FIRST QUARTER SECTOR STATISTICS REPORT FOR THE FINANCIAL YEAR 2018/2019
(JULY-SEPTEMBER 2018)

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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 operators/service providers' compliance returns.

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LIST OF ACRONYMS AND ABBREVIATIONS

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
G2C	Government to Citizen
Gbps	Gigabits per second
GSM	Global Systems for Mobile Communications
ICTs	Information Communication Technologies
KW	Kilowatts
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
TEAMS	The East African Marine System
USF	Universal Service Fund
VSAT	Very Small Aperture Terminal

PRELIMINARY NOTES

- *This report is based on data provided by 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 First Quarter Sector Statistics report provides an overview of the performance and trends of the communications sector for the period 1st July 2018 to 30th September 2018 on the following service categories:

- Mobile Telephony Services
- Fixed Telephony Services
- Data/Internet Services
- National Cyber Threat Landscape
- Broadcasting Services
- Postal and Courier Services
- Tariffs, Promotions and Special Offers

Summary of ICT Indicators

INDICATORS	Apr - Jun 2018	Jul-Sep 2018	% change Q4 to Q1
	Q4	Q1	
Mobile Subscriptions (Millions)	45.569	46.630	2.3
Fixed subscriptions	70,455	68,662	-2.5
VOICE TRAFFIC IN MINUTES			
Mobile On-Net Voice Traffic (Billions)	12.354	12.697	2.8
Mobile Off-Net Voice Traffic (Billions)	1.574	1.677	6.5
International Incoming Mobile Voice Traffic (Millions)	157.226	126.884	-19.3
International Outgoing Mobile Voice Traffic (Millions)	107.832	98.279	-8.9
Roaming-out (Own Subscribers) (Millions)	36.916	51.935	40.7
Roaming-in (Foreign Subscribers) (Millions)	79.792	45.656	-42.8
Total Local Fixed network traffic	620,833	583,540	-6.0
Fixed VoIP Traffic	173,012	119,969	-30.7
MOBILE SMS TRAFFIC			
SMS On-Net (Billions)	13.983	14.497	3.7
SMS Off-Net (Millions)	816.887	974.569	19.3
International Incoming SMS (Millions)	10.545	11.681	10.8
International Outgoing SMS (Millions)	8.986	8.624	-4.0
MOBILE MONEY TRANSFER SERVICES			
Number of Active Registered Mobile Money Transfer Subscriptions (Millions)	29.678	29.785	0.4
Number of Registered Mobile Money Agents	206,940	218,495	5.6
Number of Transactions-Sending and Withdrawal (Millions)	611.341	730.211	19.4
Value of Transactions- Sending and Withdrawal (KSh.) trillion	1.919	2.027	5.6
Number of Mobile Commerce Transactions (Millions)	510.113	526.991	3.3
Value of Mobile Commerce Transactions (KSh.) (Trillion)	1.427	1.552	8.8
DATA/INTERNET SERVICES			
Data/ Internet Subscriptions (Millions)	41.112	42.204	-100.0
Total Available International Bandwidth (Gbps)	3,277.72	4,623.30	41.1
Total Used International Bandwidth (Gbps)	931.37	977.04	4.9
BROADCASTING SERVICES			
Number of free-to-air TV channels	67	68	1.5
Number of Radio FM stations	169	173	2.4
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)	14.296	11.855	-17.1
Total Courier Items Sent Locally (Millions)	1.213	1.161	-4.3
International Incoming Letters (Up to 350 gms) (Millions)	2.057	2.112	2.7
International Outgoing Letters (Up to 350 gms) (Millions)	999,287	986,600	-1.3
Total Population in Kenya (Millions)*	46.6	46.6	0.0

**Source: Economic Survey 2018*

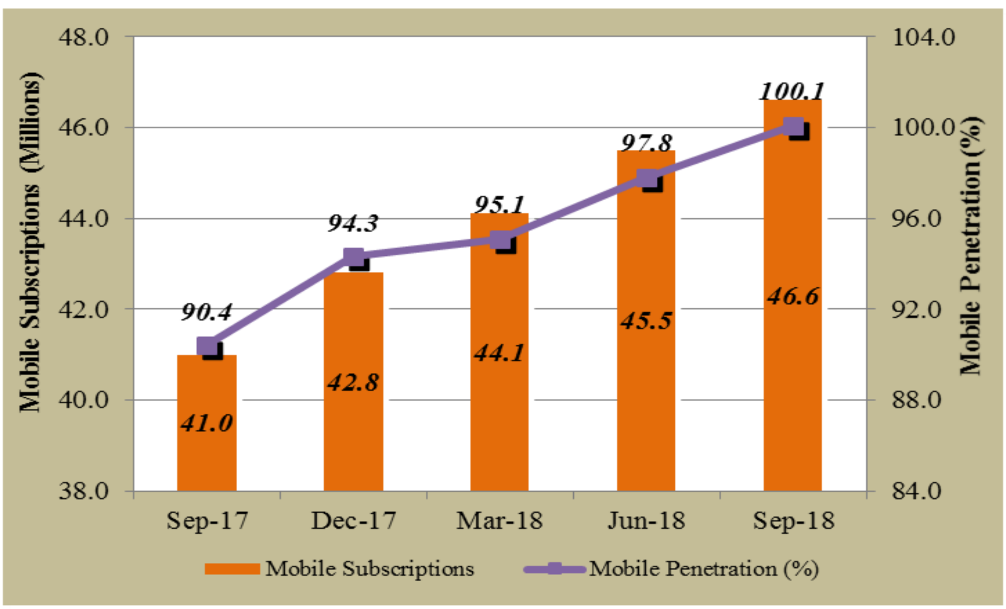
1 CELLULAR MOBILE SERVICES

1.1 Mobile Subscriptions

As at 30th September 2018, the number of active mobile subscriptions[1] in the country stood at 46.6 million. This marked a growth of 2.4 per cent when compared to 45.5 million subscriptions recorded as at 30th June 2018. Subsequently, mobile penetration[2] rose by 2.3 percentage points to stand at 100.1 per cent from 97.8 per cent reported last quarter.

During the period under review, mobile penetration surpassed the 100 percent mark mainly attributed to the fact that most users own more than one SIM card either from the same or different service providers. This fact is also supported by the Kenya Integrated Household Budget Survey (KIHBS) report released by Kenya National Bureau of Statistics (KNBS) in April 2018 which indicated that at least 30% of mobile users in Kenya own more than one SIM card, which translates to an average of 1.3 SIM cards per subscriber[3]. According to the International Telecommunications Union (ITU) ICT Facts and Figures Report (2005-2017), some developed countries such as Taiwan, Hong Kong and Israel surpassed 100% mobile penetration as early as 2003. As at 2017, these countries had penetration levels of 121.8%, 249.0% and 126.7 % respectively. Morocco, Namibia and Tunisia are some of the African countries that have already surpassed the 100% mobile penetration.

