SECOND QUARTER SECTOR STATISTICS REPORT FINANCIAL YEAR 2023/2024

(October-December 2023)

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LIST OF ACRONYMS

DoS	Denial-of-Service
EASSy	Eastern Africa Submarine Cable Systems
FTTH/O	Fibre-To-The-Home/Office
FY	Financial Year
Gbps	Gigabits per second
ICTs	Information and Communication Technologies
KE-CIRT/CC	National Kenya Computer Incident Response Team/Coordination Centre
LION2	Lower Indian Ocean Network
Mbps	Megabits per second
MoU	Minutes of Use
MVNO	Mobile Virtual Network Operator
SEACOM	Sea Sub-Marine Communications Limited
SIM	Subscriber Identification Module
SMS	Short Messaging Service
TEAMS	The East African Marine System
PEACE	Pakistan & East Africa Connecting Europe
VoIP	Voice over Internet Protocol
FM	Frequency Modulation
3G	Third Generation
4G	Fourth Generation
5G	Fifth Generation
DDOS	Distributed Denial of Service
OTT	Over-The-Top media services

PRELIMINARY NOTES

This report is based on data provided by licensees in the ICT sector as per their license conditions and obligations. The information provided herein is subject to review during the subsequent quarter in case of any revisions or updates from the licensees.

This report has been prepared in line with best practice and adheres to International Telecommunications Union (ITU) standards on collection of administrative/supply side data on telecommunications/Information and Communications Technologies https://www.itu.int/en/ITU-D/Statistics/Documents/publications/handbook/2020/ITUHandbookTelecomAdminData2020_E_rev1.pdf and also the guiding manual available on our website https://www.ca.go.ke/reports-and-studies?page=2 . These manuals provide clarity on how the various indicators are defined, methodologies for data collection, scope of the indicators, and any limitations that may be related to the specific indicators.

The main objective of the report is to measure and monitor availability and accessibility of ICT services by Kenyans from the perspective of supply. It is key to note that this report **does not include demand side data** (data on usage/uptake of ICTs from the consumer perspective) as this information is collected through National ICT Surveys and reported separately as per ITU standards https://www.itu.int/en/ITUD/Statistics/Documents/publications/manual/ITUManualHouseholds2020_E.pdf. Therefore, the Authority collaborates with the Kenyan National Bureau of Statistics (KNBS) to collect the demand side data through National Surveys.

SUMMARY OF ICT INDICATORS

The Second Quarter Sector Statistics Report provides the performance and trends in the ICT sector for the period 1st October to 31st December 2023 in:

1. Mobile Network services
2. Fixed Network services
3. Courier services
4. Broadcasting services
5. Frequency spectrum management
6. Electronic transactions and Cyberspace management

Indicator/Period		Q2 (Oct-Dec 23)	Q1 (Jul-Sep 23)	Quarterly Variation (%)
MOBILE NETWORK SERVICES				
Subscriptions to Mobile Services	Total Mobile (SIM) Subscriptions	66,745,709	67,122,320	-0.6
	Machine-to-Machine (M2M) Subscriptions	1,515,338	1,523,310	-0.5
Mobile Money Transfer Services	Number of Registered Mobile Money Agents	327,162	338,209	-3.3
	Mobile Money Subscriptions	38,002,803	38,065,435	-0.2
Mobile Data and Broadband Subscriptions	Mobile Data Subscriptions	51,015,188	49,331,154	3.4
	Mobile Broadband Subscriptions	36,518,744	34,627,645	5.5
Mobile Phone Devices	Feature Phones	31,840,598	32,040,928	-0.6
	Smartphones	33,613,828	32,631,924	3.0
Domestic Mobile Traffic				
Mobile Voice Traffic (Minutes)	On-Net Voice Traffic	20,228,439,918	19,121,250,817	5.8
	Off-Net Voice Traffic	3,338,856,198	3,082,888,542	8.3
	Mobile to Fixed Network	14,721,036	15,022,550	-2.0
Mobile SMS Traffic	SMS On-Net	12,398,385,950	10,743,772,432	15.4
	SMS Off-Net	1,702,603,764	1,456,514,950	16.9
International Mobile Traffic				
Mobile Voice Traffic (Minutes)	International Incoming Mobile Voice Traffic	91,589,439	85,258,066	7.4
	International Outgoing Mobile Voice Traffic	181,746,037	179,701,005	1.1
Mobile SMS Traffic	International Incoming SMS	9,831,805	9,372,590	4.9
	International Outgoing SMS	3,924,444	3,739,629	4.9
Roaming Traffic				
Out-bound Roaming Traffic	Out-bound Roaming Incoming Voice Traffic (Minutes)	152,411,844	146,602,182	4.0
	Out-bound Roaming Outgoing Voice Traffic (Minutes)	11,507,662	11,736,806	-2.0
	Out-bound Roaming Incoming SMS	57,692,783	57,510,828	0.3
	Out-bound Roaming Outgoing SMS	6,225,021	6,345,238	-1.9
	Data Volumes (MB)	130,771,847	122,441,201	6.8
In-bound Roaming Traffic	In-bound Roaming Incoming Voice Traffic (Minutes)	121,030,181	77,489,707	56.2
	In-bound Roaming Outgoing Voice Traffic (Minutes)	4,923,206	5,057,364	-2.7
	In-bound Roaming Incoming SMS	45,185,436	43,772,986	3.2
	In-bound Roaming Outgoing SMS	1,831,735	1,882,427	-2.7

