



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

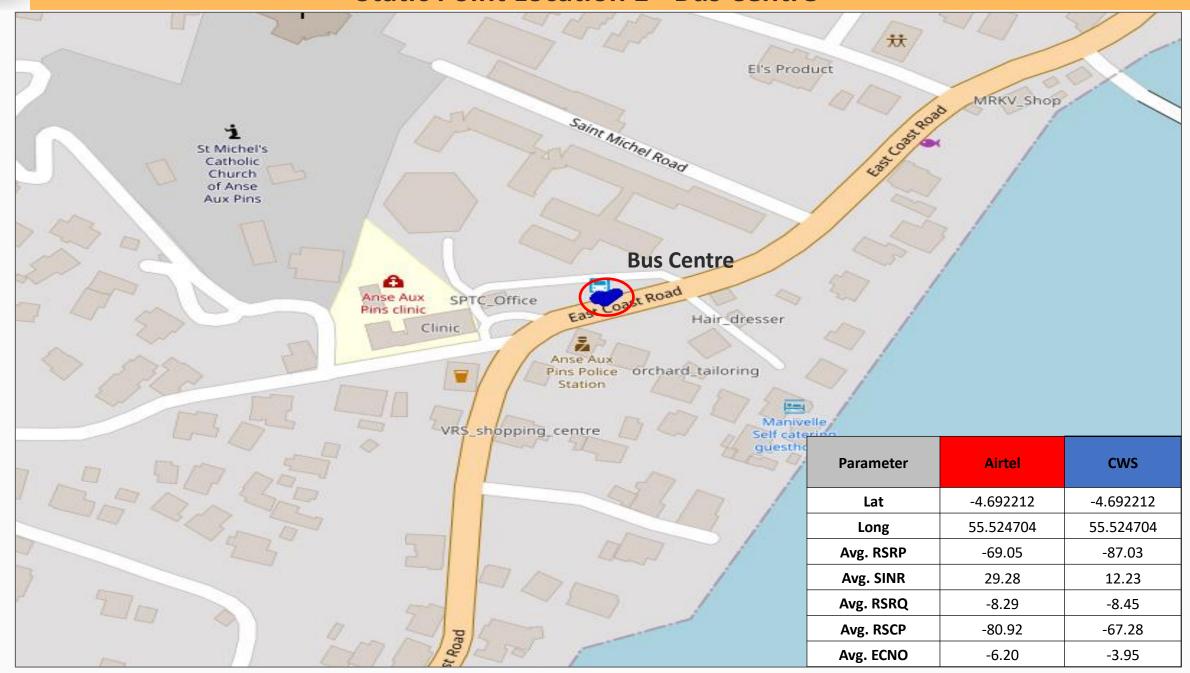


Static Points Location – Cluster AnseAuxPins





Static Point Location 1 - Bus Centre





4G PREFERRED DATA TEST – EXECUTIVE SUMMARY

4G Preferred Data Findings:

- Airtel SFTP DL is (15.57 Mbps), while SFTP UL is (9.31 Mbps), CWS SFTP DL is (7.00 Mbps), while SFTP UL is (3.68 Mbps)
- Airtel HTTP DL is (19.52 Mbps), HTTP Capacity DL is (39.23 Mbps), HTTP UL is (16.13 Mbps), and HTTP Capacity UL is (30.67 Mbps).
- CWS HTTP DL is (7.88 Mbps), HTTP Capacity DL is (56.05 Mbps), HTTP UL is (7.68 Mbps), and HTTP Capacity UL is (42.32 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (6.02s), <u>www.nbs.gov.sc</u> took (17.23s), and <u>www.sbc.sc</u> took (16.17s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (5.18s), <u>www.nbs.gov.sc</u> took (16.49s), and <u>www.sbc.sc</u> took (14.58s) on CWS.
- On static browsing, Kepler Webpage took (3.80s), and Kepler Mobile took (1.66s) on Airtel.
- On static browsing, Kepler Webpage took (5.23s), and Kepler Mobile took (2.80s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1080.00) pixels.
- Airtel scored 100.00% in Carrier Aggregation (CA).
- CWS scored 42.50% in Carrier Aggregation (CA).



