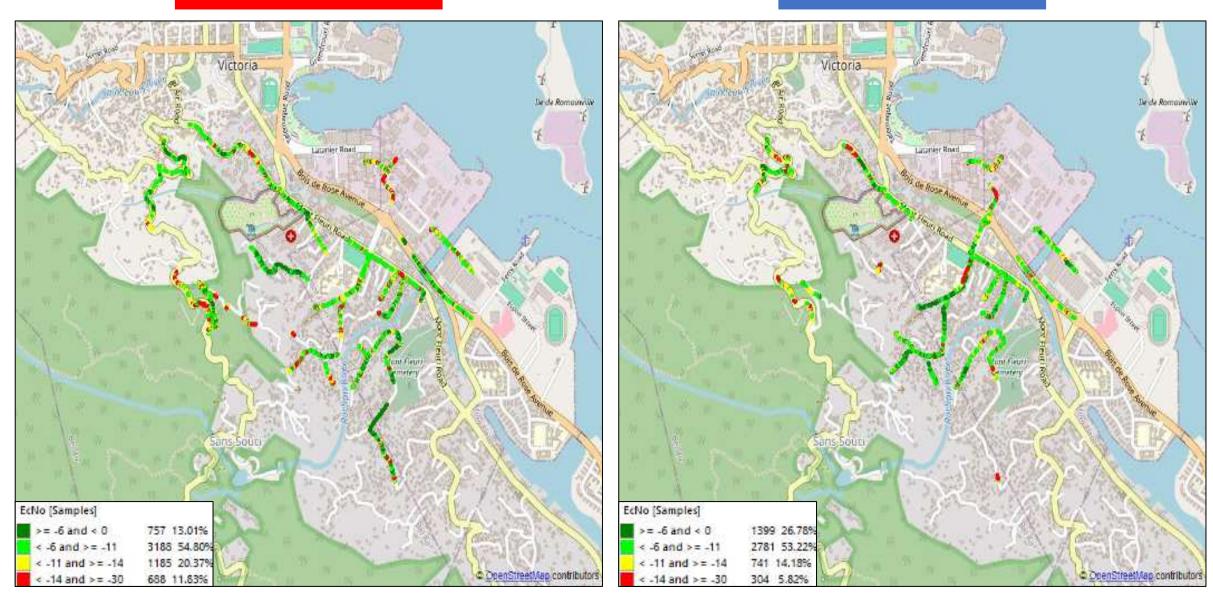
# Phase-1 Long Call EC/NO PLOT

## **Airtel LC MO**



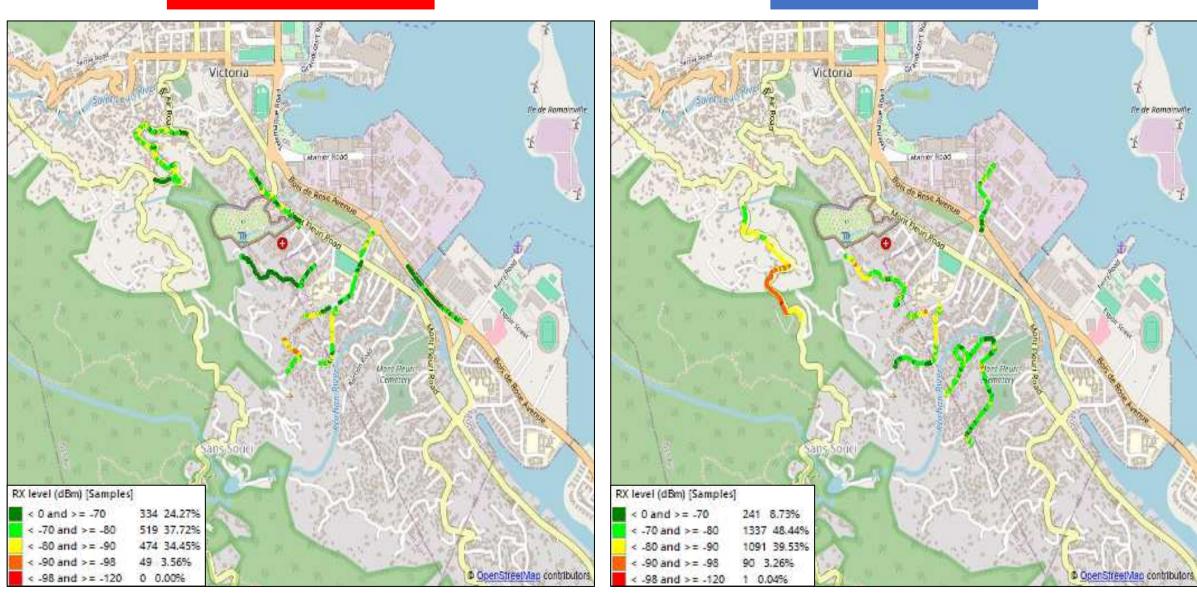
# Phase-2 Long Call EC/NO PLOT

## **Airtel LC MO**



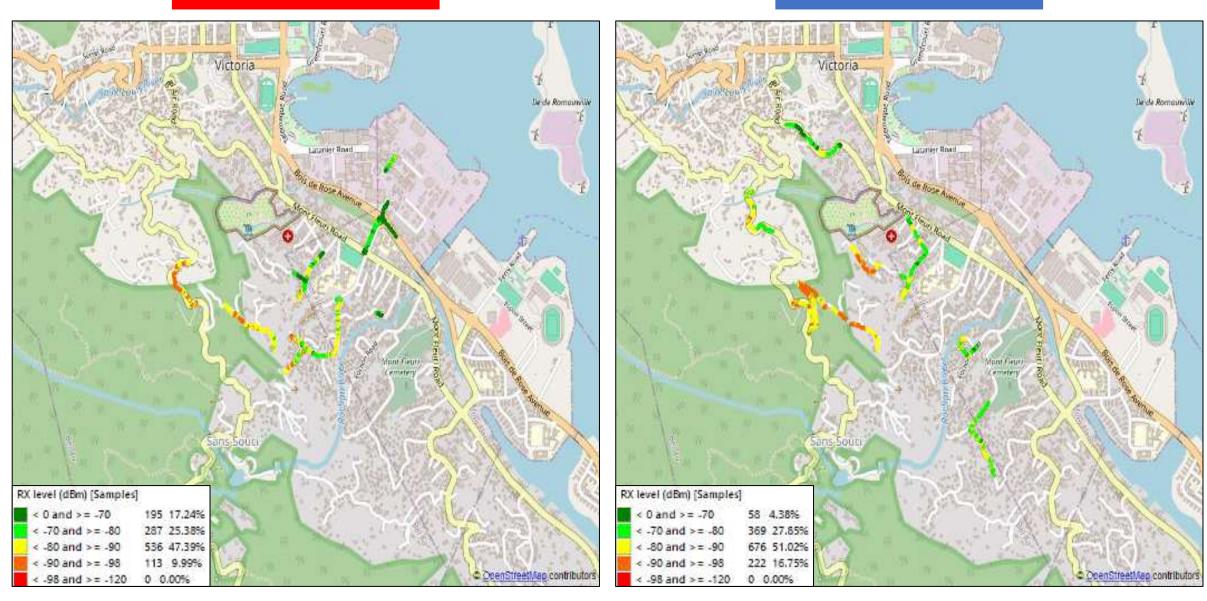
# **Phase-1 Long Call RX level sub PLOT**

## **Airtel LC MO**



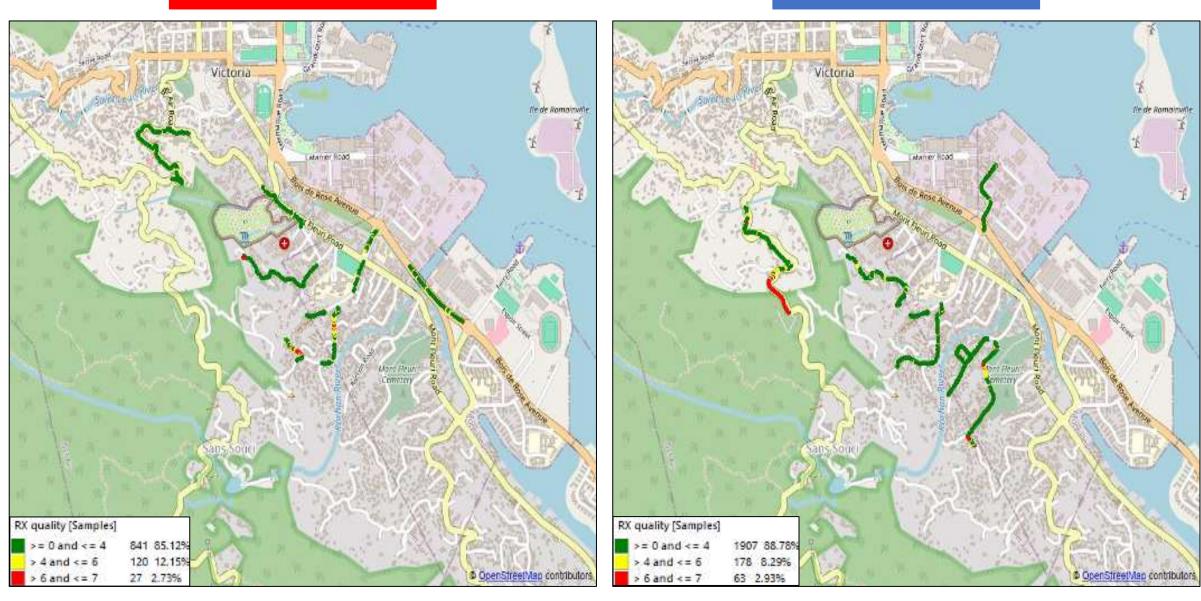
# **Phase-2 Long Call RX level sub PLOT**

## **Airtel LC MO**



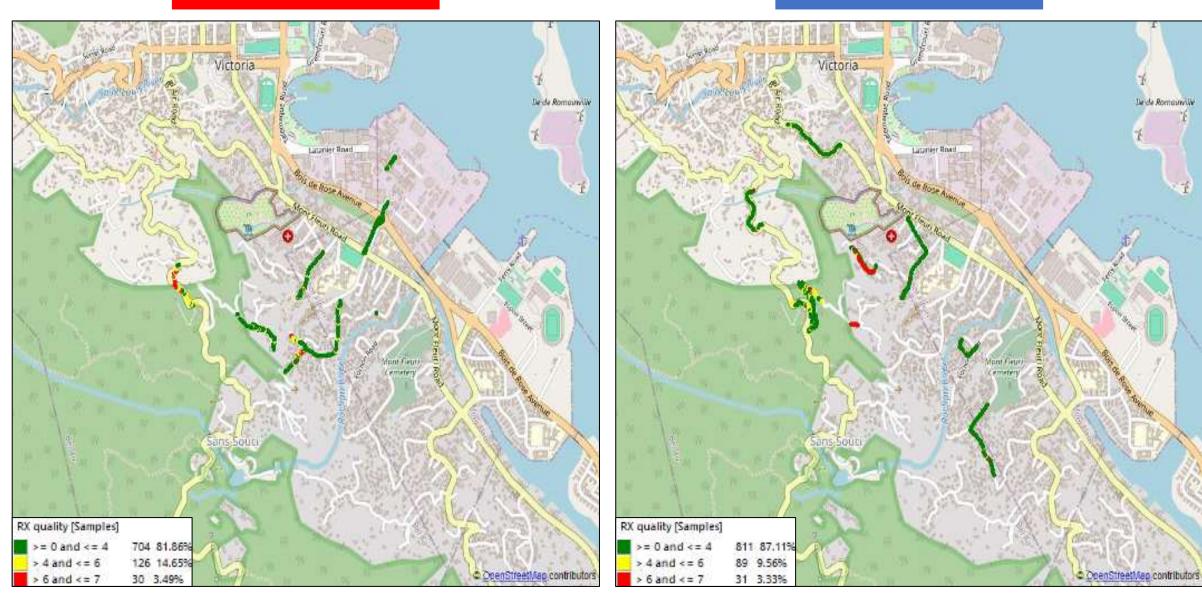
# **Phase-1 Long Call RX quality sub PLOT**

## **Airtel LC MO**



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

## **Airtel LC MO**

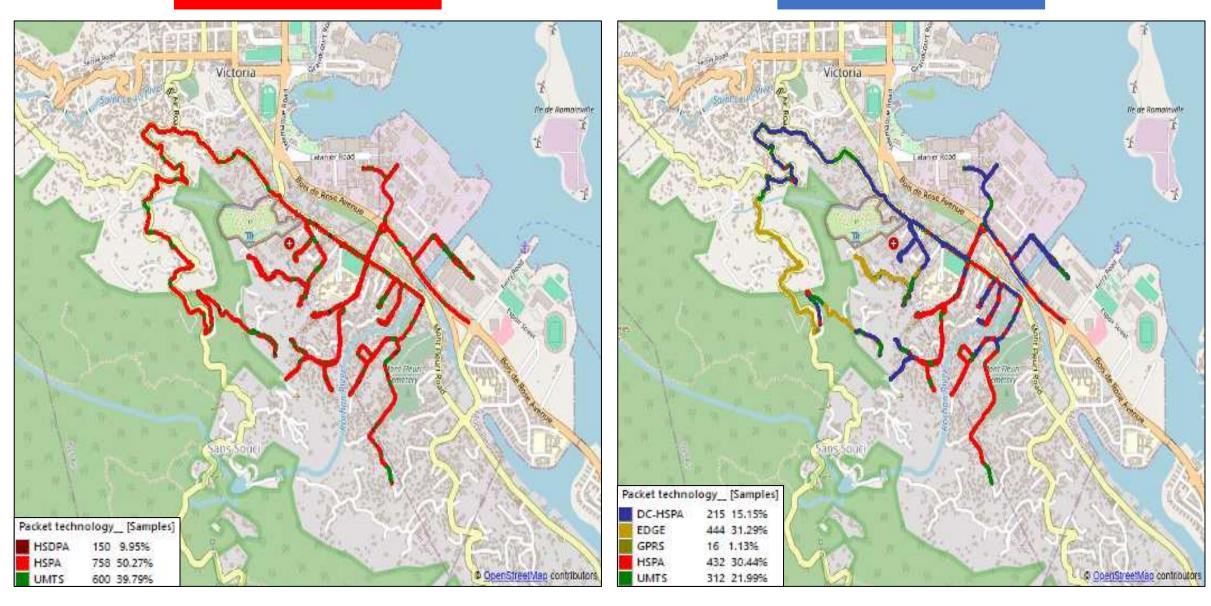




# **3G PREFERRED DATA DRIVE PLOTS**

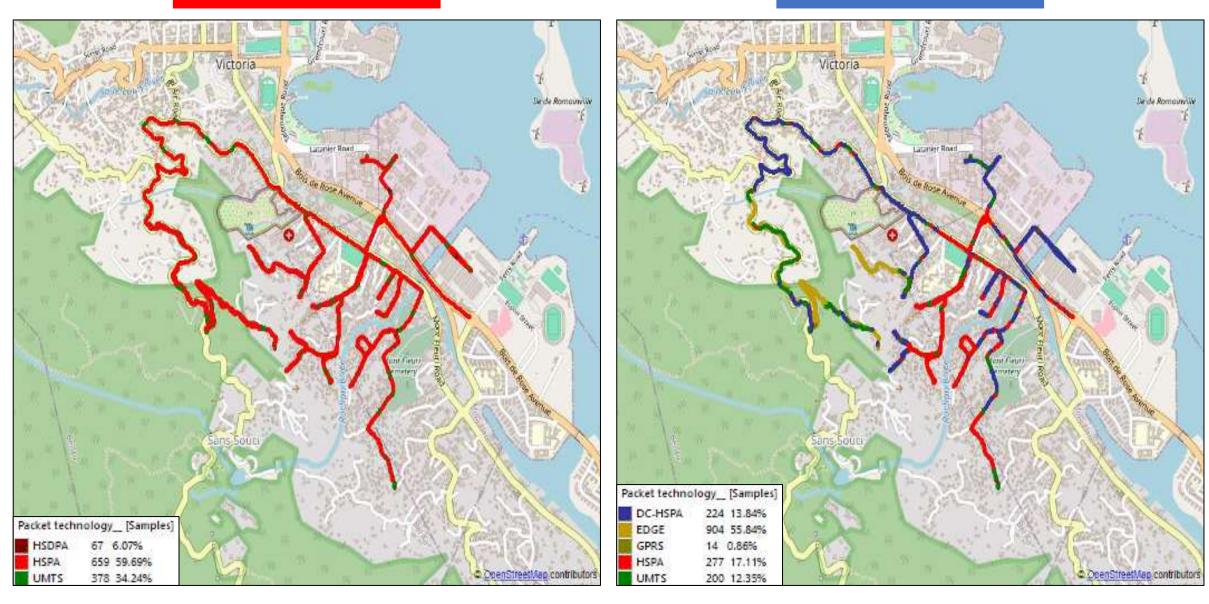
## Phase-1 3G PREFERRED DATA TEST - TECHNOLOGY PLOT

**Airtel Data 3G** 



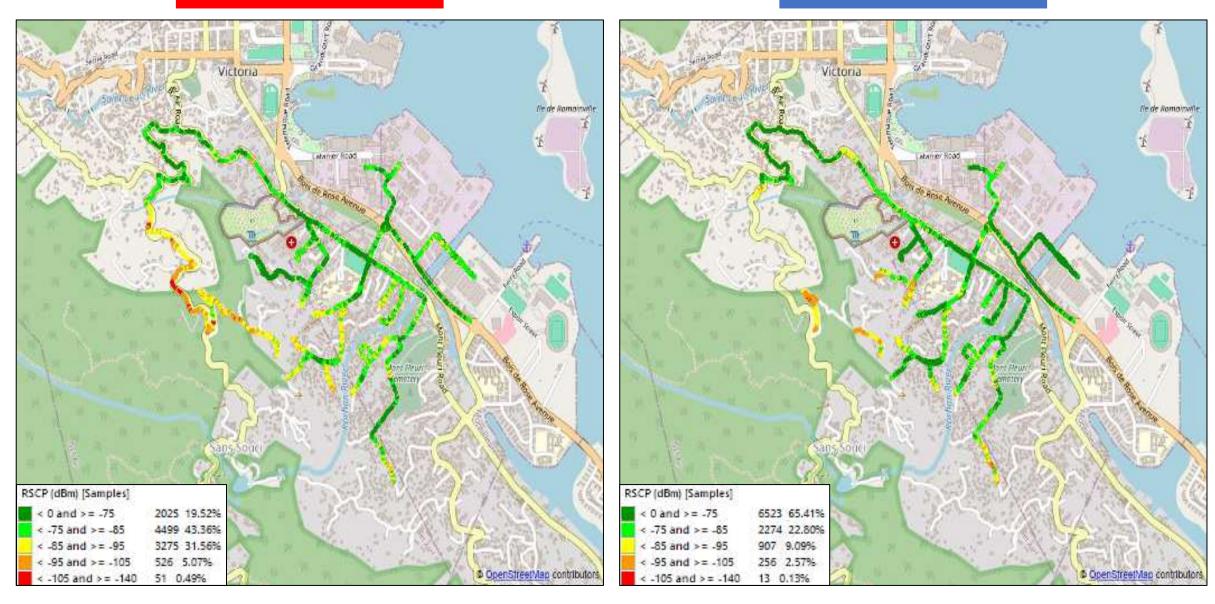
## Phase-2 3G PREFERRED DATA TEST - TECHNOLOGY PLOT