Indicator/Period		Q2(Oct-Dec 23)	Q1 (Jul-Sep 23)	Quarterly Variation (%)
	Data Volumes (MB)	301,457,556	378,260,011	-20.3
FIXED NETWORK SERVICES				
Fixed Voice Subscriptions	Fixed Line Subscriptions	9,027	9,605	-6.0
	Fixed Wireless Subscriptions	1,457	1,379	5.7
	Fixed VoIP Subscriptions	57,356	53,733	6.7
Domestic Fixed Voice Traffic	Fixed line-Fixed line	130,811	130,811	0.0
	Fixed Wireless-Fixed Wireless	255,122	305,462	-16.5
	Fixed to Mobile	22,509,738	22,481,678	0.1
International Fixed Voice Traffic	Incoming Fixed Voice Traffic	5,255,274	4,332,941	21.3
	Outgoing Fixed Voice Traffic	960,859	1,054,903	-8.9
	Outgoing Fixed VOIP	544,080	559,440	-2.8
Fixed Data and Broadband Services	Fixed Data/internet subscriptions	1,332,013	1,245,022	7.0
	Total Available International Bandwidth (Gbps)	17,293.743	17,353.722	-0.3
	Total Used International Bandwidth (Gbps)	10,995.90	10,965.293	0.3
PRIVATE COURIER SERVICES				
Outgoing Domestic Letters		273,827	413,720	-33.8
Outgoing Domestic Courier Items		1,440,828	1,427,436	0.9
International Outgoing Letters		403,556	411,194	-1.9
International Incoming Letters		95,077	111,533	-14.8
BROADCASTING SERVICES				
Licensed Commercial Free to Air TV		346	337	2.7
Licensed Commercial FM radio		212	202	5.0
Licensed Community Free to Air TV		9	9	0.0
Licensed Community FM Radio		78	76	2.6
DTT Subscriptions		4,487,877	4,476,826	0.2
DTH Subscriptions		1,812,448	1,801,670	0.6
Cable Subscriptions		56,707	64,631	-12.3
FREQUENCY SPECTRUM MANAGEMENT				
Microwave links Deployed		120	203	33.3
Fixed Links Decommissioned		33	11	200.0
FM Sound Broadcasting Frequencies Assigned		4	4	0.0
ELECTRONIC TRANSACTIONS AND CYBERSPACE MANAGEMENT				
.KE Domain		105,936	104,321	1.5
Total Cyber Threats Detected		1,292,285,408	123,899,936	943.0

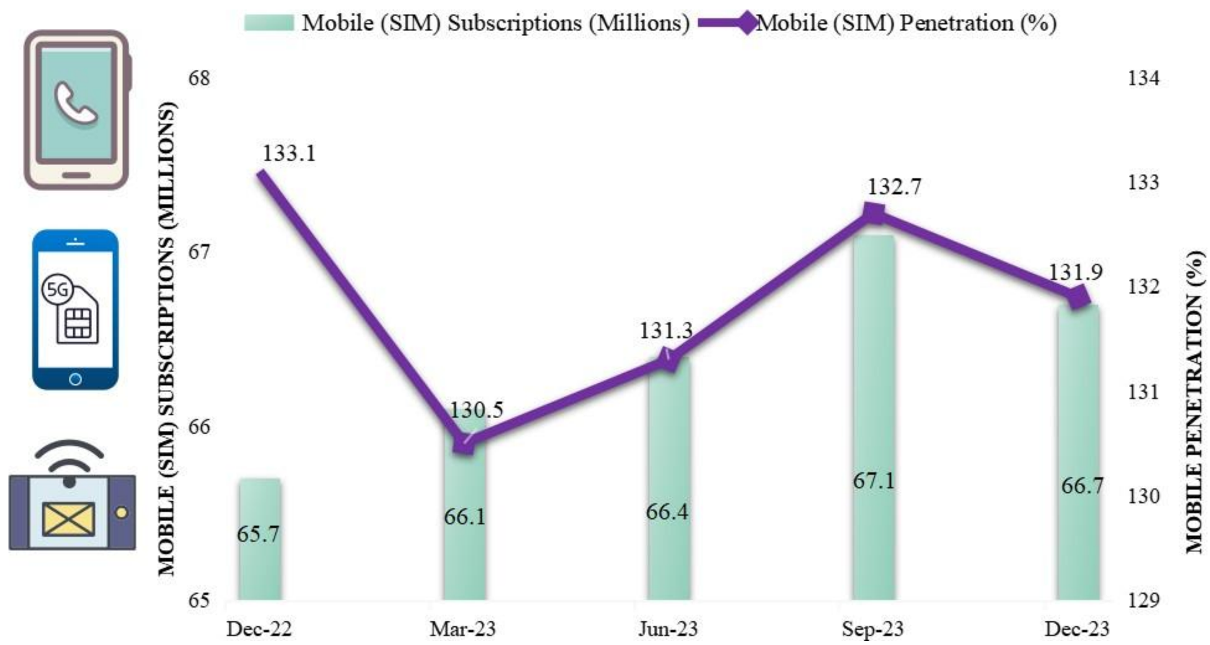
Indicator/Period	Q2(Oct-Dec 23)	Q1 (Jul-Sep 23)	Quarterly Variation (%)
Total Cyber Threat Advisories	8,061,267	5,581,354	44.4
POPULATION			
Total Population in Kenya (Millions)*	50.6	50.6	0.0

**Economic Survey 2023*

1. MOBILE NETWORK SERVICES

1.1 Active[1] Mobile (SIM) Subscriptions and Penetration Rate

The number of mobile subscriptions dropped from 67.1 million reported last quarter to 66.7 million during the reference period. This is attributed to high churn vis-à-vis acquisitions and especially with regard to Telkom Kenya Limited. Consequently, mobile penetration rate declined by 0.8 percentage points to record
131.9 percent.