3G PREFERRED DATA TEST - EXECUTIVE SUMMARY

3G Preferred Data Test Findings:

- Airtel SFTP DL is (6.24 Mbps), while SFTP UL is (2.22 Mbps), CWS SFTP DL is (4.65 Mbps), while SFTP UL is (1.29 Mbps)
- Airtel HTTP DL is (6.02 Mbps), HTTP Capacity DL is (10.04 Mbps), HTTP UL is (3.56 Mbps), and HTTP Capacity UL is (6.30 Mbps).
- CWS HTTP DL is (3.52 Mbps), HTTP Capacity DL is (16.90 Mbps), HTTP UL is (2.40 Mbps), and HTTP Capacity UL is (4.80 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (7.92s), <u>www.nbs.gov.sc</u> took (10.78s), and <u>www.sbc.sc</u> took (12.54s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (5.47s), <u>www.nbs.gov.sc</u> took (7.34s), and <u>www.sbc.sc</u> took (8.99s) on CWS.
- On static browsing, Kepler Webpage took (3.47s), and Kepler Mobile took (1.58s) on Airtel.
- On static browsing, Kepler Webpage took (5.24s), and Kepler Mobile took (2.29s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1080.00) 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)	6.24	4.65	1	2	15.57	7.00	1	2
~	SFTP UL(Mbps)	2.22	1.29	1	2	9.31	3.68	1	2
ANSFI	HTTP DL(Mbps)	6.02	3.52	1	2	19.52	7.88	1	2
FILE TRANSFER	HTTP UL(Mbps)	3.56	2.40	1	2	16.13	7.68	1	2
분	HTTP Capacity DL(Mbps)	10.04	16.90	2	1	39.23	56.05	2	1
	HTTP Capacity UL(Mbps)	6.30	4.80	1	2	30.67	42.32	2	1
	Overall Browser DL Time (s)	7.25	5.86	2	1	9.05	8.85	2	1
	Kepler Webpage DL Time (s)	3.47	5.24	1	2	3.80	5.23	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	1.58	2.29	1	2	1.66	2.80	1	2
BRO	www.shein.com Webpage DL Time (s)	7.92	5.47	2	1	6.02	5.18	2	1
	www.nbs.gov.sc Webpage DL Time (s)	10.78	7.34	2	1	17.23	16.49	2	1
	www.sbc.sc Webpage DL Time (s)	12.54	8.99	2	1	16.17	14.58	2	1
LATENCY	Avg Latency (ms)	288.02	195.78	2	1	260.01	338.09	1	2
LATE	Median Latency (ms)	394.0	141.0	2	1	279.5	342.5	1	2
BE.	YouTube Access Time (s)	3.25	1.72	2	1	5.15	1.59	2	1
YOUTUBE	YouTube Average Resolution (pixels)	1080.00	1080.00	1	1	1080.00	1080.00	1	1
, XC	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 (%)
CETTO	Success	13	12	100.00	100.00
SFTP DL	Failure	0	0	0.00	0.00
SFTP UL	Success	13	12	100.00	100.00
SFIP OL	Failure	0	0	0.00	0.00
	Success	13	12	100.00	100.00
HTTP DL	Failure	0	0	0.00	0.00
HTTP UL	Success	13	12	100.00	100.00
HITPOL	Failure	0	0	0.00	0.00
HTTP Capacity DL	Success	13	12	100.00	100.00
HITE Capacity DL	Failure	0	0	0.00	0.00
HTTD Canacity III	Success	12	11	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)	15.57	7.00	1	2
	SFTP UL(Mbps)	9.31	3.68	1	2
INSFER	HTTP DL(Mbps)	19.52	7.88	1	2
FILE TRANSFER	HTTP UL(Mbps)	16.13	7.68	1	2
	HTTP Capacity DL(Mbps)	39.23	56.05	2	1
	HTTP Capacity UL(Mbps)	30.67	42.32	2	1



4G PREFERRED BROWSING COMPARISON

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

	DATA Scenario	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	Overall Browser DL Time (s)	9.05	8.85	2	1
BROWSER	Kepler Webpage DL Time (s)	3.80	5.23	1	2
	Mobile Kepler Webpage DL Time (s)	1.66	2.80	1	2
	www.shein.com Webpage DL Time (s)	6.02	5.18	2	1
	www.nbs.gov.sc Webpage DL Time (s)	17.23	16.49	2	1
	www.sbc.sc Webpage DL Time (s)	16.17	14.58	2	1



