



**NATIONAL  
COMMUNICATIONS  
AUTHORITY**

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# QUALITY OF SERVICE TEST RESULTS FOR MARCH 2018

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May, 2018

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# MONITORING TEST RESULTS FOR AIRTELTIGO

## VOICE TEST

### GREATER ACCRA

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Tigo</b>	0.00	0.03	0.00	11.40	96.77
<b>Airtel</b>	0.00	0.26	0.00	9.20	96.12

- Service Provider did not meet Call Setup Time Key Performance Indicator (KPI) in the Greater Accra Region

### EASTERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	>70%
<b>Tigo</b>	0.00	0.06	0.03	7.90	95.80
<b>Airtel</b>	0.00	0.00	0.00	6.17	98.00

- Service Provider met all KPIs in the Eastern Region

### NORTHERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Tigo</b>	0.00	0.00	0.00	7.60	99.28
<b>Airtel</b>	0.00	0.27	0.00	7.90	91.43

- Service Provider met all KPIs in the Northern Region

## ASHANTI

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Tigo</b>	0.00	0.02	0.00	9.30	91.41
<b>Airtel</b>	0.00	0.03	0.00	7.90	96.42

- Service Provider met all KPIs in the Ashanti Region

## WESTERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Tigo</b>	0.04	0.02	0.00	8.60	96.72
<b>Airtel</b>	0.08	0.02	0.00	8.73	93.25

- Service Provider met all KPIs in the Western Region

## 3G DATA/COVERAGE TEST

### GREATER ACCRA

District Capitals	AIRTEL			TIGO		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Teshie-Nungua	100.00	0.00	6482.46	100.00	0.00	3140.20
Accra	100.00	0.00	6275.12	100.00	0.00	3961.23
Weija	100.00	0.00	3168.84	100.00	0.00	2686.83
Amasaman	100.00	0.00	6922.55	100.00	0.00	5460.33
Abokobi	100.00	0.00	8301.87	100.00	0.00	6316.74
Ada Foah	100.00	0.00	5143.94	100.00	0.00	2060.36
Adenta	100.00	0.00	4044.00	100.00	0.00	5377.37
Dodowa	100.00	0.00	8794.33	100.00	0.00	7133.66
Ashaiman	100.00	0.00	6151.72	100.00	0.00	5376.71
Tema	100.00	0.00	7452.91	100.00	0.00	4829.33
La	100.00	0.00	5748.76	100.00	0.00	5753.31
Kpone	100.00	0.00	9046.41	100.00	0.00	7201.12

Madina	100.00	0.00	1902.35	100.00	0.00	596.18
Sege	100.00	0.00	6522.71	100.00	0.00	2289.74
Prampram	100.00	0.00	7293.80	100.00	0.00	6946.08
Sowutuom	100.00	0.00	6299.48	100.00	0.00	4542.11

- Service Provider met all KPIs in the tested District Capitals in Greater Accra Region

## ASHANTI

District Capital	AIRTEL			TIGO		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Agogo	100.00	0.00	6847.57	No Successful Data Session		
Agona	100.00	0.00	10695.30	100.00	0.00	7563.03
Akomadan	No Successful Data Session			100.00	0.00	5711.00
Asiwa	100.00	0.00	9375.25	100.00	0.00	8568.42
Asokore Mampong	100.00	0.00	3823.39	100.00	0.00	4666.10
Bekwai	100.00	0.00	9493.24	100.00	0.00	5665.36
Drobonso	<b>No 3G Coverage</b>					
Effiduase	100.00	0.00	6735.65	100.00	0.00	3696.41
Ejisu	100.00	0.00	11129.60	100.00	0.00	2452.92
Ejura	100.00	0.00	4264.50	100.00	0.00	6252.93
Foase	100.00	0.00	13124.40	100.00	0.00	1757.91
Fomena	100.00	0.00	14216.70	100.00	0.00	9940.21
Jacobu	100.00	0.00	4723.82	No Successful Data Session		
Juaso	100.00	0.00	7778.26	100.00	0.00	6086.01
Kodie	100.00	0.00	3454.94	100.00	0.00	4991.34
Konongo	100.00	0.00	11052.40	100.00	0.00	7149.49
Kumawu	100.00	0.00	13888.70	100.00	0.00	9033.69
Kumasi	100.00	0.00	6241.13	100.00	0.00	5321.66
Kuntanase	100.00	0.00	11461.7	100.00	0.00	8194.29
Mampong	100.00	0.00	4662.37	100.00	0.00	8524.14
Mampong teng	100.00	0.00	2264.86	100.00	0.00	3657.64
Mankranso	No Successful Data Session			100.00	0.00	10789.70
Manso-nkwanta	100.00	0.00	14799.00	100.00	0.00	4571.07
New edubiase	100.00	0.00	11842.00	100.00	0.00	11600.70
Nkawie	100.00	0.00	6530.38	100.00	0.00	2983.58
Nsuta	100.00	0.00	12640.00	100.00	0.00	2909.58
Nyinahin	No Successful Data Session			100.00	0.00	8755.20
Obuasi	100.00	0.00	11330.90	100.00	0.00	8393.56
Offinso	100.00	0.00	825.62	100.00	0.00	3185.31
Tepa	100.00	0.00	8582.29	100.00	0.00	6223.13