**Airtel Data 3G** 



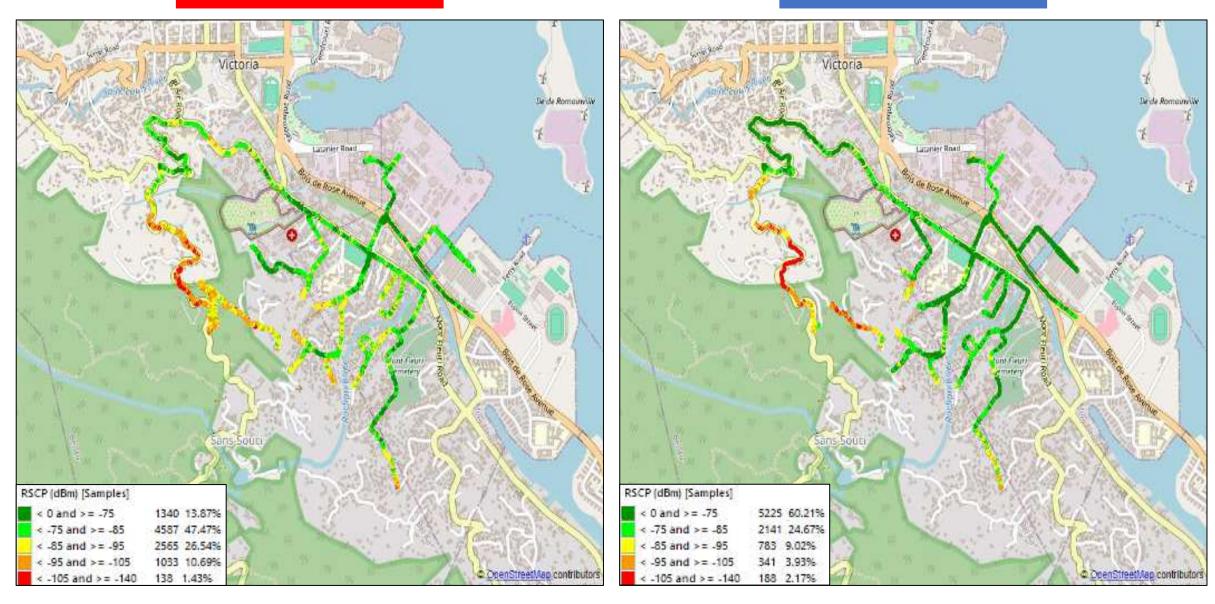
## Phase-1 3G PREFERRED DATA TEST - RSCP PLOT

**Airtel Data 3G** 



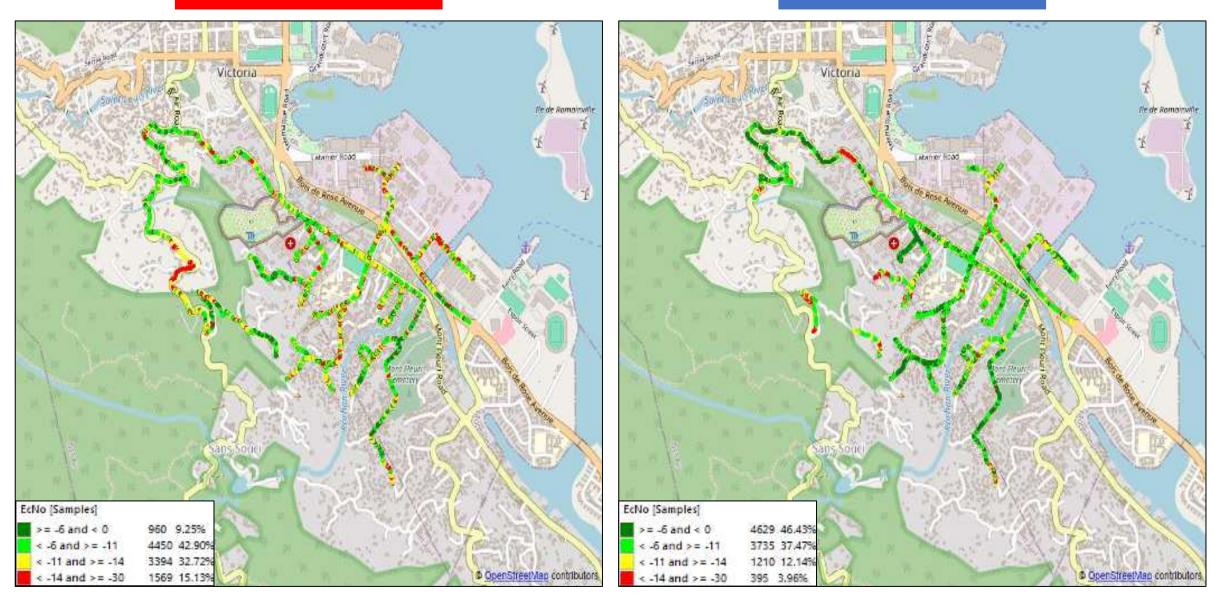
## Phase-2 3G PREFERRED DATA TEST - RSCP PLOT

**Airtel Data 3G** 



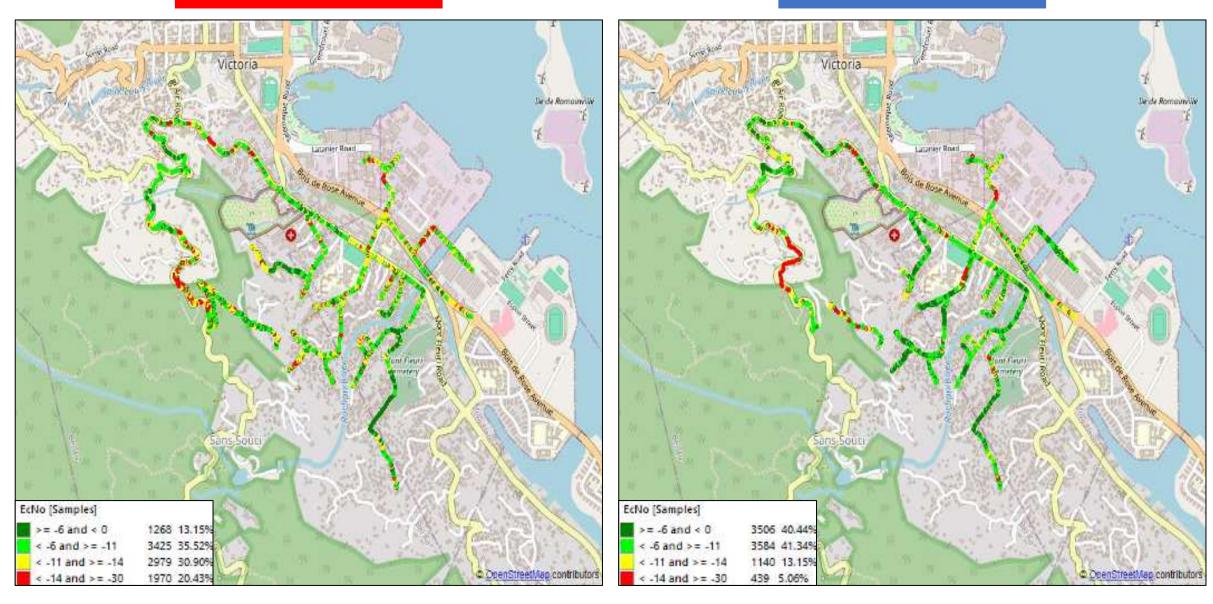
# Phase-1 3G PREFERRED DATA TEST - EC/NO PLOT

**Airtel Data 3G** 



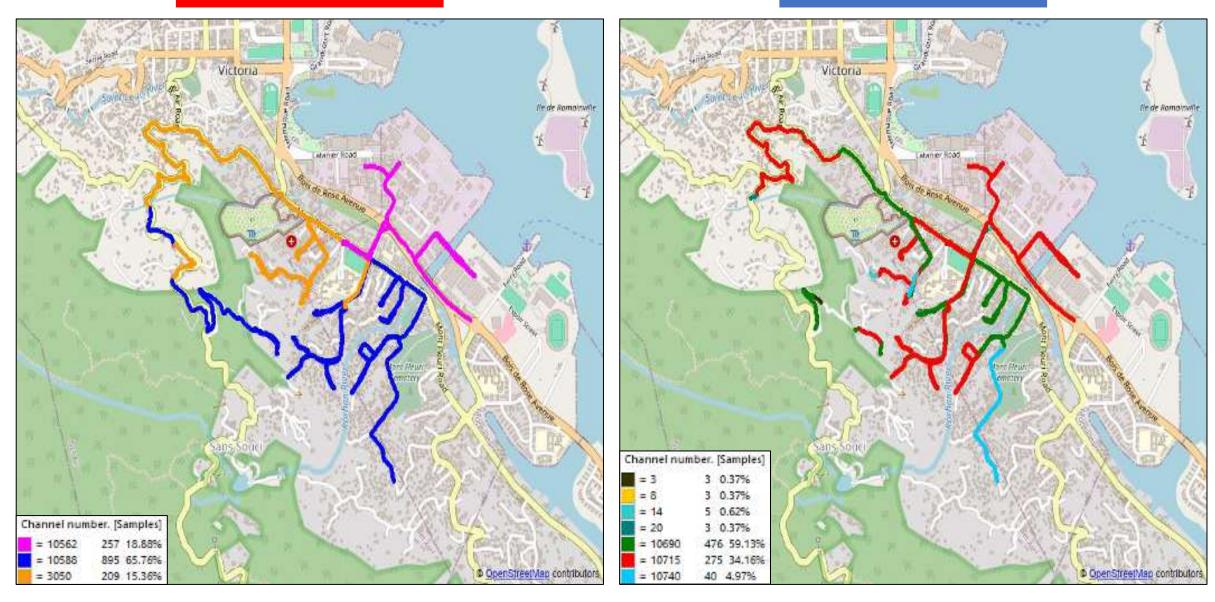
# Phase-2 3G PREFERRED DATA TEST - EC/NO PLOT

**Airtel Data 3G** 



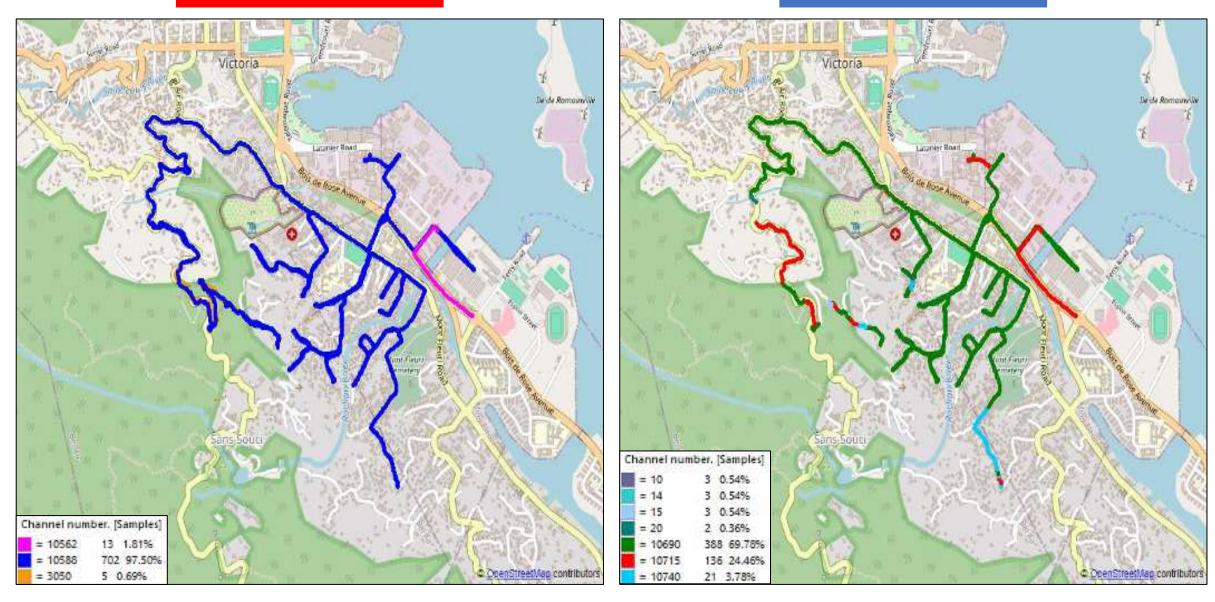
## Phase-1 3G PREFERRED DATA TEST - UARFCN PLOT

Airtel Data 3G



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

Airtel Data 3G

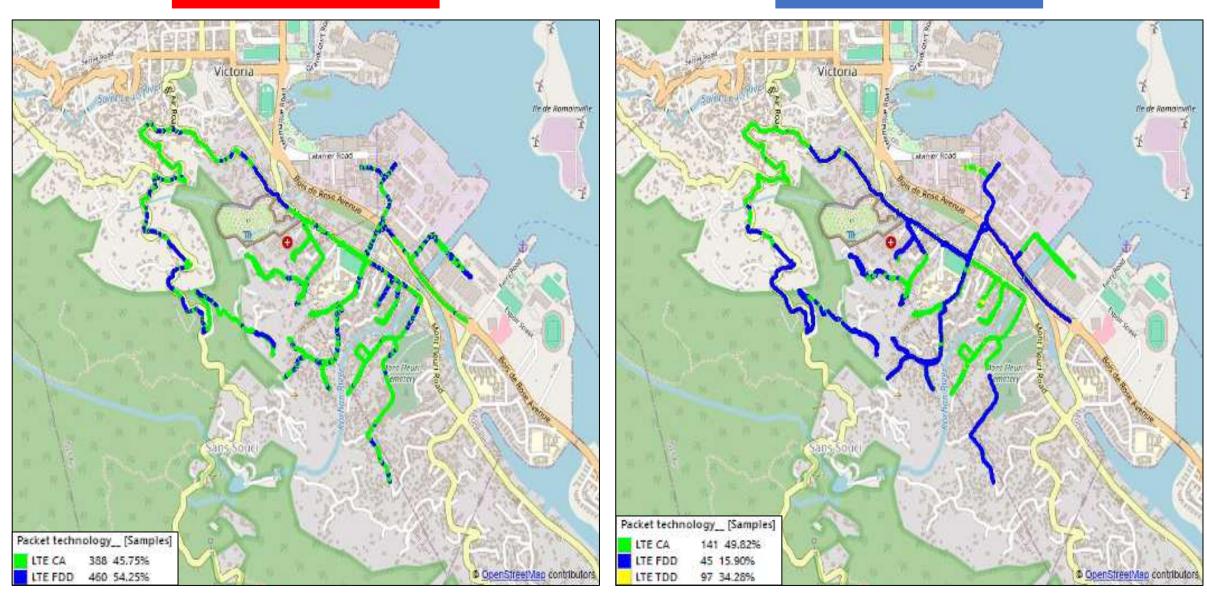




# 4G PREFERRED DATA DRIVE PLOTS

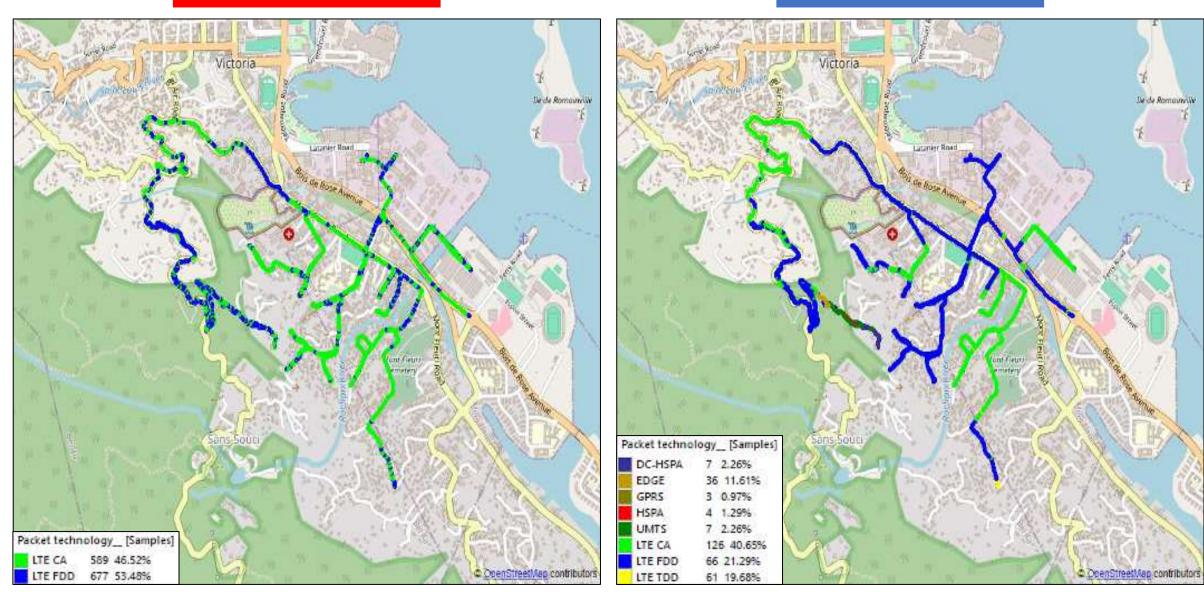
## Phase-1 4G PREFERRED DATA TEST - TECHNOLOGY PLOT

**Airtel Data 4G** 



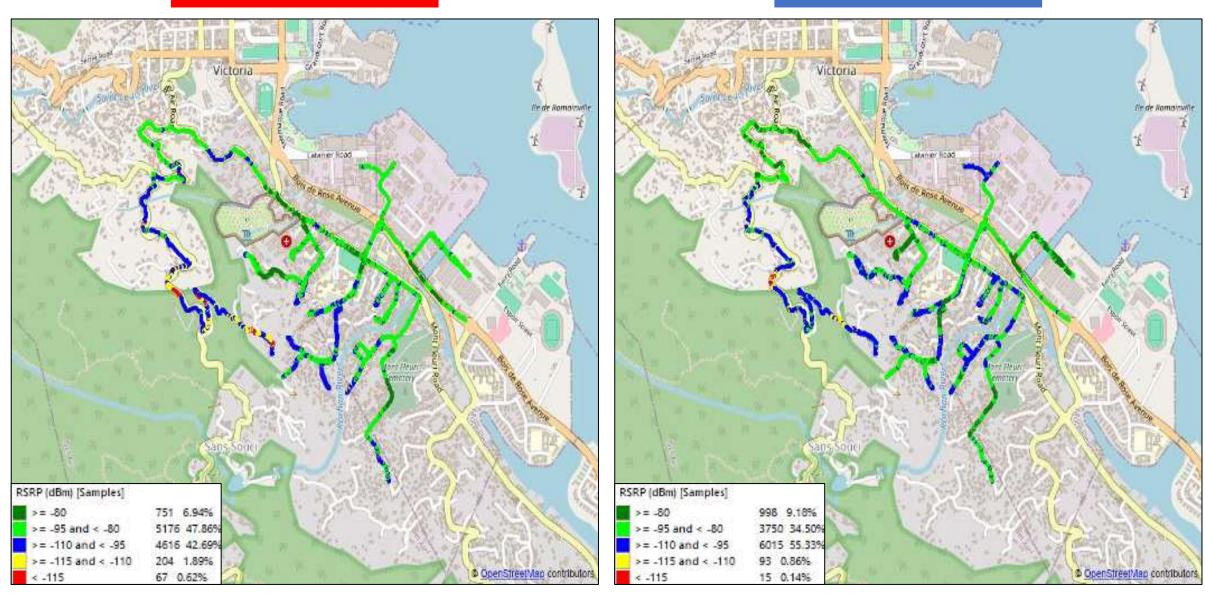
## Phase-2 4G PREFERRED DATA TEST - TECHNOLOGY PLOT