4G PREFERRED LATENCY & YOUTUBE COMPARISON

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	26	24
	Average Latency [ms]	257.31	269.13
	Median Latency [ms]	280	268
Overall Latency	Ping session status: Successful	26	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]	392.00	200.75
	Median Latency [ms]	393	174
www.google.co	Ping session status: Successful	13	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]	122.62	337.50
	Median Latency [ms]	117	345
102.133.176.104	Ping session status: Successful	13	12
102.133.170.104	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 4G	CWS 4G				
Attempt(Count)	13	12				
Success(Count)	13	12				
Failure(Count)	0	0				
YouTube Access Time (s)	5.15	1.59				
YouTube Average Resolution (pixels)	1080.00	1080.00				
YouTube Success Ratio [%]	100.00	100.00				



3G PREFERRED THROUGHPUT COMPARISON

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
SFTP DL	Success	11	10	100.00	100.00
	Failure	0	0	0.00	0.00
SFTP UL	Success	11	10	100.00	100.00
SFIPUL	Failure	0	0	0.00	0.00
HTTP DL	Success	11	11	100.00	100.00
HITPUL	Failure	0	0	0.00	0.00
HTTP UL	Success	11	11	100.00	100.00
HIIPOL	Failure	0	0	0.00	0.00
HTTP Capacity DL	Success	11	11	100.00	100.00
HITP Capacity DL	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	10	9	100.00	90.00
HITP Capacity OL	Failure	0	1	0.00	10.00

	DATA Scenario	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
	SFTP DL (Mbps)	6.24	4.65	1	2
	SFTP UL(Mbps)	2.22	1.29	1	2
FILE TRANSFER	HTTP DL(Mbps)	6.02	3.52	1	2
FILE TR/	HTTP UL(Mbps)	3.56	2.40	1	2
	HTTP Capacity DL(Mbps)	10.04	16.90	2	1
	HTTP Capacity UL(Mbps)	6.30	4.80	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
Mahila Kanlar	Success	11	11	100.00	100.00
Mobile Kepler	Failure	0	0	0.00	0.00
www.shein.com	Success	11	11	100.00	100.00
www.snein.com	Failure	0	0	0.00	0.00
walke the govern	Success	11	11	100.00	100.00
www.nbs.gov.sc	Failure	0	0	0.00	0.00
www.sbc.sc	Success	11	11	100.00	100.00
www.spc.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)	7.25	5.86	2	1
BROWSER	Kepler Webpage DL Time (s)	3.47	5.24	1	2
	Mobile Kepler Webpage DL Time (s)	1.58	2.29	1	2
	www.shein.com Webpage DL Time (s)	7.92	5.47	2	1
	www.nbs.gov.sc Webpage DL Time (s)	10.78	7.34	2	1
	www.sbc.sc Webpage DL Time (s)	12.54	8.99	2	1



3G PREFERRED LATENCY & YOUTUBE COMPARISON

	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	13	21
	Average Latency [ms]	390.69	186.29
	Median Latency [ms]	407	140
Overall Latency	Ping session status: Successful	13	21
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	9	1
	Packet Loss<1%	40.91	4.55
	Average Latency [ms]	413.91	138.73
	Median Latency [ms]	413	139
	Ping session status: Successful	11	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]	263.00	238.60
	Median Latency [ms]	263	201
102.133.176.104	Ping session status: Successful	2	10
102.133.176.104	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	9	1
	Packet Loss<1%	81.82	9.09

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)	3.25	1.72				
YouTube Average Resolution (pixels)	1080.00	1080.00				
YouTube Success Ratio [%]	100.00	100.00				



Static Point Location 2 - Anse Aux Pins Clinic





4G PREFERRED DATA TEST – EXECUTIVE SUMMARY

4G Preferred Data Findings:

