

THIRD QUARTER SECTOR STATISTICS REPORT FOR THE FINANCIAL YEAR 2018/2019 (JANUARY – MARCH 2019)

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Disclaimer:

Although every effort has been made to ensure accuracy of the data contained in this report, the Authority is not liable for inaccuracies in any of the information contained in this report, which is contingent upon the operator's/service providers' compliance returns.

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LIST OF ACRONYMS

- ADN African Digital Network Limited
- B2B Business to Business
- B2C Business to Customer
- C2B Customer to Business
- C2G Citizen to Government
- DoS Denial-of-Service
- DTT Digital Terrestrial Television
- EASSy Eastern Africa Submarine Cable Systems
- FY Financial Year
- Gbps Gigabits per second
- ICTs Information Communication Technologies
- IP Internet Protocol
- KE-CIRT/CC National Kenya Computer Incident Response Team/Coordination Centre
- LION2 Lower Indian Ocean Network
- Mbps Megabits per second
- MMS Multimedia Service
- MoU Minutes of Use
- MVNO Mobile Virtual Network Operator
- NCC National Cybersecurity Centre
- OTT Over-The-Top
- P2P Person to Person
- SEACOM Sea Sub-Marine Communications Limited
- SIM Subscriber Identification Module
- SMS Short Messaging Service
- TCP Transmission Control Protocol
- TEAMS The East African Marine System

PRELIMINARY NOTES

- This report is based on data provided by the service providers in the communications sector as per their license conditions.
- The information provided in this report is subject to review in case of any revisions or updates from the service providers.

REPORT SUMMARY

The Third Quarter Sector Statistics report provides an overview of the performance and trends of the communications sector for the period 1st January 2019 to 31st March 2019 on the following service categories:

- Mobile Telephony Services
- Fixed Telephony Services
- Data/Internet Services
- Broadcasting Services
- Cyber Security Landscape
- Postal and Courier Services

SUMMARY OF KEY COMMUNICATIONS INDICATORS

| INDICATORS | Oct-Dec 2018 | Jan-Mar 2019 | % change Q2 |
|--|--------------|--------------|-------------|
| | Q2 | Q3 | to Q3 |
| Mobile Subscriptions (Millions) | 49.501 | 51.032 | 3.1 |
| Fixed subscriptions | 65,644 | 66,889 | 1.9 |
| VOICE TRAFFIC IN MINUTES | | | |
| Mobile On-Net Voice Traffic (Billions) | 12.956 | 14.692 | 13.4 |
| Mobile Off-Net Voice Traffic (Billions) | 1.759 | 1.713 | -2.6 |
| International Incoming Mobile Voice Traffic (Millions) | 140.988 | 144.407 | 2.4 |
| International Outgoing Mobile Voice Traffic (Millions) | 108.452 | 109.032 | 0.5 |
| Roaming-out (Own Subscribers) (Millions) | 52.737 | 56.042 | 6.3 |
| Roaming-in (Foreign Subscribers) (Millions) | 43.477 | 57.172 | 31.5 |
| Total Local Fixed network traffic | 538,489 | 564,340 | 4.8 |
| Fixed VoIP Traffic | 127,915 | 124,685 | -2.5 |
| MOBILE SMS TRAFFIC | | | |
| SMS On-Net (Billions) | 17.051 | 14.546 | -14.7 |
| SMS Off-Net (Millions) | 1.14 | 0.812 | -28.8 |
| Roaming In SMS (Millions) | 21.0 | 28.5 | 26.3 |
| Roaming Out SMS (Millions) | 41.7 | 42.0 | 0.7 |
| International Incoming SMS (Millions) | 11.176 | 9.603 | -14.1 |
| International Outgoing SMS (Millions) | 9.124 | 8.372 | -8.2 |
| MOBILE MONEY TRANSFER SERVICES | | | |
| Number of Active Registered Mobile Money Transfer Subscriptions (Millions) | 31.627 | 32.062 | 1.4 |
| Number of Registered Mobile Money Agents | 223,931 | 223,084 | -0.4 |
| Number of Transactions-Sending and Withdrawal (Millions) | 787.843 | 784.445 | -0.4 |
| Value of Transactions- Sending and Withdrawal (Ksh.) trillion | 2.119 | 2.122 | 0.1 |
| Number of Mobile Commerce Transactions (Millions) | 586.981 | 571.535 | -2.6 |
| Value of Mobile Commerce Transactions (Ksh.) (trillion) | 1.804 | 1.841 | 2.0 |
| Value of Person-to Person Transfers (Ksh.) Billion | 731.9 | 737.1 | -0.7 |
| DATA/INTERNET SERVICES | | | |
| Data/ Internet Subscriptions (Millions) | 45.705 | 46.870 | 2.5 |
| Total Available International Bandwidth (Gbps) | 4,605.57 | 4,655.40 | 1.1 |
| Total Used International Bandwidth (Gbps) | 1,142.34 | 1,149.32 | 0.6 |
| BROADCASTING SERVICES | | | |
| Number of free-to-air TV channels | 75 | 81 | 8.0 |
| Number of Radio FM stations | 173 | 173 | 0.0 |
| Digital Terrestrial Television Signal Population Coverage (%) | 86 | 86 | 0.0 |
| POSTAL AND COURIER SERVICES | | | |
| Postal Outlets | 623 | 623 | 0.0 |
| Private Courier Outlets | 1,027 | 1,027 | 0.0 |
| Number of Letters (Up to 350 gms) Posted Locally (Millions) | 12.96 | 12.97 | 0.0 |
| Total Courier Items Sent Locally (Millions) | 1.11 | 716,193 | -35.6 |
| International Incoming Letters (Up to 350 gms) (Millions) | 2.56 | 2.57 | 0.4 |
| International Outgoing Letters (Up to 350 gms) (Millions) | 1.30 | 1.31 | 0.8 |
| CYBER SECURITY | | | |
| Total Cyber Threats | 10,221,191 | 11,253,576 | 10.1 |
| Total Cyber Reports | 12,138 | 14,078 | 16.0 |
| Total Population in Kenya (Millions)* | 46.6 | 47.8 | 2.6 |

