

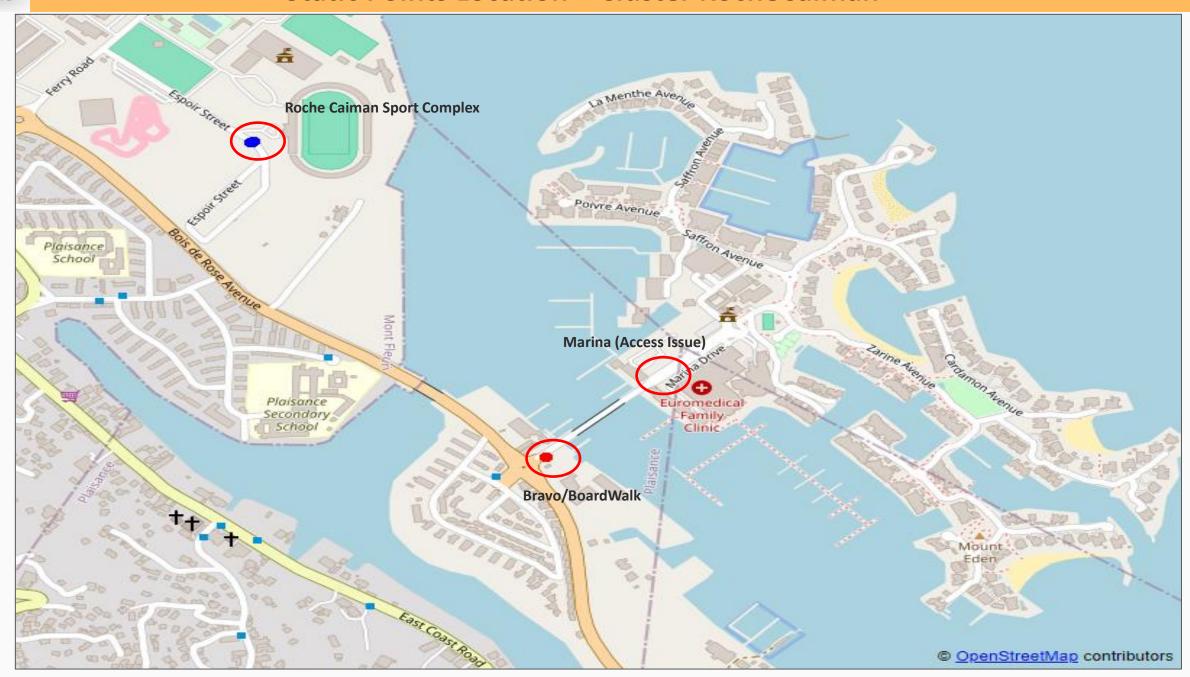


## **VOICE TEST METHODOLOGY**

DATA	Test Type and Timeout	Technology 3G Preferred	Technology 4G Preferred
	POP always o	n. ICMP PAYLOAD PING 800 BYTES	
1	FILE TRANSFER DOWNLOAD	FTP DL (3MB)	FTP DL (5MB)
	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