- Airtel SFTP DL is (14.38 Mbps), while SFTP UL is (7.51 Mbps), CWS SFTP DL is (7.07 Mbps), while SFTP UL is (4.02 Mbps)
- Airtel HTTP DL is (19.09 Mbps), HTTP Capacity DL is (43.56 Mbps), HTTP UL is (11.87 Mbps), and HTTP Capacity UL is (23.67 Mbps).
- CWS HTTP DL is (8.19 Mbps), HTTP Capacity DL is (50.27 Mbps), HTTP UL is (8.58 Mbps), and HTTP Capacity UL is (33.56 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (6.24s), <u>www.nbs.gov.sc</u> took (16.90s), and <u>www.sbc.sc</u> took (18.29s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (5.55s), <u>www.nbs.gov.sc</u> took (16.52s), and <u>www.sbc.sc</u> took (15.93s) on CWS.
- On static browsing, Kepler Webpage took (3.83s), and Kepler Mobile took (1.64s) on Airtel.
- On static browsing, Kepler Webpage took (5.45s), and Kepler Mobile took (2.87s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1080.00) pixels.
- Airtel scored 100.00% in Carrier Aggregation (CA).
- CWS scored 100.00% in Carrier Aggregation (CA).



3G PREFERRED DATA TEST - EXECUTIVE SUMMARY

3G Preferred Data Test Findings:

- Airtel SFTP DL is (6.59 Mbps), while SFTP UL is (2.33 Mbps), CWS SFTP DL is (4.76 Mbps), while SFTP UL is (1.27 Mbps)
- Airtel HTTP DL is (6.09 Mbps), HTTP Capacity DL is (11.98 Mbps), HTTP UL is (3.61 Mbps), and HTTP Capacity UL is (6.59 Mbps).
- CWS HTTP DL is (3.52 Mbps), HTTP Capacity DL is (19.33 Mbps), HTTP UL is (2.41 Mbps), and HTTP Capacity UL is (5.05 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (8.04s), <u>www.nbs.gov.sc</u> took (10.36s), and <u>www.sbc.sc</u> took (12.29s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (5.40s), <u>www.nbs.gov.sc</u> took (7.20s), and <u>www.sbc.sc</u> took (10.66s) on CWS.
- On static browsing, Kepler Webpage took (3.53s), and Kepler Mobile took (1.71s) on Airtel.
- On static browsing, Kepler Webpage took (5.05s), and Kepler Mobile took (2.33s) on CWS.
- YouTube average resolution in Airtel is (1053.85) pixels.
- YouTube average resolution in CWS is (1080.00) 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)	6.59	4.76	1	2	14.38	7.07	1	2
8	SFTP UL(Mbps)	2.33	1.27	1	2	7.51	4.02	1	2
ANSF	HTTP DL(Mbps)	6.09	3.52	1	2	19.09	8.19	1	2
FILE TRANSFER	HTTP UL(Mbps)	3.61	2.41	1	2	11.87	8.58	1	2
_	HTTP Capacity DL(Mbps)	11.98	19.33	2	1	43.56	50.27	2	1
	HTTP Capacity UL(Mbps)	6.59	5.05	1	2	23.67	33.56	2	1
	Overall Browser DL Time (s)	7.17	6.12	2	1	9.45	9.26	2	1
	Kepler Webpage DL Time (s)	3.53	5.05	1	2	3.83	5.45	1	2
SER	Mobile Kepler Webpage DL Time (s)	1.71	2.33	1	2	1.64	2.87	1	2
BROWSER	www.shein.com Webpage DL Time (s)	8.04	5.40	2	1	6.24	5.55	2	1
—	www.nbs.gov.sc Webpage DL Time (s)	10.36	7.20	2	1	16.90	16.52	2	1
	www.sbc.sc Webpage DL Time (s)	12.29	10.66	2	1	18.29	15.93	2	1
LATENCY	Avg Latency (ms)	276.16	204.93	2	1	259.90	346.41	1	2
¥	Median Latency (ms)	394.0	194.0	2	1	249.0	359.0	1	2
3E	YouTube Access Time (s)	3.25	1.84	2	1	5.02	1.63	2	1
YOUTUBE	YouTube Average Resolution (pixels)	1053.85	1080.00	2	1	1080.00	1080.00	1	1
Ş	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	12	100.00	100.00
SFTP DL	Failure	0	0	0.00	0.00
SFTP UL	Success	13	12	100.00	100.00
SFIPUL	Failure	0	0	0.00	0.00
HTTP DL	Success	13	12	100.00	100.00
	Failure	0	0	0.00	0.00
HTTP UL	Success	13	12	100.00	100.00
HITPOL	Failure	0	0	0.00	0.00
UTTD Canacity DI	Success	12	12	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	12	11	100.00	100.00
	Failure	0	0	0.00	0.00