1 CELLULAR MOBILE SERVICES

1.1 Mobile Subscriptions

Kenya's ICT sector has continued to register tremendous growth over the past years. According to Economic Survey 2019 edition, the sector expanded by 12.9 per cent in 2018, and this was mainly contributed by expansion of the digital economy which includes; mobile telephony, uptake of e-commerce and penetration of internet.

As at 31st March 2019, the number of active mobile subscriptions in the country stood at 51.0 million up from 49.5 million registered at the end of the second quarter. Subsequently, mobile penetration rose to 106.8 per cent at the end of the period. Penetration level of above 100 per cent is attributed to multiple SIM ownership by consumers whose aim is to take advantage of the competing voice and/or data plans offered by the various service providers.

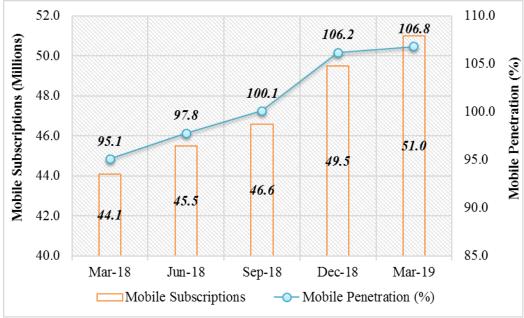
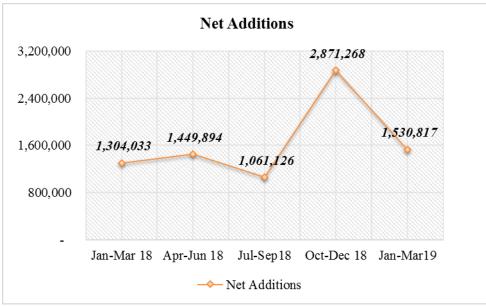


Figure 1 illustrates the trends in mobile subscriptions and penetration levels.

Source: CA, Operators' Returns.

Figure 1:Mobile Subscriptions and Penetration level

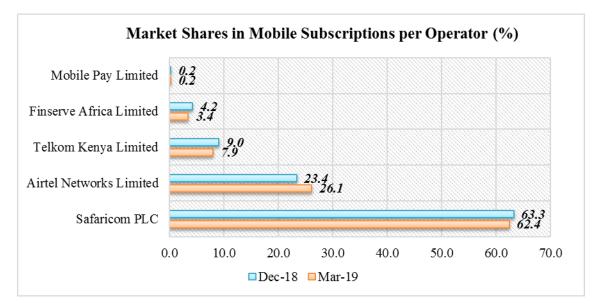
As shown in figure 2 below, there were 1.5 million net additions in mobile subscriptions during the third quarter.



Source: CA, Operators' Returns.

Figure 2: Net Additions

During the quarter under review, Safaricom PLC posted a market share of 62.4 per cent in mobile subscriptions down from 63.3 per cent registered in the previous quarter. On the other hand, Airtel Networks Limited gained 2.7 per centage points to post a market share of 26.1 per cent. Telkom Kenya Limited's market share dropped to 7.9 per cent from 9.0 per cent reported in the previous quarter. Similarly, Finserve Africa Limited lost 0.8 per centage points to register a market share of 3.4 per cent. Mobile Pay Limited market share remained unchanged from last quarter at 0.2 per cent.



Source: CA, Operators' Returns.

Figure 3: Market Shares in Mobile Subscriptions per Operator

Table 1 provides the number of active mobile subscriptions per operator by contract type.

| Name of operator | | Mar-19 | | Dec-18 | | | Quarterly | |
|----------------------------|------------|-----------|------------|------------|-----------|------------|------------------|--|
| | Pre-paid | Post-paid | Total | Pre-paid | Post-paid | Total | variation (%) | |
| Safaricom PLC | 30,651,090 | 1,194,268 | 31,845,358 | 30,180,940 | 1,139,639 | 31,320,579 | 1.7 | |
| Airtel Networks Limited | 13,202,078 | 114,366 | 13,316,444 | 11,475,746 | 88,221 | 11,563,967 | 15.2 | |
| Telkom Kenya Limited | 4,038,497 | 15,202 | 4,053,699 | 4,435,307 | 12,638 | 4,447,945 | -8.9 | |
| Finserve Africa Limited | 1,722,330 | - | 1,722,330 | 2,075,676 | - | 2,075,676 | -17.0 | |
| Mobile Pay Limited | 94,416 | - | 94,416 | 93,263 | - | 93,263 | 1.2 | |
| Total | 49,708,411 | 1,323,836 | 51,032,247 | 48,260,932 | 1,240,498 | 49,501,430 | 3.1 | |

Table 1:Mobile Subscriptions per Operator by Contract Type

Source: CA, Operators' Returns

1.2 Mobile Money Services

As at the end of the third quarter of the FY 2018/19, active mobile money transfer subscriptions and agents stood at 32.0 million and 223,084 respectively. A total of 784.4 million transactions were made valued at 2.122 trillion Kenya shillings. During the period, consumers spent 1.84 trillion Kenya Shillings to purchase goods and services, which involved 571.5 million transactions. The person-to-person transfers were valued at 737.0 billion Kenya shillings.