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

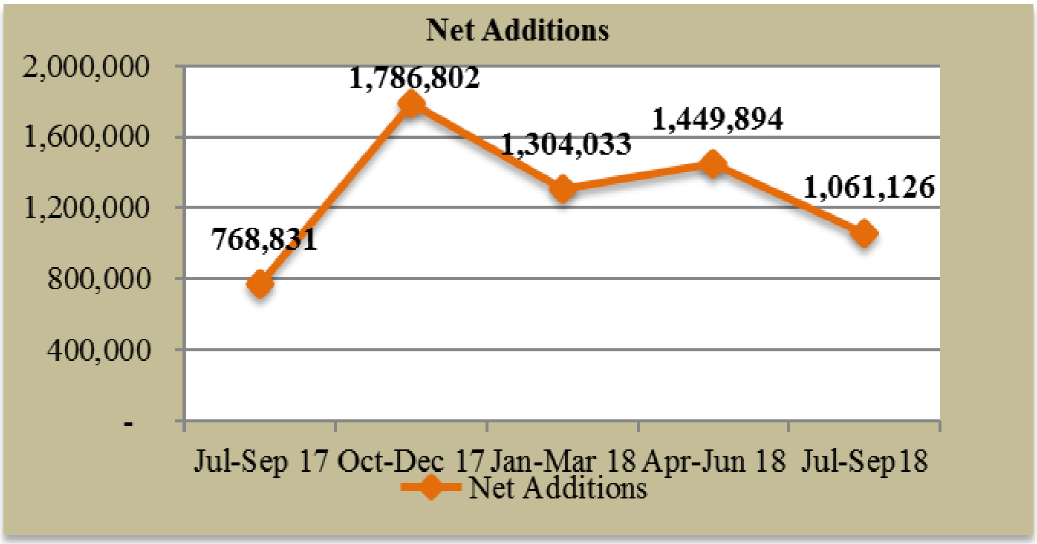


Source: CA, Operators' Returns,

[1] Active Mobile Subscription refers to a registered SIM card that has generated revenue within the last 90 days (ITU).
[2] Mobile Penetration is the total number of active SIM Cards calculated as a percentage of Total Population in the country (ITU).
[3] Mobile Subscriber refers to a unique person or company that gets into a contract with a mobile service provider for the supply of mobile services at a fee (ITU).

Figure 1: Mobile Subscriptions and Penetration level

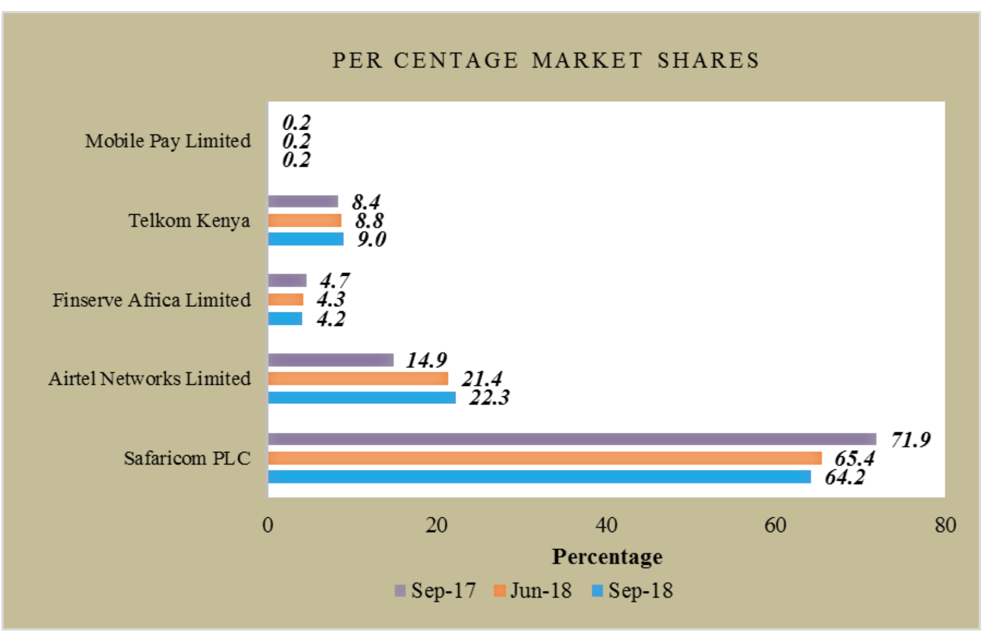
As shown in the figure 2, there were 1.06 million net additions in mobile subscriptions during the quarter under review.



Source: CA, Operators' Returns,

Figure 2: Net Additions

Safaricom PLCs' market share for mobile subscriptions dropped by 1.2 per centage points during the quarter to stand at 64.2 per cent whereas Airtel Networks Limited gained 0.9 percentage points to post a market share of 22.3 percent. Telkom Kenya Limited, Finserve Africa Limited and Mobile Pay Limited recorded market shares of 9.0 , 4.2 and 0.2 per cent respectively.



Source: CA, Operators' Returns,

Figure 3: Percentage market share for mobile subscriptions per operator

The number of Pre-Paid and Post-Paid mobile subscriptions per operator is as outlined in Table 1. Airtel Networks Limited and Telkom Kenya Limited were the biggest gainers whereas Sema Mobile Services exited the market during the period under review.

Table 1 shows Pre-Paid and Post-Paid Mobile Subscriptions per Operator.

Table 1: Mobile Subscriptions per Operator

Name of operator	*Sep-18*			*Jun-18*			*Quarterly variation (%)*
	Pre-paid	*Post-paid*	*Total*	*Pre-paid*	*Post-paid*	*Total*	
Safaricom PLC	28,850,444	1,093,197	29,943,641	28,702,646	1,077,402	29,780,048	0.5
Airtel Networks Limited	10,316,812	96,920	10,413,732	9,643,139	101,301	9,744,440	6.9
Telkom Kenya Limited	4,176,803	11,714	4,188,517	3,983,784	11,581	3,995,365	4.8
Finserve Africa Limited	1,992,150	-	1,992,150	1,959,009	-	1,959,009	1.7
Sema Mobile Services	-	-	-	112	-	112	-100.0
Mobile Pay Limited	92,122	-	92,122	90,062	-	90,062	2.3
Total	**45,428,331**	**1,201,831**	**46,630,162**	**44,378,752**	**1,190,284**	**45,569,036**	**2.3**

Source: CA, Operators' Returns * Sema Mobile Services exited the market

1.2 Mobile Money Services

As at the end of the first quarter of the Financial Year 2018/19, the number of active mobile money transfer agents and subscriptions stood at 218,495 and 29.7 million respectively. This implies that 64 out of 100 inhabitants had access to and used mobile money transfer services during the period. The number of mobile money transfer transactions (P2P+Withdrawals) stood at 730.2 million and valued at Ksh.2.02 trillion. Further, the number of mobile commerce transactions was recorded at 526.9 million valued at KSh.1.5 trillion. On the other hand, person-to-person transfers were valued at KSh.718.2 billion.

Table 2 shows the trends in mobile money transfer and mobile commerce services.

Table 2: Mobile Money Transfer Service

Operator /Indicator	Jul-Sep 18						
	Agents	*Active Subscriptions*	*No. of Transactions*	*Value of Transactions (Kshs)*	*No. of M-Commerce Transactions* [4]	*Value of M-Commerce Transactions (Ksh.)*	*P2P Transfers (Ksh.)*
M-Pesa	162,800	24,206,341	575,660,251	1,585,729,101,317	430,190,383	1,203,392,814,229	590,345,941,145
Airtel Money	27,267	3,434,843	4,628,370	1,153,142,919	3,042,680	2,220,280,505	1,213,897,584
Equitel Money	-	1,992,150	149,463,508	439,188,528,611	92,748,695	347,176,769,388	125,981,207,772
T-Kash	21,538	59,933	104,833	197,106,156	1,009,427	85,656,719	12,820,830
Mobile Pay	6,890	92,122	354,565	1,379,068,293	-	-	729,012,558
Total	**218,495**	**29,785,389**	**730,211,527**	**2,027,646,947,296**	**526,991,185**	**1,552,875,520,841**	**718,282,879,889**

Source: CA, Operators' Returns

1.3 Mobile Number Portability

The number of mobile in-ports rose by 16.9 per cent to 566 up from 484 in-ports reported in the previous quarter.