	DATA Scenario	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	SFTP DL (Mbps)	14.38	7.07	1	2
	SFTP UL(Mbps)	7.51	4.02	1	2
FILE TRANSFER	HTTP DL(Mbps)	19.09	8.19	1	2
	HTTP UL(Mbps)	11.87	8.58	1	2
	HTTP Capacity DL(Mbps)	43.56	50.27	2	1
	HTTP Capacity UL(Mbps)	23.67	33.56	2	1



4G PREFERRED BROWSING COMPARISON

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

	DATA Scenario	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	Overall Browser DL Time (s)	9.45	9.26	2	1
	Kepler Webpage DL Time (s)	3.83	5.45	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	1.64	2.87	1	2
	www.shein.com Webpage DL Time (s)	6.24	5.55	2	1
	www.nbs.gov.sc Webpage DL Time (s)	16.90	16.52	2	1
	www.sbc.sc Webpage DL Time (s)	18.29	15.93	2	1



4G PREFERRED LATENCY & YOUTUBE COMPARISON

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	25	24
	Average Latency [ms]	258.24	311.46
	Median Latency [ms]	253	290
Overall Latency	Ping session status: Successful	25	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]	397.58	212.67
	Median Latency [ms]	396	179
www.google.co	Ping session status: Successful	12	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]	129.62	410.25
	Median Latency [ms]	118	418
102.133.176.104	Ping session status: Successful	13	12
102.133.176.104	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00

Latency 250ms

LTE YOUTUBE Success Ratio					
KPIs	Airtel 4G	CWS 4G			
Attempt(Count)	13	12			
Success(Count)	13	12			
Failure(Count)	0	0			
YouTube Access Time (s)	5.02	1.63			
YouTube Average Resolution (pixels)	1080.00	1080.00			
YouTube Success Ratio [%]	100.00	100.00			



3G PREFERRED THROUGHPUT COMPARISON

Test Type	Status	Airtel 3G	CWS 3G	Airtel 3G (%)	CWS 3G (%)
SFTP DL	Success	11	11	100.00	100.00
3FIP DE	Failure	0	0	0.00	0.00
SFTP UL	Success	10	11	90.91	100.00
SFIP OL	Failure	1	0	9.09	0.00
	Success	11	11	100.00	100.00
HTTP DL	Failure	0	0	0.00	0.00
HTTP UL	Success	11	11	100.00	100.00
HITPOL	Failure	0	0	0.00	0.00
HTTD Conneity DI	Success	10	10	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
UTTD Canacity III	Success	10	10	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)	6.59	4.76	1	2
FILE TRANSFER	SFTP UL(Mbps)	2.33	1.27	1	2
	HTTP DL(Mbps)	6.09	3.52	1	2
	HTTP UL(Mbps)	3.61	2.41	1	2
	HTTP Capacity DL(Mbps)	11.98	19.33	2	1
	HTTP Capacity UL(Mbps)	6.59	5.05	1	2



3G PREFERRED BROWSING COMPARISON

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

	DATA Scenario	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
	Overall Browser DL Time (s)	7.17	6.12	2	1
BROWSER	Kepler Webpage DL Time (s)	3.53	5.05	1	2
	Mobile Kepler Webpage DL Time (s)	1.71	2.33	1	2
	www.shein.com Webpage DL Time (s)	8.04	5.40	2	1
	www.nbs.gov.sc Webpage DL Time (s)	10.36	7.20	2	1
	www.sbc.sc Webpage DL Time (s)	12.29	10.66	2	1