- Service Provider met all KPIs in all the tested District Capitals in Ashanti Region
- Service Provider did not have 3G Coverage in 1 District Capital

## WESTERN

District Capital	AIRTEL			TIGO		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Agona Nkwanta	100.00	0%	8976.94	100%	0.00	6594.55
Enchi	100.00	0%	11000.35	100%	0.00	8320.67
Adabokrom	<b>No 3G Coverage</b>					
Essam-Debiso	100.00	0%	321.59	100.00	0.00	7148.51
Bibiani	100.00	0%	7592.70	100.00	0.00	4866.54
Sefwi Bodi	No Successful Data Session			100.00	0.00	8192.21
Nkroful	100.00	0%	9262.85	100.00	0.00	7406.69
Half-Assini	100.00	0%	5118.58	100.00	0.00	2492.61
Juaboso	100.00	0%	7942.22	100.00	0.00	9804.28
Mpohor	<b>No 3G Coverage</b>			100.00	0.00	904.49
Daboase	100.00	0%	8445.75	100.00	0.00	4769.18
Axim	100.00	0%	8678.19	100.00	0.00	541.58
Bogoso	100.00	0%	666.00	100.00	0.00	697.366
Sefwi Akontombra	100.00	0%	1833.70	100.00	0.00	9007.01
Sefwi Wiawso	100.00	0%	9339.07	100.00	0.00	5510.75
Takoradi	100.00	0%	4741.65	100.00	0.00	4274.42
Shama	100.00	0%	10080.05	100.00	0.00	3423.37
Dadieso	No Successful Data Session			100.00	0.00	9208.17
Tarkwa	100.00	0%	1685.08	100.00	0.00	5200.12
Manso Amenfi	<b>No 3G Coverage</b>					
Wassa Akropong	No Successful Data Session			100.00	0.00	6712.94
Asankragwa	100.00	0%	6297.82	100.00	0.00	1894.20

- Service Provider met all KPIs in the tested District Capitals in Western Region
- Service Provider did not have 3G Coverage in 3 District Capitals.