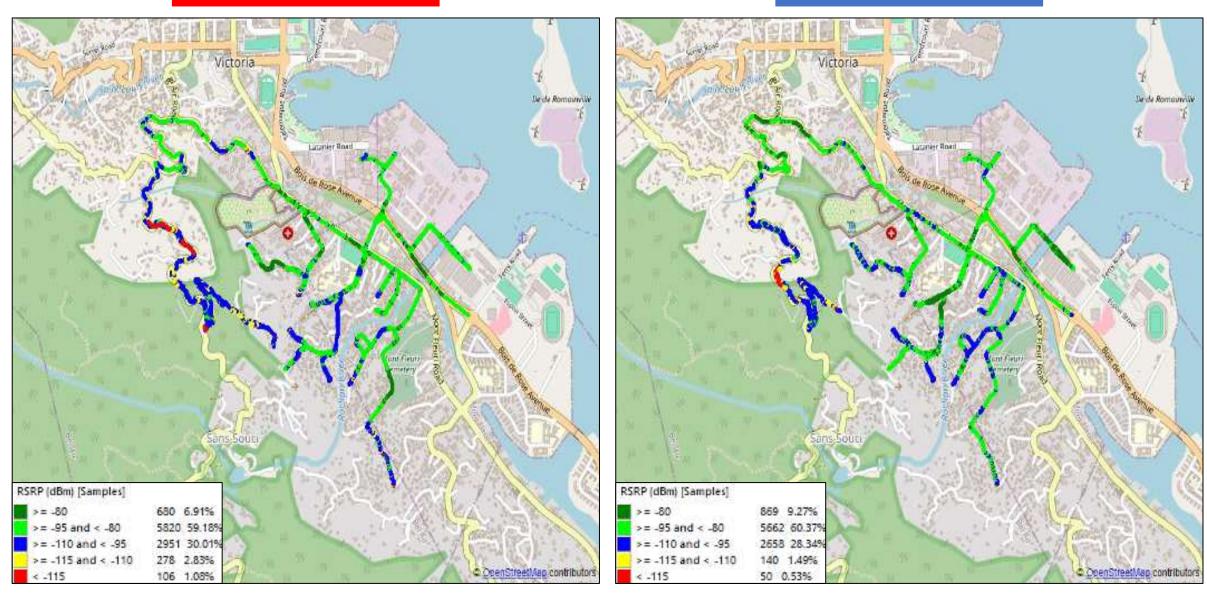
## Phase-1 4G PREFERRED DATA TEST - RSRP PLOT





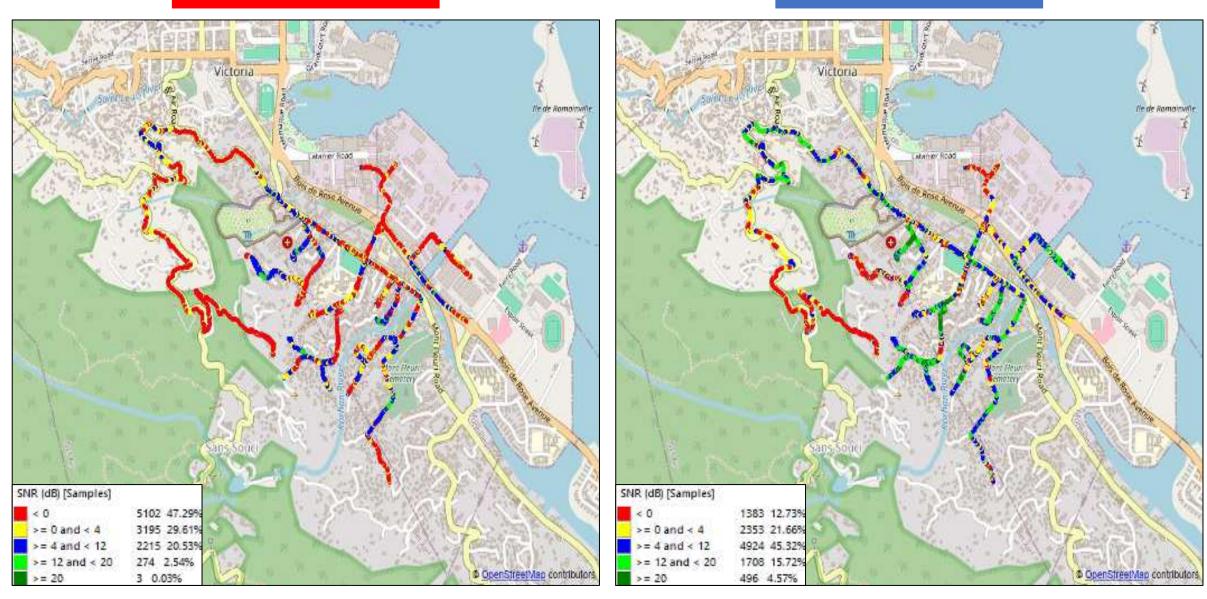
## Phase-2 4G PREFERRED DATA TEST - RSRP PLOT





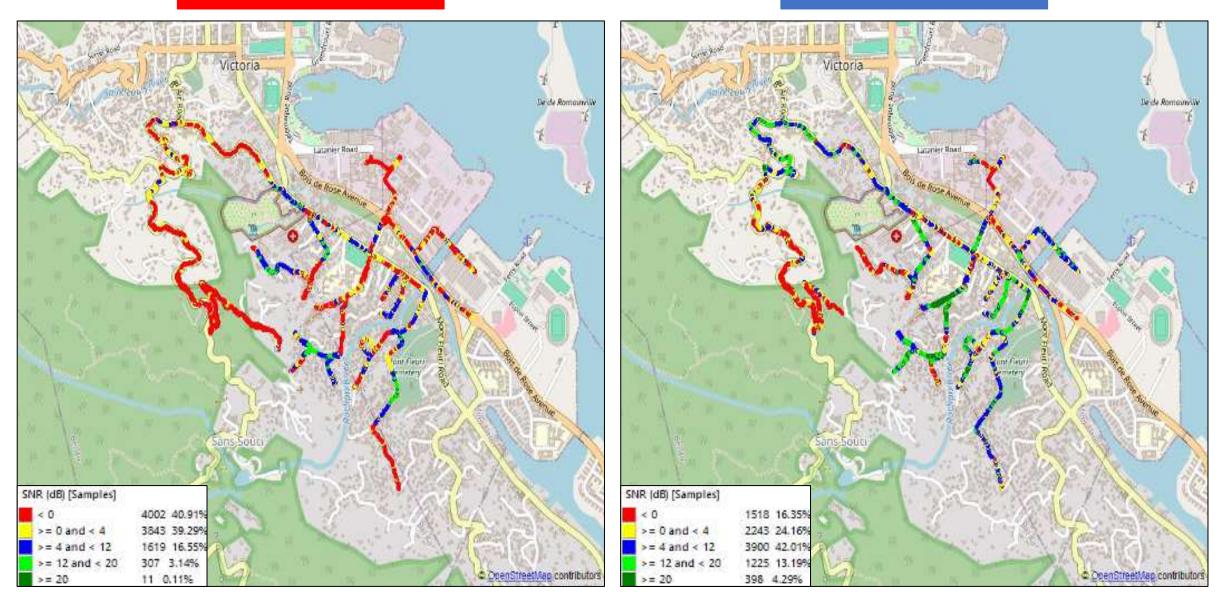
## Phase-1 4G PREFERRED DATA TEST - SINR PLOT

Airtel Data 4G



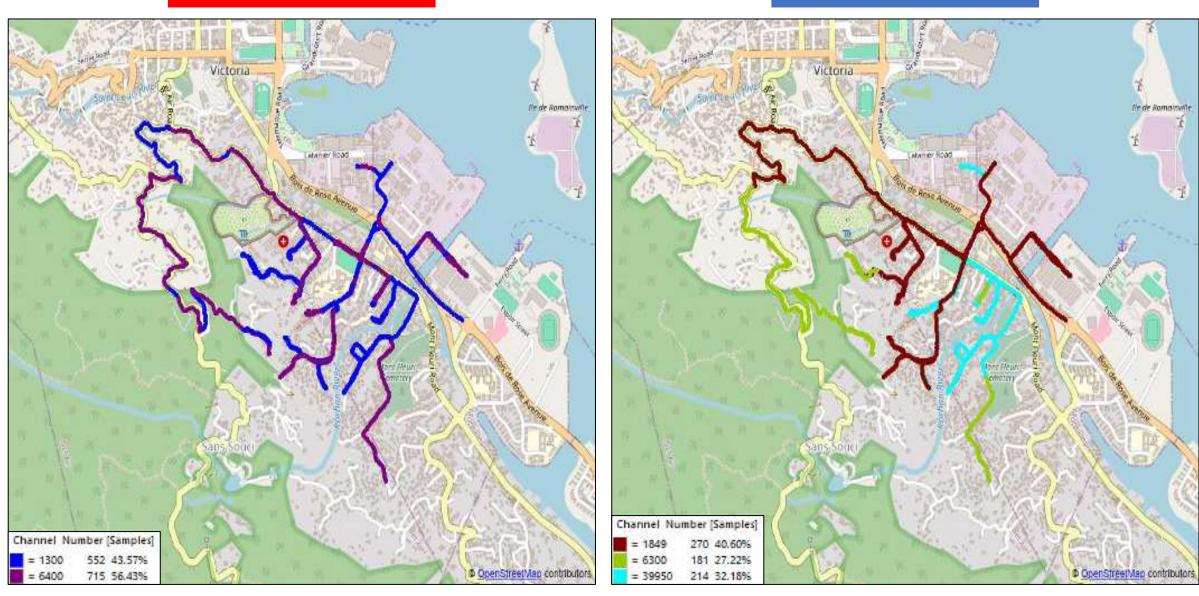
## Phase-2 4G PREFERRED DATA TEST - SINR PLOT

Airtel Data 4G



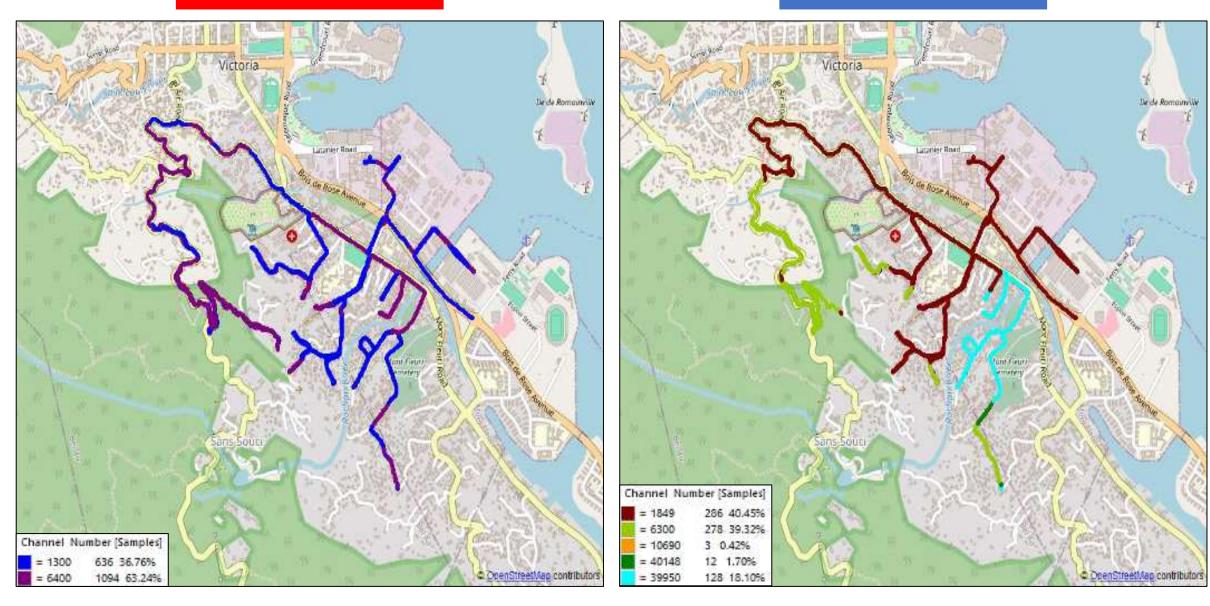
# Phase-1 4G PREFERRED DATA TEST - FREQUENCY BAND PLOT

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



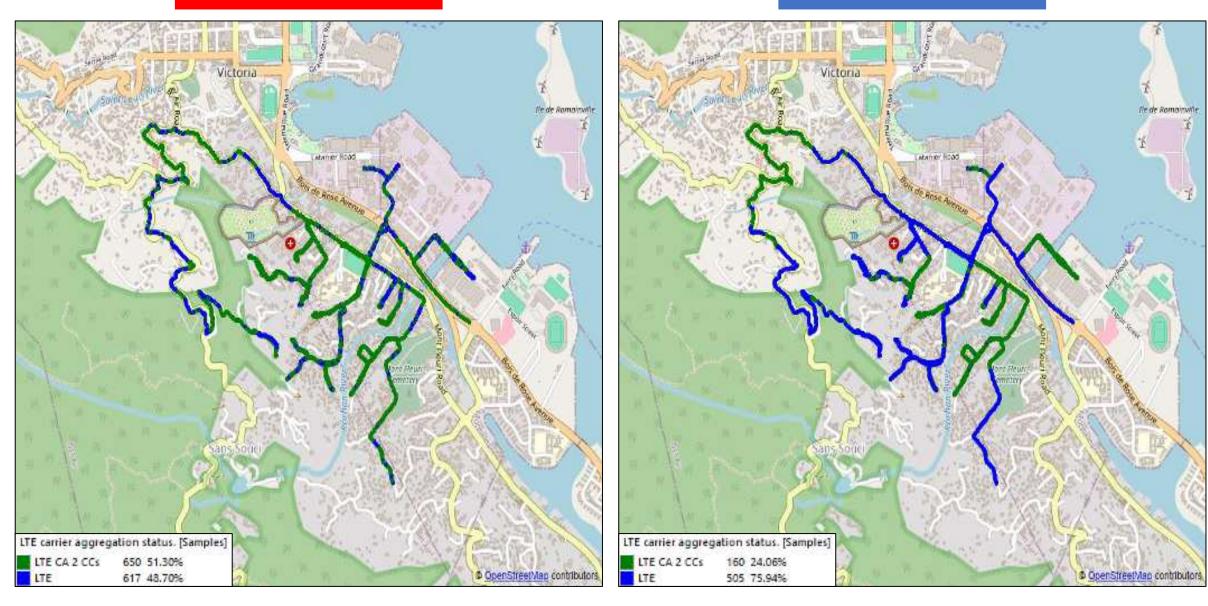
## Phase-2 4G PREFERRED DATA TEST - FREQUENCY BAND PLOT

**Airtel Data 4G** 



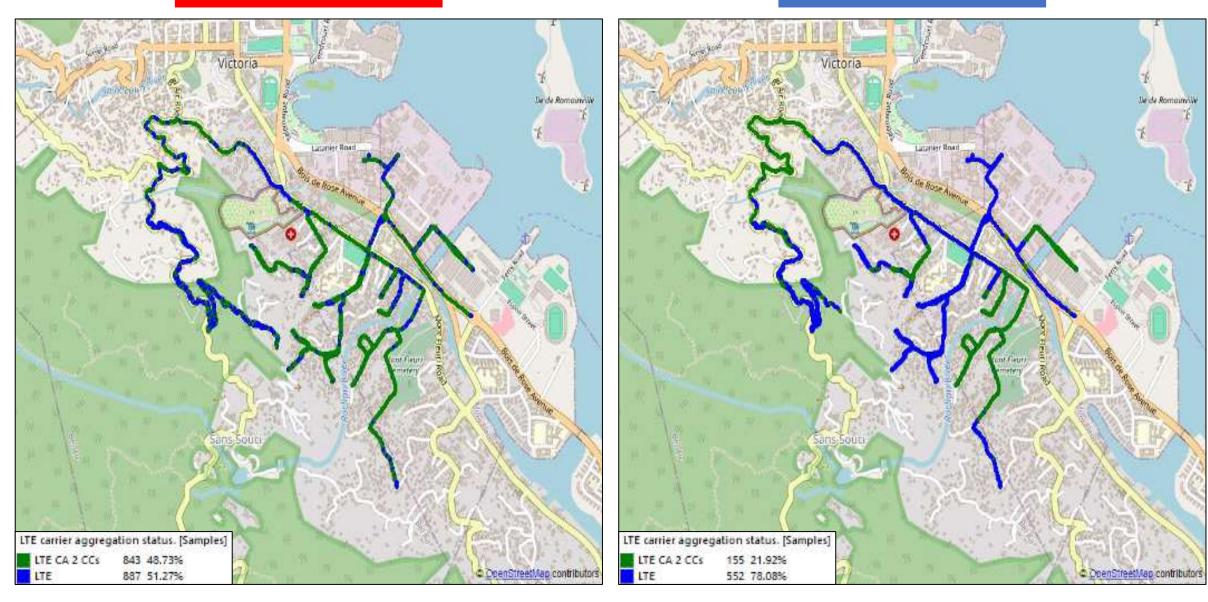
## Phase-1 4G PREFERRED DATA TEST - CARRIER AGGREGATION PLOT

**Airtel Data 4G** 



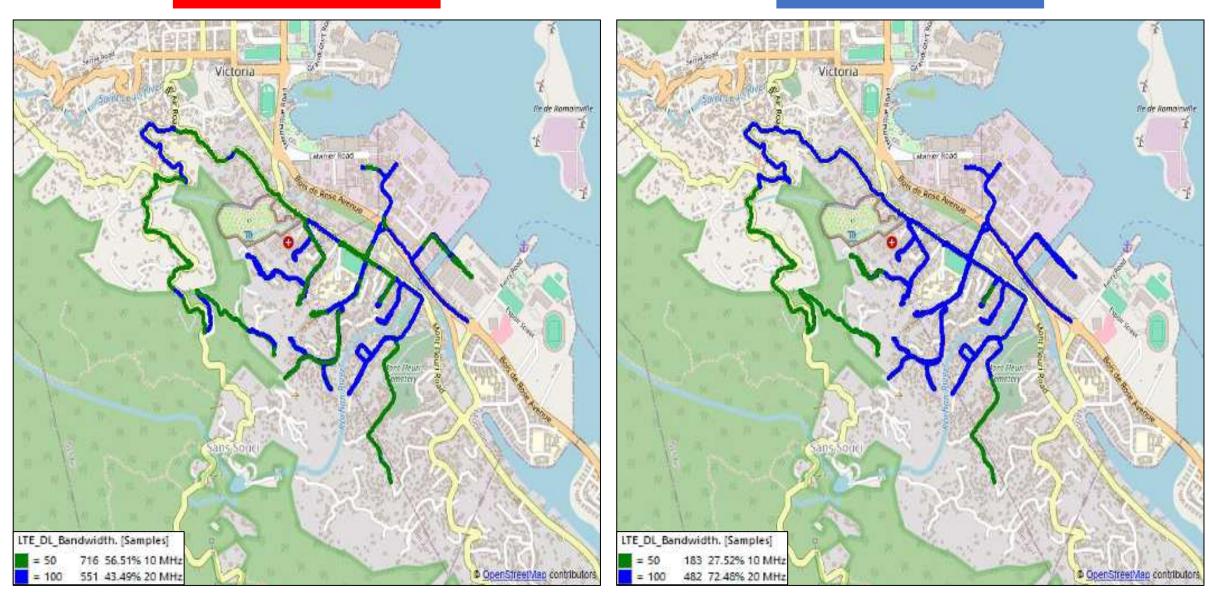
## Phase-2 4G PREFERRED DATA TEST - CARRIER AGGREGATION PLOT