Table 3:Mobile Number Portability

Period	*Jul-Sep 18*	*Apr-Jun 18*	*Quarterly Variation (%)*	*Jul - Sep 17*
Number of in-ports	566	484	16.9	295

Source: CA, Operators' Returns

1.4 Mobile Traffic and Usage Pattern

1.4.1 Local Voice Traffic

During the quarter under review, total local voice traffic originating from mobile networks increased by 3.2 per cent to record 14.3 billion from 13.9 billion minutes recorded in the previous quarter. On-net and off-net mobile voice traffic was registered at 12.6 billion minutes and 1.6 billion minutes respectively.

Mobile to fixed network voice traffic declined by 11.7 per cent to register 14.3 million minutes from last quarter's 16.2 million minutes. Similarly, fixed to mobile voice traffic dropped to 10.3 million minutes from 10.5 million minutes recorded in the previous quarter.

Total traffic terminating on mobile networks stood at 14.34 billion minutes during the quarter under review up from 13.94 billion minutes registered in the previous quarter translating to growth of 2.8 per cent.

Table 4 shows a summary of local mobile voice traffic.

[4] Mobile commerce transactions, which include Customer-to-Business (C2B), Business-to-Customer (B2C) and Business- to-Business (B2B).

Table 4:Local Mobile Voice traffic in Minutes

Mobile Traffic	***Jul-Sep 18***	***Apr-Jun 18***	***Quarterly Variation (%)***	***Jul - Sep 17***
By Traffic originating (outgoing traffic)				
Own Network –Own Network	12,697,279,269	12,354,529,618	2.8	9,920,177,093
Own Network to Other Mobile Networks	1,677,821,037	1,574,420,162	6.6	1,147,363,309
Mobile Network to Fixed Network	14,372,379	16,267,840	-11.7	23,061,836
Total Traffic Origination (Outgoing)	**14,389,472,685**	**13,945,217,620**	**3.2**	**11,090,602,238**
By Traffic terminating (incoming traffic)				
Own Network –Own Network	12,697,279,269	12,354,529,618	2.8	9,920,173,686
Other Mobile Networks to Own Network	1,634,244,806	1,584,711,388	3.1	1,098,769,647
Fixed Network to Mobile Network	10,345,916	10,526,317	-1.7	11,008,590
Total traffic termination (Incoming)	**14,341,869,991**	**13,949,767,323**	**2.8**	**11,029,951,923**

Source: CA, Operators' Returns

1.4.2 Voice Traffic by Operator

Total mobile voice traffic originating from Safaricom PLC network dropped by 2.4 per cent to record 8.9 billion minutes from 9.1 billion minutes reported last quarter. The decline is attributed to the expiry of '*Safaricom Tunukiwa Gifting promotion'* where customers were presented with two options from which to purchase preferred *Tunukiwa* voice or SMS bundles for self or/and other users. As a result, its voice market share dropped to 62.1 per cent from 65.7 per cent reported last quarter.

Airtel Networks Limited reported an increase of 13.8 per cent in local mobile voice traffic during the period under review to post 4.7 billion minutes from 4.2 billion minutes recorded during the preceding quarter. Consequently, its voice market share rose by 3.1 percentage points to stand at 33.3 per cent. The increase in voice traffic is attributed to introduction of *'Vuka_2_Tariff'* that enabled prepaid customers to call for two shillings per minute across all networks.

Telkom Kenya Limited registered a total of 619.3 million minutes marking a growth of 15.6 per cent when compared to 535.5 million minutes reported in the preceding quarter.

Total mobile voice traffic for Finserve Africa Limited dropped to 38.2 million minutes during the period under review from 38.9 million minutes posted during the previous quarter.

On a similar trend, Mobile Pay Limited registered 29,482 minutes down from 30,007 minutes reported in the preceding quarter.

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

Table 5:Local Mobile Voice Traffic by Operator

Period	***Name of Operator/Indicator***	***Safaricom PLC***	***Airtel Networks Kenya Limited***	***Telkom Kenya Limited***	***Finserve Africa Limited***	***Mobile Pay Limited***	***Total***
Jul-Sep 18	*On-net*	8,493,514,431	3,805,788,276	393,620,676	4,352,788	3,098	12,697,279,269
	Off-net	438,628,546	979,537,254	225,739,746	33,889,107	26,384	1,677,821,037
	Total	**8,932,142,977**	**4,785,325,530**	**619,360,422**	**38,241,895**	**29,482**	**14,375,100,306**
	Market share (%)	62.1	33.3	4.3	0.3	0.0	
Apr-Jun 18	*On-net*	8,730,358,224	3,273,875,096	345,830,389	4,459,497	3,154	12,354,526,360
	Off-net	420,762,108	929,405,586	189,705,875	34,483,287	26,853	1,574,383,709
	Total	**9,151,120,332**	**4,203,280,682**	**535,536,264**	**38,942,784**	**30,007**	**13,928,910,069**
	Market share (%)	65.7	30.2	3.8	0.3	0.0	
Jul - Sep 17	*On-net*	8,199,176,321	1,311,373,880	405,843,313	3,777,017	3,155	9,920,173,686
	Off-net	310,876,214	615,752,439	184,032,672	36,639,218	26,918	1,147,327,461
	Total	**8,510,052,535**	**1,927,126,319**	**589,875,985**	**40,416,235**	**30,073**	**11,067,501,147**
	Market share (%)	76.9	17.4	5.3	0.4	0.0	

Source: CA, Operators' Returns

1.4.3 Domestic SMS Traffic

During the quarter under review the total number of outgoing short messages stood to 15.4 billion up from 14.8 billion messages registered in the preceding quarter.

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

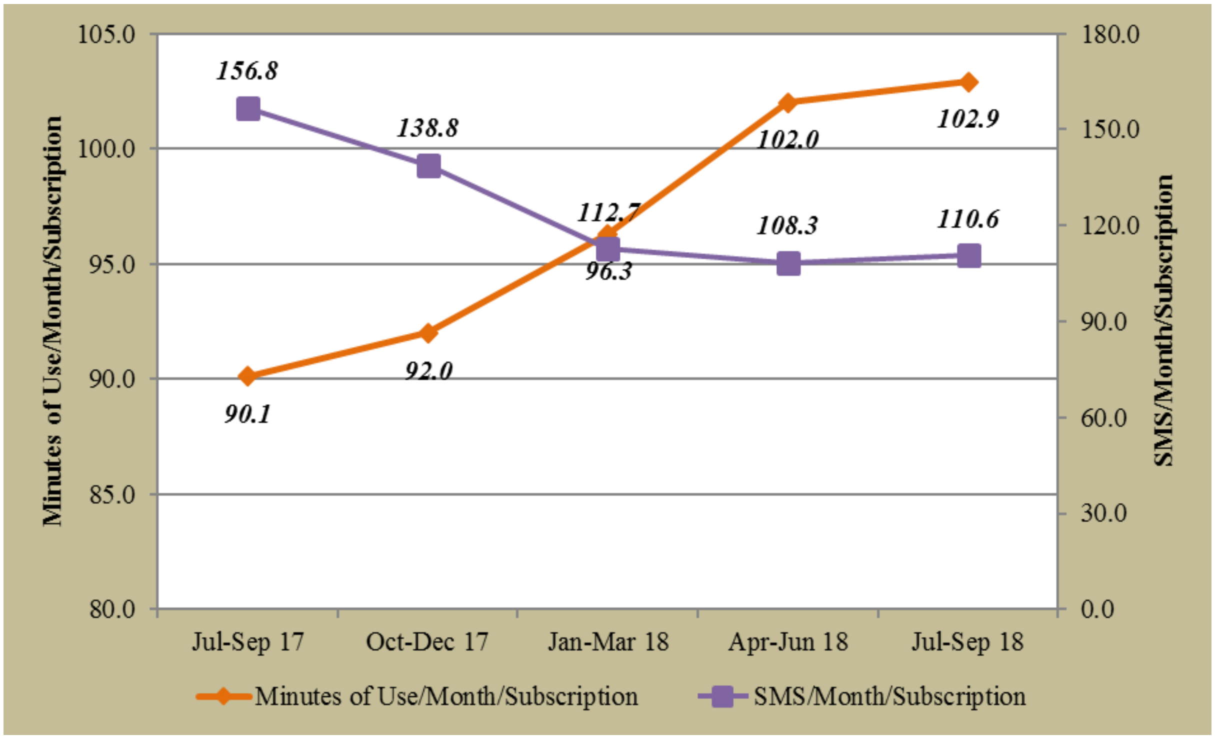
Table 6: Short Messaging Service per Operator