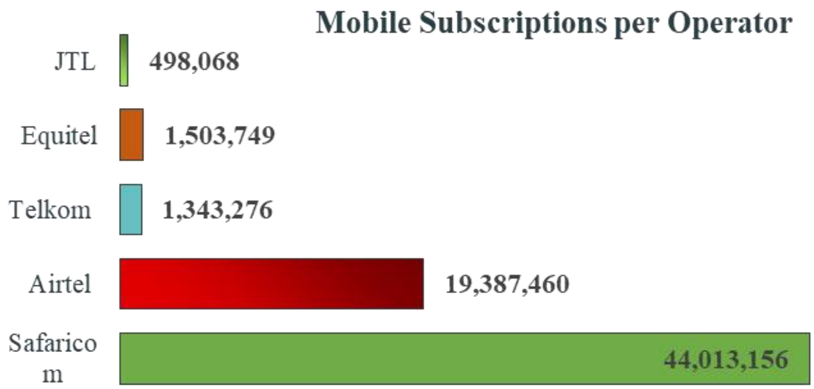


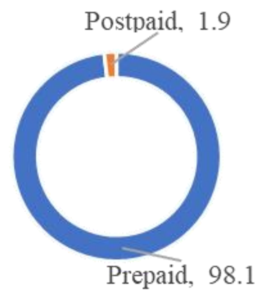
Source: CA, Operators' Returns

Figure 1: Mobile Subscriptions and Penetration

The number of active mobile (SIM) subscriptions per operator by contract type is as shown in Figure 2.

[1] Active mobile (SIM) subscription refers to any subscription that has generated revenue in the last 3 months (90 days)





Operator/Indicator	Total	Prepaid	Postpaid
Total Subscriptions	**66,745,709**	**65,492,294**	**1,253,415**
Safaricom	44,013,156	42,875,208	1,137,948
Airtel	19,387,460	19,282,993	104,467
Telkom	1,343,276	1,332,276	11,000
Equitel	1,503,749	1,503,749	
JTL	498,068	498,068	

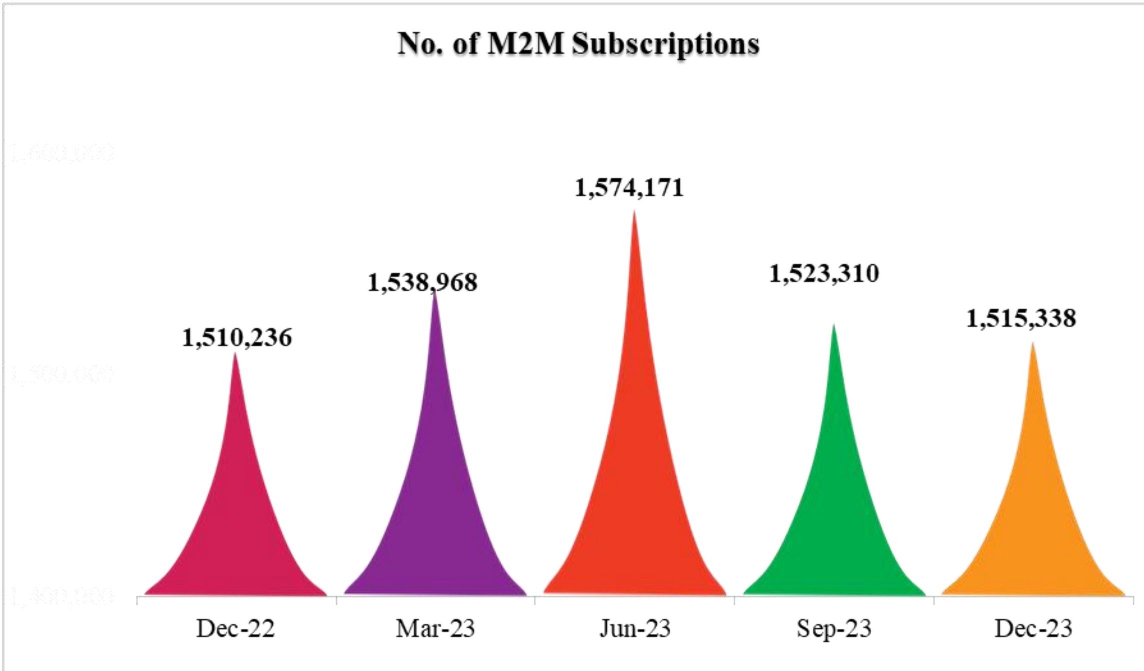
S*ource: CA, Operators' Returns*

Figure 2:Mobile Subscriptions per Operator

1.2 Machine-to-Machine (M2M[2]) Subscriptions

As shown in Figure 3, Machine-to-Machine (M2M) subscriptions nominally dropped to 1.515 million from 1.523 million recorded in the preceding quarter.

[2] **Machine to Machine mobile-network subscriptions (M2M subscriptions)** refer to the number of mobile cellular machine-to-machine subscriptions that are assigned for use in machines and devices (cars, smart meters, consumer electronics) for the exchange of data between networked devices, and are not part of a consumer subscription. For instance, SIM cards in personal navigation devices, smart meters, trains and automobiles are included while mobile dongles and tablet subscriptions are excluded. Only active subscriptions are counted.