**Airtel Data 4G** 



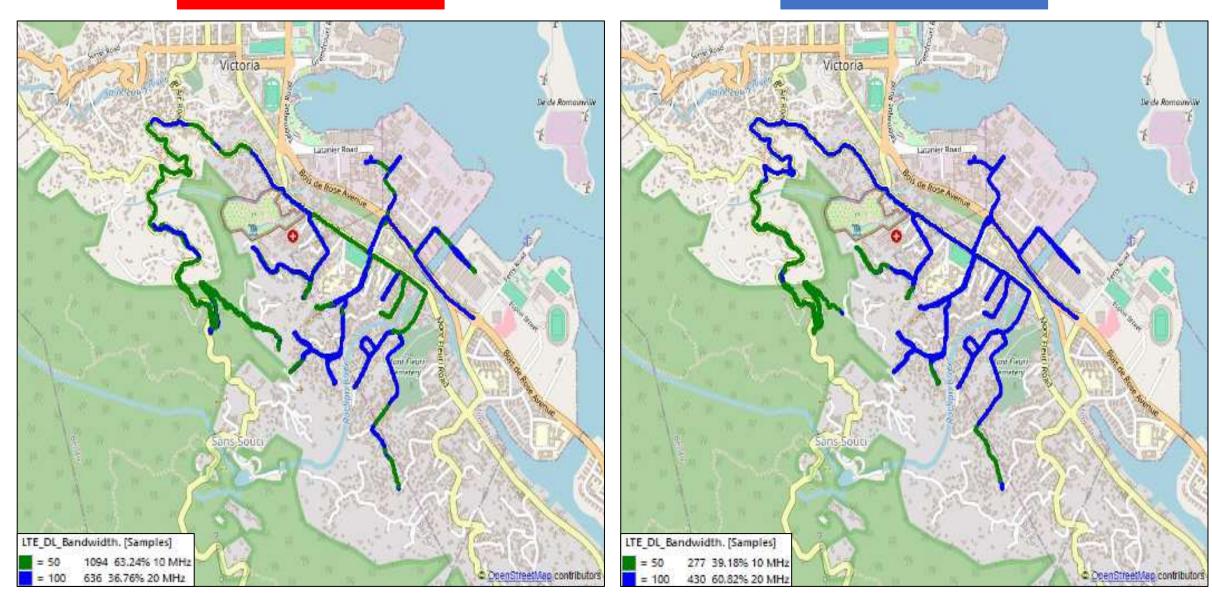
## Phase-1 4G PREFERRED DATA TEST – BANDWIDTH PLOT

**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	1			
Poor Coverage	1			

Call Attempt Failure cause from CWS	Count			
Total Call Attempt Failure	3			
Poor Coverage	2			
Network End	1			

Call Drop cause from Airtel	Count		
Total Call Drop	0		

Call Drop cause from CWS	Count			
Total Call Drop	2			
Poor quality	2			



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

Time System Serving band	1. best active RSCP	Time	Ch	SC	1. best active Ec/NO A		Event ID	System	Transf, dir.	Time	Subchannel	Message name
1. 14:56:20.688 UMTS FDD 900 3962.		14:55:26.252	3050	424	-14.1	14648.	RRCSM	UMTS FDD	Uplink	14:56:03.004	DCCH	INITIAL_DIRECT_TRANSFER
3963.	-85.1	14:55:26.760	3050	424		14649,	L3SM	UMTS FDD	Uplink	14:56:03.004	DCCH	ROUTING_AREA_UPDATE_REQUEST
3964.		14:55:26.760	3050	424	-9.3	14650.	RRCSM	UMTS FDD	Downlink	14:56:03.237	DCCH	MEASUREMENT_CONTROL
3965.	-90.1	14:55:27.260	3050	424		14651.	RRCSM	UMTS FDD	Downlink	14:56:03.297	DCCH	MEASUREMENT_CONTROL
3966.		14:55:27.260	3050	424	-11.2	14652.	RRCSM	UMTS FDD	Downlink	14:56:03.307	DCCH	MEASUREMENT_CONTROL
3967.	-81.3	14:55:27.760	3050	424		14653.	RRCSM	UMTS FDD	Downlink	14:56:03.317	DCCH	MEASUREMENT_CONTROL
3968.		14:55:27.760	3050	424	-8,4	14654.	RRCSM	UMTS FDD	Downlink	14:56:03.317	DCCH	MEASUREMENT_CONTROL
3969.	-79.5	14:55:28.361	3050	424		14655.	RRCSM	UMTS FDD	Downlink	14:56:03.327	DCCH	MEASUREMENT_CONTROL
3970.		14:55:28.361	3050	424	-6.4	14656.	RRCSM	UMTS FDD	Downlink	14:56:03.367	DCCH	DOWNLINK_DIRECT_TRANSFER
3971,	-81.7	14:55:28.780	3050	424		14657.	L3SM	UMTS FDD	Downlink	14:56:03.367	DCCH	AUTHENTICATION_REQUEST
3972.	10000	14:55:28.780	3050	424	-9.9	14658.	RRCSM	UMTS FDD	Uplink	14:56:03.418	DCCH	MEASUREMENT_REPORT
3973.	-79.2	14:55:29.382	3050	424		14659.	RRCSM	UMTS FDD	Uplink	14:56:03.496	DCCH	UPLINK_DIRECT_TRANSFER
3974.		14:55:29.382	3050	424	-6.4	14660.	L3SM	UMTS FDD	Uplink	14:56:03.496	DCCH	AUTHENTICATION_RESPONSE
3975.	-85.8	14:55:29.822	3050	424		14661.	RRCSM	UMTS FDD	Uplink	14:56:03.668	DCCH	MEASUREMENT_REPORT
3976.	5000	14:55:29.822	3050	424	-12.7	14662.	RRCSM	UMTS FDD	Downlink	14:56:03.737	DCCH	SECURITY_MODE_COMMAND
3977.	-83.5	14:55:30.389	3050	424		14663.	RRCSM	UMTS FDD	Uplink	14:56:03,738	DCCH	SECURITY_MODE_COMPLETE
3978.		14:55:30.389	3050	424	-8.7	14664.	RRCSM	UMTS FDD	Uplink	14:56:03.828	DCCH	UPLINK_DIRECT_TRANSFER
3979.	-87.7	14:55:30.836	3050	461		14665.	L3SM	UMTS FDD	Uplink	14:56:03.828	DCCH	SETUP
3980.		14:55:30.836	3050	461	-9.5	14666.	RRCSM	UMTS FDD	Downlink	14:56:03.837	DCCH	DOWNLINK_DIRECT_TRANSFER
3981.	-81	14:56:02.723	3050	113		14667.	L3SM	UMTS FDD	Downlink	14:56:03.837	DCCH	IDENTITY_REQUEST
3982.	lesson .	14:56:02.723	3050	113	-7.9	14668.	RRCSM	UMTS FDD	Uplink	14:56:03.837	DCCH	UPLINK_DIRECT_TRANSFER
3983.	-81	14:56:03,386	3050	113		14669.	L3SM	UMTS FDD	Uplink	14:56:03.837	DCCH	IDENTITY_RESPONSE
3984.		14:56:03.386	3050	113	-10.2	14670.	RRCSM	UMTS FDD	Uplink	14:56:03.912	DCCH	MEASUREMENT_REPORT
3985.	-81	14:56:03,958	3050	113		14671.	RRCSM	UMTS FDD	Downlink	14:56:03.967	DCCH	DOWNLINK_DIRECT_TRANSFER
3986.		14:56:03.958	3050	113	-9.2	14672.	L3SM	UMTS FDD	Downlink	14:56:03.967	DCCH	CALL_PROCEEDING
3987.	-81	14:56:04.455	3050	113		14673.	RRCSM	UMTS FDD	Downlink	14:56:04.037	DCCH	ACTIVE_SET_UPDATE
3988.		14:56:04,455	3050	113	-6.6	14674.	RRCSM	UMTS FDD	Uplink	14:56:04.049	DCCH	ACTIVE_SET_UPDATE_COMPLETE
3989.	-81	14:56:04.958	3050	113		14675.	RRCSM	UMTS FDD	Downlink	14:56:04,157	DCCH	MEASUREMENT_CONTROL
3990.		14:56:04.958	3050	113	-10	14676.	RRCSM	UMTS FDD	Uplink	14:56:04.518	DCCH	MEASUREMENT_REPORT
3991.	-81	14:56:05.390	3050	113		14677.	RRCSM	UMTS FDD	Uplink	14:56:04.631	DCCH	MEASUREMENT_REPORT
3992.		14:56:05.390	3050	113	-8,5	14678.	RRCSM	UMTS FDD	Uplink	14:56:04.631	DCCH	MEASUREMENT_REPORT
3993.	-81	14:56:05.931			100	14679.	RRCSM	UMTS FDD	Uplink	14:56:08.091	DCCH	MEASUREMENT_REPORT
3994.		14:56:05.931	3050	113	-7	14680.	RRCSM	UMTS FDD	Downlink	14:56:08.187	DCCH	ACTIVE_SET_UPDATE
3995.	-78.3	14:56:06.458	No.	nifrinit.		14681.	17/11/SSSS1111	UMTS FDD	10.001.0101.11	14:56:08.219		ACTIVE_SET_UPDATE_COMPLETE
3996.		14:56:06.458	3050	113	-7.1	14682.	RRCSM	UMTS FDD	Downlink	14:56:08.317	DCCH	MEASUREMENT CONTROL

#### **Analysis:**

- This call failure event occurred on short call at 14:56:20:688 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 113 and RF condition RSCP -81.0 dBm and Ec/No -9.20 dB are very poor.
- Need to check MT End.

#### metro

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

	Time	Band (MHz)	Ch	PCI	RSRP	SNR	<b>A</b>		Event ID	System	Transf. dir.	Time	Subchannel	Message name
6400.	14:55:58.196					0.6		13619.	RRCSM	LTE FDD	Uplink	14:56:02.359	DCCH	MeasurementReport
6401.	14:55:58.711	1800	1300	52	-105,1			13620.	RRCSM	LTE FDD	Uplink	14:56:02.719	DCCH	MeasurementReport
6402.	14:55:58.711					-2.8		13621.	RRCSM	LTE FDD	Uplink	14:56:02.798	DCCH	MeasurementReport
6403,	14:55:59.216	1800	1300	52	-104.2			13622.	RRCSM	LTE FDD	Uplink	14:56:02.799	DCCH	MeasurementReport
6404.	14:55:59.216					-6.1		13623.	RRCSM	LTE FDD	Uplink	14:56:02.839	DCCH	MeasurementReport
6405.	14:55:59.736	1800	1300	52	-100.5			13624.	RRCSM	LTE FDD	Uplink	14:56:02.839	DCCH	MeasurementReport
6406.	14:55:59.736					-7.1		13625.	RRCSM	LTE FDD	Uplink	14:56:02.918	DCCH	MeasurementReport
6407.	14:56:00.266	1800	1300	52	-100.1			13626.	RRCSM	LTE FDD	Uplink	14:56:02.958	DCCH	MeasurementReport
6408.	14:56:00,266					-6.5		13627.	RRCSM	LTE FDD	Uplink	14:56:02.999	DCCH	MeasurementReport
6409.	14:56:00.768	1800	1300	52	-100.7			13628.	RRCSM	LTE FDD	Uplink	14:56:03.159	DCCH	MeasurementReport
6410.	14:56:00.768					-6		13629.	RRCSM	LTE FDD	Uplink	14:56:03.279	DCCH	MeasurementReport
6411.	14:56:01.290	1800	1300	52	-99.7			13630.	RRCSM	LTE FDD	Uplink	14:56:03.398	DCCH	MeasurementReport
6412.	14:56:01.290					-5.8		13631,	RRCSM	LTE FDD	Uplink	14:56:03.398	DCCH	MeasurementReport
6413,	14:56:01.785	1800	1300	52	-101.6			13632.	RRCSM	LTE FDD	Uplink	14:56:03.478	DCCH	MeasurementReport
6414,	14:56:01.785					-6.6		13633.	RRCSM	LTE FDD	Uplink	14:56:03.478	DCCH	MeasurementReport
6415.	14:56:02.286	1800	1300	52	-107.1			13634.	RRCSM	LTE FDD	Uplink	14:56:03.478	DCCH	MeasurementReport
6416.	14:56:02.286					-9,4		13635.	RRCSM	LTE FDD	Uplink	14:56:03.518	DCCH	MeasurementReport
6417.	14:56:02.809	1800	1300	52	-114.6			13636.	RRCSM	LTE FDD	Downlink	14:56:04.134	BCCH-BCH	MasterInformationBlock
6418.	14:56:02.809					-11		13637.	RRCSM	LTE FDD	Downlink	14:56:04.168	BCCH-SCH	SystemInformationBlockType1
6419.	14:56:03.305	1800	1300	52	-116.9			13638.	RRCSM	LTE FDD	Downlink	14:56:04.168	BCCH-SCH	SystemInformation - SIB2, SIB3
6420.	14:56:03.305					-10.9		13639.	RRCSM	LTE FDD	Uplink	14:56:04.180	CCCH	RRCConnectionReestablishmentRequest
6421.	14:56:03.790	1800	1300	52	-117.2			13640.	RRCSM	LTE FDD	Downlink	14:56:04.828	BCCH-SCH	SystemInformationBlockType1
6422.	14:56:03.790					-10.8		13641,	RRCSM	LTE FDD	Downlink	14:56:05.024	CCCH	RRCConnectionReestablishmentReject
6423.	14:56:04.326	800	6400	63	-90.8			13642.	L3SM	LTE FDD	Uplink	14:56:05.106		TRACKING_AREA_UPDATE_REQUEST
6424.	14:56:05.255	800	6400	63	-86.7			13643.	RRCSM	LTE FDD	Uplink	14:56:05.107	CCCH	RRCConnectionRequest
6425.	14:56:05.255					2.3		13644.	RRCSM	LTE FDD	Downlink	14:56:05.167	CCCH	RRCConnectionSetup
6426.	14:56:06.193	800	6400	63	-84.8			13645.	RRCSM	LTE FDD	Uplink	14:56:05.171	DCCH	RRCConnectionSetupComplete
6427.	14:56:06,193					3.4		13646.	RRCSM	LTE FDD	Downlink	14:56:05.218	DCCH	DLInformationTransfer
6428.	14:56:06.458	800	6400	63	-84.8			13647.	RRCSM	LTE FDD	Downlink	14:56:05.218	DCCH	RRCConnectionRelease

#### **Analysis:**

- On MT End, During the setup fail, UE was latched with PCI 52 and RF condition RSRP -114.6 dBm is poor but SINR -9.4 dB was poor.
- As per the analysis call failure happened due to Poor coverage of the network.