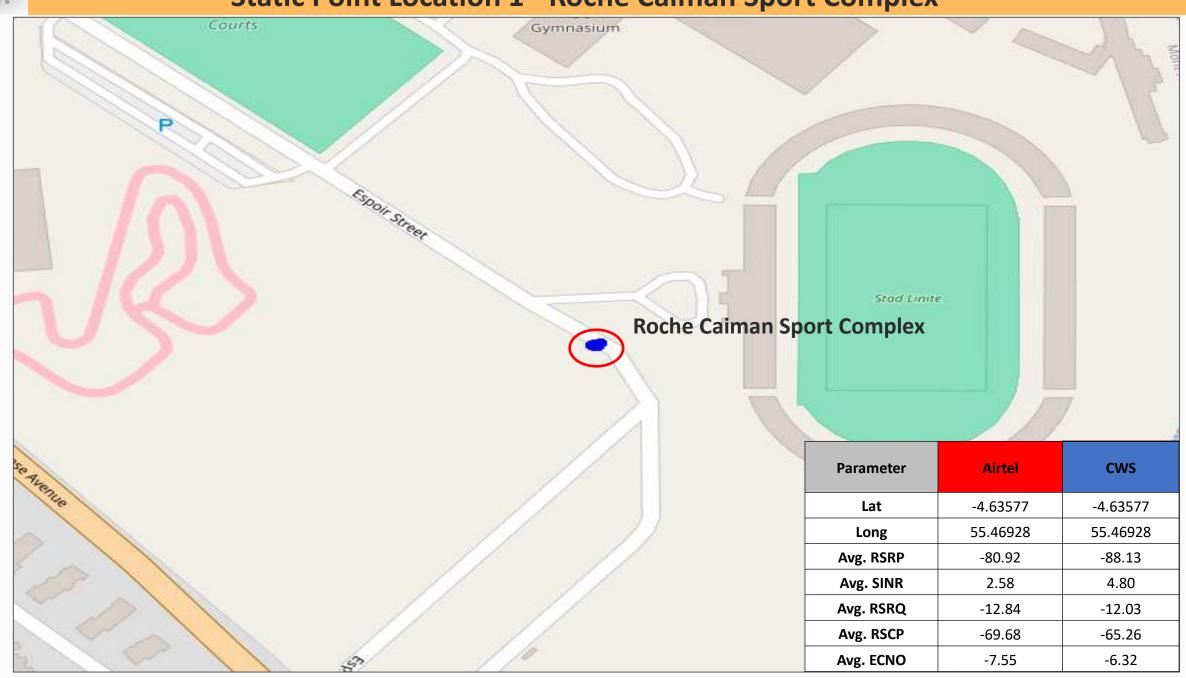


### **Static Points Location – Cluster RocheCaiman**





## **Static Point Location 1 - Roche Caiman Sport Complex**





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

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

- Airtel SFTP DL is (14.27 Mbps), while SFTP UL is (7.30 Mbps), CWS SFTP DL is (4.24 Mbps), while SFTP UL is (1.48 Mbps)
- Airtel HTTP DL is (18.49 Mbps), HTTP Capacity DL is (34.04 Mbps), HTTP UL is (12.41 Mbps), and HTTP Capacity UL is (23.59 Mbps).
- CWS HTTP DL is (6.93 Mbps), HTTP Capacity DL is (18.05 Mbps), HTTP UL is (3.19 Mbps), and HTTP Capacity UL is (7.45 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (6.22s), <u>www.nbs.gov.sc</u> took (16.85s), and <u>www.sbc.sc</u> took (16.67s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (8.07s), <u>www.nbs.gov.sc</u> took (15.62s), and <u>www.sbc.sc</u> took (13.67s) on CWS.
- On static browsing, Kepler Webpage took (4.39s), and Kepler Mobile took (1.75s) on Airtel.
- On static browsing, Kepler Webpage took (8.18s), and Kepler Mobile took (4.10s) on CWS.
- YouTube average resolution in Airtel is (1029.59) pixels.
- YouTube average resolution in CWS is (1037.92) pixels.
- Airtel scored 25.00% in Carrier Aggregation (CA).
- CWS scored 45.05% in Carrier Aggregation (CA).



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

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

- Airtel SFTP DL is (4.87 Mbps), while SFTP UL is (2.20 Mbps), CWS SFTP DL is (2.23 Mbps), while SFTP UL is (0.08 Mbps)
- Airtel HTTP DL is (5.00 Mbps), HTTP Capacity DL is (6.37 Mbps), HTTP UL is (3.48 Mbps), and HTTP Capacity UL is (6.53 Mbps).
- CWS HTTP DL is (2.53 Mbps), HTTP Capacity DL is (7.37 Mbps), HTTP UL is (0.90 Mbps), and HTTP Capacity UL is (2.84 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (9.44s), <u>www.nbs.gov.sc</u> took (11.06s), and <u>www.sbc.sc</u> took (12.49s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (8.45s), <u>www.nbs.gov.sc</u> took (7.52s), and <u>www.sbc.sc</u> took (10.14s) on CWS.
- On static browsing, Kepler Webpage took (3.79s), and Kepler Mobile took (1.70s) on Airtel.
- On static browsing, Kepler Webpage took (7.88s), and Kepler Mobile took (4.54s) on CWS.
- YouTube average resolution in Airtel is (1040.39) pixels.
- YouTube average resolution in CWS is (1047.27) pixels.