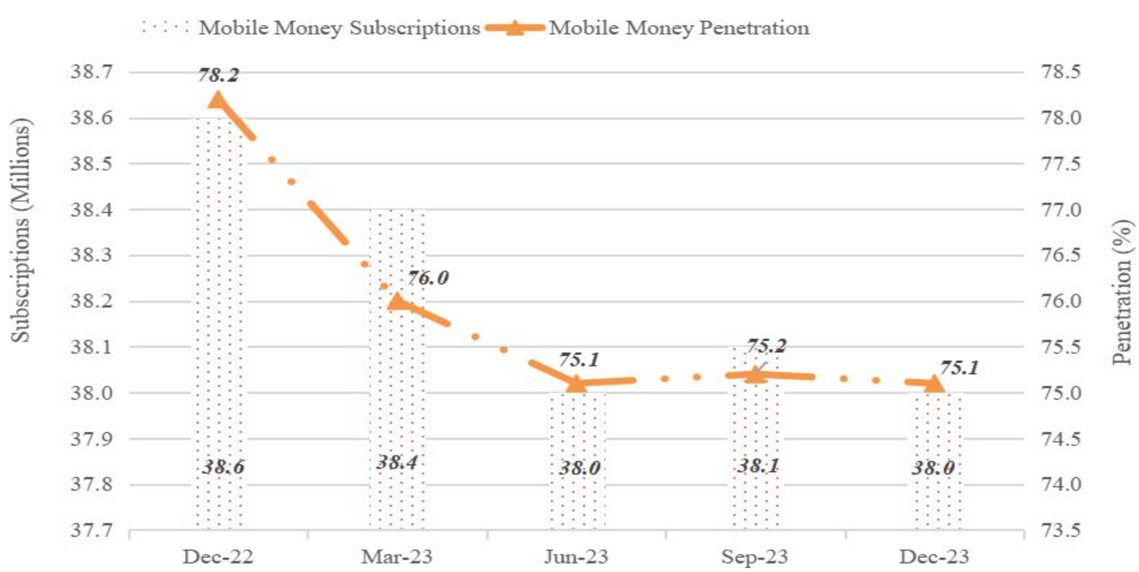


*Source: CA, Operators' Returns.*Provisional Data for Telkom Kenya Limited*

Figure 3:M2M Subscriptions

1.3 Mobile Money Services

As of 30th December 2023, mobile money subscriptions dropped to stand at 38.0 million as shown in Figure 4 translating to a penetration rate of 75.1 percent. The decline is attributed to the drop of number of mobile (SIM) subscriptions.

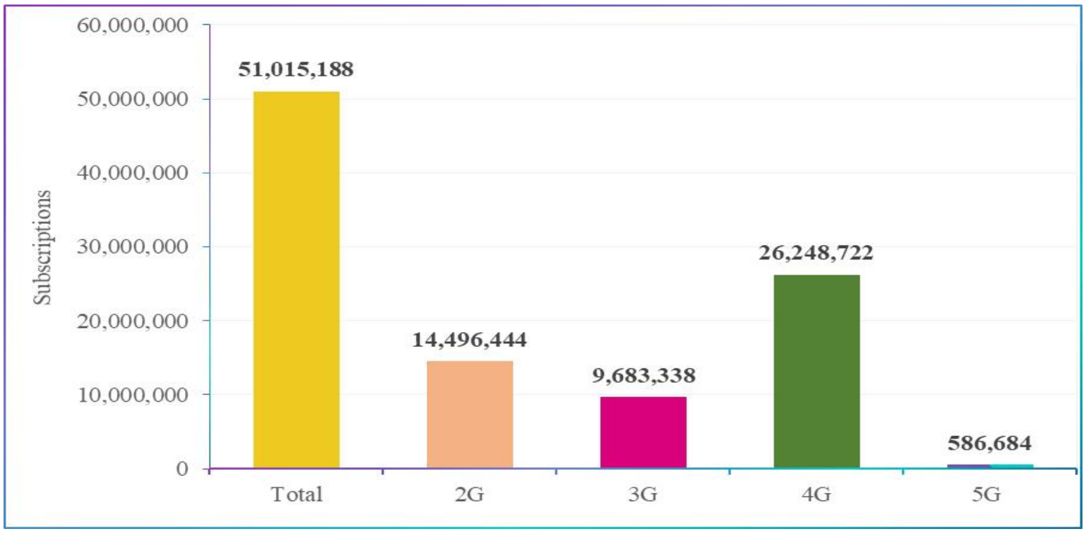


Source: CA, Operators' Returns

Figure 4:Mobile Money Services

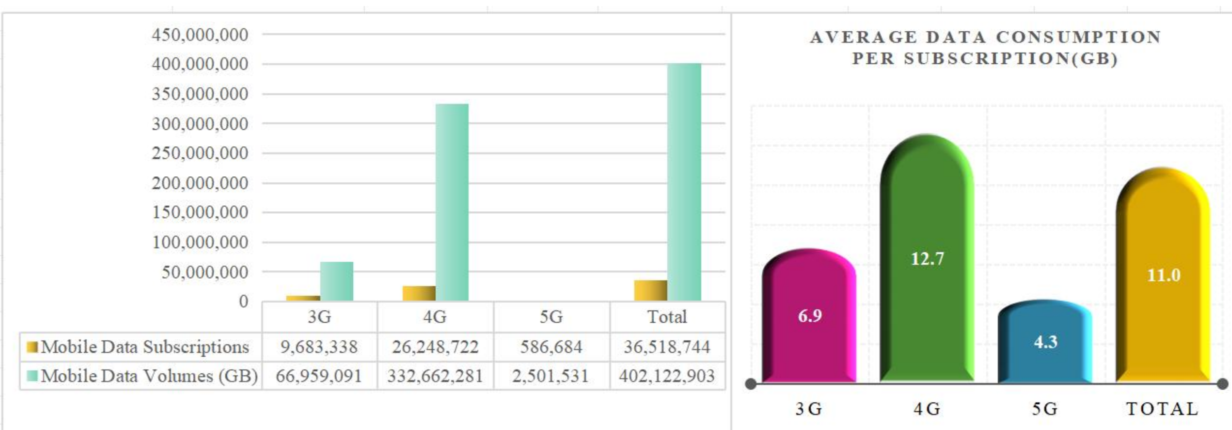
1.4 Mobile Data and Broadband[3] Services

As witnessed during the reference period, 4G technology has gained popularity among consumers of mobile data services, contributing up to 51.5 percent of total mobile data subscriptions. In addition, mobile data volumes consumed within the 4G network accounted for 82.7 percent of total data volumes. 4G mobile network population coverage in the country is currently at 97 percent with 2G and 3G leading at 98 percent.