Period	***Name of Operator/Indicator***	***Safaricom PLC***	***Airtel Networks Kenya Limited***	***Telkom Kenya Limited***	***Finserve Africa Limited***	***Mobile Pay Limited***	**Total**
Jul-Sep 18	*On-net*	14,184,157,244	295,029,526	16,288,835	1,889,677	2,368	14,497,367,650
	Off-net	355,049,920	545,894,016	66,654,608	6,951,264	20,041	974,569,849
	Total	**14,539,207,164**	**840,923,542**	**82,943,443**	**8,840,941**	**22,409**	**15,471,937,499**
	Market share (%)	94.0	5.4	0.5	0.1	0.0	
Apr-Jun 18	*On-net*	13,647,679,519	317,815,570	15,947,536	1,832,501	2,411	13,983,277,537
	Off-net	281,569,222	462,103,080	66,087,527	7,100,387	20,395	816,880,611
	Total	**13,929,248,741**	**779,918,650**	**82,035,063**	**8,932,888**	**22,806**	**14,800,158,148**
	Market share (%)	94.1	5.3	0.6	0.1	0.0	
Jul - Sep 17	*On-net*	18,553,469,372	183,995,402	15,434,827	1,379,787	2,412	18,754,281,800
	Off-net	169,983,328	311,263,007	51,279,958	6,992,663	5,656	539,524,612

	Total	**18,723,452,700**	**495,258,409**	**66,714,785**	**8,372,450**	**8,068**	**19,293,806,412**
	Market share (%)	97.0	2.6	0.3	0.0	0.0	

Source: CA, Operators' Returns

The Minutes of Use per Month per Subscription increased to 102.9 from 102.0 minutes posted during the previous quarter. Similarly, the number of SMS per Month per Subscription stood at 110.6 up from last 108.3 messages recorded in the last quarter.



Source: CA, Operators' Returns

Figure 4: Minutes of Use /Month/Subscription and SMS/Month/Subscription

1.4.4 Roaming Traffic

During the first quarter of the Financial Year 2018/19, roaming-out voice and SMS traffic stood at 51.9 million minutes and 38.1 million messages respectively. Further, out-roamers consumed 6.8 million MB of data. In-roamers on the other hand recorded 45.6 million minutes, 23.3 messages and 48.8 million MB of data.

Table 7:Roaming Traffic

	Jul-Sep 2018					
	Roaming-Out (Own Subscribers)			*Roaming-In (Foreign Subscribers)*		
	Voice	*SMS*	*Data*	*Voice*	*SMS*	*Data*
Uganda	37,722,220	6,203,962	1,604,731	29,910,456	3,272,071	1,773,209
Tanzania	1,500,072	9,211,298	1,047,480	366,534	6,414,442	1,123,129
Rwanda	2,762,520	443,936	220,639	8,690,154	725,737	186,411
Burundi	25,034	212,536	12,532	6,536	24,843	660
S.Sudan	2,086,828	762,508	60,865	2,225,017	172,332	341,745
Others	7,838,978	21,312,038	3,879,903	4,457,613	12,693,893	45,378,949
Total	51,935,652	38,146,278	6,826,150	45,656,310	23,303,318	48,804,103

Source: CA, Operators' Returns

1.4.5 International Mobile Traffic

As illustrated in Table 8, international incoming and outgoing mobile voice traffic declined by 19.3 per cent and 8.9 per cent during the period under review to stand at 126.8 million and 98.2 million minutes respectively. This could be partly attributed to increased adoption and use of VOIP services, which are relatively available and affordable.

Table 8:International Mobile Traffic

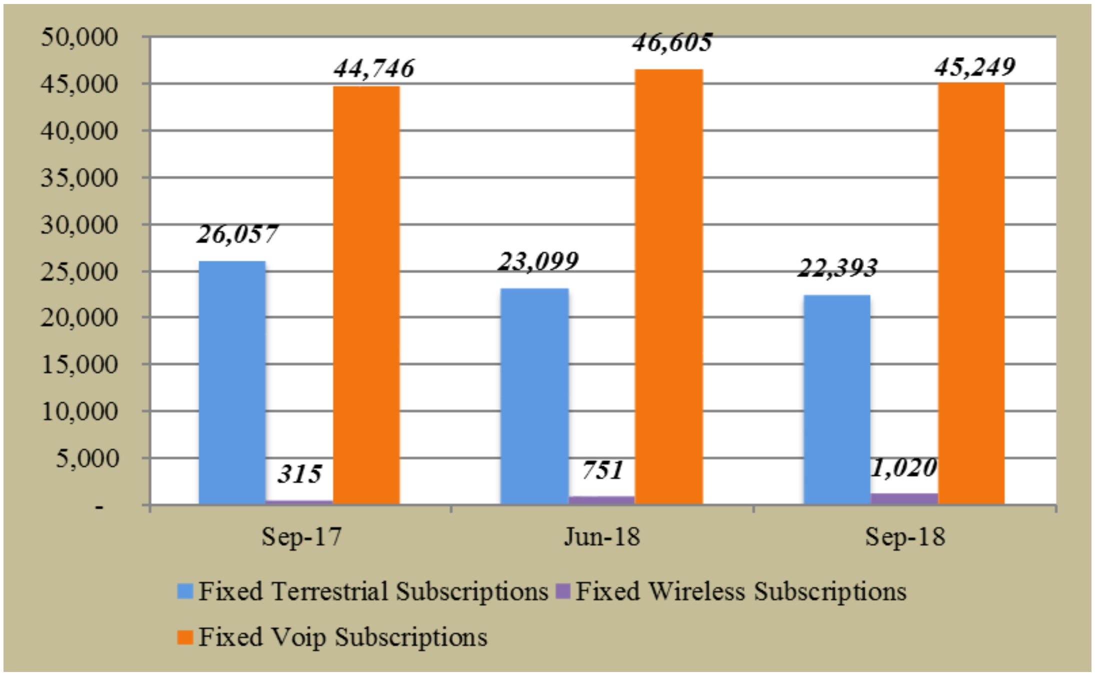
Traffic	*Region*	*Jul-Sep 18*	*Apr-Jun 18*	*Quarterly Variation (%)*	*Jul-Sep 17*
International Incoming Mobile Voice Minutes	*EAC*	63,004,319	68,422,182	-7.9	46,873,708
	Others	63,879,898	88,803,981	-28.1	100,225,091
	Total	**126,884,217**	**157,226,163**	-19.3	**147,098,799**
International Outgoing Mobile Voice Minutes	*EAC*	45,220,760	48,074,630	-5.9	50,896,946
	Others	53,058,533	59,758,211	-11.2	60,604,538
	Total	**98,279,293**	**107,832,841**	-8.9	**111,501,484**
International Incoming Mobile SMS		11,681,139	10,545,075	10.8	10,053,817
International Outgoing Mobile SMS		8,624,890	8,986,359	-4.0	9,578,075

Source: CA, Operators' Returns

2 FIXED TELEPHONE SERVICE

2.1 Fixed Network Subscriptions

During the period under review**,** fixed terrestial subscriptions dropped by 3.1 per cent to stand at 22,393 while fixed wireless subscriptions increased by 35.8 per cent to post 1,020 subscriptions. In addition, fixed VOIP subscriptions declined by 2.9 per cent to stand at 45,249 as at the end of the quarter.