## **DRIVE TEST KPI STATISTICS**

		3G Preferred			4G Preferred				
	DATA Scenario	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	SFTP DL (Mbps)	4.87	2.23	1	2	14.27	4.24	1	2
E E	SFTP UL(Mbps)	2.20	0.08	1	2	7.30	1.48	1	2
ANSF	HTTP DL(Mbps)	5.00	2.53	1	2	18.49	6.93	1	2
FILE TRANSFER	HTTP UL(Mbps)	3.48	0.90	1	2	12.41	3.19	1	2
붑	HTTP Capacity DL(Mbps)	6.37	7.37	2	1	34.04	18.05	1	2
	HTTP Capacity UL(Mbps)	6.53	2.84	1	2	23.59	7.45	1	2
	Overall Browser DL Time (s)	7.69	7.70	1	2	9.24	9.92	1	2
	Kepler Webpage DL Time (s)	3.79	7.88	1	2	4.39	8.18	1	2
SER	Mobile Kepler Webpage DL Time (s)	1.70	4.54	1	2	1.75	4.10	1	2
BROWSER	www.shein.com Webpage DL Time (s)	9.44	8.45	2	1	6.22	8.07	1	2
<u> </u>	www.nbs.gov.sc Webpage DL Time (s)	11.06	7.52	2	1	16.85	15.62	2	1
	www.sbc.sc Webpage DL Time (s)	12.49	10.14	2	1	16.67	13.67	2	1
LATENCY	Avg Latency (ms)	258.27	215.01	2	1	264.89	208.48	2	1
LAT	Median Latency (ms)	244.0	159.0	2	1	319.5	147.0	2	1
BE	YouTube Access Time (s)	3.29	2.15	2	1	5.17	1.74	2	1
YOUTUBE	YouTube Average Resolution (pixels)	1040.39	1047.27	2	1	1029.59	1037.92	2	1
\$	YouTube Success Ratio [%]	100.00	100.00	1	1	100.00	100.00	1	1



## **4G PREFERRED THROUGHPUT COMPARISON**

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
CETP DI	Success	13	8	100.00	100.00
SFTP DL	Failure	0	0	0.00	0.00
SFTP UL	Success	13	2	100.00	25.00
SFIPUL	Failure	0	6	0.00	75.00
	Success	13	7	100.00	100.00
HTTP DL	Failure	0	0	0.00	0.00
HTTP UL	Success	13	2	100.00	28.57
HIIPOL	Failure	0	5	0.00	71.43
HTTP Capacity DL	Success	12	7	100.00	100.00
HITT Capacity DL	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	12	6	100.00	85.71
HITT Capacity OL	Failure	0	1	0.00	14.29

	DATA Scenario	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	SFTP DL (Mbps)	14.27	4.24	1	2
	SFTP UL(Mbps)	7.30	1.48	1	2
ANSFER	HTTP DL(Mbps)	18.49	6.93	1	2
FILE TRANSFER	HTTP UL(Mbps)	12.41	3.19	1	2
	HTTP Capacity DL(Mbps)	34.04	18.05	1	2
	HTTP Capacity UL(Mbps)	23.59	7.45	1	2



### **4G PREFERRED BROWSING COMPARISON**

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
<b>Wanla</b>	Success	12	7	92.31	100.00
Kepler	Failure	1	0	7.69	0.00
Mahila Kanlan	Success	13	7	100.00	100.00
Mobile Kepler	Failure	0	0	0.00	0.00
	Success	13	7	100.00	100.00
www.shein.com	Failure	0	0	0.00	0.00
	Success	13	7	100.00	100.00
www.nbs.gov.sc	Failure	0	0	0.00	0.00
www.sbc.sc	Success	13	7	100.00	100.00
	Failure	0	0	0.00	0.00

DATA Scenario		Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	Overall Browser DL Time (s)	9.24	9.92	1	2
	Kepler Webpage DL Time (s)	4.39	8.18	1	2
Mobile Kepler Webpage DL Time (s)  www.shein.com Webpage DL Time (s)	1.75	4.10	1	2	
	www.shein.com Webpage DL Time (s)	6.22	8.07	1	2
	www.nbs.gov.sc Webpage DL Time (s)	16.85	15.62	2	1
	www.sbc.sc Webpage DL Time (s)	16.67	13.67	2	1



### **4G PREFERRED LATENCY & YOUTUBE COMPARISON**

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	26	12
	Average Latency [ms]	257.62	199.17
	Median Latency [ms]	312	147
Overall Latency	Ping session status: Successful	26	12
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	2
	Packet Loss<1%	0.00	14.29
	Average Latency [ms]	388.31	142.14
	Median Latency [ms]	387	144
www.google.com	Ping session status: Successful	13	7
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
	Average Latency [ms]	126.92	279.00
	Median Latency [ms]	118	290
102.133.176.104	Ping session status: Successful	13	5
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	2
Latency 250m	Packet Loss<1%	0.00	28.57