Source: CA, Operators' Returns

Figure 5:Mobile Data and Broadband Subscriptions

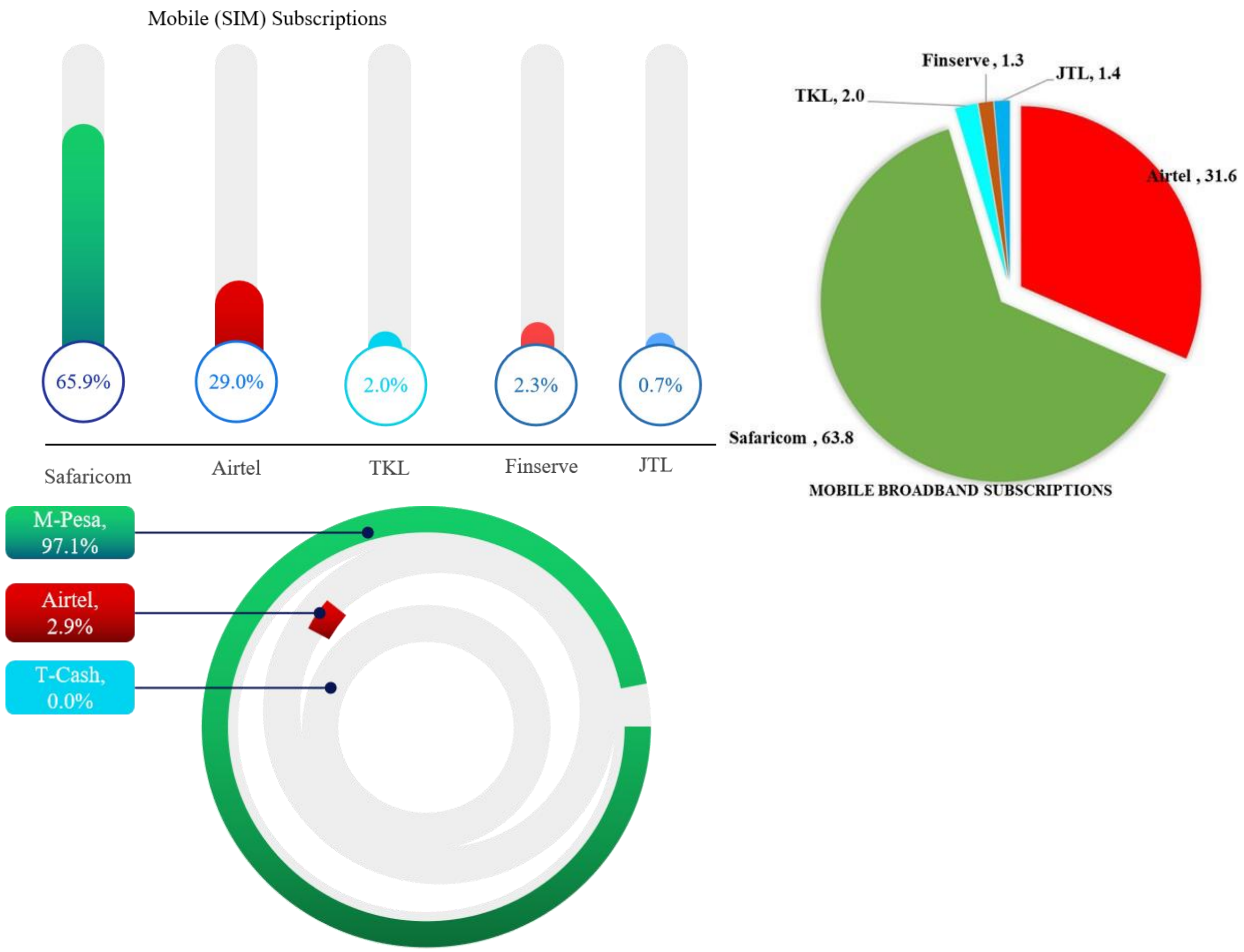


Source: CA, Operators' Returns

Figure 6:Mobile Broadband Subscription and Consumption

[3] **Mobile broadband** includes 3G, 4G and 5G. Broadband refers to connectivity that delivers interactive, secure, quality and affordable services at a minimum speed of 2Mbps (The National Broadband Strategy 2018-2023)