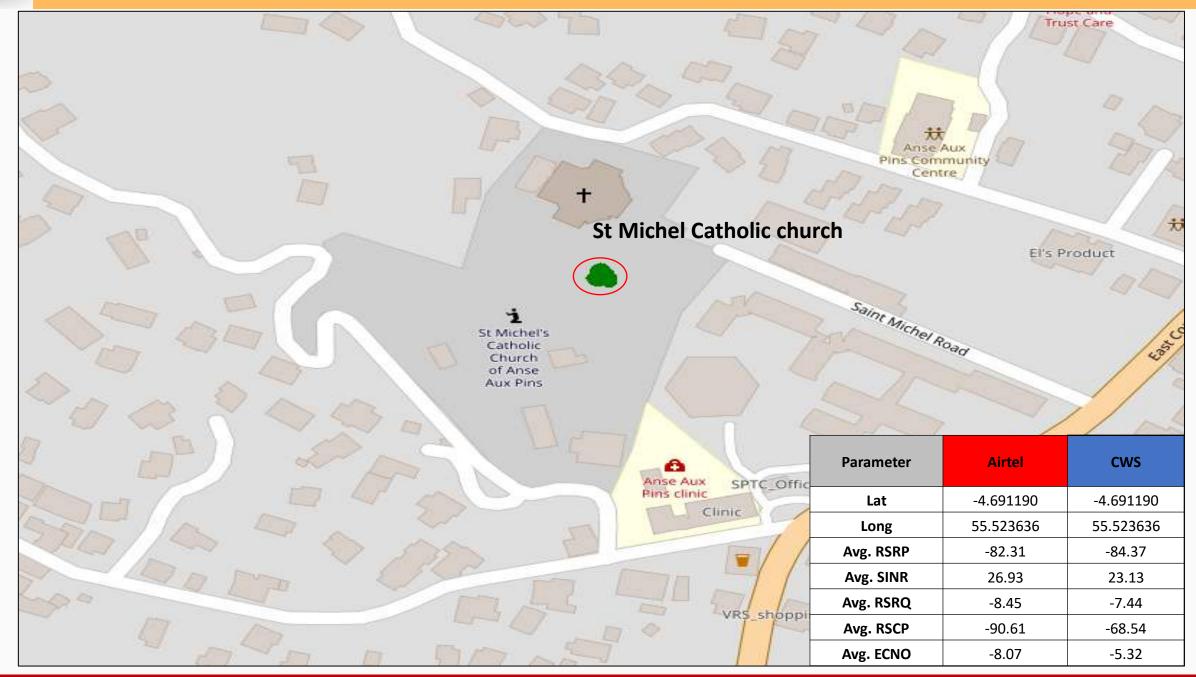
3G PREFERRED LATENCY & YOUTUBE COMPARISON

	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	11	20
	Average Latency [ms]	380.82	198.70
	Median Latency [ms]	407	169
Overall Latency	Ping session status: Successful	11	20
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	10	1
	Packet Loss<1%	47.62	4.76
	Average Latency [ms]	407.20	138.50
	Median Latency [ms]	407	138
www.google.com	Ping session status: Successful	10	10
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]	117.00	258.90
	Median Latency [ms]	117	202
102.133.176.104	Ping session status: Successful	1	10
102.133.170.104	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	10	1
	Packet Loss<1%	90.91	9.09

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)	3.25	1.84				
YouTube Average Resolution (pixels)	1053.85	1080.00				
YouTube Success Ratio [%]	100.00	100.00				



Static Point Location 3 - St Michel Catholic church





4G PREFERRED DATA TEST – EXECUTIVE SUMMARY

4G Preferred Data Findings:

- Airtel SFTP DL is (14.45 Mbps), while SFTP UL is (9.14 Mbps), CWS SFTP DL is (8.35 Mbps), while SFTP UL is (4.46 Mbps)
- Airtel HTTP DL is (20.77 Mbps), HTTP Capacity DL is (38.26 Mbps), HTTP UL is (15.51 Mbps), and HTTP Capacity UL is (30.45 Mbps).
- CWS HTTP DL is (12.48 Mbps), HTTP Capacity DL is (39.82 Mbps), HTTP UL is (10.53 Mbps), and HTTP Capacity UL is (32.19 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (6.28s), <u>www.nbs.gov.sc</u> took (16.97s), and <u>www.sbc.sc</u> took (15.63s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (4.53s), <u>www.nbs.gov.sc</u> took (14.93s), and <u>www.sbc.sc</u> took (13.18s) on CWS.
- On static browsing, Kepler Webpage took (3.99s), and Kepler Mobile took (1.62s) on Airtel.
- On static browsing, Kepler Webpage took (4.44s), and Kepler Mobile took (2.81s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1080.00) pixels.
- Airtel scored 25.00% in Carrier Aggregation (CA).
- CWS scored 0.00% in Carrier Aggregation (CA).