Latency 250ms

LTE YOUTUBE Success Ratio					
KPIs	Airtel 4G	CWS 4G			
Attempt(Count)	13	7			
Success(Count)	13	7			
Failure(Count)	0	0			
YouTube Access Time (s)	5.17	1.74			
YouTube Average Resolution (pixels)	1029.59	1037.92			
YouTube Success Ratio [%]	100.00	100.00			



## **3G PREFERRED THROUGHPUT COMPARISON**

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
CETD DI	Success	12	7	100.00	100.00
SFTP DL	Failure	0	0	0.00	0.00
SFTP UL	Success	12	6	100.00	85.71
SFIP OL	Failure	0	1	0.00	14.29
	Success	12	8	100.00	100.00
HTTP DL	Failure	0	0	0.00	0.00
HTTP UL	Success	12	1	100.00	12.50
HITPOL	Failure	0	7	0.00	87.50
LITTE Conneity DI	Success	11	7	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTD Conneity III	Success	11	7	100.00	100.00
HTTP Capacity UL	Failure	0	0	0.00	0.00

	DATA Scenario	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
	SFTP DL (Mbps)	4.87	2.23	1	2
FILE TRANSFER	SFTP UL(Mbps)	2.20	0.08	1	2
	HTTP DL(Mbps)	5.00	2.53	1	2
	HTTP UL(Mbps)	3.48	0.90	1	2
	HTTP Capacity DL(Mbps)	6.37	7.37	2	1
	HTTP Capacity UL(Mbps)	6.53	2.84	1	2



## **3G PREFERRED BROWSING COMPARISON**

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Wanlau	Success	11	8	100.00	100.00
Kepler	Failure	0	0	0.00	0.00
Mahila Kanlar	Success	11	8	100.00	100.00
Mobile Kepler	Failure	0	0	0.00	0.00
	Success	11	8	100.00	100.00
www.shein.com	Failure	0	0	0.00	0.00
	Success	11	8	100.00	100.00
www.nbs.gov.sc	Failure	0	0	0.00	0.00
	Success	11	8	100.00	100.00
www.sbc.sc	Failure	0	0	0.00	0.00

	DATA Scenario	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
	Overall Browser DL Time (s)	7.69	7.70	1	2
	Kepler Webpage DL Time (s)	3.79	7.88	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	1.70	4.54	1	2
BROV	www.shein.com Webpage DL Time (s)	9.44	8.45	2	1
v	www.nbs.gov.sc Webpage DL Time (s)	11.06	7.52	2	1
	www.sbc.sc Webpage DL Time (s)	12.49	10.14	2	1