Table 2:Mobile Money Transfer Services

| | | | | Jan-Mar | 19 | | |
|--------------|---------------------------------------|---------------|--------------|-------------------|--------------|-------------------|-----------------|
| Operator | Agents | Active | No. of | Value of | No. of M- | Value of M- | P2P Transfers |
| /Indicator | | Subscriptions | Transactions | Transactions | Commerce | Commerce | (Ksh.) |
| | | | | (Kshs) | Transactions | Transactions | |
| | | | | | | (Ksh.) | |
| M-Pesa | 167,083 | 26,066,448 | 623,964,887 | 1,665,077,507,001 | 471,758,206 | 1,478,641,899,000 | 615,900,799,000 |
| Airtel | 21,259 | 4,075,475 | 4,431,484 | 929,041,007 | 3,006,474 | 1,924,136,220 | 1,182,913,799 |
| Money | | | | | | | |
| Equitel | - | 1,722,330 | 155,433,804 | 453,742,511,899 | 95,594,351 | 360,218,916,937 | 119,048,122,968 |
| Money | | | | | | | |
| T-Kash | 27,766 | 103,585 | 248,349 | 350,536,456 | 1,175,945 | 92,436,851 | 91,677,479 |
| Mobile Pay | 6,976 | 94,416 | 367,409 | 1,403,208,969 | - | - | 834,197,180 |
| Total | 223,084 | 32,062,254 | 784,445,933 | 2,121,502,805,332 | 571,534,976 | 1,840,877,389,008 | 737,057,710,426 |
| Saumaan CA O | · · · · · · · · · · · · · · · · · · · | | | | | | |

Source: CA, Operators' Returns

1.3 Mobile Number Portability

As illustrated in Table 3, the number of mobile numbers ported during the period under review dropped to 274 from 382 in-ports recorded the previous quarter.

Table 3: Mobile Number Portability

| Period | Jan - Mar 19 | Oct - Dec 18 | Quarterly Variation (%) | | |
|-------------------------------|--------------|--------------|-------------------------|--|--|
| Number of in-ports | 274 | 382 | -28.3 | | |
| Source: CA Operators' Returns | | | | | |

Source: CA, Operators' Returns

1.4 Mobile Traffic and Usage Pattern

1.4.1 Local Voice Traffic

The total local mobile voice traffic rose by 11.5 per cent during the quarter under review to stand at16.4 billion from 14.7 billion minutes reported during the previous quarter. On-net 14.6 billion from 12.9 billion minutes recorded during the previous quarter. On the other hand, off-net mobile voice traffic dropped by 2.7 per cent to stand at 1.71 billion minutes.

Mobile to fixed network voice traffic stood at 13.4 million down from 13.9 million minutes reported in the previous quarter.

The total local mobile voice traffic originating from mobile networks increased by 11.5 per cent to stand at 16.4 billion minutes.

Table 4 shows a summary of local mobile voice traffic.

| Mobile Traffic | Jan-Mar 19 | <i>Oct - Dec 18</i> | Quarterly Variation (%) | | | | | | | | |
|---|---|---------------------|----------------------------|--|--|--|--|--|--|--|--|
| | By Traffic originating (outgoing traffic) | | | | | | | | | | |
| Own Network –Own Network | 14,691,693,823 | 12,956,018,729 | 13.4 | | | | | | | | |
| Own Network to Other Mobile Networks | 1,712,639,827 | 1,759,368,421 | -2.7 | | | | | | | | |
| Mobile Network to Fixed Network | 13,461,372 | 13,994,491 | -3.8 | | | | | | | | |
| Total Traffic Origination (Outgoing) | 16,417,795,022 | 14,729,381,641 | 11.5 | | | | | | | | |

Table 4:Local Mobile Voice Traffic in Minutes

Source: CA, Operators' Returns

1.4.2 Voice Traffic by Operator

During the quarter under review, Safaricom PLC registered a total of 9.8 billion minutes originating from its network to other local networks up from 9.4 billion minutes reported in the previous quarter. Despite this growth, its voice market share dropped to 59.9 per cent from 64.3 per cent reported in the previous quarter.

The total outgoing local mobile voice traffic registered by Airtel Networks Limited increased remarkably by 29.8 per cent to 5.8 billion from 4.5 billion minutes reported in the previous quarter. Consequently, the operators' market shares for local voice grew by 5.1 percentage points to stand at 35.8 per cent during the quarter. This could be attributed to the promotion dubbed super tubonge promotion ran by the operator during the period, which enabled its customers to purchase 100 on-net minutes at a cost of Ksh. 15 per day and make off net calls at a reduced cost of Ksh. 1/Min from the usual Ksh. 2/Min.

Telkom Kenya Limited's outgoing mobile voice traffic declined to 671.8 million minutes during the period under review from 706.5 million minutes recorded in the previous quarter. Similarly, the local outgoing voice traffic for Finserve Africa Limited dropped to 33.2 million from 35.2 million minutes reported during the previous period.

Mobile Pay Limited registered 30,503 minutes of outgoing voice traffic during the period.