Source: CA, Operators' Returns

Figure 5: Fixed Network Subscriptions

2.2 Fixed Network Traffic

The total local fixed network traffic declined by 6.0 per cent during the period under review to register 583,540 minutes from 620,833 minutes reported in the previous quarter. On the other hand, fixed VOIP traffic increased significantly by 44.2 per cent to record 173,012 minutes.

Table 9: Local Fixed Network Traffic in Minutes

Local Fixed Network traffic	***Jul-Sep 18***	***Apr-Jun 18***	***Quarterly Variation (%)***	***Jul-Sep 17***
Fixed-fixed	275,678	275,150	0.2	303,504
Fixed wireless-fixed wireless	307,862	345,683	-10.9	299,696
Total Local Fixed network traffic	583,540	620,833	-6.0	603,200
Fixed VoIP Traffic	173,012	119,969	44.2	DNA

Source: CA, Operators' Returns

2.3 International Fixed Voice Traffic

The trends on international fixed voice traffic is as outlined in table 10.

Table 10: International Fixed Voice Network Traffic

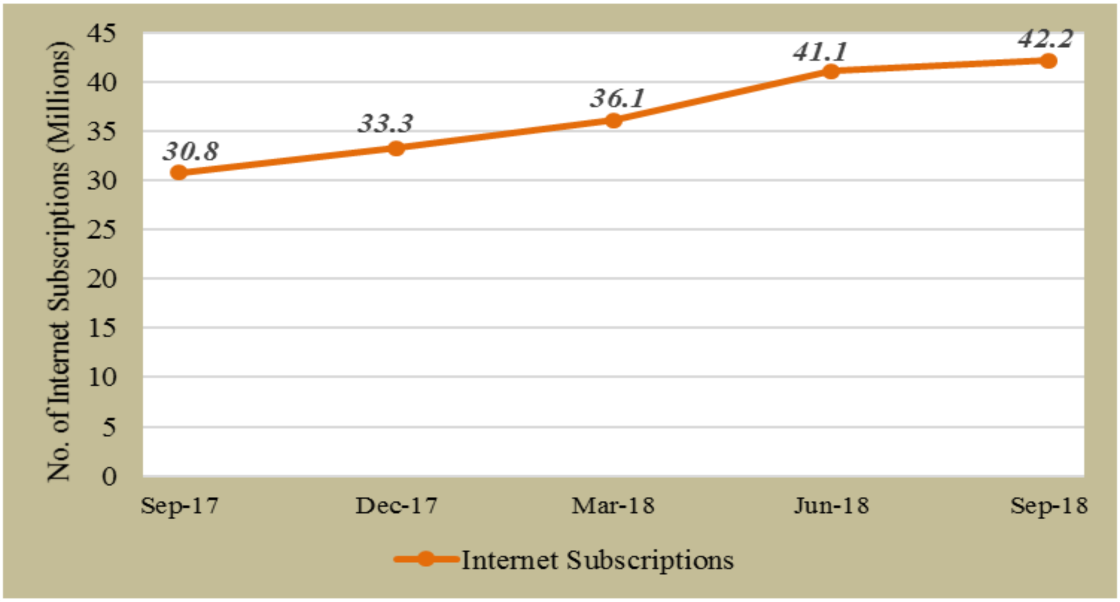
International Fixed Network traffic	*Jul-Sep 18*	*Apr-Jun 18*	*Annual Variation (%)*	*Jul-Sep 17*
International Incoming Fixed Network Voice traffic	7,034,266	8,840,127	-20.4	2,172,315
International Outgoing Fixed Network Voice traffic	3,577,195	4,193,969	-14.7	1,452,130
International Outgoing Fixed Network VoIP traffic	857,697	681,947	25.8	668,886

3 DATA/INTERNET SERVICES

3.1 Data/Internet Subscriptions

Statistical information from the ITU and World Bank has shown that great strides are being made in expanding Internet access and usage through the increased availability of broadband networks. Digital connectivity plays an important role in transforming and improving lives, as it opens the door to employment, financial opportunities and unprecedented knowledge for billions of people across the globe. Available data indicates that as at July 2018 there were 4.1 billion active Internet users globally of which 3.3 billion were active social media users. Reports from the ITU also indicate that mobile broadband has become more accessible and affordable than fixed in developing countries and Kenya is no exception. By the end of September 2018, the total number of active Internet/data subscriptions stood at 42.2 million up from 41.1 million subscriptions reported end of June 2018 marking a growth of 2.7 percent.

Figure 6 illustrates the trend in total number of data/Internet subscriptions.



Source: CA, Operators' Returns. The information on Internet Penetration has not been included in this report because the Authority is in the process of reviewing the methodology for estimating Internet Users in line with local needs and current market developments. Internet Penetration is calculated as a percentage of active Internet Users in a country

Figure 6: Total Data/Internet Subscriptions

During the period under review the number of mobile data/Internet subscriptions grew by 2.7 per cent to post 41.8 million from 40.7 million subscriptions registered during the previous quarter.

Terrestrial wireless data subscriptions declined substantially by 51.3 per cent to stand at 59,380 from 122, 037 recorded in the last quarter. This drop is attributed to the regulatory guidance issued by the Authority to Mawingu Networks Ltd to review its data on the number of data/Internet subscriptions in-line with the official definition of an active subscription which refers to any subscription that has generated revenue within the last 90 days. On the other hand, Satellite data subscriptions rose by 19.4 per cent to stand at 1,391.

Fixed fibre optic data subscriptions rose by 21.7 per cent to record 123,487 during the quarter under review from 101,508 posting in the last quarter. This is as a result of a number of deployments and rollouts undertaken by the service providers enabling more subscribers to enjoy the fast broadband connectivity in various parts of the country.

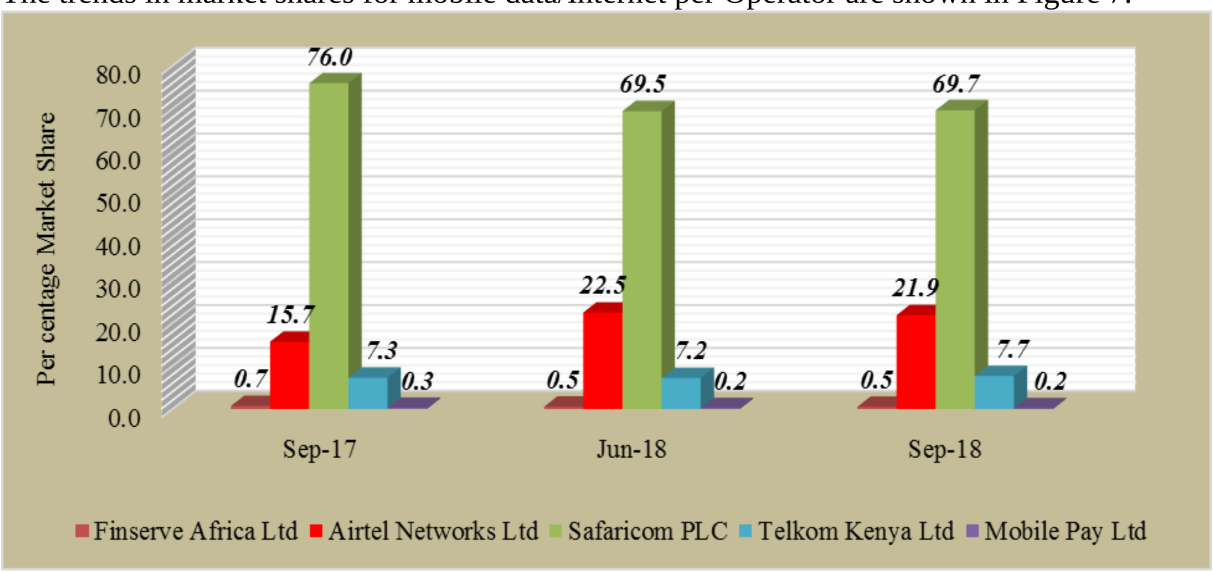
The number of Data/Internet subscriptions by Technology is as indicated in Table 11.