## NORTHERN

District Capital	AIRTEL			TIGO		
	Data Access Success Rate (%) $\geq 95\%$	Data Drop Rate (%) $\leq 1\%$	Data Throughput (kbps) $\geq 256\text{kbps}$	Data Access Success Rate (%) $\geq 95\%$	Data Drop Rate (%) $\leq 1\%$	Data Throughput (kbps) $\geq 256\text{kbps}$
Bole	100.00	0.00	7214.90	100.00	0.00	7703.46
Yendi	100.00	0.00	6345.71	100.00	0.00	4620.52
Salaga	100.00	0.00	4255.49	100.00	0.00	2617.43
Savelugu	100.00	0.00	10786.49	100.00	0.00	7603.43
Kpandai	100.00	0.00	7286.40	100.00	0.00	2803.78
Sawla	100.00	0.00	7704.08	100.00	0.00	8369.58
Gambaga	100.00	0.00	6600.27	100.00	0.00	9632.23
Bunkpurugu	100.00	0.00	10493.89	100.00	0.00	8156.22
Walewale	100.00	0.00	6538.63	100.00	0.00	6773.32
Tolon	100.00	0.00	8257.80	100.00	0.00	7098.85
Zabzugu	100.00	0.00	9060.01	100.00	0.00	10085.73
Tatale	<b>No 3G Coverage</b>			100.00	0.00	4315.23
Saboba	100.00	0.00	12963.72	100.00	0.00	9114.87
Chereponi	100.00	0.00	10159.06	100.00	0.00	10159.06
Buipe	100.00	0.00	10530.15	100.00	0.00	5537.66
Tamale	100.00	0.00	4056.13	100.00	0.00	4907.99
Damongo	100.00	0.00	7884.82	100.00	0.00	6478.23
Sagnarigu	100.00	0.00	6718.94	100.00	0.00	4634.49
Bimbilla	100.00	0.00	3245.10	100.00	0.00	2930.32
Wulensi	100.00	0.00	11732.76	100.00	0.00	7178.69
Gushegu	100.00	0.00	326.47	100.00	0.00	9385.69
Karaga	100.00	0.00	324.64	100.00	0.00	10406.92
Daboya	<b>No 3G Coverage</b>			100.00	0.00	10982.86
Kumbungu	No Successful Data Session			100.00	0.00	7375.85
Sang	<b>No 3G Coverage</b>					
Yagaba	<b>No 3G Coverage</b>			100.00	0.00	9851.73

- Service Provider met all KPIs in the tested District Capitals in Northern Region
- Service Provider did not have 3G Coverage in 4 District Capitals

## EASTERN

District Capital	AIRTEL			TIGO		
	Data Access Success Rate ≥ 95%	Data Drop Rate ≤ 1%	Data Throughput ≥ 256kbps	Data Access Success Rate ≥ 95%	Data Drop Rate ≤ 1%	Data Throughput ≥ 256kbps
Abetifi	100.00	0.00	8504.47	100.00	0.00	6323.55
Aburi	100.00	0.00	4506.09	100.00	0.00	940.82
Adieso	100.00	0.00	7285.83	No Successful Data Session		
Akim Oda	100.00	0.00	6545.97	100.00	0.00	4837.13
Akim Swedru	100.00	0.00	6659.08	100.00	0.00	5174.99
Akropong	100.00	0.00	9500.93	100.00	0.00	6017.40
Akwatia	100.00	0.00	5651.98	100.00	0.00	5697.64
Asamankese	100.00	0.00	7422.10	57.58	0.00	1061.95
Asesewa	100.00	0.00	8710.26	100.00	0.00	3691.21
Atimpoku	100.00	0.00	1009.99	100.00	0.00	1204.19
Begoro	100.00	0.00	9559.62	100.00	0.00	7471.20
Donkorkrom	100.00	0.00	6795.76	100.00	0.00	6543.70
Kade	100.00	0.00	6705.69	100.00	0.00	6387.45
Koforidua	99.30	0.00	6777.34	100.00	0.00	3596.94
Kraboa Coaltar	No Successful Data Session			100.00	0.00	6831.93
Kwabeng	100.00	0.00	8864.13	100.00	0.00	6235.38
Kyebe	100.00	0.00	1800.88	100.00	0.00	2915.99
Mpreaso	100.00	0.00	7847.35	100.00	0.00	6943.33
New Abirem	100.00	0.00	2305.94	100.00	0.00	9608.60
Nkawkaw	100.00	0.00	4515.42	100.00	0.00	5901.27
Nsawam	100.00	0.00	3103.70	100.00	0.00	4772.94
Odumase Krobo	100.00	0.00	10863.97	100.00	0.00	4711.88
Ofoase	100.00	0.00	7523.17	61.18	0.00	7485.44
Somanya	100.00	0.00	6136.20	100.00	0.00	1252.79
Suhum	100.00	0.00	6685.30	100.00	0.00	4455.78
Tease	100.00	0.00	3255.00	100.00	0.00	3911.85

- Service Provider failed to meet Data Access Success Rate KPI in the Asamankese and Ofoase District Capitals