The traffic volumes per service provider and the respective market shares are shown in Table 5.

| Period | Name of | Safaricom | Airtel | Telkom | Finserve | Mobile | Total |
|--------------|---------------------------|---------------|---------------|-------------|------------|---------|----------------|
| | Operator/Indicator | PLC | Networks | Kenya | Africa | Pay | |
| | | | Kenya Limited | Limited | Limited | Limited | |
| Jan-Mar 19 | On-net | 9,323,093,508 | 4,926,497,190 | 438,025,847 | 4,074,067 | 3,211 | 14,691,693,823 |
| | Off-net | 507,096,952 | 942,523,022 | 233,850,534 | 29,142,027 | 27,292 | 1,712,639,827 |
| | Total | 9,830,190,460 | 5,869,020,212 | 671,876,381 | 33,216,094 | 30,503 | 16,404,333,650 |
| | Market share (%) | 59.9 | 35.8 | 4.1 | 0.2 | 0.0 | |
| Oct - Dec 18 | On-net | 8,921,525,809 | 3,580,991,014 | 449,167,055 | 4,331,697 | 3,154 | 12,956,018,729 |
| | Off-net | 533,458,215 | 937,593,318 | 257,377,368 | 30,912,713 | 26,807 | 1,759,368,421 |
| | Total | 9,454,984,024 | 4,518,584,332 | 706,544,423 | 35,244,410 | 29,961 | 14,715,387,150 |
| | Market share (%) | 64.3 | 30.7 | 4.8 | 0.2 | 0.0 | |

Table 5:Local Mobile Voice Traffic by Operator in Minutes

Source: CA, Operators' Returns

1.4.3 Domestic Short Messaging Service (SMS) Traffic

The number of outgoing SMS dropped by 15.6 per cent during the quarter under review to stand at 15.3 billion from 18.19 billion messages sent during the previous quarter. This is attributed to the end of the busy festive season that lasted from October to December 2018.

SMS traffic and the corresponding market shares per operator is shown in Table 6.

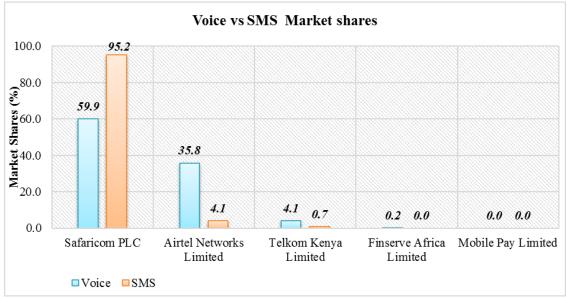
| Period | Name of Operator/Indicator | Safaricom PLC | Airtel Networks Kenya Limited | Telkom Kenya Limited | Finserve Africa Limited | Mobile Pay Limited | Total |
|------------|-------------------------------|------------------|-------------------------------------|----------------------------|-------------------------------|--------------------------|----------------|
| Jan-Mar 19 | On-net | 14,228,137,313 | 299,142,920 | 16,434,012 | 1,870,004 | 2,455 | 14,545,586,704 |
| | Off-net | 394,986,898 | 323,047,409 | 88,502,247 | 5,572,021 | 20,774 | 812,129,349 |

Table 6:Local Mobile SMS Traffic by Operator

| | Total | 14,623,124,211 | 622,190,329 | 104,936,259 | 7,442,025 | 23,229 | 15,357,716,053 |
|---------------------|------------------|----------------|-------------|-------------|-----------|--------|----------------|
| | Market share (%) | 95.2 | 4.1 | 0.7 | 0.0 | 0.0 | |
| <i>Oct - Dec 18</i> | On-net | 16,654,154,484 | 370,168,861 | 24,906,626 | 1,907,064 | 2,411 | 17,051,139,446 |
| | Off-net | 456,657,612 | 574,105,426 | 103,491,991 | 6,590,498 | 20,404 | 1,140,865,931 |
| | Total | 17,110,812,096 | 944,274,287 | 128,398,617 | 8,497,562 | 22,815 | 18,192,005,377 |
| | Market share (%) | 94.1 | 5.2 | 0.7 | 0.0 | 0.0 | |

Source: CA, Operators' Returns

Figure 4 shows the Voice vs SMS market share per operator during the quarter.

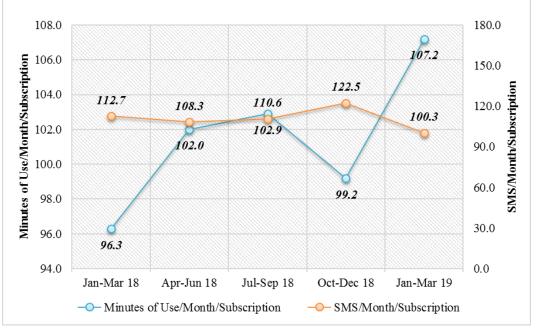


Source: CA, Operators' Returns

Figure 4: Voice vs SMS Market Shares

The Minutes of Use per Month per Subscription rose from 99.2 registered the previous period to to stand at 107.2 minutes during the quarter under review. This could be attributed to the significant increase of 1.3 billion minutes in Airtel Networks voice traffic following the promotion dubbed *super tubonge promotion* ran by the operator during the period, and which enabled its customers to purchase 100 on-net minutes at a cost of Ksh. 15 per day and make offnet calls at a reduced cost of Ksh. 1/Min from the usual Ksh. 2/Min.