## **3G PREFERRED LATENCY & YOUTUBE COMPARISON**

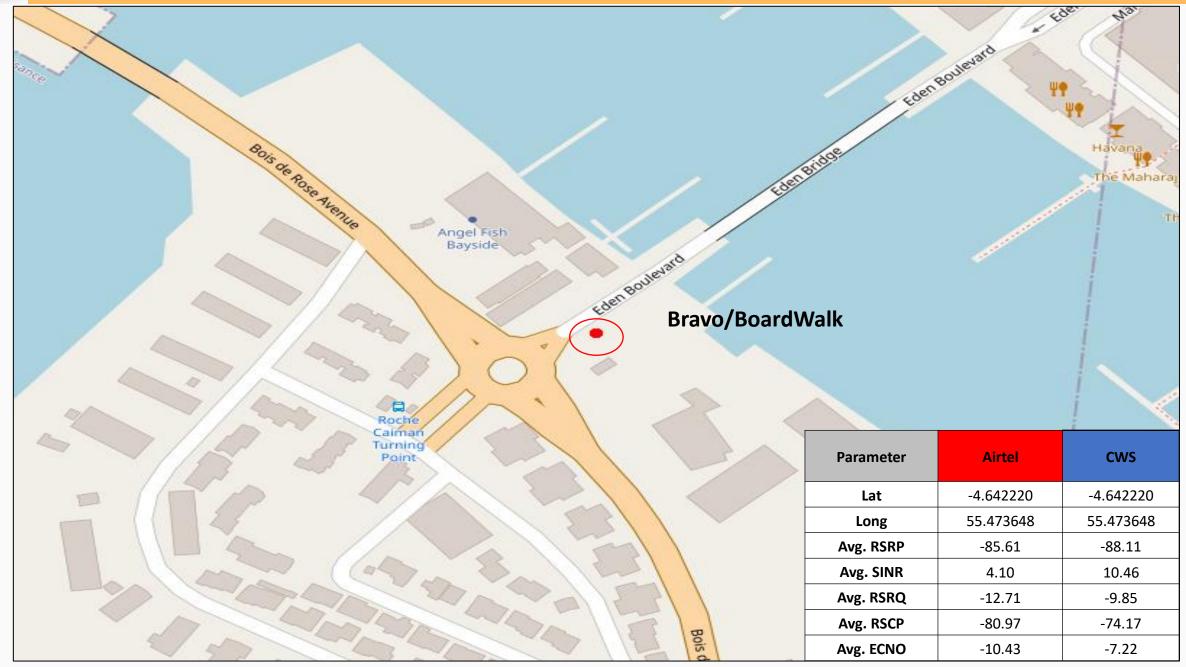
	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	23	10
	Average Latency [ms]	258.74	187.30
	Median Latency [ms]	244	141
Overall Latency	Ping session status: Successful	23	10
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	2
	Packet Loss<1%	0.00	16.67
	Average Latency [ms]	399.27	140.57
	Median Latency [ms]	401	140
www.google.com	Ping session status: Successful	11	7
www.googie.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]	129.92	296.33
	Median Latency [ms]	118	296
102.133.176.104	Ping session status: Successful	12	3
102.133.1/0.104	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	2
Latoney 250ms	Packet Loss<1%	0.00	40.00

Latency	250ms
Lateriev	200113

UMTS YOUTUBE Success Ratio						
KPIs	Airtel 3G	CWS 3G				
Attempt(Count)	11	8				
Success(Count)	11	8				
Failure(Count)	0	0				
YouTube Access Time (s)	3.29	2.15				
YouTube Average Resolution (pixels)	1040.39	1047.27				
YouTube Success Ratio [%]	100.00	100.00				



# **Static Point Location 2 - Bravo/BoardWalk**





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

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

- Airtel SFTP DL is (6.88 Mbps), while SFTP UL is (7.41 Mbps), CWS SFTP DL is (7.89 Mbps), while SFTP UL is (2.30 Mbps)
- Airtel HTTP DL is (8.56 Mbps), HTTP Capacity DL is (9.79 Mbps), HTTP UL is (12.02 Mbps), and HTTP Capacity UL is (18.50 Mbps).
- CWS HTTP DL is (9.88 Mbps), HTTP Capacity DL is (34.54 Mbps), HTTP UL is (3.01 Mbps), and HTTP Capacity UL is (8.47 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (6.46s), <u>www.nbs.gov.sc</u> took (17.32s), and <u>www.sbc.sc</u> took (22.63s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (5.23s), <u>www.nbs.gov.sc</u> took (15.45s), and <u>www.sbc.sc</u> took (15.57s) on CWS.
- On static browsing, Kepler Webpage took (4.22s), and Kepler Mobile took (1.72s) on Airtel.
- On static browsing, Kepler Webpage took (4.51s), and Kepler Mobile took (2.78s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1080.00) pixels.
- Airtel scored 50.00% in Carrier Aggregation (CA).
- CWS scored 46.15% in Carrier Aggregation (CA).



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

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

- Airtel SFTP DL is (4.11 Mbps), while SFTP UL is (1.95 Mbps), CWS SFTP DL is (4.14 Mbps), while SFTP UL is (1.32 Mbps)
- Airtel HTTP DL is (4.39 Mbps), HTTP Capacity DL is (6.94 Mbps), HTTP UL is (2.84 Mbps), and HTTP Capacity UL is (5.52 Mbps).
- CWS HTTP DL is (3.54 Mbps), HTTP Capacity DL is (8.13 Mbps), HTTP UL is (2.43 Mbps), and HTTP Capacity UL is (5.44 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (9.34s), <u>www.nbs.gov.sc</u> took (10.87s), and <u>www.sbc.sc</u> took (18.33s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (7.84s), <u>www.nbs.gov.sc</u> took (8.08s), and <u>www.sbc.sc</u> took (12.98s) on CWS.
- On static browsing, Kepler Webpage took (3.43s), and Kepler Mobile took (1.67s) on Airtel.
- On static browsing, Kepler Webpage took (5.36s), and Kepler Mobile took (2.27s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1057.24) pixels.