# MONITORING TEST RESULTS FOR GLO

## VOICE TEST

### GREATER ACCRA

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Glo</b>	0.00	0.35	0.00	<b>10.20</b>	82.48

- Service Provider did not meet Call Setup Time KPI in the Greater Accra Region

### EASTERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Glo</b>	0.00	0.60	0.00	9.70	<b>37.20</b>

- Service Provider did not meet Call Completion Rate KPI in the Eastern Region

### NORTHERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Glo</b>	0.00	0.53	0.00	7.71	72.48

- Service Provider met all KPIs in the Northern Region

### ASHANTI

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Glo</b>	0.00	0.22	0.00	8.08	<b>65.20</b>

- Service Provider did not meet Call Completion Rate KPI in the Ashanti Region

## WESTERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>Glo</b>	0.00	0.00	0.00	<b>10.90</b>	<b>22.43</b>

- Service Provider did not meet Call Setup Time and Call Completion Rate KPIs in the Western Region

## 3G DATA/COVERAGE TEST

### GREATER ACCRA

District Capital	GLO		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Abokobi	100.00	0.00	1232.05
Accra	100.00	0.00	3692.71
Ada-Foah	<b>No 3G Coverage</b>		
Adenta	100.00	0.00	5054.66
Amasaman	100.00	0.00	628.26
Ashaiman	100.00	0.00	4078.81
Dodowa	100.00	0.00	3841.91
Kpone	100.00	0.00	3084.85
La	100.00	0.00	3900.21
Madina	100.00	0.00	2819.03
Prampram	100.00	0.00	2983.14
Sege	No Successful Data Session		
Sowutuom	100.00	0.00	9505.96
Tema	100.00	0.00	4943.17
Teshie-Nungua	100.00	0.00	5062.54
Weija	100.00	0.00	1232.05

- Service Provider met all KPIs in the tested District Capitals in Greater Accra Region
- Service Provider did not have 3G Coverage in 1 District Capital

## ASHANTI

District Capital	GLO		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Agogo	<b>No 3G Coverage</b>		
Agona			
Akomadan			
Asiwa			
Asokore mampong	100.00	0.00	3666.22
Bekwai	<b>No 3G Coverage</b>		
Drobonso			
Effiduase	100.00	0.00	3584.80
Ejisu	<b>No 3G Coverage</b>		
Ejura			
Foase			
Fomena			
Jacobu			
Juaso			
Kodie			
Konongo			
Kumawu			
Kumasi			
Kuntanase	<b>No 3G Coverage</b>		
Mampong			
Mampong teng			
Mankranso			
Manso-nkwanta			
New edubiase			
Nkawie			
Nsuta			
Nyinahin			
Obuasi			
Offinso			
Tepa			

- Service Provider met all KPIs in all tested District Capitals in the Ashanti Region
- Service Provider did not have 3G coverage in Twenty-Seven (27) District Capitals.

## WESTERN

District Capital	GLO		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Agona Nkwanta	<b>No 3G Coverage</b>		
Enchi			
Adabokrom			
Essam-Debiso			
Bibiani			
Sefwi Bodi			
Nkroful			
Half-Assini			
Juaboso			
Mpohor			
Daboase			
Axim			
Bogoso			
Sefwi Akontombra			
Sefwi Wiawso			
Takoradi	100.00	0.00	3151.51
Shama	100.00	0.00	729.68
Dadieso	<b>No 3G Coverage</b>		
Tarkwa			
Manso Amenfi			
Wassa Akropong			
Asankragwa			

- Service Provider did not have 3G coverage in 20 District Capitals

## NORTHERN

District Capital	GLO		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Bole	<b>No 3G Coverage</b>		
Yendi			
Salaga			
Savelugu			
Kpandai			
Sawla			
Gambaga			
Bunkpurugu			
Walewale			

Tolon	<b>No 3G Coverage</b>		
Zabzugu			
Tatale			
Saboba			
Chereponi			
Buipe			
Tamale	100.00	0.00	1994.83
Damongo	<b>No 3G Coverage</b>		
Sagnarigu	100.00	0.00	3499.80
Bimbilla	<b>No 3G Coverage</b>		
Wulensi			
Gushiegu			
Karaga			
Daboya			
Kumbungu			
Sang			
Yagaba			