Contrary, SMS per Subscription per Month dropped to 100.3 from 122.5 messages recorded during the second quarter of the FY2018/19. This is attributed to the end of the busy festive and



holiday season, which usually falls within the previous quarter (1st Oct-31st Dec 2018)

Source: CA, Operators' Returns

Figure 5: Minutes of Use /Month/Subscription and SMS/Month/Subscription

1.4.4 Roaming Traffic

During the period under review, roaming-out voice and SMS traffic stood at 56.0 million minutes and 42.0 million messages respectively. Out-roamers consumed 7.4 million MB of mobile data. On the other hand, In-roamers generated 57.1 million minutes and sent 28.5 million messages. Further, they consumed 40.8 million MB of mobile data.

| | Jan-Mar 2019 | | | | | | | |
|----------|-------------------------------|------------|-----------|----------------------------------|------------|------------|--|--|
| | Roaming-Out (Own Subscribers) | | | Roaming-In (Foreign Subscribers) | | | | |
| | Voice (Minutes) SMS Data (M | | Data (MB) | Voice (Minutes) SMS | | Data (MB) | | |
| Uganda | 42,074,774 | 6,546,569 | 2,297,086 | 39,049,845 | 4,984,722 | 504,578 | | |
| Tanzania | 1,198,133 | 10,860,255 | 1,272,061 | 341,350 | 9,955,876 | 412,125 | | |
| Rwanda | 2,416,766 | 502,113 | 397,125 | 10,657,907 | 1,392,665 | 163,709 | | |
| Burundi | 15,451 | 254,720 | 11,956 | 6,788 | 28,295 | 309 | | |
| S. Sudan | 2,904,984 | 1,152,379 | 71,697 | 3,337,743 | 170,894 | 0 | | |
| Others | 7,432,158 | 22,774,604 | 3,443,578 | 3,780,621 | 12,065,052 | 39,733,909 | | |
| Total | 56,042,266 | 42,090,640 | 7,493,503 | 57,174,254 | 28,597,504 | 40,814,630 | | |

Table 7:Roaming Traffic

Source: CA, Operators' Returns

1.4.5 International Mobile Traffic

The trends in Regional and International Voice and SMS Traffic are as outlined in Table 8.

| Traffic | Region | Jan-Mar 19 | <i>Oct - Dec 18</i> | Quarterly Variation (%) |
|---------------------------|-----------|-------------|---------------------|----------------------------|
| International Incoming | EAC | 78,875,833 | 74,841,143 | 5.4 |
| Mobile Voice Minutes | Others | 65,531,059 | 66,147,022 | -0.9 |
| | Total | 144,406,892 | 140,988,165 | 2.4 |
| International Outgoing | EAC | 54,494,003 | 54,403,619 | 0.2 |
| Mobile Voice Minutes | Others | 54,537,550 | 54,048,720 | 0.9 |
| | Total | 109,031,553 | 108,452,339 | 0.5 |
| International Incoming Me | obile SMS | 9,603,275 | 11,176,653 | -14.1 |
| International Outgoing Mo | obile SMS | 8,371,919 | 9,124,361 | -8.2 |

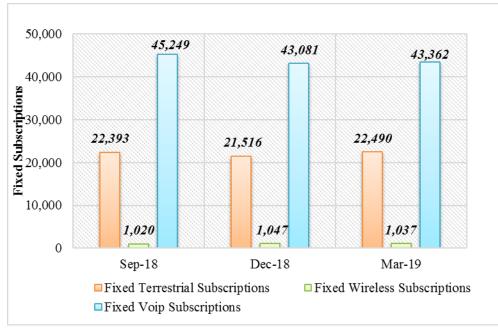
Table 8:International Mobile Traffic

Source: CA, Operators' Returns

2 FIXED TELEPHONE SERVICE

2.1 Fixed Network Subscriptions

As at 31st March 2019, the number of fixed wireline, wireless and VoIP connections stood at 43,362, 22,490 and 1,037 respectively.



Source: CA, Operators' Returns

Figure 6:Fixed Network Subscriptions

2.2 Fixed Network Traffic

Local fixed network traffic experienced mixed trends during the quarter under review. The total local fixed network voice traffic increased to 564,340 minutes from 538,489 minutes recorded during the previous quarter. Conversely, fixed VoIP traffic declined marginally to 124,685

minutes from 127,915 minutes reported in the previous quarter. This decline is equally attributed to the end of the busy holiday season and resuming of schools' period.

Table 9:Local Fixed Network Traffic in Minutes

| Local Fixed Network traffic | Jan-Mar 19 | Oct-Dec 18 | Quarterly Variation | |
|-----------------------------------|------------|------------|---------------------|--|
| | | | (%) | |
| Fixed-fixed | 269,198 | 252,000 | 6.8 | |
| Fixed wireless-fixed wireless | 295,142 | 286,489 | 3.0 | |
| Total Local Fixed network traffic | 564,340 | 538,489 | 4.8 | |
| Fixed VoIP Traffic | 124,685 | 127,915 | -2.5 | |

Source: CA, Operators' Returns

2.3 International Fixed Voice Traffic

Table 10 shows the trends in international fixed voice traffic.

| International Fixed Network traffic | Jan-Mar 19 | Oct-Dec 18 | Quarterly Variation (%) | | |
|---|------------|------------|----------------------------|--|--|
| International Incoming Fixed Network Voice traffic | 6,677,432 | 7,123,167 | -6.3 | | |
| International Outgoing Fixed Network Voice traffic | 3,678,676 | 3,930,185 | -6.4 | | |
| International Outgoing Fixed Network VoIP traffic | 476,269 | 514,232 | -7.4 | | |
| Sources CA Onergious' Poturus | | | | | |

Table 10:International Fixed Voice Network Traffic in Minutes

Source: CA, Operators' Returns

3 DATA/INTERNET SERVICES

3.1 Data and Broadband Services

Smartphones are an important feature of the mobile Internet landscape around the world. Access to Internet by Kenyans is mostly through mobile phones and especially smartphones that have become more available and relatively affordable.