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

	Time	System	Serving	band		1. best active RSCP	Time	Ch	SC	1. best active I ▲		Event ID	System	Transf. dir.	Time	Subchannel	Message name	•
1.	15:24:45.776	UMTS FDD	2100	Dro	5920.		15:24:32.913	10715	111	-12.7	17768.	RRCSM	UMTS FDD	Downlink	15:24:32.280	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2	
2.	15:25:29.235	UMTS FDD	2100	Dro	5921.	-101.6	15:24:33.426	10715	111		17769,	RRCSM	UMTS FDD	Downlink	15:24:32.280	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3	
3,	15:26:48.052	UMTS FDD	2100	Call	5922.		15:24:33.426	10715	111	-10.1	17770.	RRCSM	UMTS FDD	Downlink	15:24:32.343	CCCH	RRC_CONNECTION_SETUP	
					5923.	-101.3	15:24:33.923	10715	111		17771,	RRCSM	UMTS FDD	Downlink	15:24:32.413	CCCH	RRC_CONNECTION_SETUP	
					5924.		15:24:33.923	10715	111	-9.2	17772.	RRCSM	UMTS FDD	Uplink	15:24:32.469	DCCH	RRC_CONNECTION_SETUP_COMPLETE	
					5925.	-102	15:24:34.456	10715	111		17773.	RRCSM	UMTS FDD	Uplink	15:24:32.469	DCCH	INITIAL_DIRECT_TRANSFER	
					5926.		15:24:34.456	10715	111	-9.5	17774.	L3SM	UMTS FDD	Uplink	15:24:32.469	DCCH	CM_SERVICE_REQUEST	
					5927.	+102	15:24:34.923	10715	111		17775,	RRCSM	UMTS FDD	Uplink	15:24:32.469	DCCH	INITIAL_DIRECT_TRANSFER	
					5928.		15:24:34.923	10715	111	-9.5	17776.	L3SM	UMTS FDD	Uplink	15:24:32.469	DCCH	ROUTING_AREA_UPDATE_REQUEST	
					5929.	-103.5	15:24:35.538	10715	111		17777.	RRCSM	UMTS FDD	Downlink	15:24:32.722	DCCH	MEASUREMENT_CONTROL	
					5930.		15:24:35.538	10715	111	-10.7	17778,	RRCSM	UMTS FDD	Downlink	15:24:32.802	DCCH	SECURITY_MODE_COMMAND	
					5931.	-102.2	15:24:35.932	10715	111		17779.	RRCSM	UMTS FDD	Uplink	15:24:32.803	DCCH	SECURITY_MODE_COMPLETE	
					5932.		15:24:35.932	10715	111	-9,3	17780.	RRCSM	UMTS FDD	Uplink	15:24:32.883	DCCH	UPLINK_DIRECT_TRANSFER	
					5933.	-104	15:24:36.423	10715	111		17781.	L3SM	UMTS FDD	Uplink	15:24:32.883	DCCH	SETUP	
					5934.		15:24:36.423	10715	111	-12.9	17782.	RRCSM	UMTS FDD	Downlink	15:24:32.912	DCCH	DOWNLINK_DIRECT_TRANSFER	
					5935.	-101.5	15:24:36,923	10715	111		17783.	L3SM	UMTS FDD	Downlink	15:24:32.912	DCCH	TMSI_REALLOCATION_COMMAND	
					5936.	OVERN.	15:24:36.923	10715	111	-10.4	17784.	RRCSM	UMTS FDD	Uplink	15:24:32.913	DCCH	UPLINK_DIRECT_TRANSFER	
					5937.	-100.9	15:24:37.465	10715	111		17785.	L3SM	UMTS FDD	Uplink	15:24:32.913	DCCH	TMSI_REALLOCATION_COMPLETE	
					5938.	11/3/0	15:24:37.465	10715	111	-9.1	17786.	RRCSM	UMTS FDD	Downlink	15:24:33.042	DCCH	DOWNLINK_DIRECT_TRANSFER	
					5939.	-106.5	15:24:38.146	10715	111		17787.	L3SM	UMTS FDD	Downlink	15:24:33.042	DCCH	CALL_PROCEEDING	
					5940.	SW00X	15:24:38.146	10715	111	-14.5	17788.	RRGSM	UMTS FDD	Uplink	15:24:35.798	DCCH	MEASUREMENT_REPORT	
					5941.	-98.9	15:24:38.583	10715	111		17789.	RRCSM	UMTS FDD	Uplink	15:24:37.647	DCCH	MEASUREMENT_REPORT	
					5942.	100000	15:24:38.583	10715	111	-8.5	17790.	RRCSM	UMTS FDD	Downlink	15:24:37.802	DCCH	DOWNLINK_DIRECT_TRANSFER	
					5943.	-100.2	15:24:39,322	10715	111		17791.	L3SM	UMTS FDD	Downlink	15:24:37.802	DCCH	AUTHENTICATION_AND_CIPHERING_REQUEST	
					5944.		15:24:39.322	10715	111	-9.2	17792.	RRCSM	UMTS FDD	Uplink	15:24:37.841	DCCH	UPLINK_DIRECT_TRANSFER	
					5945.	-101.7	15:24:39.497	10715	111		17793.	L3SM	UMTS FDD	Uplink	15:24:37.841	DCCH	AUTHENTICATION_AND_CIPHERING_RESPONSE	
					5946.		15:24:39.497	10715	111	-12.4	17794.	RRCSM	UMTS FDD	Downlink	15:24:38.082	DCCH	SECURITY_MODE_COMMAND	
					5947,	-102.2	15:24:40.131	10715	111		17795.	RRCSM	UMTS FDD	Uplink	15:24:38.083	DCCH	SECURITY_MODE_COMPLETE	100
					5948.		15:24:40.131	10715	111	-16.3	17796.	RRCSM	UMTS FDD	Downlink	15:24:38.412	DCCH	DOWNLINK_DIRECT_TRANSFER	_
					5949.	-89.9	15:24:40.574	10715	111	10000	17797,	L3SM	UMTS FDD	Downlink	15:24:38.412	DCCH	ROUTING_AREA_UPDATE_ACCEPT	
					5950.		15:24:40.574	10715	111	-6.2	17798.	RRCSM	UMTS FDD	Uplink	15:24:38.414	DCCH	UPLINK_DIRECT_TRANSFER	
					5951.	-92.9	15:24:41.350	10715	93		17799.	L3SM	UMTS FDD	Uplink	15:24:38.414	DCCH	ROUTING_AREA_UPDATE_COMPLETE	
					5952.		15:24:41.350	10715	93	-6.9	17800.	RRCSM	UMTS FDD	Uplink	15:24:39.714	DCCH	MEASUREMENT_REPORT	
					5953.	-94.9	15:24:41.922	10715	93		17801.	RRCSM	UMTS FDD	Uplink	15:24:40.295	DCCH	MEASUREMENT_REPORT	
					5954.		15:24:41.922	10715	93	-9.8	17802.	RRCSM	UMTS FDD	Downlink	15:24:40.422	7.000	ACTIVE_SET_UPDATE	
					5955.	-96.9	15:24:42.421				17803.	RRCSM	UMTS FDD	Uplink	15:24:40.434		ACTIVE_SET_UPDATE_COMPLETE	
					5956.	Motor	15:24:42.421			-9.1 <b>▼</b>	17804.	***	UMTS FDD	Downlink	15:24:40.552		MEASUREMENT_CONTROL	+
4				×	4					•	1	-				audanus!	THE CONTRACTOR OF THE CONTRACT	1

#### **Analysis:**

- This call failure event occurred on short call at 15:24:45:776 time when UE was latched with 3G network.
- After sending the 'CM Service Request'
  message to the core network, the core
  network responded with a 'Call
  Proceeding' message. However, the call
  was disconnected with Cause (27):
  Destination out of order.
- During the failure, UE was latched with PSC 111 and RF condition RSCP -101.9 dBm poor but Ec/No -10.4 dB are very good.
- Call failed due to poor network coverage at the MO site. Insufficient signal strength in the area is causing call failures.

Downlink.

DISCONNECT

3GFP 15-24.003 ver 15-4.0 Rel 15 (9.3.7.1)

M Protocol Discriminator (hex data: 3)

(0x3) Call control (call related SS message) M Transaction Identifier (hex data: 8)

Ti flag: 1 (the message is sent to the side that originates the Tij Ti value: 0

M Message Type (hex data: 25)

Message Type (nex data: 2 Message number: 37

M Cause thex data: 02e09b)

Coding standard: Standard defined for the GSM PLMNs. Location: user

Cause (27) Destination out of order



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

	Time	System	Serving band			1. best active RSCP	Time	Ch	SC	1. best active I		System	Transf, dir.	Time	Subchannel	Message name
1.	15:24:45.776	UMTS FDD	2100	Dro	5995.	-97	15:25:22.289	10690		and the second s	181		Downlink	15:25:26.538	DCCH	DOWNLINK_DIRECT_TRANSFER
2.	15:25:29.235	UMTS FDD	2108	Dro	5996.	100	15:25:22.289	10690	122	-11.7:	181	4. UMTS FDD	Downlink	15:25:26.538	DCCH	MODIFY_PDP_CONTEXT_REQUEST
3.	15:26:48.052	UMTS FDD	2100	Call	5997.	-104.3	15:25:22.786	10690	168		181	5. UMTS FDD	Uplink	15:25:26.540	DCCH	UPLINK_DIRECT_TRANSFER
					5998.		15:25:22,786	10690	168	-15.9	181	6. UMTS FDD	Uplink	15:25:26.540	DCCH	MODIFY_PDP_CONTEXT_ACCEPT
					5999.	-102	15:25:23,289	10690	168		181	7. UMTS FDD	Uplink	15:25:27.187	DCCH	MEASUREMENT_REPORT
					6000.	0000	15:25:23.289	10690	168	-13.4	181	8. UMTS FDD	Downlink	15:25:27.298	DCCH	ACTIVE_SET_UPDATE
					6001.	-101	15:25:23.706	10690	122		181	9. UMTS FDD	Uplink	15:25:27.331	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					6002.		15:25:23.706	10690	122	-10.5	181	0. UMTS FDD	Uplink	15:25:27.605	DCCH	MEASUREMENT_REPORT
					6003.	-97.1	15:25:24.289	10690	122	100000	181	1. UMTS FDD	Uplink	15:25:27.666	DCCH	MEASUREMENT_REPORT
					6004.		15:25:24.289	10690	168	-11.1	181	2. UMTS FDD	Uplink	15:25:27.706	DCCH	MEASUREMENT_REPORT
					6005.	-104.1	15:25:24.789	10690	168		181	3. UMTS FDD	Uplink	15:25:27.970	DCCH	MEASUREMENT_REPORT
					6006.		15:25:24.789	10690	168	-14.9	181	4. UMTS FDD	Downlink	15:25:28.258	DCCH	RADIO_BEARER_SETUP
					6007.	-99.6	15:25:25.353	10690	122		181	5. UMTS FDD	Uplink	15:25:28.263	DCCH	MEASUREMENT_REPORT
					6008.		15:25:25.353	10690	122	-10.6	181	6. UMTS FDD	Downlink	15:25:28.338	DCCH	MEASUREMENT_CONTROL
					6009.	-97,5	15:25:25.786	10690	122		181	7. UMTS FDD	Uplink	15:25:28.534	DCCH	MEASUREMENT_REPORT
					6010.		15:25:25.786	10690	122	-10.1	181	8, UMTS FDD	Uplink	15:25:28.709	DCCH	RADIO_BEARER_SETUP_COMPLETE
					6011.	-100.2	15:25:26.458	10690	122		181	9. UMTS FDD	Uplink	15:25:28.745	DCCH	MEASUREMENT_REPORT
					6012.	_	15:25:26.458	10690	122	-12.1	181	0. UMTS FDD	Downlink	15:25:28.938	DCCH	MEASUREMENT_CONTROL
					6013.	-96.4	15:25:26.833	10690	122		181	1. UMTS FDD	Downlink	15:25:28.939	DCCH	MEASUREMENT_CONTROL
					6014.		15:25:26.833	10690	122	-11.6	181	2. UMTS FDD	Downlink	15:25:28.979	DCCH	MEASUREMENT_CONTROL
					6015.	-101.2	15:25:27.427	10690	168		181	3. UMTS FDD	Downlink	15:25:29.099	DCCH	DOWNLINK_DIRECT_TRANSFER
					6016.	/	15:25:27.427	10690	168	-12.5	181	4. UMTS FDD	Downlink	15:25:29.099	DCCH	DISCONNECT
					6017.	-106.2	15:25:27.970	10690	168		181	5. UMTS FDD	Downlink	15:25:29.219	DCCH	MEASUREMENT_CONTROL
					6018.	100000	15:25:27.970	10690	168	-17.4	181	6. UMTS FDD	Uplink	15:25:29.235	DCCH	UPLINK_DIRECT_TRANSFER
					6019.	-102.7	15:25:28.548	10690	122		181	7. UMTS FDD	Uplink	15:25:29.235	DCCH	RELEASE
					6020.		15:25:28.548	10690	122	-14.2	181	8. UMTS FDD	Uplink	15:25:29.285	DCCH	MEASUREMENT_REPORT
					6021.	-105,6	15:25:29.064	10690	122		181	9. UMTS FDD	Uplink	15:25:29.286	DCCH	MEASUREMENT_REPORT
					6022.		15:25:29.064	10690	122	-14.6	181	O. UMTS FDD	Downlink	15:25:29.419	DCCH	DOWNLINK_DIRECT_TRANSFER
					6023.	-102.5	15:25:29.589	10690	122		181	1. UMTS FDD	Downlink	15:25:29.419	DCCH	RELEASE_COMPLETE
					6024.		15:25:29.589	10690	122	-11.5 -	181	2. UMTS FDD	Downlink	15:25:29.658	DCCH	RADIO_BEARER_RELEASE
					6025.	-107.4	15:25:30.129	10690	122		181	3. UMTS FDD	Uplink	15:25:29.695	DCCH	MEASUREMENT_REPORT
					6026.	1000	15:25:30.129	10690	122	-14.1	181	4. UMTS FDD	Uplink	15:25:30.388	DCCH	RADIO_BEARER_RELEASE_COMPLETE
					6027.	-99.1	15:25:30.618	10690	122		181	5. UMTS FDD	Downlink	15:25:30.658	DCCH	MEASUREMENT_CONTROL
					6028.		15:25:30.618	10690	122	-9.2	181	6. UMTS FDD	Downlink	15:25:30.659	DCCH	SIGNALLING_CONNECTION_RELEASE

#### **Analysis:**

- This call failure event occurred on short call at 15:25:29:235 time when UE was latched with 3G network.
- After sending the 'CM Service Request'
  message to the core network, the core
  network responded with a 'Call
  Proceeding' message. However, the call
  was disconnected with Cause (27):
  Destination out of order.
- During the failure, UE was latched with PSC 122 and RF condition RSCP -105.6 dBm poor but Ec/No -14.6 dB are very poor.
- Call failed due to poor network coverage at the MO site. Insufficient signal strength in the area is causing call failures.

Downlink

DISCONNECT SGPP TS

3GPP 15-24,003 ver 15-4,0 Rel 15 (9.3.7.1)

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

M Transaction identifier they data: 8

Ti flag: 1 (the message is sent to the side that originates the TI) to value: 0

M Message Type (hex data: 25)

Message number: 37 M Cause (hex data: 02e09b)

Coding standard: Standard defined for the GSM PLMNs Location: user

Cause (27): Destination out of order



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

	Time	System	Serving band			1. best active RSCP	Time	Ch	SC	1. best active I 🔺		System	Transf. dir.	Time	Subchannel	Message name	Msg. ty
1.	15:24:45.776	UMTS FDD	2100	Dro	6091.	-98.5	15:26:14.532	10690	202		18491,	UMTS FDD	Downlink	15:26:45.091	CCCH	RRC_CONNECTION_SETUP	
2.	15:25:29-235	UMTS FDD	2100	Dro	6092.		15:26:14.532	10690	202	-14.1	18492.	UMTS FDD	Uplink	15:26:45.144	DCCH	RRC_CONNECTION_SETUP_COMPLETE	
3,	15:26:48:052	UMTS FDD	2100	Cal	6093.	-93.7	15:26:14.934	10690	202		18493.	UMTS FDD	Uplink	15:26:45.144	DCCH	INITIAL_DIRECT_TRANSFER	
					6094.		15:26:14.934	10690	202	-10.2	18494.	UMTS FDD	Uplink	15:26:45.144	DCCH	CM_SERVICE_REQUEST	
					6095.	-89.9	15:26:44,925	10690	385		18495.	UMTS FDD	Uplink	15:26:45.144	DCCH	INITIAL_DIRECT_TRANSFER	
					6096.	200000	15:26:44.925	10690	385	-8.4	18496.	UMTS FDD	Uplink	15:26:45.144	DCCH	ROUTING_AREA_UPDATE_REQUEST	
					6097.	-87.7	15:26:45.598	10690	385		18497.	UMTS FDD	Downlink	15:26:45,447	DCCH	MEASUREMENT_CONTROL	
					6098.	-02/(V/A	15:26:45.598	10690	385	-6.5	18498.	UMTS FDD	Downlink	15:26:45.457	DCCH	SECURITY_MODE_COMMAND	
					6099.	-87.8	15:26:46.150	10690	385		18499.	UMTS FDD	Uplink	15:26:45.458	DCCH	SECURITY_MODE_COMPLETE	
					6100.	ACS ASSE	15:26:46,150	10690	385	-7,5	18500.	UMTS FDD	Uplink	15:26:45.538	DCCH	UPLINK_DIRECT_TRANSFER	
					6101.	-87,4	15:26:46.598	10690	385		18501.	UMTS FDD	Uplink.	15:26:45.538	DCCH	SETUP	
					6102.	No.	15:26:46.598	10690	385	-8	18502.	UMTS FDD	Downlink	15:26:45.567	DCCH	DOWNLINK_DIRECT_TRANSFER	
					6103.	-88.6	15:26:47,098	10690	385		18503.	UMTS FDD	Downlink	15:26:45,567	DCCH	TMSI_REALLOCATION_COMMAND	
					6104.		15:26:47.098	10690	385	-7.9	18504.	UMTS FDD	Uplink	15:26:45.568	DCCH	UPLINK_DIRECT_TRANSFER	
					6105.	-91.2	15:26:47.666	10690	385		18505.	UMTS FDD	Uplink	15:26:45.568	DCCH	TMSI_REALLOCATION_COMPLETE	
					6106.	Anna Maria	15:26:47.666	10690	385	-9.2	18506.	UMTS FDD	Downlink	15:26:45.697	DCCH	DOWNLINK_DIRECT_TRANSFER	
				1	6107.	-89.1	15:26:48.140	10690	385	17	18507.	UMTS FDD	Downlink	15:26:45.697	DCCH	CALL_PROCEEDING	
					6108.		15:26:48,140	10690	385	-9.1	18508.	UMTS FDD	Uplink	15:26:48.052	DCCH	UPLINK_DIRECT_TRANSFER	
					6109.	-85.2	15:26:48.598	10690	385		18509.	UMTS FDD	Uplink	15:26:48.052	DCCH	DISCONNECT	
					6110.		15:26:48.598	10690	385	-7.7	18510.	UMTS FDD	Downlink	15:26:48.137	DCCH	DOWNLINK_DIRECT_TRANSFER	
					6111.	-85.3	15:26:49.129	10690	385		18511.	UMTS FDD	Downlink	15:26:48.137	DCCH	RELEASE	
					6112.		15:26:49.129	10690	385	-6.8	18512.	UMTS FDD	Uplink	15:26:48,138	DCCH	UPLINK_DIRECT_TRANSFER	
					6113.	-82.1	15:26:49.598	10690	385		18513.	UMTS FDD	Uplink	15:26:48.138	DCCH	RELEASE_COMPLETE	
					6114.		15:26:49,598	10690	385	-8	18514.	UMTS FDD	Downlink	15:26:48.207	DCCH	DOWNLINK_DIRECT_TRANSFER	
					6115.	-87.2	15:26:50.109	10690	385		18515.	UMTS FDD	Downlink	15:26:48.207	DCCH	AUTHENTICATION_AND_CIPHERING_REQUEST	
					6116.		15:26:50.109	10690	385	-7.1	18516.	UMTS FDD	Uplink	15:26:48.245	DCCH	UPLINK_DIRECT_TRANSFER	
					6117.	-87.3	15:26:50.749	10690	385		18517,	UMTS FDD	Uplink	15:26:48.245	DCCH	AUTHENTICATION_AND_CIPHERING_RESPONSE	
					6118.		15:26:50.749	10690	385	-7,4	18518.	UMTS FDD	Downlink	15:26:48.287	DCCH	SIGNALLING_CONNECTION_RELEASE	
					6119.	-91.1	15:26:51.420	10690	385		18519.	UMTS FDD	Uplink	15:26:48.288	DCCH	INITIAL_DIRECT_TRANSFER	
					6120.	850000	15:26:51.420	10690	385	-9.5	18520,	UMTS FDD	Uplink	15:26:48.288	DCCH	LOCATION_UPDATING_REQUEST	
					6121.	-91.5	15:26:51.629	10690	385		18521.	UMTS FDD	Downlink	15:26:48.427	DCCH	DOWNLINK_DIRECT_TRANSFER	
					6122	0.00000	15:26:51.629	10690	385	-11.5	18522.	UMTS FDD	Downlink	15:26:48.427	DCCH	IDENTITY_REQUEST	
					6123.	-87.6	15:26:52.353	10690	385		18523,	UMTS FDD	Uplink	15:26:48.428	DCCH	UPLINK_DIRECT_TRANSFER	
					6124.	50,400 × 1	15:26:52.353	10690	385	-8.1	18524.	UMTS FDD	Uplink	15:26:48.428	DCCH	IDENTITY_RESPONSE	
					6125.	-86.8	15:26:52.849	manufacture (MC)			18525,	UMTS FDD	Downlink	15:26:48,507		SECURITY_MODE_COMMAND	
					6126.	Selection .	15:26:52.849	10690	385	-7.1	18526.	UMTS FDD	Uplink	15:26:48.508	DCCH	SECURITY_MODE_COMPLETE	
					6127.	-82	15:26:53.425			·	18527.	UMTS FDD	Downlink	15:26:48.597		DOWNLINK_DIRECT_TRANSFER	
				M	-				1	1	4		and the state of t				»ſ

- This call failure event occurred on short short call at 15:26:48:052 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 385 and RF condition RSCP -91.2 dBm good but Ec/No -9.2 dB are very poor.
- Need to check MT End.