- Service Provider met all KPIs in all tested District Capitals in the Northern Region
- Service Provider did not have 3G coverage in 24 District Capitals

## EASTERN

District Capital	GLO		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Abetifi	<b>No 3G Coverage</b>		
Aburi	100.00	0.00	2059.81
Adieso	<b>No 3G Coverage</b>		
Akim Oda			
Akim Swedru	<b>No 3G Coverage</b>		
Akropong			
Akwatia	<b>No 3G Coverage</b>		
Asamankese	100.00	0.00	3511.73
Asesewa	100.00	0.00	6443.16
Atimpoku	<b>No 3G Coverage</b>		
Begoro			
Donkorkrom			
Kade			
Koforidua	100%	0%	6603.58
Kraboia Coaltar	<b>No 3G Coverage</b>		
Kwabeng			
Kyebe			
Mpreaso			

New Abirem			
Nkawkaw			
Nsawam	100.00	0.00	3571.74
Odumase Krobo	No 3G Coverage		
Ofoase			
Somanya			
Suhum	100.00	0.00	4053.04
Tease	No 3G Coverage		

- *Service Provider met all KPIs in all tested District Capitals in the Eastern Region*
- *Service Provider did not have 3G coverage in 19 District Capitals*

# MONITORING TEST RESULTS FOR MTN

## VOICE TEST

### GREATER ACCRA

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>MTN</b>	0.03	0.11	0.00	7.40	95.98

- *Service Provider met all KPIs in the Greater Accra Region*

### EASTERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>MTN</b>	0.00	0.00	0.00	8.67	96.09

- *Service Provider met all KPIs in the Eastern Region*

### NORTHERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>MTN</b>	0.00	0.00	0.00	9.30	98.04

- *Service Provider met all KPIs in the Northern Region*

### ASHANTI

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>MTN</b>	0.00	0.00	0.00	9.10	98.06

- *Service Provider met all KPIs in the Ashanti Region*

## WESTERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>MTN</b>	0.04	0.00	0.00	8.40	97.93

- Service Provider met all KPIs in the Western Region

## 3G DATA/COVERAGE TEST

### GREATER ACCRA

District Capital	MTN		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Abokobi	100.00	0.00	7181.90
Accra	100.00	0.00	5444.07
Ada-Foah	100.00	0.00	6250.91
Adenta	100.00	0.00	3687.21
Amasaman	100.00	0.00	3667.94
Ashaiman	100.00	0.00	2117.98
Dodowa	100.00	0.00	4181.97
Kpone	100.00	0.00	5810.23
La	100.00	0.00	3918.55
Madina	100.00	0.00	1698.86
Prampram	100.00	0.00	4486.24
Sege	100.00	0.00	6283.83
Sowutuom	100.00	0.00	6684.22
Tema	100.00	0.00	4735.60
Teshie-Nungua	100.00	0.00	4048.58
Weija	100.00	0.00	10157.83

- Service Provider met all KPIs in all tested District Capitals in the Greater Accra Region



## ASHANTI

District Capital	MTN		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Agogo	97.78	0.00	3122.53
Agona	100.00	0.00	5101.92
Akomadan	100.00	0.00	5897.02
Asiwa	100.00	0.00	8576.64
Asokore Mampong	100.00	0.00	5057.07
Bekwai	100.00	0.00	2367.61
Drobonso	100.00	0.00	6196.39
Effiduase	100.00	0.00	4885.23
Ejisu	100.00	0.00	11387.30
Ejura	100.00	0.00	4338.20
Foase	100.00	0.00	10809.70
Fomena	100.00	0.00	5233.61
Jacobu	100.00	0.00	5686.15
Juaso	100.00	0.00	5203.64
Kodie	100.00	0.00	6840.74
Konongo	100.00	0.00	3698.71
Kumawu	100.00	0.00	3684.90
Kumasi	100.00	0.00	6843.63
Kuntanase	100.00	0.00	4274.17
Mampong	100.00	0.00	4048.63
Mampong teng	100.00	0.00	2803.77
Mankranso	100.00	0.00	5408.43
Manso-Nkwanta	100.00	0.00	4384.39
New Edubiase	100.00	0.00	3801.26
Nkawie	100.00	0.00	1983.46
Nsuta	100.00	0.00	3646.86
Nyinahin	100.00	0.00	5950.91
Obuasi	100.00	0.00	3143.64
Offinso	100.00	0.00	7458.28
Tepa	100.00	0.00	3169.24