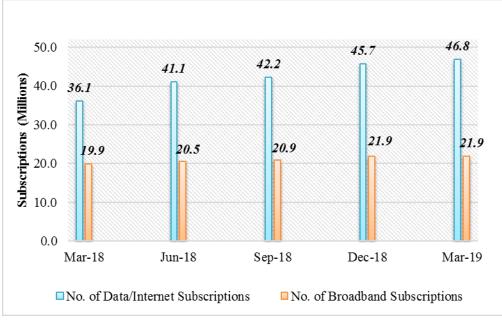
As at the end of the quarter under review, the total data/Internet subscriptions stood at 46.8 million, out of which 46.7 per cent (21.9 million) were on broadband.

Table 11 provides trend in total number of data/Internet subscriptions

| Jan-Mar 19 | Oct-Dec 18 | Quarterly Variation (%) |
|------------|--|---|
| 46,527,513 | 45,394,353 | 2.5 |
| 46,461,719 | 45,333,942 | 2.5 |
| 64,282 | 58,864 | 9.2 |
| 1,512 | 1,547 | -2.3 |
| 336,309 | 311,087 | 8.1 |
| 1,192 | 976 | 22.1 |
| 197,617 | 175,824 | 12.4 |
| 129,657 | 126,808 | 2.2 |
| 7,843 | 7,479 | 4.9 |
| 46,870,422 | 45,705,440 | 2.5 |
| | 46,527,513 46,461,719 64,282 1,512 336,309 1,192 197,617 129,657 7,843 | 46,527,513 45,394,353 46,461,719 45,333,942 64,282 58,864 1,512 1,547 336,309 311,087 1,192 976 197,617 175,824 129,657 126,808 7,843 7,479 |

Source: CA, Operators' Returns

Figure 7 illustrates the trends in Internet and broadband¹ subscriptions



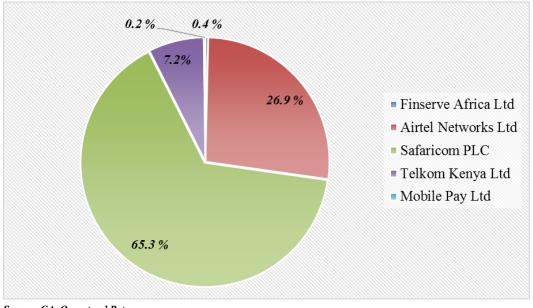
Source: CA, Operators' Returns

Figure 7:Internet and Broadband Subscriptions

As illustrated in figure 8, Safaricom PLC registered the highest market share for mobile data subscriptions at 65.3 per cent, followed by Airtel Networks Limited and Telkom Kenya Limited

¹ Broadband refers to Internet speeds equal to or greater than 256 Kbps

at 26.9 per cent and 7.2 per cent respectively. Finserve Africa Limited posted a market share of 0.4 per cent while Mobile Pay Limited stood at 0.2 per cent.



Source: CA, Operators' Returns.

Figure 8: Mobile Data Market shares per Subscription per Operator

3.1.1 Fixed Broadband Subscriptions by Speed

Table 12 presents the breakdown of fixed broadband subscriptions by speed

| Broadband Speeds | Mar-19 | Dec-18 |
|---------------------------------|---------|---------|
| ≤ 256Kbps | 696 | 570 |
| >256Kbps≤512Kbps | 459 | 505 |
| >512Kbps ≤ 1Mbps | 9,930 | 8,905 |
| >1Mbps ≤ 2Mbps | 66,662 | 87,772 |
| >2Mbps | 324,356 | 273,746 |
| Source: CA, Operators' Returns. | | |

Table 12: Fixed Broadband Subscriptions by Speed

Table 13 shows Fixed Data Subscriptions per Service Provider.

| Table 13: Fixed Data Subscriptions per Service Frovider | | | | | |
|---|----------------------|------------------|--|--|--|
| March 2019 | | | | | |
| Name of Service Provider | No. of Subscriptions | Market Share (%) | | | |
| Wananchi Companies Ltd* | 143,957 | 35.8 | | | |
| Safaricom PLC | 126,792 | 31.5 | | | |
| Jamii Telecommunications Ltd | 56,396 | 14.0 | | | |

Table 13: Fixed Data Subscriptions per Service Provider

| March 2019 | | | | |
|--|----------------------|------------------|--|--|
| Name of Service Provider | No. of Subscriptions | Market Share (%) | | |
| Poa Internet Kenya Ltd | 29,765 | 7.4 | | |
| Internet Solutions Kenya Ltd | 15,712 | 3.9 | | |
| Mawingu Networks Ltd | 12,400 | 3.1 | | |
| Liquid Telecommunications Kenya Limited | 8,565 | 2.1 | | |
| Telkom Kenya Ltd | 4,799 | 1.2 | | |
| Mobile Telephone Networks Business Kenya Ltd | 623 | 0.2 | | |
| Frontier Optical Networks Ltd | 561 | 0.1 | | |
| Other Fixed Service Providers | 2,533 | 0.6 | | |

Source: CA, Operators' Returns. * Data includes Wananchi Telecom, Wananchi Group, Simbanet Ltd and ISAT Africa Kenya Limited

3.2 International Bandwidth

During the period under review, the total international available Internet bandwidth in the country increased slightly to 4,655.40 Gbps from 4,605.57 Gbps recorded in the previous quarter. The utilized bandwidth stood at 1,149.32 Gbps which is 24.7 percent of the Lit capacity.