1.5 Market Shares in Subscriptions for Mobile Services

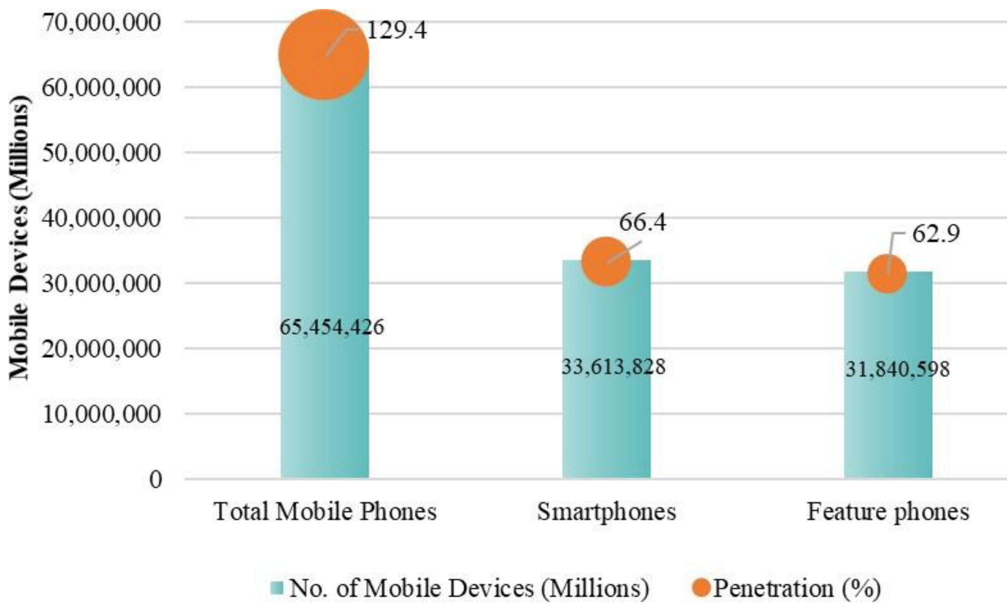


Mobile Money Subscriptions

Source: CA, Operators' Returns

Figure 7:Mobile Market Shares

1.6 Mobile Phone Devices



Total mobile phone devices stood at 65.45 million as at 31st December 2023 translating to device penetration rate of 129.4 percent. Penetration rates for feature phones and smartphones stood at 62.9 percent and 66.4 percent respectively

Source: CA, Operators' Returns

Figure 8:Mobile Phone Devices

1.7 Domestic Mobile Voice Traffic (Minutes)

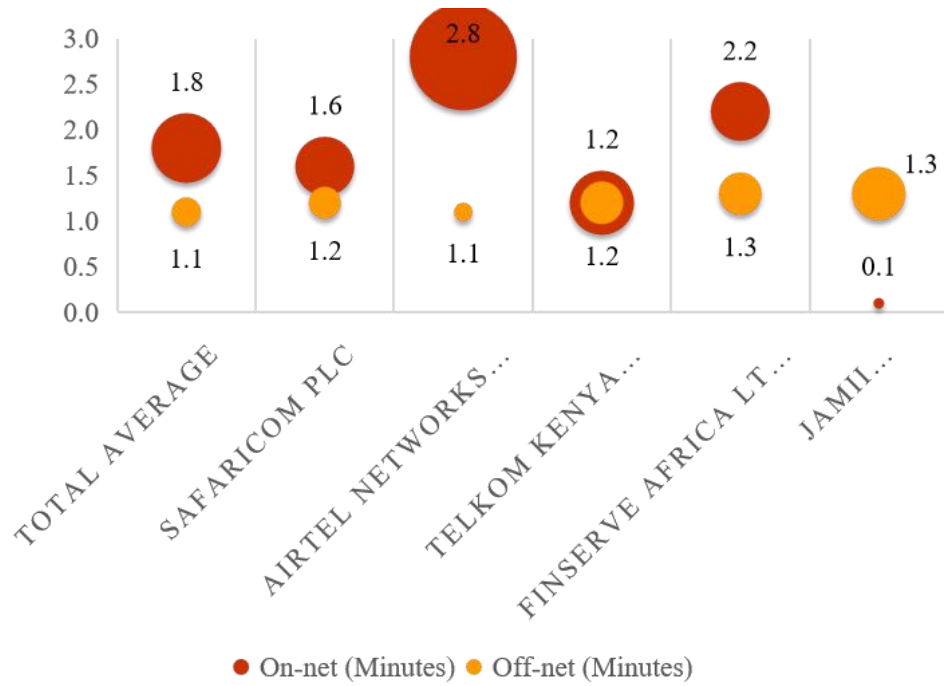
During the reference period, the volume of local mobile calls increased by 6.1 percent to 23.6 billion minutes up from 22.2 billion minutes reported in the last quarter. The significant increase is attributed to the long school holiday coupled with the festive season which had subscribers communicating for longer periods of time. On the other hand, mobile-to-fixed voice traffic dropped by 2.0 percent, to record 14.7 million minutes as shown in Table 1.

Table 1:Domestic Voice Traffic (Minutes)

Indicator/Period	***Oct-Dec 23***	***Jul-Sep 23***	***Quarterly Variation (%)***
Total Outgoing Traffic	**23,582,017,151**	**22,219,161,909**	**6.1**
On-net (Own Network – Own Network)	20,228,439,918	19,121,250,817	5.8
Off-net (Own Network to Other Mobile Networks)	3,338,856,198	3,082,888,542	8.3
Mobile Network to Fixed Network	14,721,036	15,022,550	-2.0

Source: CA, Operators' Returns

1.8 Minutes of Use per Call per Operator



During the reference period, Airtel Networks Ltd recorded the highest average on-net minutes/call whereas Jamii Telecommunications Ltd and Finserve (Equitel) recorded the highest off net minutes/call.

Source: CA, Operators' Returns

Figure 9:MoU per Call

1.9 Domestic Mobile SMS Traffic

During the quarter under review, domestic SMS traffic grew by 15.6 percent to 14.1 billion messages, from 12.2 billion messages posted in the preceding quarter. This growth is attributed to the long school holiday coupled with the festive season.