## **DRIVE TEST KPI STATISTICS**

		3G Preferred			4G Preferred				
DATA Scenario		Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	SFTP DL (Mbps)	4.11	4.14	2	1	6.88	7.89	2	1
<b>8</b>	SFTP UL(Mbps)	1.95	1.32	1	2	7.41	2.30	1	2
ANSFI	HTTP DL(Mbps)	4.39	3.54	1	2	8.56	9.88	2	1
FILE TRANSFER	HTTP UL(Mbps)	2.84	2.43	1	2	12.02	3.01	1	2
<u> </u>	HTTP Capacity DL(Mbps)	6.94	8.13	2	1	9.79	34.54	2	1
	HTTP Capacity UL(Mbps)	5.52	5.44	1	2	18.50	8.47	1	2
	Overall Browser DL Time (s)	8.68	7.25	2	1	10.52	8.70	2	1
	Kepler Webpage DL Time (s)	3.43	5.36	1	2	4.22	4.51	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	1.67	2.27	1	2	1.72	2.78	1	2
BROV	www.shein.com Webpage DL Time (s)	9.34	7.84	2	1	6.46	5.23	2	1
	www.nbs.gov.sc Webpage DL Time (s)	10.87	8.08	2	1	17.32	15.45	2	1
	www.sbc.sc Webpage DL Time (s)	18.33	12.98	2	1	22.63	15.57	2	1
LATENCY	Avg Latency (ms)	289.70	174.74	2	1	255.32	180.38	2	1
LATE	Median Latency (ms)	388.0	195.0	2	1	137.0	196.0	1	2
3E	YouTube Access Time (s)	3.54	2.47	2	1	5.41	1.55	2	1
YOUTUBE	YouTube Average Resolution (pixels)	1080.00	1057.24	1	2	1080.00	1080.00	1	1
, AQ	YouTube Success Ratio [%]	100.00	100.00	1	1	100.00	100.00	1	1



## **4G PREFERRED THROUGHPUT COMPARISON**

Test Type	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
CETP DI	Success	12	12	100.00	100.00
SFTP DL	Failure	0	0	0.00	0.00
SFTP UL	Success	12	12	100.00	100.00
SFIPUL	Failure	0	0	0.00	0.00
HTTP DL	Success	11	12	91.67	100.00
	Failure	1	0	8.33	0.00
HTTP UL	Success	11	12	100.00	100.00
HITPOL	Failure	0	0	0.00	0.00
HTTP Capacity DL	Success	10	12	100.00	100.00
нттР Сараспу DL	Failure	0	0	0.00	0.00
	Success	11	12	100.00	100.00
HTTP Capacity UL	Failure	0	0	0.00	0.00

	DATA Scenario	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	SFTP DL (Mbps)	6.88	7.89	2	1
	SFTP UL(Mbps)	7.41	2.30	1	2
FILE TRANSFER	HTTP DL(Mbps)		9.88	2	1
FILE TR	HTTP UL(Mbps)		3.01	1	2
	HTTP Capacity DL(Mbps)	9.79	34.54	2	1
	HTTP Capacity UL(Mbps)	18.50	8.47	1	2



## **4G PREFERRED BROWSING COMPARISON**

Web Page	Status	Airtel 4G	CWS 4G	Airtel 4G (%)	CWS 4G (%)
<b>Wanla</b>	Success	11	12	91.67	100.00
Kepler	Failure	1	0	8.33	0.00
Mahila Kaulan	Success	11	12	100.00	100.00
Mobile Kepler	Failure	0	0	0.00	0.00
	Success	12	12	100.00	100.00
www.shein.com	Failure	0	0	0.00	0.00
	Success	12	12	100.00	100.00
www.nbs.gov.sc	Failure	0	0	0.00	0.00
www.sbc.sc	Success	11	12	91.67	100.00
	Failure	1	0	8.33	0.00

	DATA Scenario		CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	Overall Browser DL Time (s)	10.52	8.70	2	1
	Kepler Webpage DL Time (s)	4.22	4.51	1	2
VSER	Mobile Kepler Webpage DL Time (s)	1.72	2.78	1	2
BROWSER	www.shein.com Webpage DL Time (s)	6.46	5.23	2	1
	www.nbs.gov.sc Webpage DL Time (s)	17.32	15.45	2	1
	www.sbc.sc Webpage DL Time (s)	22.63	15.57	2	1