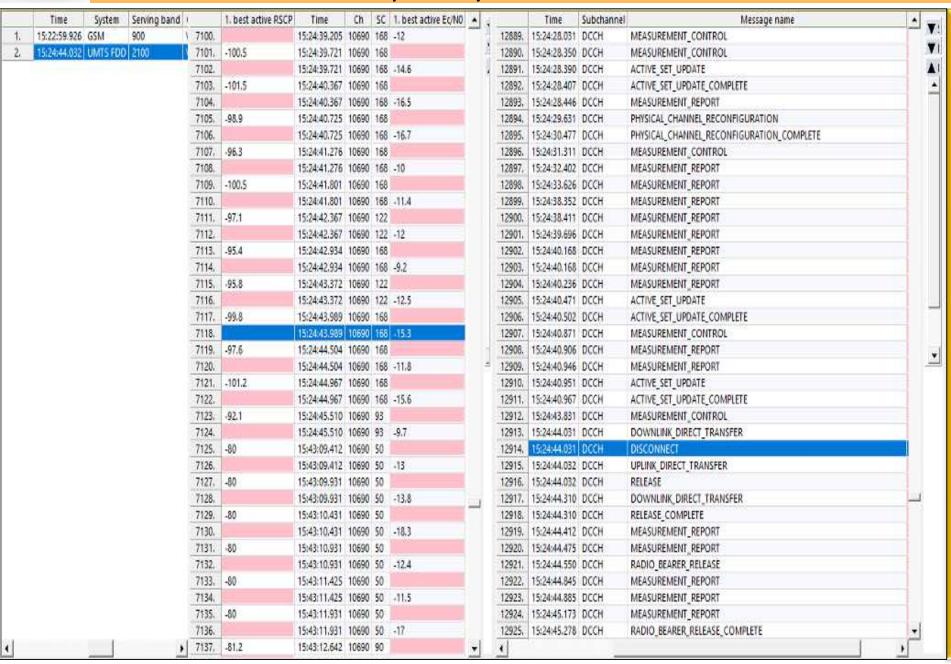
# Phase-1 Call Drop Analysis 1 From MS9 Airtel MO

	Time	System	Serving band	la .	Time	Rxtev sub	ARFCN	LAC	RAC	RXQ sub			System	Transf. dir.	Time	Subchannel	Message name
1/	15:22:59:926	GSM	900	4456.	15:22:27.376	-93	25	1		- manufactural	1	12397.	GSM	Downlink	15:22:25.943	SACCH	SYSTEM_INFORMATION_TYPE_STER
2.	15:24:44.032	UMTS FDD	2100	4457.	15:22:27,430					6	- 1	12398.	GSM	Uplink	15:22:25.990	SACCH	MEASUREMENT_REPORT
				4458.	15:22:27.854	-94	25	1				12399.	GSM	Downlink	15:22:26.423	SACCH	SYSTEM_INFORMATION_TYPE_6
				4459.	15:22:28.390	-94	25	1				12400.	GSM	Uplink	15:22:26.470	SACCH	MEASUREMENT_REPORT
				4460.	15:22:28.390					7		12401.	GSM	Downlink	15:22:26.903	SACCH	SYSTEM_INFORMATION_TYPE_5
				4461.	15:22:28.870					6		12402.	GSM	Uplink	15:22:26.950	SACCH	MEASUREMENT_REPORT
				4462.	15:22:29.350					5		12403.	GSM	Downlink	15:22:27.383	SACCH	SYSTEM_INFORMATION_TYPE_STER
				4463.	15:22:29.373	-95	25	1				12404.	GSM	Uplink	15:22:27.430	SACCH	MEASUREMENT_REPORT
				4464.	15:22:29.830					6		12405.	GSM	Downlink	15;22;27,863	SACCH	SYSTEM_INFORMATION_TYPE_6
				4465.	15:22:29.931	-94	25	1.				12406.	GSM	Uplink	15:22:27.910	SACCH	MEASUREMENT_REPORT
				4466.	15:22:30.310					7		12407.	GSM	Downlink	15:22:28.343	SACCH	SYSTEM_INFORMATION_TYPE_5
				4467.	15:22:30.337	-93	25	1				12408.	GSM	Uplink	15:22:28.390	SACCH	MEASUREMENT_REPORT
				4468.	15:22:30.854	-95	25	1				12409.	GSM	Downlink	15:22:28.823	SACCH	SYSTEM_INFORMATION_TYPE_STER
				4469.	15:22:31.394	-96	25	1				12410.	GSM	Uplink	15:22:28,870	SACCH	MEASUREMENT_REPORT
				4470.	15:22:31.750	-97	25	1				12411.	GSM	Downlink	15:22:29.303	SACCH	SYSTEM_INFORMATION_TYPE_6
				4471.	15:22:32.230					6		12412.	GSM	Uplink	15:22:29.350	SACCH	MEASUREMENT_REPORT
				4472.	15:22:32.368	-96	25	1				12413.	GSM	Downlink	15:22:29.783	SACCH	SYSTEM_INFORMATION_TYPE_5
				4473.	15:22:32:710					7		12414.	GSM	Uplink	15:22:29.830	SACCH	MEASUREMENT_REPORT
				4474.	15:22:32.834	-94	25	1				12415.	GSM	Downlink	15:22:30.263	SACCH	SYSTEM_INFORMATION_TYPE_STER
				4475.	15:22:33.554	-96	25	1			- 4	12416.	GSM	Uplink	15:22:30.310	SACCH	MEASUREMENT_REPORT
				4476.	15:22:33.974	-97	25	1			2	12417.	GSM	Downlink	15:22:30.743	SACCH	SYSTEM_INFORMATION_TYPE_6
				4477.	15:22:34.616	-97	25	1				12418.	GSM	Uplink	15:22:30.790	SACCH	MEASUREMENT_REPORT
				4478.	15;22:35.110	-94	25	1				12419.	GSM	Uplink	15:22:31.270	SACCH	MEASUREMENT_REPORT
				4479.	15:22:35.590	-97	25	1				12420.	GSM	Uplink	15:22:31.750	SACCH	MEASUREMENT_REPORT
				4480.	15:22:36.116	-98	25	1				12421.	GSM	Downlink	15:22:32,183	SACCH	SYSTEM_INFORMATION_TYPE_6
				4481.	15:22:36.596	-97	25	1				12422.	GSM	Uplink	15:22:32.230	SACCH	MEASUREMENT_REPORT
				4482.	15:22:37.034	-96	25	1				12423.	GSM	Downlink	15:22:32.663	SACCH	SYSTEM_INFORMATION_TYPE_5
				4483.	15:22:37,518	-95	25	1				12424.	GSM	Uplink	15:22:32.710	SACCH	MEASUREMENT_REPORT
				4484.	15:22:37.994	-97	25	1				12425.	GSM	Uplink	15:22:33.190	SACCH	MEASUREMENT_REPORT
				4485.	15:22:38.470	-96	25	1				12426.	GSM	Uplink	15:22:33.670	SACCH	MEASUREMENT_REPORT
				4486.	15:22:39.374	-98	25	1				12427.	GSM	Downlink	15:22:34.103	SACCH	SYSTEM_INFORMATION_TYPE_5
				4487.	15:22:39.797	-94	25	1				12428.	GSM	Uplink	15:22:34.150	SACCH	MEASUREMENT_REPORT
				4488.	15:22:40.389	-97	25	1				12429.	GSM	Downlink	15:22:34.583	SACCH	SYSTEM_INFORMATION_TYPE_STER
				4489.	15:22:40.870	-97	25	1			_	12430.	GSM	Uplink	15:22:34.630	SACCH	MEASUREMENT_REPORT
				4490.	15:22:41.349	-97	25	1				12431.	GSM	Uplink	15:22:35.110	SACCH	MEASUREMENT_REPORT
				4491.	15:22:41.830	-97	25	1				12432.	GSM	Uplink	15:22:35.590	SACCH	MEASUREMENT REPORT

- This call drop event occurred on long call at 15:22:59:926 time when UE was latched with 2G network.
- After getting Alerting message at 15:21:20:248 time than Call drop happened.
- During the session UE was latched with ARFCN 25 and RF condition Rx lev -96 dBm is good and Rx qual 7 dB was very poor.
- As per the Analysis the call setup failure event occurred due to poor quality in the network.



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



- This call drop event occurred on long call at 15:24:44:032 time when UE was latched with 3G network.
- After getting Alerting message at 15:24:14:670 time than Call drop happened.
- During the failure, UE was latched with PSC 168 and RF condition RSCP -99.8 dBm good but Ec/No -15.3 dB are very poor.
- As per the Analysis the call setup drop event occurred due to poor quality in the network.



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

Call Attempt Failure cause from Airtel	Count
Total Call Attempt Failure	1
Poor Coverage	1

Call Attempt Failure cause from CWS	Count
Total Call Attempt Failure	4
Poor Coverage	4

Call Drop cause from Airtel	Count
Total Call Drop	0

Call Drop cause from CWS	Count
Total Call Drop	2
Poor Coverage	1
Poor Quality	1



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

	Time	System Serving band		1. best active RSCP	Time	Ch	SC	1. best	4		System	Transf. dir.	Time	Subchannel	Message name	
1.	14:19:54:343	UMTS FDD 2100 Call	3847.		14:19:15.184	10562	140	-7.7		17524.	UMTS FDD	Downlink	14:19:53.689	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3	1
			3848.	-93.4	14:19:15.431	10562	140			17525	UMTS FDD	Downlink	14:19:53.689	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7	
			3849.		14:19:15.431	10562	140	-6,9		17526.	UMTS FDD	Downlink	14:19:53.709	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3850.	-94.8	14:19:16.123	10562	140			17527.	UMTS FDD	Downlink	14:19:53,709	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_1	
			3851.		14:19:16.123	10562	140	-7.4		17528,	UMTS FDD	Downlink	14:19:53,729	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3852.	-99.9	14:19:47.932	3050	485			17529.	UMTS FDD	Downlink	14:19:53.749	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3853.		14:19:47.932	3050	485	-17.2		17530.	UMTS FDD	Downlink	14:19:53.749	BCCH	MASTER_INFORMATION_BLOCK	•
			3854.	-98.9	14:19:48.039	3050	485			17531.	UMTS FDD	Downlink	14:19:53.769	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3855.	2830634	14:19:48.039	3050	485	-19.9		17532.	UMTS FDD	Downlink	14:19:53.789	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3856,	-108.6	14:19:48.940	3050	485			17533.	UMTS FDD	Downlink	14:19:53,789	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_5	
			3857.		14:19:48.940	3050	485	-25.4		17534.	UMTS FDD	Downlink	14:19:53.809	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3858.	-109,4	14:19:49.058	3050	485			17535.	UMTS FDD	Downlink	14:19:53.809	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_12	
			3859.	-108.8	14:19:49.949	3050	485			17536.	UMTS FDD	Downlink	14:19:53.829	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3860.	-106.3	14:19:50.378	3050	485			17537.	UMTS FDD	Downlink	14:19:53.829	BCCH	MASTER_INFORMATION_BLOCK	
			3861.		14:19:50.378	3050	485	-23.6		17538.	UMTS FDD	Downlink	14:19:53.849	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3862.	-106.7	14:19:51.003	3050	485			17539.			14:19:53.849	HOUSE AND THE PARTY OF THE PART	SYSTEM_INFORMATION_BLOCK_TYPE_3	•
			3863.		14:19:51.003	3050	485	-23.8		17540.	UMTS FDD	Downlink	14:19:53.849	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7	
			3864.	-109.5	14:19:51.378	3050	485			17541.	UMTS FDD	Downlink	14:19:53.869	BCCH_BCH	SYSTEM_INFORMATION_BCH	
			3865.	C-808/11	14:19:51.378	3050	485	-25.9		17542.	and the state of t		14:19:53.889	the party of the last of the l	SYSTEM_INFORMATION_BCH	
			3866.	-108.8	14:19:51.953	3050	485		_	17543.	THE TRANSPIRE CARDON		14:19:53.909		SYSTEM_INFORMATION_BCH	
			3867.	and a	14:19:51.953			-25.2		17544.	A STATE OF THE STA		14:19:53.909		MASTER_INFORMATION_BLOCK	
			3868.	-108.7	14:19:52.389	3050	485			17545.	UMTS FDD	Downlink	14:19:53,919	DCCH	CELL_UPDATE_CONFIRM	
			3869.		14:19:52,389	3050	485	-24.9		17546.	UMTS FDD	Uplink	14:19:53.968	DCCH	RADIO_BEARER_RECONFIGURATION_COMPLETE	
			3870.	-108.2	14:19:53.029	3050	485			17547.	UMTS FDD		14:19:53.968		INITIAL_DIRECT_TRANSFER	
			3871.		14:19:53.029	3050	485	-25.6		17548.	UMTS FDD	Uplink	14:19:53.968	DCCH	CM_SERVICE_REQUEST	
			3872.		14:19:53.734	A CONTRACTOR OF THE PARTY OF TH	-0.0000mg			17549.	UMTS FDD	Uplink	14:19:53.968	DCCH	INITIAL_DIRECT_TRANSFER	1
			3873.		14:19:53.734	_	-	-5.7		17550.	UMTS FDD	Uplink	14:19:53.968		ROUTING_AREA_UPDATE_REQUEST	
			3874.	-95.5	14:19:54,026	10562	140			17551.	UMTS FDD	Downlink	14:19:54.132	DCCH	MEASUREMENT_CONTROL	
			3875.	nacridoi:	14:19:54.026			-7.9		17552.			14:19:54.192		MEASUREMENT_CONTROL	
			3876.	-90.7	14:19:54.509					17553.	The state of the s		14:19:54.202		MEASUREMENT_CONTROL	
			3877.		14:19:54.509	and the second of		-11.8		17554.	CONTRACTOR OF THE PARTY OF THE		14:19:54.212		MEASUREMENT_CONTROL	
			3878.	-95	14:19:55.049			OOM:		17555.	Allera profit in the state of the		14:19:54.222		MEASUREMENT_CONTROL	
			3879.		14:19:55.049			-6.1		17556.	A CONTRACTOR OF THE CONTRACTOR		14:19:54.342		DOWNLINK_DIRECT_TRANSFER	
			3880.	-91.7	14:19:55.826			10100		17557.	Section 1 and 1 decision 1 and 1 decision 1		14:19:54.342		AUTHENTICATION REQUEST	
			3881.		14:19:55.826			-13.9		17558.	HICKORY THE WORLD		14:19:54.343		DOWNLINK DIRECT_TRANSFER	
			3882.	-97.4	14:19:56.162			and the same			and the second second second second		14:19:54.343		CM_SERVICE_REJECT	
			3883.	Y 0.000 1	14:19:56.162			-6.6	*		- m()/m() / m() / m / m / m / m / m / m / m / m / m /		14:19:54.412		RRC_CONNECTION_RELEASE	

- This call failure event occurred on short call at 14:19:54:343 time when UE was latched with 3G network.
- During the call failure UE send "CM Service Request " and "Setup" message to core network. Then call setup has been failed.
- During the setup fail, UE was latched with PSC 485 and RF condition RSCP -109.5 dBm and Ec/No -25.9 dB both are poor.
- As per the Analysis the call setup failure event occurred due to poor coverage of the network.



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

	Time	System	Serving bar	nd		1, best active RSCP	Time	Ch	SC	1. best	4		System	Transf. dir.	Time	Subchannel	Message name
1/	14:19:01.532		Commission of the latest section of the late	Dro	3473.		14:18:53.702		-			12537.	UMTS FDD	-	14:18:51.502	DCCH	MEASUREMENT_REPORT
2.	14:22:21.431	UMTS FDD	2100	Call	3474.	-104.4	14:18:54.429	10690	122			12538.	UMTS FDD	Uplink	14:18:53.976	DCCH	MEASUREMENT_REPORT
3.	14:23:06.093	GSM	900	Call	3475.		14:18:54.429	10690	122	-15.5		12539.	UMTS FDD	Downlink	14:18:54.041	DCCH	DOWNLINK_DIRECT_TRANSFER
4,	14:26:58.191	UMTS FDD	2100	Call	3476.	-101.7	14:18:54.793	10690	122			12540.	UMTS FDD	Downlink	14:18:54.041	DCCH	AUTHENTICATION_AND_CIPHERING_REQUEST
					3477.		14:18:54.793	10690	122	-10.6		12541.	UMTS FDD	Uplink	14:18:54.079	DCCH	UPLINK_DIRECT_TRANSFER
					3478.	-98.8	14:18:55.223	10690	122			12542.	UMTS FDD	Uplink	14:18:54.079	DCCH	AUTHENTICATION_AND_CIPHERING_RESPONSE
					3479,		14:18:55.223	10690	122	-9.6		12543.	UMTS FDD	Downlink	14:18:54.341	DCCH	SECURITY_MODE_COMMAND
					3480.	-100	14:18:55.707	10690	168			12544.	UMTS FDD	Uplink	14:18:54.341	DCCH	SECURITY_MODE_COMPLETE
					3481.	1000	14:18:55.707	10690	168	-9.6		12545.	UMTS FDD	Downlink	14:18:54.698	DCCH	DOWNLINK_DIRECT_TRANSFER
					3482.	-103.8	14:18:56.302	10690	168			12546.	UMTS FDD	Downlink	14:18:54,698	DCCH	ROUTING_AREA_UPDATE_ACCEPT
					3483.	10000000	14:18:56.302	10690	168	-13.4		12547.	UMTS FDD	Uplink	14:18:54.699	DCCH	UPLINK_DIRECT_TRANSFER
					3484.	-99.7	14:18:56.884	10690	122			12548.	UMTS FDD	Uplink	14:18:54.699	DCCH	ROUTING_AREA_UPDATE_COMPLETE
					3485.		14:18:56.884	10690	122	-10.5		12549,	UMTS FDD	Uplink	14:18:54,913	DCCH	MEASUREMENT_REPORT
					3486.	-105.5	14:18:57.302	10690	122	10000		12550.	UMTS FDD	Uplink	14:18:55.315	DCCH	MEASUREMENT_REPORT
					3487.		14:18:57.302	10690	122	-12.7		12551.	UMTS FDD	Uplink	14:18:56.553	DCCH	MEASUREMENT_REPORT
					3488.	-99.1	14:18:58.011	10690	168			12552.	UMTS FDD	Uplink	14:18:58.043	DCCH	MEASUREMENT_REPORT
					3489.		14:18:58,011	10690	168	-9.9		12553.	UMTS FDD	Uplink	14:18:58.513	DCCH	MEASUREMENT_REPORT
					3490,	-96.7	14:18:58.519	10690	122			12554.	UMTS FDD	Uplink	14:18:59.152	DCCH	MEASUREMENT_REPORT
					3491.	50000	14:18:58.519	10690	122	-9		12555.	UMTS FDD	Uplink	14:19:00.002	DCCH	MEASUREMENT_REPORT
					3492.	-97.2	14:18:59.080	10690	122			12556.	UMTS FDD	Uplink	14:19:00.424	DCCH	MEASUREMENT_REPORT
					3493.	20000	14:18:59.080	10690	122	-10.4		12557.	UMTS FDD	Uplink	14:19:00.562	DCCH	MEASUREMENT_REPORT
					3494.	-100.2	14:18:59.681	10690	122			12558.	UMTS FDD	Uplink	14:19:00.603	DCCH	MEASUREMENT_REPORT
					3495.		14:18:59.681	10690	122	-14.3		12559.	UMTS FDD	Downlink.	14:19:00.848	DCCH	RADIO_BEARER_SETUP
					3496.	-99.2	14:19:00.183	10690	122			12560.	UMTS FDD	Uplink	14:19:00.942	DCCH	MEASUREMENT_REPORT
					3497.		14:19:00.183	10690	122	-13,9		12561.	UMTS FDD	Uplink	14:19:01.011	DCCH	RADIO_BEARER_SETUP_COMPLETE
					3498,	-100.8	14:19:00.676	10690	122			12562,	UMTS FDD	Downlink	14:19:01,257	DCCH	MEASUREMENT_CONTROL
					3499.		14:19:00.676	10690	122	-13,9		12563.	UMTS FDD	Downlink	14:19:01.297	DCCH	MEASUREMENT_CONTROL
					3500.	-95.7	14:19:01.090	10690	122			12564.	UMTS FDD	Downlink	14:19:01.338	DCCH	MEASUREMENT_CONTROL
					3501,	0.0001	14:19:01.090	10690	122	-10.7		12565.	UMTS FDD	Downlink	14:19:01,378	DCCH	MEASUREMENT_CONTROL
					3502.	-99.6	14:19:01,668	10690	168			12566.	UMTS FDD	Downlink	14:19:01.458	DCCH	DOWNLINK_DIRECT_TRANSFER
					3503.		14:19:01.668	10690	168	-13.4		12567.	UMTS FDD	Downlink	14:19:01.458	DCCH	DISCONNECT
					3504.	-96.8	14:19:02.088	10690	122			12568.	UMTS FDD	Uplink	14:19:01.500	DCCH	MEASUREMENT_REPORT
					3505.		14:19:02.088	10690	122	-11.4		12569.	UMTS FDD	Uplink	14:19:01.532	DCCH	UPLINK_DIRECT_TRANSFER
					3506.	-97.3	14:19:02.768	10690	122	mandan.		12570.	UMTS FDD	Uplink	14:19:01.532	DCCH	RELEASE
					3507.		14:19:02.768	10690	122	-14.5		12571.	31 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -		14:19:01.818		DOWNLINK_DIRECT_TRANSFER
					3508.	-96.6	14:19:03.379	10690	168			12572.	UMTS FDD	Downlink	14:19:01.818	DCCH	RELEASE_COMPLETE
					3509.		14:19:03.379	10690	168	-10.9	+	12573.	UMTS FDD	Downlink	14:19:01.978	DCCH	RADIO_BEARER_RELEASE

- This call failure event occurred on short call at 14:19:01:532 time when UE was latched with 3G network.
- During the call failure UE send "CM Service Request " and "Setup" message to core network. Then call setup has been failed.
- During the setup fail, UE was latched with PSC 122 and RF condition RSCP -105.5 dBm is poor and Ec/No -12.7 dB which is ok.
- As per the Analysis the call setup failure event occurred due to poor coverage of the network.