The trend on International Lit/Equip and Used Bandwidth is as shown in table 14

| Indicator/ Operator | | Jan-Mar 19 | Oct-Dec 18 | Quarterly Variation (%) | |
|--|--------|------------|------------|-------------------------|--|
| Undersea Bandwidth | SEACOM | 2,840.00 | 2,840.00 | 0.0 | |
| Capacity | TEAMS | 702.00 | 702.00 | 0.0 | |
| | EASSY | 892.84 | 853.027 | 4.7 | |
| | Lion 2 | 214.84 | 204.826 | 4.9 | |
| Satellite Bandwidth Capacity | | 5.72 | 5.72 | 0.0 | |
| Total Available (Lit/Equip) Bandwidth Capacity | | 4,655.40 | 4,605.57 | 1.1 | |
| Utilized Bandwidth Capacity | 7 | | | | |
| Undersea Bandwidth Capacity | | 1,144.1 | 1,137.1 | 0.6 | |
| Satellite Internet Capacity | | 5.22 | 5.24 | -0.4 | |
| Total Utilized Bandwidth Capacity | | 1,149.32 | 1,142.34 | 0.6 | |

Table 14:International Internet Bandwidth (Gbps)

Source: CA, Operators' Returns.

3.3 Registered Domain Names

As illustrated in Table 15, the number of .KE domains stood at 83,915 at the end of quarter under review up from 83,646 reported in the previous quarter.

| | | Mar | -2019 | | Dec-2018 |
|----------------|--|-------------------|---------|-------------------|----------|
| SUB- DOMAIN | Entity Allocated | No. of Domains | % Share | No. of Domains | % Share |
| CO.KE | Companies | 78,615 | 93.7 | 77,820 | 93.0 |
| OR.KE | Non Profit Making Organizations | 1,912 | 2.3 | 1,976 | 2.4 |
| AC.KE | Institutions of Higher Education | 898 | 1.1 | 891 | 1.1 |
| SC.KE | Lower and Middle Level Institutions | 1,227 | 1.5 | 1,212 | 1.4 |
| NE.KE | Personal Websites and E- mail | 160 | 0.2 | 277 | 0.3 |
| ME.KE | Personal Websites and E- mail | 258 | 0.3 | 345 | 0.4 |
| MOBI.KE | Mobile Content | 91 | 0.1 | 180 | 0.2 |
| INFO.KE | Information | 239 | 0.3 | 443 | 0.5 |
| GO.KE | Government Institutions | 515 | 0.6 | 502 | 0.6 |
| Total | | 83,915 | | 83,646 | |

Table 15:Number of Domain Names

Source: CA, Operators' Returns.

4 BROADCASTING

4.1 Broadcasting Services

The total number of Free to Air TV Stations grew by 8.0 per cent to record 81 stations from 75 stations recorded in the previous quarter. Similarly, digital TV subscriptions increased slightly by 1.5 per cent to 5.8 million during the quarter under review.

Table 16 illustrates the trends in broadcasting and media services.

| Table 16:Broadcasting and Media services | |
|--|--|
| | |

| Indicator/Period | Jan-Mar 19 | Oct-Dec 18 | Quarterly Variation (%) |
|---|------------|------------|----------------------------|
| DIGITAL TV SIGNAL DISTRIBUTORS | | | |
| Broadcast Signal Distributors (Common Carrier) | 2 | 2 | 0.0 |
| Self-Provisioning Broadcast Signal Distributors | 3 | 3 | 0.0 |
| Total Digital TV Signal Distributors | 5 | 5 | 0.0 |
| Commercial FTA TV Stations | 80 | 74 | 8.1 |
| Community FTA TV Stations | 1 | 1 | 0.0 |

| Indicator/Period | Jan-Mar 19 | Oct-Dec 18 | Quarterly Variation (%) | |
|---|------------|------------|----------------------------|--|
| Total FTA TV Stations | 81 | 75 | 8.0 | |
| Digital Terrestrial Television Signal Population Coverage (%) | 86.0 | 86.0 | 0.0 | |
| DIGITAL TV SUBSCRIPTIONS | | | | |
| Cable TV | 170,852 | 169,698 | 0.7 | |
| Direct to Home Satellite | 1,161,220 | 1,110,563 | 4.6 | |
| Digital Terrestrial Televisions (STBs) | 4,546,448 | 4,512,690 | 0.7 | |
| Total Digital TV Subscriptions | 5,878,520 | 5,792,951 | 1.5 | |
| Radio Stations | | | | |
| Commercial FTA Radio | 131 | 131 | 0.0 | |
| Community FTA Radio | 42 | 42 | 0.0 | |
| Total Radio Stations | 173 | 173 | 0.0 | |

Source: CA, Operators' Returns.

4.2 Local Content Quota Genre Performance

As illustrated in table 17, Music had the highest weekly average of 32.4 per cent while talk shows genre was rated second with a weekly average of 21.6 per cent in local programming

| Genre | Local Content (%) |
|-------------------------|-------------------|
| Music | 32.4 |
| Religious | 20.4 |
| Talk shows | 21.6 |
| Children | 3.6 |
| Reality | 2.2 |
| Drama | 3.4 |
| Comedy | 0.6 |
| Documentaries/Education | 5.8 |
| Sports | 1.1 |
| Current affairs | 1.9 |
| Magazine | 7.0 |

Table 17:Performance of the Various Genre of Local Content

Source: CA, Operators' Returns.