Table 2:Domestic Mobile SMS Traffic

Indicator/Period	***Oct-Dec 23***	***Jul-Sep 23***	***Quarterly Variation (%)***
Total SMS Traffic	**14,100,989,714**	**12,200,287,382**	**15.6**
On-net (Own Network – Own Network)	12,398,385,950	10,743,772,432	15.4
Off-net (Own Network to Other Mobile Networks)	1,702,603,764	1,456,514,950	16.9

Source: CA, Operators' Returns

1.10 Voice and SMS Traffic per Operator

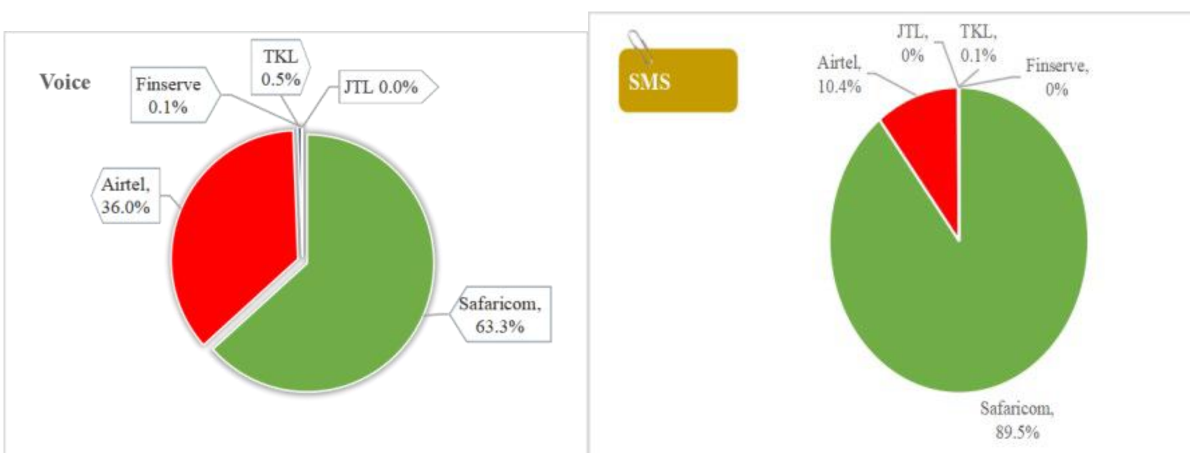
The trends for domestic voice and SMS traffic per operator are illustrated in Table 3.

Table 3:Voice and SMS Traffic per Operator

Name of Operator /Indicator			***Safaricom PLC***	***Airtel Networks Kenya Limited***	***TKL***	***Finserve***	***JTL***	***Total***
Oct-Dec 23	***Voice***	***Total***	**14,923,434,381**	**8,488,455,129**	**126,252,103**	**23,544,528**	**5,609,974**	**23,567,296,116**
		On-net	13,865,262,217	6,295,165,969	66,074,238	1,873,807	63,686	**20,228,439,918**
		Off-net	1,058,172,164	2,193,289,160	60,177,865	21,670,721	5,546,288	**3,338,856,198**
	SMS	***Total***	**12,618,045,187**	**1,462,986,402**	**15,081,264**	**4,000,987**	**875,874**	**14,100,989,714**
		On-net	11,701,763,252	694,542,406	778,215	1,248,994	53,083	**12,398,385,950**
		Off-net	916,281,935	768,443,996	14,303,049	2,751,993	822,791	**1,702,603,764**
Jul-Sep 23	***Voice***	***Total***	**14,212,193,163**	**7,803,142,880**	**159,186,399**	**25,018,730**	**4,598,187**	**22,204,139,359**
		On-net	13,266,185,991	5,768,283,700	84,747,597	1,972,819	60,710	**19,121,250,817**
		Off-net	946,007,172	2,034,859,180	74,438,802	23,045,911	4,537,477	**3,082,888,542**
	SMS	***Total***	**10,894,805,460**	**1,283,512,508**	**16,178,792**	**5,020,616**	**770,006**	**12,200,287,382**
		On-net	10,168,519,834	572,446,572	1,025,213	1,746,509	34,304	**10,743,772,432**
		Off-net	726,285,626	711,065,936	15,153,579	3,274,107	735,702	**1,456,514,950**

Source: CA, Operators' Returns

1.11 Market shares in Domestic Mobile Voice and SMS Traffic

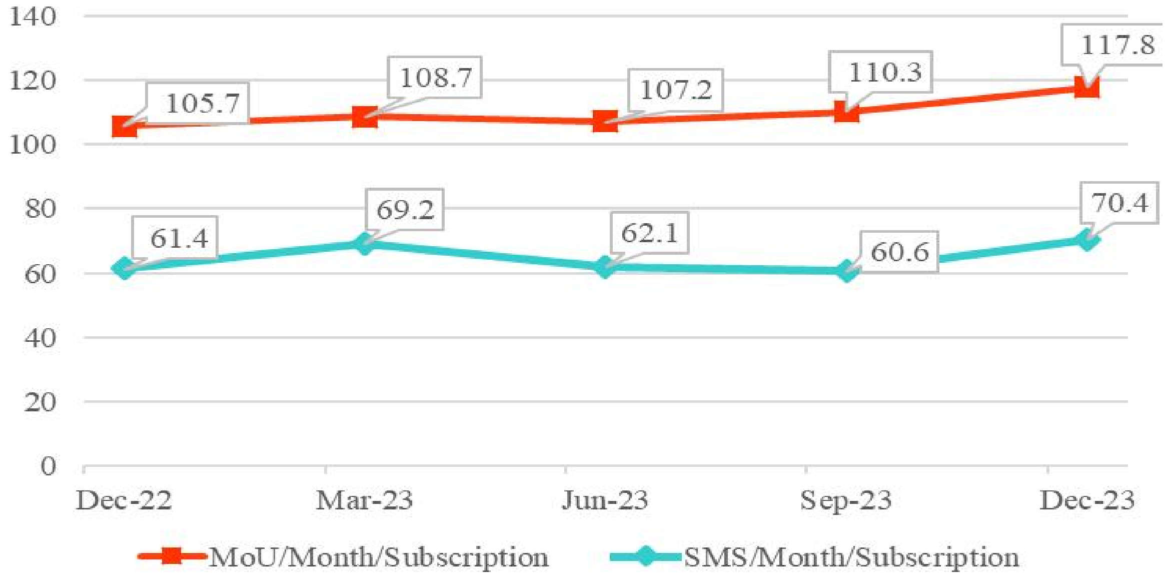


Source: CA, Operators' Returns

Figure 10:Market Shares in Domestic Mobile Voice and SMS

1.12 Minutes/Month/Subscription vs SMS/Month/Subscription

The Minutes of Use (MoU) per Month per Subscription grew to post 117.8 minutes from 110.3 minutes posted in the previous quarter. On the same trend, short messages sent (SMS) per month per subscription increased to 70.4 messages during the period under review. This is attributed to a significant growth in minutes and SMS during the reference period, driven by the extended school holiday coupled with the festive season.