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

2 UMTS FDD 2100 Dro 3801. 14:22:15.881 10740 200 -9.7 13530. UMTS FDD Downlink 14:	FDD 2100 Dro 3801. 14:22:15.881 10740 200 -9.7 13530. UMTS FDD Downlink 14:	2100 Dro 3801, 14:22:15.881 10740 200 -9.7 13530. UMTS FDD Downlink 14:	Dro 3801. 14:22:15.881 10740 200 -9.7 13530. UMTS FDD Downlink 14:	Dro 3801. 14:22:15.881 10740 200 -9.7 13530. UMTS FDD Downlink 14:	3801. 14:22:15.881 10740 200 -9.7 13530. UMTS FDD Downlink 14:	14:22:15.881 10740 200 -9.7 13530. UMTS FDD Downlink 14:	14:22:15.881 10740 200 -9.7 13530. UMTS FDD Downlink 14:	10740 200 -9.7 13530. UMTS FDD Downlink 14:	200 -9.7 13530. UMTS FDD Downlink 14:	-9.7 13530. UMTS FDD Downlink 14:	13530. UMTS FDD Downlink 14:	13530. UMTS FDD Downlink 14:	UMTS FDD Downlink 14:	Downlink 14:	14:			Message name SYSTEM_INFORMATION_BLOCK_TYPE_19	A
		S FDD	_		_	3802.	-106.1	14:22:16.428					13531.	UMTS FDD		14:22:20.768	The state of the s	SYSTEM_INFORMATION_BCH	
	GSM		900		Call		ews.	14:22:16.428			-14.7		13532.	UMTS FDD		14:22:20.788	the second section is the second section in	SYSTEM_INFORMATION_BCH	_
58.19	UMTS	S FDD	2100	)		3804.	-104	14:22:16.918				- 1	Hard Street and Street	MARKET CO. (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)			\$500,000 (FF 10000000000000000000000000000000	SYSTEM_INFORMATION_BCH	
						3805.		14:22:16.918		1000	-13.5	ł	mercen:	The state of the s	The state of the s	14:22:20.808	7777000	MASTER_INFORMATION_BLOCK	
					-	3806.	-108.7	14:22:17.479	-	1000		ŀ	13535.	The same of the sa	THE PERSON NAMED IN	14:22:20.808	The second second second	SYSTEM_INFORMATION_BLOCK_TYPE_7	
						3807.		14:22:17.479	1000000		-16.3	1	Marin Control	UMTS FDD	the last of the la	Company of the party of the same of the		MASTER_INFORMATION_BLOCK	
					-	3808.	-109.7	14:22:18.066				ŀ	13537.	UMTS FDD		14:22:20.809	100 TO 10	SCHEDULING_BLOCK_1	
						3809.	121727	14:22:18.066		12000	-17		13538.	STATE OF STREET STATE OF STREET		14:22:20.809	AND RESIDENCE TO A PROPERTY OF	SYSTEM_INFORMATION_BLOCK_TYPE_1	
						3810.	-114.5	14:22:18.479			100		13539.	THE TANDERSE STORE		14:22:20.809		SYSTEM_INFORMATION_BLOCK_TYPE_3	
						3811.		14:22:18.479			-18.4	ŀ		1111 ( 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		14:22:20.809	Control of the Parties of the Control of the Contro	SYSTEM_INFORMATION_BLOCK_TYPE_5	
						3812.	-106.9	14:22:19.033		1000		1	NO PRODUCTO	A STATE OF THE PARTY OF THE PARTY.		14:22:21.029		SYSTEM_INFORMATION_BCH	_
						3813.		14:22:19.033	1000	-	-12	ŀ	13542.	T-100007-1-200-1-1		14:22:21.048	The same of the last of the same of the sa	SYSTEM_INFORMATION_BCH	_
					-	3814.	-102.1	14:22:19.519			11.2	Į.	13543.	UMTS FDD				MASTER_INFORMATION_BLOCK	
						3815.		14:22:19.519		The Street Co.	-11.5		STREET, STATE OF STREET,			14:22:21.048		SYSTEM_INFORMATION_BLOCK_TYPE_7	
						3816.	-105.2	14:22:20.075					13545.	METALLE WAY TO SEE YOUR		14:22:21.068	PODO PRINTERSONALI	SYSTEM_INFORMATION_BCH	•
						3817.		14:22:20.075			-14.8			PROPERTY OF THE PARTY OF		14:22:21,089		SYSTEM_INFORMATION_BCH	
					100	3818.	-100.6	14:22:20.356		110		ı,	13547.	17/50/2010 12/50 1		14:22:21.109	The state of the s	SYSTEM_INFORMATION_BCH	
					-	3819.		14:22:20.356	10690	200	-10.9	ı,	13548.	UMTS FDD	Downlink	14:22:21.348	BCCH_BCH	SYSTEM_INFORMATION_BCH	
					-	3820.	-107.8	14:22:20.726				1	13549.	UMTS FDD	Downlink	14:22:21.389	BCCH_BCH	SYSTEM_INFORMATION_BCH	
						3821.		14:22:20.726		100000000	-17.6		School School State	a fine printer to be producted on the		14:22:21.389		SYSTEM_INFORMATION_BLOCK_TYPE_11	
						3822.	-108.3	14:22:21.431	-	distance of				Market State Street Street Street	Mark Street, Square, S	-	Committee of the latest and the late	SYSTEM_INFORMATION_BCH	
					-	3823.	diam'r	14:22:21.431	10690	200	-15.9		13552.		Downlink			SYSTEM_INFORMATION_BCH	
						3824.	-108.1	14:22:22.152	110000000			1		UMTS FDD	Downlink		1000000	SYSTEM_INFORMATION_BCH	
						3825,		14:22:22.152	10690	200	-17.2	- 8	13554.	UMTS FDD	Downlink	14:22:26.009	BCCH	MASTER_INFORMATION_BLOCK	
						3826.	-104.2	14:22:22.842	10690	200		IJ	13555.	UMTS FDD	Downlink	14:22:26.009	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7	
						3827.		14:22:22.842	10690	200	-14.4	ì	13556.	UMTS FDD	Downlink	14:22:26.009	BCCH_BCH	MASTER_INFORMATION_BLOCK	
						3828.	-111.4	14:22:23.433	10690	200			13557.	UMTS FDD	Downlink	14:22:26.009	BCCH_BCH	SCHEDULING_BLOCK_1	
						3829.		14:22:23.433	10690	200	-19,4		13558.	UMTS FDD	Downlink	14:22:26.010	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_1	
						3830.	-105.5	14:22:24.009	10690	200			13559.	UMTS FDD	Downlink	14:22:26.010	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_3	
						3831.		14:22:24.009	10690	200	-14.3		13560.	UMTS FDD	Downlink	14:22:26.010	BCCH_BCH	SYSTEM_INFORMATION_BLOCK_TYPE_5	
					- 8	3832.	-107.6	14:22:24.481	10690	200		8	13561.	UMTS FDD	Downlink	14:22:26.068	BCCH_BCH	SYSTEM_INFORMATION_BCH	
						3833.		14:22:24.481	10690	200	-19.5		13562.	UMTS FDD	Downlink	14:22:26.068	Service Servic	SCHEDULING_BLOCK_1	
					ì	3834.	-111.1	14:22:25.012	10690	200	MARKET .		13563.	Annual Control of the Control of States		14:22:26.089		SYSTEM_INFORMATION_BCH	
						3835.		14:22:25.012			-19.8		13564.	Control of the section of the section of		14:22:26.089	No. of the Control of	MASTER INFORMATION BLOCK	
						3836.	-112	14:22:25.198	10690	200	-		13565.			14:22:26.089		SYSTEM_INFORMATION_BLOCK_TYPE_7	
						3837.		14:22:25.198			-21.4	+	13566.	HINAYYERD CENT		14:22:26.089		MASTER INFORMATION BLOCK	

- This call failure event occurred on short call at 14:22:21:431 time when UE was latched with 3G network.
- During the call failure UE send "CM Service Request " and "Setup" message to core network. Then call setup has been failed.
- During the setup fail, UE was latched with PSC 200 and RF condition RSCP -108.3 dBm and Ec/No -15.9 dB both are poor.
- As per the Analysis the call setup failure event occurred due to poor coverage of the network.



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

	Time	System	Serving band			Time	RxLev sub	ARFON	BSIC	C1 C	2 LAC			System	Transf. dir.	Time	Subchannel	Message name
1;	14:19:01.532	UMTS FDD	2100	Dro	545.	14:22:58.096	MM000000000000000000000000000000000000		Virtural	C201 100		1	13822.	GSM			SACCH	MEASUREMENT_INFORMATION
2.	14:22:21.431	UMTS FDD	2100	Call	546.	14:22:58.693	-93	13	18		1		13823.	GSM	Uplink	14:23:01.603	SACCH	MEASUREMENT_REPORT
3.	14:23:06:093	GSM	900	Call	547.	14:22:59.041	-93	13	18		1		13824.	GSM	Downlink	14:23:01.737	SACCH	MEASUREMENT_INFORMATION
4.	14:26:58.191	UMTS FDD	2100	Call	548.	14:22:59.720						li i	13825.	GSM	Uplink	14:23:02.074	SACCH	MEASUREMENT_REPORT
					549.	14:23:00.191	-92	13	18		1		13826.	GSM	Downlink	14:23:02.208	SACCH	MEASUREMENT_INFORMATION
					550.	14:23:00.191							13827.	GSM	Uplink	14:23:02.545	SACCH	MEASUREMENT_REPORT
				i	551.	14:23:00.662							13828.	GSM	Downlink	14:23:02.678	SACCH	MEASUREMENT_INFORMATION
					552.	14:23:01.077	-87	13	18		1		13829.	GSM	Uplink	14:23:03.016	SACCH	MEASUREMENT_REPORT
					553.	14:23:01.132							13830.	GSM	Downlink	14:23:03.149	SACCH	MEASUREMENT_INFORMATION
					554.	14:23:01.266	-87	13	18		1		13831.	GSM	Uplink	14:23:03.486	SACCH	MEASUREMENT_REPORT
					555,	14:23:01.603							13832.	GSM	Downlink	14:23:03.620	SACCH	MEASUREMENT_INFORMATION
					556.	14:23:02.074	-91	13	18		1		13833.	GSM	Uplink	14:23:03.957	SACCH	MEASUREMENT_REPORT
					557,	14:23:02.074						II.	13834.	GSM	Downlink	14:23:04.091	SACCH	SYSTEM_INFORMATION_TYPE_5
					558.	14:23:02.545	-91	13	18		1		13835.	GSM	Uplink	14:23:04.428	SACCH	MEASUREMENT_REPORT
					559.	14:23:02.545							13836,	GSM	Downlink	14:23:04.649	DCCH	CHANNEL_RELEASE
					560.	14:23:03.016							13837.	GSM	Downlink	14:23:05.262	CCCH	IMMEDIATE_ASSIGNMENT
					561,	14:23:03.077	-92	13	18		1	E	13838.	GSM	Downlink	14:23:05.290	CCCH	PAGING_REQUEST_TYPE_1
					562.	14:23:03.486						U.	13839.	GSM	Downlink	14:23:05.309	CCCH	IMMEDIATE_ASSIGNMENT
					563.	14:23:03.634	-88	13	18		1		13840.	GSM	Downlink	14:23:05.341	BCCH	SYSTEM_INFORMATION_TYPE_3
					564.	14:23:03.957						ı.	13841.	GSM	Uplink	14:23:05.359	PACCH	PACKET_RESOURCE_REQUEST
					565,	14:23:04.178	-93	13	18		1		13842.	GSM	Downlink	14:23:05.478	PAGCH	PACKET_UPLINK_ASSIGNMENT
					566.	14:23:04.428							13843.	GSM	Uplink	14:23:05.478	PACCH	PACKET_UPUNK_DUMMY_CONTROL_BLOCK
					567.	14:23:04.698	-88	13	18		1		13844.	GSM	Downlink	14:23:05.617	PACCH	PACKET_UPLINK_ACK/NACK
					568.	14:23:04.698						1	13845.	GSM	Downlink	14:23:05.640	PACCH	PACKET_DOWNLINK_ASSIGNMENT
					569.	14:23:05.382	-88	13	18		1		13846.		Uplink	14:23:05.778	PACCH	EGPRS_PACKET_DOWNLINK_ACK/NACK
					570.	14:23:06.093	-90	13	18	16 16	1		13847.	GSM	Uplink	14:23:05.898		EGPRS_PACKET_DOWNLINK_ACK/NACK
					571.	14:23:06.419	(100.00)	13		14 14			13848.	Million of the Street Street	Downlink	and the second s		SYSTEM_INFORMATION_TYPE_13
					572.	14:23:07.077	-93	13	18	13 13	1		13849.	GSM	Uplink	14:23:06.895	PACCH	EGPRS_PACKET_DOWNLINK_ACK/NACK
					573.	14:23:07.453		13	18	13 13			13850.	GSM	Uplink	14:23:07.657		EGPRS_PACKET_DOWNLINK_ACK/NACK
					574.	14:23:08.030	-94	13	18	12 12	2 1		13851.	GSM	Downlink	14:23:07.818	PACCH	PACKET_UPLINK_ACK/NACK
					575.	14:23:08.482		13		13 13			13852.	0.00	Uplink	14:23:08.058		EGPRS_PACKET_DOWNLINK_ACK/NACK
					576.	14:23:09.064		13		13 13	_		13853.	MI TORSON MAN	Uplink	14:23:08.215		EGPRS_PACKET_DOWNLINK_ACK/NACK
					577.	14:23:09.757		13		13 13	(		13854.	1000		14:23:08.861	Cold Heren	SYSTEM_INFORMATION_TYPE_2QUATER
					578.	14:23:11.568		13	18	13 13			13855.			14:23:09.878	\$400 m	PAGING_REQUEST_TYPE_1
					579.	14:23:12.081		13	18	13 13			13856.	GSM				PAGING_REQUEST_TYPE_1
					580.	14:23:12.625		13	18	13 13			13857.	Mark College		14:23:10.016		PAGING_REQUEST_TYPE_1
					581,	14:23:13.128	-93	13	18	13 13	1	٠	13858.	GSM	Downlink	14:23:10.049	BCCH	SYSTEM_INFORMATION_TYPE_3

- This call failure event occurred on short call at 14:23:06:093 time when UE was latched with 2G network.
- After sending "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 13 and RF condition Rx lev -93 dBm is poor and Rx qual 0 dB was very good.
- As per the Analysis the call setup failure event occurred due to poor coverage of the network.