3G PREFERRED DATA TEST - EXECUTIVE SUMMARY

3G Preferred Data Test Findings:

- Airtel SFTP DL is (5.48 Mbps), while SFTP UL is (1.95 Mbps), CWS SFTP DL is (3.31 Mbps), while SFTP UL is (1.21 Mbps)
- Airtel HTTP DL is (5.62 Mbps), HTTP Capacity DL is (8.21 Mbps), HTTP UL is (2.41 Mbps), and HTTP Capacity UL is (4.99 Mbps).
- CWS HTTP DL is (3.66 Mbps), HTTP Capacity DL is (9.53 Mbps), HTTP UL is (2.32 Mbps), and HTTP Capacity UL is (5.17 Mbps).
- On live web page testing for browsing, <u>www.shein.com</u> took (7.96s), <u>www.nbs.gov.sc</u> took (10.77s), and <u>www.sbc.sc</u> took (13.07s) on Airtel.
- On live web page testing for browsing, <u>www.shein.com</u> took (6.44s), <u>www.nbs.gov.sc</u> took (7.50s), and <u>www.sbc.sc</u> took (11.12s) on CWS.
- On static browsing, Kepler Webpage took (3.57s), and Kepler Mobile took (1.68s) on Airtel.
- On static browsing, Kepler Webpage took (5.01s), and Kepler Mobile took (2.29s) on CWS.
- YouTube average resolution in Airtel is (1080.00) pixels.
- YouTube average resolution in CWS is (1080.00) 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)	5.48	3.31	1	2	14.45	8.35	1	2
8	SFTP UL(Mbps)	1.95	1.21	1	2	9.14	4.46	1	2
ANSFI	HTTP DL(Mbps)	5.62	3.66	1	2	20.77	12.48	1	2
FILE TRANSFER	HTTP UL(Mbps)	2.41	2.32	1	2	15.51	10.53	1	2
F	HTTP Capacity DL(Mbps)	8.21	9.53	2	1	38.26	39.82	2	1
	HTTP Capacity UL(Mbps)	4.99	5.17	2	1	30.45	32.19	2	1
	Overall Browser DL Time (s)	7.41	6.44	2	1	8.97	7.86	2	1
	Kepler Webpage DL Time (s)	3.57	5.01	1	2	3.99	4.44	1	2
VSER	Mobile Kepler Webpage DL Time (s)	1.68	2.29	1	2	1.62	2.81	1	2
BROWSER	www.shein.com Webpage DL Time (s)	7.96	6.44	2	1	6.28	4.53	2	1
	www.nbs.gov.sc Webpage DL Time (s)	10.77	7.50	2	1	16.97	14.93	2	1
	www.sbc.sc Webpage DL Time (s)	13.07	11.12	2	1	15.63	13.18	2	1
NCY	Avg Latency (ms)	276.71	191.51	2	1	259.68	170.43	2	1
LATENCY	Median Latency (ms)	393.5	194.0	2	1	257.5	195.0	2	1
36	YouTube Access Time (s)	3.22	1.88	2	1	5.06	1.34	2	1
YOUTUBE	YouTube Average Resolution (pixels)	1080.00	1080.00	1	1	1080.00	1080.00	1	1
λ γ	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 (%)
SFTP DL	Success	13	13	100.00	100.00
SFIPDL	Failure	0	0	0.00	0.00
SFTP UL	Success	13	13	100.00	100.00
SFIPUL	Failure	0	0	0.00	0.00
	Success	13	13	100.00	100.00
HTTP DL	Failure	0	0	0.00	0.00
HTTP UL	Success	13	13	100.00	100.00
HITPOL	Failure	0	0	0.00	0.00
HTTP Capacity DL	Success	13	12	100.00	100.00
HITF Capacity DL	Failure	0	0	0.00	0.00
HTTP Capacity UL	Success	12	12	100.00	100.00
ni ir Capacity UL	Failure	0	0	0.00	0.00

	DATA Scenario	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
FILE TRANSFER	SFTP DL (Mbps)	14.45	8.35	1	2
	SFTP UL(Mbps)	9.14	4.46	1	2
	HTTP DL(Mbps)	20.77	12.48	1	2
	HTTP UL(Mbps)	15.51	10.53	1	2
	HTTP Capacity DL(Mbps)	38.26	39.82	2	1
	HTTP Capacity UL(Mbps)	30.45	32.19	2	1