- *Service Provider met all KPIs in all tested District Capitals in the Ashanti Region*

## EASTERN

District Capital	MTN		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Abetifi	100.00	0.00	6180.25
Aburi	100.00	0.00	3550.05
Adieso	100.00	0.00	3964.81
Akim Oda	100.00	0.00	1534.56
Akim Swedru	100.00	0.00	5504.26
Akropong	100.00	0.00	6509.64
Akwatia	100.00	0.00	3526.03
Asamankese	100.00	0.00	5527.41
Asesewa	100.00	0.00	6379.35
Atimpoku	100.00	0.00	10130.45
Begoro	100.00	0.00	6222.71
Donkorkrom	100.00	0.00	7049.83
Kade	100.00	0.00	5936.30
Koforidua	100.00	0.00	6429.05
Kraboa Coaltar	100.00	0.00	11049.10
Kwabeng	100.00	0.00	6961.81
Kyebi	100.00	0.00	3634.87
Mpreaso	100.00	0.00	5407.14
New Abirem	100.00	0.00	7525.80
Nkawkaw	100.00	0.00	5667.65
Nsawam	100.00	0.00	2075.16
Odumase Krobo	100.00	0.00	5847.23
Ofoase	100.00	0.00	7721.27
Somanya	100.00	0.00	4074.12
Suhum	100.00	0.00	3193.37
Tease	100.00	0.00	8242.96

- Service Provider met all KPIs in all tested District Capitals in the Eastern Region

## WESTERN

District Capital	MTN		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Agona Nkwanta	100.00	0.00	3699.89
Enchi	100.00	0.00	5872.41
Adabokrom	100.00	0.00	3987.36
Essam-Debiso	100.00	0.00	3605.68
Bibiani	100.00	0.00	4787.58
Sefwi Bodi	100.00	0.00	5382.38
Nkroful	100.00	0.00	3009.14
Half-Assini	100.00	0.00	4557.59
Juaboso	100.00	0.00	6005.59
Mpohor	100.00	0.00	6397.50
Daboase	100.00	0.00	3002.55
Axim	100.00	0.00	5268.69
Bogoso	100.00	0.00	3815.74
Sefwi Akontombra	100.00	0.00	4069.16
Sefwi Wiawso	100.00	0.00	4281.59
Takoradi	100.00	0.00	6296.22
Shama	100.00	0.00	11067.90
Dadieso	100.00	0.00	5598.47
Tarkwa	100.00	0.00	5222.08
Manso Amenfi	100.00	0.00	6106.78
Wassa Akropong	100.00	0.00	2951.42
Asankragwa	100.00	0.00	2714.93

- Service Provider met all KPIs in all tested District Capitals in the Western Region

## NORTHERN

District Capital	MTN		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Bole	100.00	0.00	4018.33
Yendi	100.00	0.00	3541.77
Salaga	100.00	0.00	5316.49
Savelugu	100.00	0.00	3613.39
Kpandai	100.00	0.00	5541.06
Sawla	100.00	0.00	4527.10
Gambaga	100.00	0.00	4067.91
Bunkpurugu	100.00	0.00	6316.31
Walewale	100.00	0.00	5374.44
Tolon	100.00	0.00	5249.35
Zabzugu	100.00	0.00	5303.09

Tatale	100.00	0.00	6071.40
Saboba	100.00	0.00	6204.90
Chereponi	100.00	0.00	4641.24
Buipe	100.00	0.00	4333.73
Tamale	100.00	0.00	5672.87
Damongo	100.00	0.00	5381.18
Sagnarigu	100.00	0.00	5528.99
Bimbilla	100.00	0.00	5016.86
Wulensi	100.00	0.00	6089.16
Gushegu	100.00	0.00	5034.37
Karaga	100.00	0.00	6190.94
Daboya	100.00	0.00	6921.75
Kumbungu	100.00	0.00	4977.89
Sang	100.00	0.00	6124.36
Yagaba	100.00	0.00	5979.87