# Phase-2 Call Attempt Failure Analysis 4 From MS7 CWS MO

	Time	System	Serving band			1, best active RSCP	Time	Ch	SC	1. best	4		System	Transf, dir.	Time	Subchannel	Message name
1,	14:19:01.532	UMTS FDD	2100	Dro	4104.		14:26:52.572	10690	47	-20.4		15032.	UMTS FDD	Downlink	14:26:56.504	DCCH	AUTHENTICATION_AND_CIPHERING_REQUEST
2.	14:22:21.431	UMTS FDD	2100	Call	4105,	-105.2	14:26:53.078	10690	122			15033.	UMTS FDD	Uplink	14:26:56.542	DCCH	UPLINK_DIRECT_TRANSFER
3.	14:23:06.093	GSM	900	Call	4106.		14:26:53.078	10690	122	-11.9		15034.	UMTS FDD	Uplink	14:26:56.542	DCCH	AUTHENTICATION_AND_CIPHERING_RESPONSE
4.	14:26:58:191	UMTS FDD	2100	Call	4107,	-109.7	14:26:53.559	10690	122			15035,	UMTS FDD	Downlink	14:26:56.914	DCCH	SECURITY_MODE_COMMAND
					4108.		14:26:53.559	10690	122	-16.6		15036.	UMTS FDD	Uplink	14:26:56.914	DCCH	SECURITY_MODE_COMPLETE
					4109.	-106.1	14:26:54.112	10690	122			15037.	UMTS FDD	Uplink	14:26:56.950	DCCH	MEASUREMENT_REPORT
					4110.		14:26:54.112	10690	122	-11.3		15038,	UMTS FDD	Downlink	14:26:57.114	DCCH	ACTIVE_SET_UPDATE
					4111.	-111.1	14:26:54.561	10690	122			15039.	UMTS FDD	Uplink	14:26:57.126	DCCH	ACTIVE_SET_UPDATE_COMPLETE
					4112.	GIRONG.	14:26:54.561	10690	122	-17.2		15040.	UMTS FDD	Downlink	14:26:57.364	DCCH	DOWNLINK_DIRECT_TRANSFER
					4113.	-109.7	14:26:55.078	10690	122			15041.	UMTS FDD	Downlink	14:26:57.364	DCCH	ROUTING_AREA_UPDATE_ACCEPT
					4114.		14:26:55.078	10690	47	-16		15042.	UMTS FDD	Uplink	14:26:57.366	DCCH	UPLINK_DIRECT_TRANSFER
					4115.	-109.5	14:26:55.550	10690	47			15043.	UMTS FDD	Uplink	14:26:57.366	DCCH	ROUTING_AREA_UPDATE_COMPLETE
					4116.	-	14:26:55.550	10690	122	-16.1		15044.	UMTS FDD	Uplink	14:26:57.368	DCCH	UPLINK_DIRECT_TRANSFER
					4117.	-107.2	14:26:56.076	10690	47	*******		15045.	UMTS FDD	Uplink	14:26:57.368	DCCH	SERVICE_REQUEST
					4118.		14:26:56.076	10690	47	-13.6		15046.	UMTS FDD	Downlink	14:26:57.474	DCCH	DOWNLINK_DIRECT_TRANSFER
					4119.	-108.8	14:26:56.700		_			15047.	UMTS FDD	Downlink	14:26:57.474	DCCH	SERVICE_ACCEPT
					4120.		14:26:56.700	_	_	-16.2		15048,	and the state of the state of		14:26:57.674	DCCH	RADIO_BEARER_SETUP
					4121.	-102.6	14:26:57,219	10690	20			15049.	UMTS FDD		14:26:57.962	DCCH	RADIO_BEARER_SETUP_COMPLETE
					4122.		14:26:57.219	10690	20	-11.6		15050,	UMTS FDD	Uplink	14:26:58.191	DCCH	UPLINK_DIRECT_TRANSFER
					4123.	-105.9	14:26:57.585	10690	47			15051.	UMTS FDD	Uplink	14:26:58.191	DCCH	DISCONNECT
					4124.		14:26:57.585	10690	47	-13.5		15052.	UMTS FDD	Downlink	14:26:58.193	DCCH	MEASUREMENT_CONTROL
					4125.	-109.4	14:26:58.210	10690	20			15053.	UMTS FDD	Downlink	14:26:58.234	DCCH	MEASUREMENT_CONTROL
					4126.		14:26:58.210	10690	20	-15.8		15054.	UMTS FDD	Downlink	14:26:58.274	DCCH	MEASUREMENT_CONTROL
					4127.	-108.5	14:26:58.682	10690	47			15055.	UMTS FDD	Downlink	14:26:58.314	DCCH	MEASUREMENT_CONTROL
					4128.		14:26:58.682	10690	47	-15.9		15056,	UMTS FDD	Downlink	14:26:58.354	DCCH	MEASUREMENT_CONTROL
					4129.	-107.4	14:26:59.259	10690	122			15057.	UMTS FDD	Downlink	14:26:58.394	DCCH	MEASUREMENT_CONTROL
					4130.		14:26:59.259	10690	122	-14.5		15058.	UMTS FDD	Downlink	14:26:58.554	DCCH	MEASUREMENT_CONTROL
					4131.	-102.5	14:26:59.699	10690	122			15059.	UMTS FDD	Downlink	14:26:58.594	DCCH	DOWNLINK_DIRECT_TRANSFER
					4132.	200,010-0	14:26:59.699	10690	122	-11.4		15060.	UMTS FDD	Downlink	14:26:58.594	DCCH	MODIFY_PDP_CONTEXT_REQUEST
					4133,	-104.1	14:27:00.325	10690	122			15061.	UMTS FDD	Uplink	14:26:58.595	DCCH	UPLINK_DIRECT_TRANSFER
					4134.	5-000	14:27:00.325	10690	122	-13		15062,	UMTS FDD	Uplink	14:26:58.595	DCCH	MODIFY_PDP_CONTEXT_ACCEPT
					4135,	-98.6	14:27:00.718	10690	122			15063.	UMTS FDD	Downlink	14:26:58.634	DCCH	DOWNLINK_DIRECT_TRANSFER
					4136.		14:27:00.718	10690	122	-9.8		15064.	UMTS FDD	Downlink	14:26:58.634	DCCH	RELEASE
					4137.	-104.2	14:27:01.322	10690	168			15065.	UMTS FDD	Uplink	14:26:58.635	DCCH	UPLINK_DIRECT_TRANSFER
					4138.		14:27:01.322	10690	168	-13.3		15066.	UMTS FDD	Uplink	14:26:58.635	DCCH	RELEASE_COMPLETE
					4139.	-103.1	14:27:01.881	10690	47			15067.	UMTS FDD	Uplink	14:26:58.809	DCCH	MEASUREMENT_REPORT
					4140.		14:27:01.881	10690	47	-12.7	+	15068.	UMTS FDD	Downlink	14:26:58.954	DCCH	SIGNALLING_CONNECTION_RELEASE

- This call failure event occurred on short call at 14:26:58:191 time when UE was latched with 3G network.
- During the call failure UE send "CM Service Request " and "Setup" message to core network. Then call setup has been failed.
- During the setup fail, UE was latched with PSC 47 and RF condition RSCP -108.8 dBm and Ec/No -16.2 dB both are poor.
- As per the Analysis the call setup failure event occurred due to poor coverage of the network.



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

	Time	System	Serving band	Call type		1. best active RSCP	Time	Ch	SC	1. best a	4		Event ID	System	Transf. dir.	Time	Subchannel	Message name	4
1,	14:03:40.327	UMTS FDD	2100	Voice call	4245.	-80.5	14:03:37.963	10690	386	100000000000000000000000000000000000000		4033.	RRCSM	UMTS FDD	Uplink	14:03:34.444	DCCH	PHYSICAL_CHANNEL_RECONFIGURATION_COMPLET	E
2.	14:09:27,709	GSM	900	Voice call	4246.		14:03:37,963	10690	386	-25.6		4034.	RRCSM	UMTS FDD	Uplink	14:03:34.606	DCCH	MEASUREMENT_REPORT	
					4247.	-84.7	14:03:38.022	10690	386			4035.	RRCSM	UMTS FDD	Uplink	14:03:34.926	DCCH	MEASUREMENT_REPORT	
					4248.	-84.7	14:03:38.094	10690	386			4036.	RRCSM	UMTS FDD	Uplink	14:03:35.287	DCCH	MEASUREMENT_REPORT	
					4249.	-90	14:03:38.262	10690	386			4037.	RRCSM	UMTS FDD	Downlink	14:03:35.612	DCCH	MEASUREMENT_CONTROL	
					4250.	1000	14:03:38.262	10690	386	-25.8		4038.	RRCSM	UMTS FDD	Uplink	14:03:35.963	DCCH	MEASUREMENT_REPORT	
					4251.	-90	14:03:38,463	10690	386			4039.	RRCSM	UMTS FDD	Uplink	14:03:36.150	DCCH	MEASUREMENT_REPORT	
					4252.	1	14:03:38.463	10690	386	-25.8		4040.	RRCSM	UMTS FDD	Uplink	14:03:36.463	DCCH	MEASUREMENT_REPORT	
					4253.	-90	14:03:38.537	10690	386			4041.	RRCSM	UMTS FDD	Uplink	14:03:36.544	DCCH	MEASUREMENT_REPORT	
					4254.	100	14:03:38.537	10690	386	-25.8		4042.	RRCSM	UMTS FDD	Uplink	14:03:36.654	DCCH	MEASUREMENT_REPORT	
					4255.	-90	14:03:38.973	10690	386			4043.	RRCSM	UMTS FDD	Uplink	14:03:36,963	DCCH	MEASUREMENT_REPORT	
					4256.		14:03:38.973	10690	386	-25.8		4044.	RRCSM	UMTS FDD	Uplink	14:03:37.463	DCCH	MEASUREMENT_REPORT	-
					4257,	-90	14:03:38.994	10690	386			4045.	RRCSM	UMTS FDD	Uplink	14:03:37.573	DCCH	MEASUREMENT_REPORT	
					4258.		14:03:38.994	10690	386	-25.8		4046.	RRCSM	UMTS FDD	Uplink	14:03:37.963	DCCH	MEASUREMENT_REPORT	
					4259.	-87	14:03:39.049	10690	386			4047.	RRCSM	UMTS FDD	Uplink	14:03:38.094	DCCH	MEASUREMENT_REPORT	
					4260.	100	14:03:39.049	10690	386	-23.8		4048,	RRCSM	UMTS FDD	Uplink	14:03:38,463	DCCH	MEASUREMENT_REPORT	
					4261.	-89	14:03:39.295	10690	386			4049.	RRCSM	UMTS FDD	Uplink	14:03:38.537	DCCH	MEASUREMENT_REPORT	
					4262.		14:03:39.295	10690	386	-23.2		4050.	RRCSM	UMTS FDD	Uplink	14:03:38.627	DCCH	MEASUREMENT_REPORT	
					4263.	-89	14:03:39.473	10690	386			4051.	RRCSM	UMTS FDD	Uplink	14:03:38.773	DCCH	MEASUREMENT_REPORT	
					4264.		14:03:39.473	10690	386	-23.2		4052.	RRCSM	UMTS FDD	Uplink	14:03:38.973	DCCH	MEASUREMENT_REPORT	
					4265.	-89	14:03:39.973	10690	386	COLO.		4053.	RRCSM	UMTS FDD	Uplink	14:03:38.994	DCCH	MEASUREMENT_REPORT	
					4266.		14:03:39.973	10690	386	-23.2		4054.	RRCSM	UMTS FDD	Uplink	14:03:39.473	DCCH	MEASUREMENT_REPORT	
					4267.	-82.1	14:03:40.042	10690	386			4055.	RRCSM	UMTS FDD	Uplink	14:03:39.973	DCCH	MEASUREMENT_REPORT	
					4268.	(+	14:03:40.042	10690	386	-23.8		4056.	RRCSM	UMTS FDD	Downlink	14:03:40.543	BCCH_BCH	SYSTEM_INFORMATION_BCH	2
					4269,	-65.8	14:03:40.486	10690	68			4057.	RRCSM	UMTS FDD	Downlink	14:03:40,563	BCCH_BCH	SYSTEM_INFORMATION_BCH	
					4270.	000	14:03:40.486	10690	68	-5.8		4058.	RRCSM	UMTS FDD	Downlink	14:03:40.583	BCCH_BCH	SYSTEM_INFORMATION_BCH	
					4271.	-78.5	14:03:41.136	10690	68			4059.	RRCSM	UMTS FDD	Downlink	14:03:40.583	BCCH	MASTER_INFORMATION_BLOCK	
					4272.	SIAMIZ	14:03:41.136	10690	68	-11.4		4060.	RRCSM	UMTS FDD	Downlink	14:03:40.583	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7	
					4273.	-70.5	14:03:41.374	10690	68			4061.	RRCSM	UMTS FDD	Downlink	14:03:40.603	BCCH_BCH	SYSTEM_INFORMATION_BCH	
					4274.		14:03:41.374	10690	68	-8.6		4062.	RRCSM	UMTS FDD	Downlink	14:03:40.603	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_2	
					4275.	-76.9	14:03:42.078	10690	68		1	4063.	RRCSM	UMTS FDD	Downlink	14:03:40.603	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_3	
					4276.		14:03:42.078	10690	68	-11.5		4064.	RRCSM	UMTS FOD	Downlink	14:03:40.943	BCCH_BCH	SYSTEM_INFORMATION_BCH	
					4277.	-80	14:03:42.576	10690	68		1	4065.	RRCSM	UMTS FDD	Downlink	14:03:40.963	BCCH_BCH	SYSTEM_INFORMATION_BCH	
					4278.		14:03:42.576	10690	68	-16.8		4066.	100000000000000000000000000000000000000			14:03:40.983	Property Community of The editor Inches	SYSTEM_INFORMATION_BCH	
					4279.	-85.6	14:03:43.000					4067.	RRCSM			14:03:40.983		MASTER_INFORMATION_BLOCK	
					4280.		14:03:43.000	10690	68	-20.1		4068.	RRCSM	UMTS FDD	Downlink	14:03:40.983	BCCH	SYSTEM_INFORMATION_BLOCK_TYPE_7	
					4281.	-92.6	14:03:43.691				+	4069.	100000000000000000000000000000000000000					SYSTEM_INFORMATION_BCH	7

- This call drop event occurred on long call at 14:03:40:327 time when UE was latched with 3G network.
- After getting Alerting message at 14:02:03:132 time than Call drop happened.
- During the session UE was latched with PSC 386 and RF condition RSCP -82.1 dBm is ok and Ec/No -23.8 dB which is poor.
- As per the analysis call failed happened due to poor quality of the network.



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

	Time	System	Serving	band Call type		Time	RxLe	r sub ARFCN	BSIC	LAC	RAC	RXQ	4		System	Transf. dir.	Time	Subchannel	Message name
1,	14:03:40.327	UMTS FDD	2100	Voice call	1111.	14:09:12.400	-93	24	15	1	10	771555	Г	5643.	GSM	Uplink	14:09:14.597	SACCH	MEASUREMENT_REPORT
2.	14:09:27.709	GSM	900	Voice call	1112.	14:09:13,053	-96	24	15	1	10			5644.	GSM	Uplink	14:09:15.077	SACCH	MEASUREMENT_REPORT
					1113.	14:09:13.683	-92	24	15	1	10			5645.	GSM	Downlink	14:09:15.510	SACCH	SYSTEM_INFORMATION_TYPE_5
					1114.	14:09:14.117	-93	24	15	1	10			5646.	GSM	Uplink	14:09:15.557	SACCH	MEASUREMENT_REPORT
					1115.	14:09:14.601	-95	24	15	1	10			5647.	GSM	Uplink	14:09:16.037	SACCH	MEASUREMENT_REPORT
					1116.	14:09:15.104	-93	24	15	1	10			5648.	GSM	Uplink	14:09:16,517	SACCH	MEASUREMENT_REPORT
					1117.	14:09:15.764	-94	24	15	1	10			5649.	GSM	Uplink	14:09:16.997	SACCH	MEASUREMENT_REPORT
					1118.	14:09:16.304	-93	24	15	1	10			5650.	GSM	Uplink	14:09:17.477	SACCH	MEASUREMENT_REPORT
					1119.	14:09:16.983	-95	24	15	1	10			5651.	GSM	Uplink	14:09:17.957	SACCH	MEASUREMENT_REPORT
					1120.	14:09:17.245	-96	24	15	1	10			5652.	GSM	Uplink	14:09:18.437	SACCH	MEASUREMENT_REPORT
					1121.	14:09:17,984	-95	24	15	1	10			5653,	GSM	Uplink	14:09:18.917	SACCH	MEASUREMENT_REPORT
					1122.	14:09:18,478	-92	24	15	1	10			5654.	GSM	Uplink	14:09:19.397	SACCH	MEASUREMENT_REPORT
					1123.	14:09:19.064	-94	24	15	1	10			5655.	GSM	Uplink	14:09:19.877	SACCH	MEASUREMENT_REPORT
					1124,	14:09:19.424	-93	24	15	1	10			5656.	GSM	Uplink	14:09:20.357	SACCH	MEASUREMENT_REPORT
					1125.	14:09:20.043	-91	24	15	1	10			5657.	GSM	Uplink	14:09:20.837	SACCH	MEASUREMENT_REPORT
					1126.	14:09:20.362	-94	24	15	1	10			5658.	GSM	Uplink	14:09:21.317	SACCH	MEASUREMENT_REPORT
					1127.	14:09:21.055	-87	24	15	1	10			5659.	GSM	Uplink	14:09:21.797	SACCH	MEASUREMENT_REPORT
					1128.	14:09:21.543	-91	24	15	1	10			5660.	GSM	Uplink	14:09:22.277	SACCH	MEASUREMENT_REPORT
					1129,	14:09:22.285	-94	24	15	1	10			5661.	GSM	Uplink	14:09:22.757	SACCH	MEASUREMENT_REPORT
					1130.	14:09:22.757	-93	24	15	1	10			5662.	GSM	Uplink	14:09:23.237	SACCH	MEASUREMENT_REPORT
					1131.	14:09:23,717	-94	24	15	1	10			5663.	GSM	Uplink	14:09:23.717	SACCH	MEASUREMENT_REPORT
					1132.	14:09:24.584	-94	24	15	1	10			5664.	GSM	Uplink	14:09:24.197	SACCH	MEASUREMENT_REPORT
					1133.	14:09:25.157	-93	24	15	1	10			5665.	GSM	Uplink	14:09:24.677	SACCH	MEASUREMENT_REPORT
					1134.	14:09:25.637	-96	24	15	1	10			5666.	GSM	Uplink	14:09:25.157	SACCH	MEASUREMENT_REPORT
					1135,	14:09:26.117	-96	24	15	1	10			5667.	GSM	Uplink	14:09:25.637	SACCH	MEASUREMENT_REPORT
					1136.	14:09:26.642			1000		1000			5668.	GSM	Uplink	14:09:26.117	SACCH	MEASUREMENT_REPORT
					1137.	14:09:30,305						0		5669.	GSM	Uplink	14:09:26.569	DCCH	CM_RE-ESTABLISHMENT_REQUEST
					1138.	14:09:30.365	-89	6	35	1	0			5670.	GSM	Downlink	14:09:26.974	BCCH	SYSTEM_INFORMATION_TYPE_3
					1139.	14:09:30.776						0		5671.	GSM	Downlink	14:09:28.146	BCCH	SYSTEM_INFORMATION_TYPE_4
					1140.	14:09:30.997	-91	6	35	1	0			5672.	GSM	Downlink	14:09:28.381	BCCH	SYSTEM_INFORMATION_TYPE_13
					1141.	14:09:31.247						4		5673.	GSM	Downlink	14:09:28.617	BCCH	SYSTEM_INFORMATION_TYPE_2QUATER
					1142.	14:09:31,306	-89	6	35	1	0			5674.	GSM	Downlink	14:09:28.857	BCCH	SYSTEM_INFORMATION_TYPE_3
					1143,	14:09:31.717						0		5675.	GSM	Downlink	14:09:29.092	BCCH	SYSTEM_INFORMATION_TYPE_4
					1144.	14:09:32.188	-85	6	35	1	0			5676.	GSM	Downlink	14:09:29.335	BCCH	SYSTEM_INFORMATION_TYPE_1
					1145.	14:09:32.659						0		5677.	GSM	Downlink	14:09:29.563	BCCH	SYSTEM_INFORMATION_TYPE_2
					1146.	14:09:33.055	-89	6	35	1	0			5678.	GSM	Uplink	14:09:29.577	DCCH	LOCATION_UPDATING_REQUEST
					1147.	14:09:33.129						0	+	5679.	GSM	Downlink	14:09:29.773	CCCH	IMMEDIATE_ASSIGNMENT
			-			turnstedereide.			-			200	provide		1.51	ntvotinemi vice	enninkestranis	STATE OF THE STATE	Entinition rove Table 20 via Usvair.

- This call drop event occurred on long call at 14:09:27:709 time when UE was latched with 2G network.
- After getting Alerting message at 14:08:04:359 time than Call drop happened.
- During the session UE was latched with ARFCN 24 and RF condition Rx Level -96 dBm is poor and Rx Qual 0 dB which is ok.
- As per the analysis call drop happened due to poor coverage of the network.



# **THANKS**