Table 11:Data/Internet Subscriptions

Internet/Data Subscriptions	*Jul-Sep 18*	*Apr-Jun 18*	*Quarterly Variation (%)*	*Jul-Sep 17*
Mobile Data Subscriptions	41,854,706	40,743,570	2.7	30,628,340
Terrestrial Wireless Data Subscriptions	59,380	122,037	-51.3	122,037
Satellite Data Subscriptions	1,391	1,165	19.4	712
Fixed DSL Data Subscriptions	1,181	1,254	-5.8	2,106
Fixed Fibre Optic Data Subscriptions	156,932	135,964	15.4	90,534
Fixed Cable Modem Subscriptions	123,487	101,508	21.7	99,564
Other Fixed Data Subscriptions	7,426	7,352	1.0	6,127
Total Internet Subscriptions	**42,204,503**	**41,111,850**	**2.7**	**30,891,132**

Source: CA, Operators' Returns.

The trends in market shares for mobile data/Internet per Operator are shown in Figure 7.



Source: CA, Operators' Returns.

Figure 7: Mobile data/Internet Subscriptions

The number of fixed data/Internet (Wireless, Fiber, Satellite, Cable, DSL & Others) subscriptions and the respective market shares per service provider is as shown in Table 12.

Table 12: Fixed Data/Internet Subscriptions for Top 10 Service Providers

Jul-Sep 18		
Name of Service Provider	***No. of Subscriptions***	***Market Share (%)***
Wananchi Companies (Kenya) Ltd*	137,213	39.2
Safaricom PLC	96,608	27.6
Jamii Telecommunications Ltd	45,933	13.1
Poa Internet Kenya Ltd (formerly Argon Telecom Services Ltd)	26,726	7.6
Internet Solutions Kenya Ltd (formerly Access Kenya Group)	15,074	4.3
Mawingu Networks Ltd	13,128	3.8
Liquid Telecommunications Kenya Limited	8,234	2.4
Telkom Kenya Ltd	3,801	1.1
Mobile Telephone Networks Business Kenya Ltd	612	0.2
Iway Africa Kenya Ltd	606	0.2
Other Fixed Service Providers	1,862	0.5

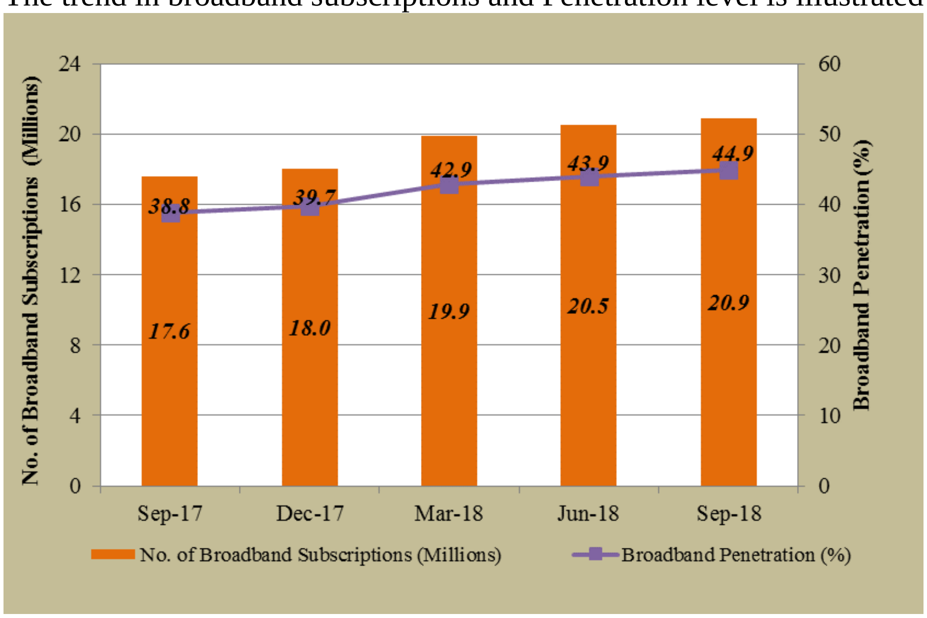
Source: CA, Operators' Returns.   * Data includes Wananchi Telecom, Wananchi Group, Simbanet Ltd and ISAT Africa Kenya Limited (Formely Alldean Satellite Networks Ltd)

3.2 Broadband Services

3.2.1 Broadband Subscriptions and Penetration

During the quarter under review, the number of broadband[5] subscriptions stood at 20.9 million up from 20.5 million subscriptions recorded in the preceding quarter. Consequently, broadband penetration increased marginally to stand at 44.9 per cent.

The trend in broadband subscriptions and Penetration level is illustrated in Figure 8.



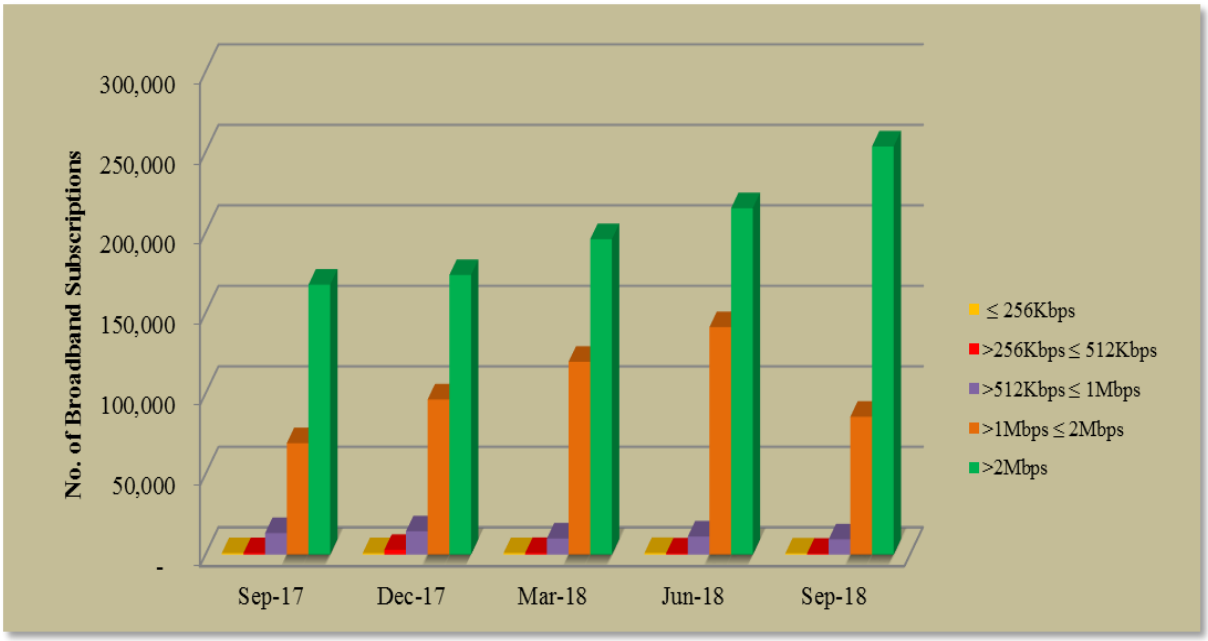
Source: CA, Operators' Returns.