4G PREFERRED BROWSING COMPARISON

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

	DATA Scenario	Airtel 4G	CWS 4G	Airtel 4G (Rank)	CWS 4G (Rank)
	Overall Browser DL Time (s)	8.97	7.86	2	1
	Kepler Webpage DL Time (s)	3.99	4.44	1	2
BROWSER	Mobile Kepler Webpage DL Time (s)	1.62	2.81	1	2
	www.shein.com Webpage DL Time (s)	6.28	4.53	2	1
	www.nbs.gov.sc Webpage DL Time (s)	16.97	14.93	2	1
	www.sbc.sc Webpage DL Time (s)	15.63	13.18	2	1



4G PREFERRED LATENCY & YOUTUBE COMPARISON

	Latency KPIs	Airtel 4G	CWS 4G
	Sample Count [32 bytes]	26	25
	Average Latency [ms]	256.42	176.28
	Median Latency [ms]	254	196
Overall Latency	Ping session status: Successful	26	25
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
	Average Latency [ms]	393.92	151.00
	Median Latency [ms]	393	150
www.google.co	Ping session status: Successful	13	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]	118.92	199.62
	Median Latency [ms]	119	199
102.133.176.104	Ping session status: Successful	13	13
102.133.176.104	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 4G	CWS 4G				
Attempt(Count)	13	13				
Success(Count)	13	13				
Failure(Count)	0	0				
YouTube Access Time (s)	5.06	1.34				
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 (%)
CETD DI	Success	11	10	100.00	90.91
SFTP DL	Failure	0	1	0.00	9.09
SFTP UL	Success	11	11	100.00	100.00
SFIP UL	Failure	0	0	0.00	0.00
	Success	11	11	100.00	100.00
HTTP DL	Failure	0	0	0.00	0.00
HTTP UL	Success	11	11	100.00	100.00
HITPOL	Failure	0	0	0.00	0.00
HTTD Conneity DI	Success	10	10	100.00	100.00
HTTP Capacity DL	Failure	0	0	0.00	0.00
HTTD Canacity III	Success	10	9	100.00	90.00
HTTP Capacity UL	Failure	0	1	0.00	10.00

	DATA Scenario	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
	SFTP DL (Mbps)	5.48	3.31	1	2
FILE TRANSFER	SFTP UL(Mbps)	1.95	1.21	1	2
	HTTP DL(Mbps)	5.62	3.66	1	2
	HTTP UL(Mbps)	2.41	2.32	1	2
	HTTP Capacity DL(Mbps)	8.21	9.53	2	1
	HTTP Capacity UL(Mbps)	4.99	5.17	2	1



3G PREFERRED BROWSING COMPARISON

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

	DATA Scenario	Airtel 3G	CWS 3G	Airtel 3G (Rank)	CWS 3G (Rank)
BROWSER	Overall Browser DL Time (s)	7.41	6.44	2	1
	Kepler Webpage DL Time (s)	3.57	5.01	1	2
	Mobile Kepler Webpage DL Time (s)	1.68	2.29	1	2
	www.shein.com Webpage DL Time (s)	7.96	6.44	2	1
	www.nbs.gov.sc Webpage DL Time (s)	10.77	7.50	2	1
	www.sbc.sc Webpage DL Time (s)	13.07	11.12	2	1



3G PREFERRED LATENCY & YOUTUBE COMPARISON

	Latency KPIs	Airtel 3G	CWS 3G
	Sample Count [32 bytes]	14	20
Overall Latency	Average Latency [ms]	353.71	190.05
	Median Latency [ms]	412	173
	Ping session status: Successful	14	20
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	8	1
	Packet Loss<1%	36.36	4.76
www.google.com	Average Latency [ms]	414.36	139.20
	Median Latency [ms]	416	138
	Ping session status: Successful	11	10
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	0	0
	Packet Loss<1%	0.00	0.00
102.133.176.104	Average Latency [ms]	131.33	240.90
	Median Latency [ms]	131	201
	Ping session status: Successful	3	10
	Ping session status: Failed [Socket error]	0	0
	Ping session status: Failed [Protocol error timeout]	8	1
	Packet Loss<1%	72.73	9.09

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)	3.22	1.88		
YouTube Average Resolution (pixels)	1080.00	1080.00		
YouTube Success Ratio [%]	100.00	100.00		



THANKS