### **4G PREFERRED LATENCY & YOUTUBE COMPARISON**

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	23	24
	Average Latency [ms]	255.70	195.38
	Median Latency [ms]	163	199
Overall Latency	Ping session status: Successful	23	24
	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]	397.18	158.75
	Median Latency [ms]	398	157
www.google.co	Ping session status: Successful	11	12
m	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]	126.00	232.00
	Median Latency [ms]	122	211
102.133.176.104	Ping session status: Successful	12	12
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00

LTE YOUTUBE Success Ratio					
KPIs	Airtel Data 4G	CWS Data 4G			
Attempt(Count)	12	12			
Success(Count)	12	12			
Failure(Count)	0	0			
YouTube Access Time (s)	5.41	1.55			
YouTube Average Resolution (pixels)	1080.00	1080.00			
YouTube Success Ratio [%]	100.00	100.00			

Latency 250ms



## **3G PREFERRED THROUGHPUT COMPARISON**

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
SFTP DL	Success	11	10	100.00	100.00
SFIP DL	Failure	0	0	0.00	0.00
CETDIII	Success	11	10	100.00	100.00
SFTP UL	Failure	0	0	0.00	0.00
HTTP DL	Success	11	11	100.00	100.00
	Failure	0	0	0.00	0.00
UTTO III	Success	11	11	100.00	100.00
HTTP UL	Failure	0	0	0.00	0.00
LITTO Comocity DI	Success	10	10	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	10	9	100.00	90.00
	Failure	0	1	0.00	10.00

DATA Scenario		Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
	SFTP DL (Mbps)	4.11	4.14	2	1
FILE TRANSFER	SFTP UL(Mbps)	1.95	1.32	1	2
	HTTP DL(Mbps)	4.39	3.54	1	2
	HTTP UL(Mbps)	2.84	2.43	1	2
	HTTP Capacity DL(Mbps)	6.94	8.13	2	1
	HTTP Capacity UL(Mbps)	5.52	5.44	1	2



## **3G PREFERRED BROWSING COMPARISON**

Web Page	Status	Airtel 3G	CWS 3G	Airtel 3G(%)	CWS 3G (%)
Wanlau	Success	11	11	100.00	100.00
Kepler	Failure	0	0	0.00	0.00
Mobile Kepler	Success	10	10	100.00	100.00
	Failure	0	0	0.00	0.00
www.shein.com	Success	11	10	100.00	90.91
	Failure	0	1	0.00	9.09
www.nbs.gov.sc	Success	11	9	100.00	90.00
	Failure	0	1	0.00	10.00
www.sbc.sc	Success	10	10	90.91	100.00
	Failure	1	0	9.09	0.00

DATA Scenario		Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
	Overall Browser DL Time (s)	8.68	7.25	2	1
Kepler Webpage DL Time (s)		3.43	5.36	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	1.67	2.27	1	2
	www.shein.com Webpage DL Time (s)	9.34	7.84	2	1
	www.nbs.gov.sc Webpage DL Time (s)	10.87	8.08	2	1
	www.sbc.sc Webpage DL Time (s)	18.33	12.98	2	1



### **3G PREFERRED LATENCY & YOUTUBE COMPARISON**

	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	17	18
Overall Latency	Average Latency [ms]	366.82	168.56
	Median Latency [ms]	405	142
	Ping session status: Successful	17	18
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	4	1
	Packet Loss<1%	19.05	5.26
www.google.co m	Average Latency [ms]	414.70	140.30
	Median Latency [ms]	409	141
	Ping session status: Successful	10	10
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
102.133.176.104	Average Latency [ms]	298.43	203.88
	Median Latency [ms]	252	202
	Ping session status: Successful	7	8
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	4	1
	Packet Loss<1%	36.36	11.11

UMTS YOUTUBE Success Ratio				
KPIs	Airtel 3G	CWS 3G		
Attempt(Count)	11	11		
Success(Count)	11	11		
Failure(Count)	0	0		
YouTube Access Time (s)	3.54	2.47		
YouTube Average Resolution (pixels)	1080.00	1057.24		
YouTube Success Ratio [%]	100.00	100.00		

Latency 250ms



### **Static Point Location 3 - Marina**





# **THANKS**