Figure 8: Broadband Subscriptions and Penetration level

[5] Broadband-Data speeds equal to or/and greater than 256Kbps

3.2.2 Fixed Broadband Subscriptions by Speed

As illustrated in Figure 9, fixed broadband speeds greater than 2Mbps recorded the highest number of subscriptions whereas speeds less than or equal to 256 Kbps recorded the least number of subscriptions during the quarter under review.



Source: CA, Operators' Returns.

Figure 9:Fixed Broadband Subscriptions by Speed

3.3 International Bandwidth

The total International available Internet bandwidth in the country (Lit/equipped capacity) grew significantly by 41.1 per cent to stand at 4,623.30 Gbps during the quarter under review from 3,277.72 Gbps recorded last quarter. The significant increase in EASSY lit capacity from 161.3 Gbps to 828.144 Gbps during the quarter under review was due to an upgrade carried out between June and July 2018. An additional 64, 10GHz links were availed (Lit) for commercial use. This upgrade was driven by traffic growth as monitored by the Network Administrator stationed in South Africa whereby if used capacity exceeds 40%, they (EASSY, through the Network Administrator) requests for all stakeholders to upgrade their capacities in readiness for onboarding new commercial agreements.

The trend in international available Internet bandwidth is as shown in Table 13.

Table 13:International Internet Available Bandwidth (Gbps)

International Connectivity Bandwidth	***Jul-Sep 18***	***Apr-Jun 18***	***Quarterly Variation (%)***	***Jul-Sep 17***
SEACOM	2,840.00	2,220.00	27.9	2,020.00
TEAMS	702	702	0.0	702
EASSY	882.144	161.3	446.9	83
Lion 2	193.44	188.8	2.5	101.4
Satellite Internet Bandwidth	5.72	5.70	0.4	0.5
Total International Internet Bandwidth (Gbps)	4,623.30	3,277.72	41.1	2,906.90

Source: CA, Operators' Returns.

The trend in international used bandwidth is illustrated in Table 14.

Table 14: International Internet Used Bandwidth (Gbps)

International Leased (Used) Bandwidth	***Jul-Sep 18***	***Apr-Jun 18***	***Quarterly Variation (%)***	***Jul-Sep 17***
International Undersea Internet Used Bandwidth (Gbps)	971.8	926.8	4.9	884.5
International Satellite Internet Used Bandwidth	5.24	4.57	14.7	2.687
Total International Internet Used Bandwidth (Gbps)	**977.04**	**931.37**	**4.9**	**887.187**

Source: CA, Operators' Returns.

3.4 Registered Domain Names

The total number of *dot ke (.KE)* domains was registered at 77,671 up from 75,096 posted in the previous quarter. The distribution of domains per category is illustrated in table 15.

Table 15:Number of Domain Names

		Sep-18		Jun-18	
Sub-domain	**Use**	**No. of Domains**	**(%)**	**No. of Domains**	**(%)**
CO.KE	***Companies***	71,842	92.50	69,287	92.26
GO.KE	***Government Entities***	461	0.59	448	0.60
OR.KE	***Non Profit Making Organizations***	1,925	2.48	1,948	2.59
AC.KE	***Institutions of Higher Education***	851	1.10	804	1.07
SC.KE	***Lower and Middle Level Institutions***	1,190	1.53	1,168	1.56
NE.KE	***Personal Websites and E-mail***	412	0.53	434	0.58
ME.KE	***Personal Websites and E-mail***	349	0.45	372	0.50
MOBI.KE	***Mobile Content***	179	0.23	184	0.25
INFO.KE	***Information***	462	0.59	147	0.22
Total		**77,671**	**100.00**	**75,096**	**100.00**

Source: Kenya Network Information Centre (KeNIC)

4 BROADCASTING

4.1 Broadcasting Signal Distribution Services

As at 30th September 2018, the population coverage for digital terrestrial television signal remained unchanged at 86.0 per cent. Community Free-to-Air (FTA) radio stations rose by 10.5 per cent to 42 stations resulting to increase in radio stations to 173 during the quarter from 169 registered in the previous quarter. Cable TV subscriptions grew by 2.0 per cent to stand at 155,453. Similarly, direct to home satellite increased to 1,036,552 from 995,012 subscriptions posted in the last quarter.

Table 16: Broadcasting and Media services

	Jul-Sep 18	*Apr-Jun 18*	*Quarterly Variation (%)*
DIGITAL TV SIGNAL DISTRIBUTORS			
Broadcast Signal Distributors	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	67	67	0.0
Community FTA TV Stations	1	1	0.0
Total FTA TV Stations	**68**	**68**	**0.0**
Digital Terrestrial Television Signal Population Coverage (%)	86.0	86.0	0.0
DIGITAL TV SUBSCRIPTIONS			
Cable TV	155,453	152,464*	2.0
Direct to Home Satellite	1,036,552	995,012	4.2
Digital Terrestrial Televisions (STBs)	3,848,423	3,810,104*	1.0
Total Digital TV Subscriptions	**5,040,428**	**4,957,718**	**1.7**
Radio Stations			
Commercial FTA Radio	131	131	0.0
Community FTA Radio	42	38	10.5
Total Radio stations	**173**	**169**	**2.4**

Source: CA, Operators' Returns, *Revised data

4.2 Local Content Quota Genre Performance

Table 17 illustrates the performance of the various genres of local content between July and September 2018.

Table 17: Performance of the various genres of local content

Genre	*Jul-Sep 18*	*Apr-Jun 18*	*Quarterly Variation (%)*
Music	34.3	38.8	-11.6
Religious	21.8	17.7	23.2
Talk shows	15.6	17.3	-9.8
Children	5.3	5.5	-3.6
Reality	3.1	5.3	-41.5
Drama	2.0	2.0	0.0
Comedy	0.7	0.8	-12.5
Docs/Education	5.6	3.3	69.7
Sports	0.6	0.6	0.0
Current affairs	3.5	7.3	-52.1
Magazine	7.4	3.2	131.3

Source: CA, Operators' Returns

5 HIGHLIGHTS OF THE CYBER SECURITY LANDSCAPE

During the quarter under review, the National Cybersecurity Centre (NCC) received cases of malware, systems misconfigurations, web application, botnet, online fraud, online impersonation and online abuse attacks. The cyber threats detected varied from denial-of-service (DOS) including botnet and brute-force attacks that led to denial of computer services and illegal access to computer systems; online impersonation via social media accounts and domain names; web application attacks including website defacement; malware including phishing attacks; online abuse including online fraud, hate speech, incitement to violence and fake news; and systems misconfiguration, among others.

During the quarter, the NCC detected over 3.8 million cyber threats, which was an increase from the last quarter where 3.4 million threats were detected. This is attributed to enhanced cyber threat detection capabilities through deployment of additional sensors.

Table 18: Cyber Threats Detected

No.	*Cyber Attack Vector*	**Jul -Sep 18**	**Apr-Jun 18**
1.	***Malware attacks***	1,844,897	1,665,961
2.	***Web application attacks***	1,064,971	771,518
3.	***Botnet/DDOS***	911,298	1,023,388
4.	***System Misconfiguration***	2,548	932
5.	***Online Abuse***	158	647
6.	***Online Impersonation***	196	34
	Total Cyber Threats	**3,824,068**	**3,462,480**

Source: National KE-CIRT/CC

The NCC determined 6,384 as critical and were thus validated and escalated for action, which is an increase from the previous quarter where 2,613 cases were validated and escalated. This was attributed to the enhanced cyber threat detection capabilities and increased resources towards cyber threat analysis.