- *Service Provider met all KPIs in all tested District Capitals in the Northern Region*

# MONITORING TEST RESULTS FOR VODAFONE

## VOICE TEST

### GREATER ACCRA

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>VODAFONE</b>	0.00	0.14	0.00	9.51	98.02

- *Service Provider met all KPIs in the Greater Accra Region*

### EASTERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>VODAFONE</b>	0.00	0.06	0.00	7.40	98.30

- *Service Provider met all KPIs in the Eastern Region*

### NORTHERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>VODAFONE</b>	0.00	0.63	0.00	8.20	98.19

- *Service Provider met all KPIs in the Northern Region*

### ASHANTI

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>VODAFONE</b>	0.00	0.00	0.00	9.10	96.4

- *Service Provider met all KPIs in the Ashanti Region*

## WESTERN

KPI	SDCCH CONGESTION RATE (%)	TCH CONGESTION RATE (%)	CALL DROP RATE (%)	CALL SETUP TIME (sec)	CALL COMPLETION RATE (%)
<b>Threshold</b>	≤ 1%	≤ 1%	≤ 3%	<10 sec	≥70%
<b>VODAFONE</b>	0.00	0.00	0.00	7.90	99.28

- Service Provider met all KPIs in the Western Region

## 3G DATA/COVERAGE TEST

### GREATER ACCRA

District Capital	VODAFONE		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Ada Foah	100.00	0.00	8980.58
Adenta	100.00	0.00	2366.88
Weija	100.00	0.00	7380.22
Amasaman	100.00	0.00	3530.26
Kpone	100.00	0.00	6885.56
Madina	100.00	0.00	1899.44
Teshie Nungua	100.00	0.00	7355.10
Accra Metro	100.00	0.00	5067.90
Sege	100.00	0.00	7249.00
Sowutuom	100.00	0.00	7490.02
Tema Metro	100.00	0.00	6018.44
Ashaiman	100.00	0.00	4286.77
Dodowa	100.00	0.00	8988.77
Abokobi	100.00	0.00	4601.57
La	100.00	0.00	7783.06
Prampram	100.00	0.00	6558.71

- Service Provider met all KPIs in the Greater Accra Region

### ASHANTI

District Capital	VODAFONE		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Agogo	100.00	0.00	3122.53
Agona	100.00	0.00	5101.92
Akomadan	100.00	0.00	7466.27
Asiwa	100.00	0.00	8454.70

Asokore Mampong	100.00	0.00	4915.07
Bekwai	100.00	0.00	4870.50
Drobonso	<b>No 3G Coverage</b>		
Effiduase	100.00	0.00	5511.83
Ejisu	100.00	0.00	6505.42
Ejura	100.00	0.00	8244.73
Foase	100.00	0.00	9647.94
Fomena	100.00	0.00	7585.47
Jacobi	100.00	0.00	6864.99
Juaso	100.00	0.00	4983.60
Kodie	100.00	0.00	4694.16
Konongo	100.00	0.00	10046.74
Kumawu	100.00	0.00	9036.16
Kumasi	100.00	0.00	4868.28
Kuntanase	100.00	0.00	5202.21
Mampong	100.00	0.00	9442.45
Mampongte	100.00	0.00	6508.33
Mankranso	100.00	0.00	10385.70
Manso-Nkwanta	100.00	0.00	6283.66
New Edubiase	100.00	0.00	8389.07
Nkawie	100.00	0.00	8946.84
Nsuta	100.00	0.00	9015.31
Nyinahin	100.00	0.00	1035.30
Obuasi	100.00	0.00	11456.08
Offinso	100.00	0.00	7317.33
Tepa	100.00	0.00	9972.20

- Service Provider met all KPIs in all District Capitals in the Ashanti Region
- Service Provider did not have 3G coverage in 1 District Capital