5 National Cyber Threat Landscape

5.1 Cyber Threats Statistics

The National KE-CIRT/CC detected 11.2 million cyber threats during the quarter under review compared to 10.2 million recorded in the previous quarter. This translated to an increase of 10.1 per cent during the period and this is attributed to enhanced cyber threat detection systems and censors deployed by National KE-CIRT.

| Malware | 0.002.072 | |
|-------------------------|------------|------------|
| | 8,883,862 | 9,026,924 |
| Web application attacks | 1,222,237 | 737,289 |
| Botnet/DDOS | 1,133,893 | 453,371 |
| System Misconfiguration | 13,319 | 3,449 |
| Online Abuse | 265 | 158 |
| Total | 11,253,576 | 10,221,191 |

Table 18: Cyber Threats Detected

Source: National KE-CIRT/CC

In response to the cyber threats detected, the National KE-CIRT/CC issued 14,078 cyber threat advisories to the affected organizations, which is an increase from the 12,138 issued during the previous period. The cyber threat detection capabilities of the National KE-CIRT/CC are supported by our systems as well as systems from global collaborating partners.

| Cyber Threat Advisories/Period | Jan – Mar 2019 | <i>Oct – Dec 2018</i> |
|--------------------------------|----------------|-----------------------|
| Malware | 1,286 | 2,365 |
| System Misconfiguration | 11,900 | 9,101 |
| Web Application Attacks | 249 | 271 |
| Botnet/DDOS | 378 | 243 |
| Online Abuse Cases | 265 | 158 |
| Total | 14,078 | 12,138 |

Table 19:Cyber Threat Advisories

Source: National KE-CIRT/CC

6 POSTAL AND COURIER TRAFFIC

During the period under review, the number of letters sent locally stood at12.97 million from 12.96 million letters reported during the preceding quarter. Similarly, the total courier items sent declined by nearly half to post 716,193 items from 1.1 million items posted last quarter.

Letters received from other countries increased by 0.4 per cent to post 2.57 million from 2.56 million letters received during the previous quarter. In the same breath, international outgoing letters increased by 0.8 percent to stand at 1.31 million during the period under review.

This was expected considering that the previous quarter is usually marked by the busy festive season and examination period.

The postal and courier traffic is as shown in Table 20.

Table 20:Postal and Courier Traffic

| Post and Courier Traffic/Period | Jan-Mar 19 | <i>Oct - Dec 18</i> | Quarterly Variation (%) |
|--|------------|---------------------|----------------------------|
| Number of Letters (Up to 350 gms) Posted Locally | 12,973,347 | 12,968,202 | 0.0 |
| Total Courier Items Sent locally | 716,193 | 1,112,639 | -35.6 |
| International Incoming Letters (Up to 350 gms) | 2,572,217 | 2,562,543 | 0.4 |
| International Outgoing Letters (Up to 350 gms) | 1,316,255 | 1,305,908 | 0.8 |
| Source: CA On avatous? Paturns | | | |

Source: CA, Operators' Returns.

7 TARIFFS, PROMOTIONS AND SPECIAL OFFERS

During the period under review, the Authority received and considered a total of 19 applications for tariffs, promotions & special offers.

A detailed distribution of the applications for tariffs, and promotions & special offers for the quarter is illustrated in Tables 21 and 22 respectively.

Table 21: Tariffs

| Period/Indicator | Type of Tariff | | | | | | | |
|------------------|----------------|-----|------|---------|--------|--------------|--------------------|-------|
| | Voice | SMS | Data | Airtime | Bundle | Mobile Money | Other ² | Total |
| Jan-March 2019 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 5 |
| Oct-Dec 2018 | 0 | 1 | 1 | 0 | 3 | 0 | 0 | 5 |

Source: CA, filed promotions and special offers

Table 22: Promotions and Special Offers

| | Type of Promotion and Special Offer | | | | | | | | |
|-------------------|-------------------------------------|-----|------|--------|---------|----------------------------|-----------------|--------------------|-------|
| Period /Indicator | Voice | SMS | Data | Bundle | Airtime | Lucky Draw ² | Mobile Money | Other ³ | Total |
| Jan-March 2019 | 0 | 0 | 7 | 2 | 2 | 1 | 1 | 1 | 14 |
| Oct-Dec 2018 | 4 | 0 | 5 | 1 | 2 | 1 | 0 | 1 | 14 |

Source: CA, filed promotions and special offers

8 CONCLUSION

The outlook of the communication sector in Kenya continues to be strong, and growth has been boosted by increased competitive products and services in the mobile market segment. The

²Lucky draw is a game of chance where the operator has no control over the specific user to receive a reward set out.

³"Other" refers to promotions that cannot be clearly attributed to any particular service or bundle of services, neither can they be attributed to a lucky draw

mobile telephony sub-sector is expected to maintain steady growth during the next quarter following the growing technological innovations and increasing demand for cellular services. The influential factors in the uptake of mobile services are but not limited to the following; rapid growth in the Internet, increasingly data hungry applications and attractive promotions and special offers. Further, mobile money transfer service will continue to reach new heights considering the numerous emerging mobile banking services that aim to reach large portions of the population that has been financially excluded from mainstream banking facilities.

Over the past years the Internet service has completely revolutionized from slow dial-up to incredibly fast Internet speeds that can be accessed in most parts of the country. The Internet market is expected to grow significantly in the next quarters as the availability of 4G ratchets up and demand for faster connectivity speeds gradually increases.