No.	*Cyber Attack Vector*	Jul -Sep 18	Apr-Jun 18
1.	***Malware***	1,478	840
2.	***System Misconfiguration***	3,565	932
3.	***Botnet/DDOS***	159	65
4.	***Online Impersonation***	196	34
5.	***Online Abuse***	158	647
6.	***Web Application Attacks***	828	95
	Total Cyber Reports	**6,384**	**2,613**

Table 19: Cyber Threat Advisories

Source: National KE-CIRT/CC

6 POSTAL AND COURIER SERVICES

6.1 Postal and Courier Traffic

During the quarter under review, the number of letters posted locally dropped by 17.1 per cent to stand at 11.8 million from 14.2 million letters posted in the previous quarter. Similarly, there was a decline of 4.3 per cent in the number of courier items sent to stand at 1.1 million from 1.2 million items registered in the previous quarter.

The volume of letters received from other countries grew by 2.7 per cent to register 2.1 million from 2.0 million letters registered last quarter. On the contrary, international outgoing letters were registered at 986,600 down from 999,287 letters recorded in the previous quarter marking a decreasing of 1.3 per cent.

The postal and courier traffic is as shown in table 18.

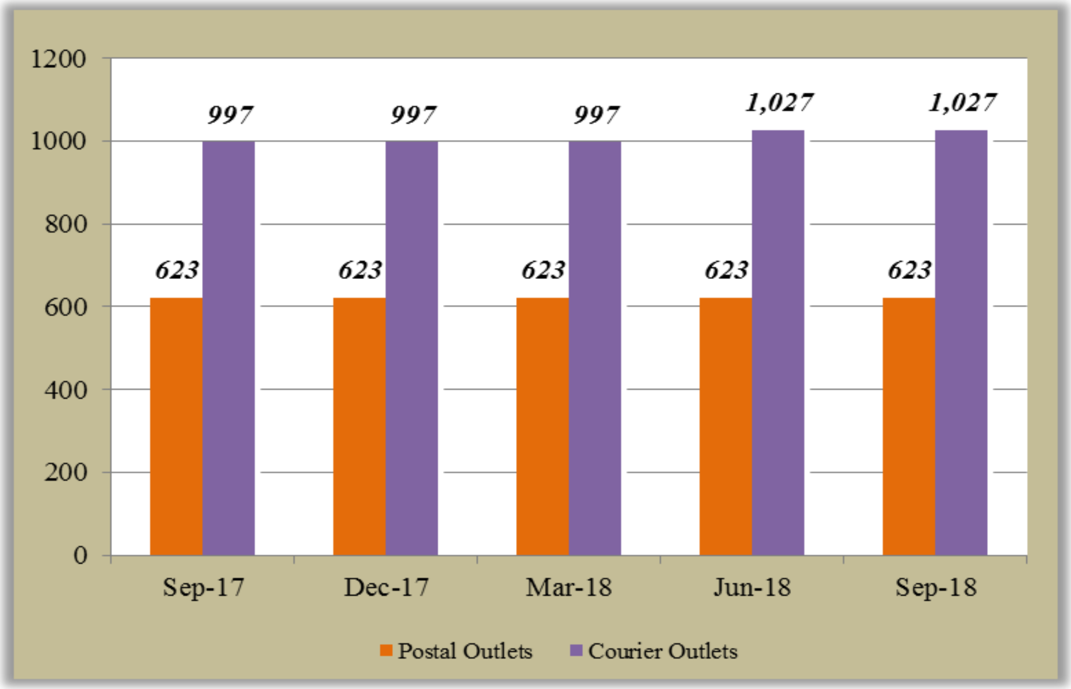
Table 20:Postal and Courier Traffic

Post and Courier Traffic	*Jul-Sep 18*	*Apr-Jun 18*	*Quarterly Variation (%)*	*Jul-Sep 17*
Number of Letters (Up to 350 gms) Posted Locally	11,855,451	14,296,493	-17.1	16,027,218
Total Courier Items Sent locally	1,161,006	1,213,619	-4.3	1,712,189
International Incoming Letters (Up to 350 gms)	2,112,953	2,057,884	2.7	1,078,968
International Outgoing Letters (Up to 350 gms)	986,600	999,287	-1.3	1,083,343

Source: CA, Operators' Returns.

6.2 Number of Postal and Courier Outlets

As at the end of September 2018, the Postal and Courier Outlets remained unchanged at 623 and 1,027 respectively as illustrated in Figure 10.



Source: CA, Operators' Returns.

Figure 10: Number of Postal and Courier Outlets

7 TARIFFS, PROMOTIONS AND SPECIAL OFFERS

During the period under review, the Authority received a total of 19 applications for tariffs and promotions & special offers. This represented a 5 per cent drop from the total number of applications received in the same period of the previous financial year.

The total number of tariff applications increased marginally, whilst the total number of promotions and special offers declined during the period under review, as compared to the previous quarter. A detailed distribution of the applications for tariffs and promotions & special offers is illustrated in Tables 19 and 20 respectively.

Table 21:Tariffs

Period	Type of Tariff							
	Voice	*SMS*	*Data*	*Airtime*	*Bundle*	*Mobile Money*	*Other2*	*Total*
Jul-Sep 18	1	0	3	1	3	0	0	8
Apr-Jun 18	-	-	4	-	2	-	-	6
Jan-Mar 18	-	1	1	-	3	-	1	6
Oct-Dec 17	-	-	9	-	3	-	2	14

Source: CA, filed promotions and special offers

Table 22:Promotions and Special Offers

Period	Type of Promotion and Special Offer								
	Voice	*SMS*	*Data*	*Bundle*	*Airtime*	*Lucky Draw6*	*Mobile Money*	*Other7*	*Total*
Jul-Sep 18	2	0	6	2	1	0	0	0	11
Apr-Jun 18	2	-	6	2	1	-	1	4	16
Jan-Mar 18	1	-	5	1	3	2	3	2	17
Oct-Dec 17	-	-	6	2	4	1	-	7	20

Source: CA, filed promotions and special offers

8 CONCLUSION

The mobile service industry is growing faster than a beanstalk. It is quite huge and growing rapidly. As expected, the consumers of mobile services have increased significantly, and the number of mobile services in the market has reached new heights. This growth is mainly driven by the major developments witnessed in mobile payments, cloud computing, Internet of Things (IoT), artificial intelligence and mobile applications markets coupled with increased network expansion in the country. These factors are expected to keep driving the mobile sub-sector in the coming quarters as Kenyans continue to embrace new and emerging services. The subsequent quarter is expected to exhibit increased growth considering that it falls within the busy national examination and festive season.

Statistically, mobile data subscriptions constitute 99.2 per cent of the total data/Internet subscriptions in the Kenya. As a result, the data/Internet market in the country is expected to grow significantly following the rapid growth in mobile Internet related services and applications coupled with increased roll out of 4G mobile network. The development and growth of e-commerce industry is also expected to drive demand for data/Internet services in the country.

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

[7]"Other" refers to promotions that cannot be clearly attributed to any clear category of services.

Just like mobile money transfer services, e-commerce enables buyers to access goods and services from anywhere, anytime and at better prices. The government through the Ministry of ICT has established a multi-sectoral National Steering Committee on e-commerce, which is expected to establish the current status of e-commerce in Kenya and develop strategies aimed at driving e-commerce.