## EASTERN

District Capital	VODAFONE		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Abetifi	100.00	0.00	7333.69
Aburi	100.00	0.00	1213.68
Adieso	No Successful Data Session		
Akim Oda	100.00	0.00	7830.80
Akim Swedru	100.00	0.00	7171.53
Akropong	100.00	0.00	7428.28
Akwatia	100.00	0.00	6656.38

Asamankese	100.00	0.00	4778.68
Asesewa	100.00	0.00	4399.61
Atimpoku	100.00	0.00	3600.34
Begoro	100.00	0.00	914.81
Donkorkrom	100.00	0.00	7125.11
Kade	100.00	0.00	5617.02
Koforidua	No Successful Data Session		
Kraboia Coaltar	No Successful Data Session		
Kwabeng	100.00	0.00	2447.05
Kyebi	100.00	0.00	<b>155.13</b>
Mpreaso	100.00	0.00	5564.84
New Abirem	100.00	0.00	6147.50
Nkawkaw	100.00	0.00	5936.33
Nsawam	No Successful Data Session		
Odumase Krobo	100.00	0.00	6631.56
Ofoase	100.00	0.00	7415.14
Somanya	100.00	0.00	<b>189.05</b>
Suhum	No Successful Data Session		
Tease	100.00	0.00	9915.05

- Service Provider failed to meet Data Throughput KPI in 2 District Capitals in the Eastern Region

## WESTERN

District Capital	VODAFONE		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Axim	100.00	0.00	4694.09
Bogoso	100.00	0.00	4928.46
Mpohor	98.84	0.00	8339.43
Asankragwa	100.00	0.00	1254.86
Half-Assini	100.00	0.00	8249.90
Daboase	100.00	0.00	3308.08
Bibiani	100.00	0.00	7276.10
Agona Nkwanta	100.00	0.00	6159.13
Nkroful	100.00	0.00	6682.68
Enchi	100.00	0.00	7529.96
Dadieso	98.92	0.00	7373.75
Sekondi	100.00	0.00	3311.60
Shama	100.00	0.00	9953.47
Tarkwa	100.00	0.00	5784.98
Sefwi Akontombra	100.00	0.00	3061.83



Juaboso	100.00	0.00	6307.87
Wassa Akropong	100.00	0.00	4848.96
Manso Amenfi	100.00	0.00	4936.33
Sefwi Wiawso	100.00	0.00	5097.15
Essam-Debiso	100.00	0.00	6746.30
Sefwi Bodi	100.00	0.00	10418.14
Adabokrom	<b>No 3G Coverage</b>		

- Service Provider met all KPIs in all tested District Capitals in the Western Region
- Service Provider did not have 3G Coverage in 1 District Capital

## NORTHERN

District Capital	VODAFONE		
	Data Access Success Rate (%) ≥ 95%	Data Drop Rate (%) ≤ 1%	Data Throughput (kbps) ≥ 256kbps
Bole	100.00	0.00	7214.9
Yendi	100.00	0.00	7193.70
Salaga	100.00	0.00	6470.11
Savelugu	100.00	0.00	3258.77
Kpandai	100.00	0.00	6069.00
Sawla	100.00	0.00	7527.22
Gambaga	100.00	0.00	335.68
Bunkpurugu	100.00	0.00	6315.46
Walewale	100.00	0.00	8526.68
Tolon	100.00	0.00	5820.07
Zabzugu	100.00	0.00	5857.396
Tatale	100.00	0.00	6102.37
Saboba	100.00	0.00	371.26
Chereponi	100.00	0.00	6051.32
Buipe	100.00	0.00	6994.10
Tamale	100.00	0.00	5602.59
Damongo	100.00	0.00	7685.56
Sagnarigu	100.00	0.00	3695.70
Bimbilla	100.00	0.00	8649.43
Wulensi	100.00	0.00	7357.36
Gushegu	100.00	0.00	4328.61
Karaga	100.00	0.00	7088.89
Daboya	<b>No 3G Coverage</b>		
Kumbungu	100.00	0.00	7719.91
Sang	<b>No 3G Coverage</b>		
Yagaba	100.00	0.00	9036.95

- Service Provider met all KPIs in all tested District Capitals in the Northern Region
- Service Provider did not have 3G Coverage in 2 District Capitals