Source: CA, Operators' Returns

Figure 11:MoU/Month/Subscription vs SMS/Month/Subscription

1.13 International Mobile Traffic

As shown in Table 4, international incoming and outgoing mobile voice traffic in minutes increased by 7.4 and 1.1 percent to record 91.6 million minutes and 181.7 million minutes respectively. Additionally, both incoming and outgoing international mobile SMS increased by 4.9 percent.

Table 4:International Mobile Traffic

Indicator/Period	***Region***	***Oct-Dec 23***	***Jul-Sep 23***	***Quarterly Variation (%)***
International Incoming Mobile Voice Minutes	*EAC*	71,579,076	64,803,006	10.5
	Others	20,010,363	20,455,060	-2.2
	Total	**91,589,439**	**85,258,066**	**7.4**
International Outgoing Mobile Voice Minutes	*EAC*	112,885,463	109,728,756	2.9
	Others	68,860,574	69,972,249	-1.6
	Total	**181,746,037**	**179,701,005**	**1.1**
International Incoming Mobile SMS		9,831,805	9,372,590	4.9
International Outgoing Mobile SMS		3,924,444	3,739,629	4.9

Source: CA, Operators' Returns

1.14 Roaming Traffic

Tables 5 and 6 shows the trends in outbound and inbound roaming traffic.

Table 5:Outbound Roaming Traffic

Country / Indicator	Incoming Voice (Minutes)	Incoming SMS	Outgoing Voice (Minutes)	Outgoing SMS	Data Volumes (MB)
Uganda	130,525,722	1,879,729	4,565,460	1,749,311	41,002,857
Tanzania	12,135,523	15,565,903	1,080,178	693,521	13,397,080
Rwanda	3,503,338	-	846,510	164,622	4,421,161
Burundi	5,133	939,987	2,146	9,985	13,903
S. Sudan	5,086,388	-	729,344	221,438	62,234
Democratic Republic of Congo	6,917	147,076	490,008	56,981	16,393,278
EAC Total	**151,263,021**	**18,532,695**	**7,713,646**	**2,895,858**	**75,290,513**
Others	1,148,823	39,160,088	3,794,016	3,329,163	55,481,334
Total	**152,411,844**	**57,692,783**	**11,507,662**	**6,225,021**	**130,771,847**

Source: CA, Operators' Returns

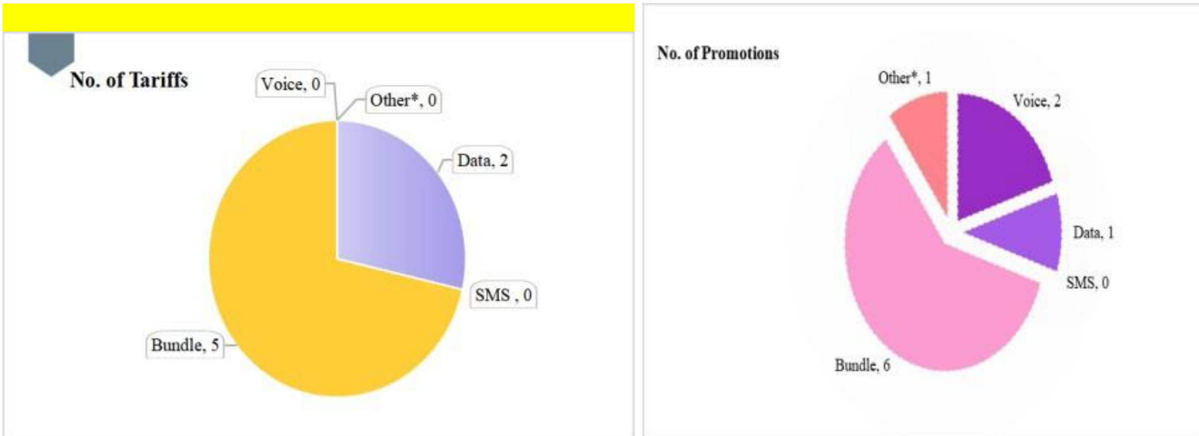
Table 6:In-bound Roaming Traffic

Country / Indicator	Incoming Voice (Minutes)	Incoming SMS	Outgoing Voice (Minutes)	Outgoing SMS	Data Volumes (MB)
Uganda	22,278,324	4,573,136	1,540,837	215,057	15,612,952
Tanzania	79,331,534	18,993,599	510,278	175,283	1,680,619
Rwanda	13,275,099	2,314,115	212,647	37,904	501,145
Burundi	580	1,513	589	281	36
S. Sudan	4,973,108	785,200	205,397	31,426	335,546
Democratic Republic of Congo	7,768	112,970	63,755	8,265	169,738
EAC Total	**119,866,413**	**26,780,533**	**2,533,503**	**468,216**	**18,300,036**
Others	1,163,768	18,404,903	2,389,703	1,363,519	283,157,520
Total	**121,030,181**	**45,185,436**	**4,923,206**	**1,831,735**	**301,457,556**

Source: CA, Operators' Returns

1.15 Tariffs, Promotions and Special Offers

The number of approved applications for tariffs and, promotions & special offers filed by MNOs during the referenced period is as shown in Figure 12.



Source: CA, filed tariffs, promotions and special offers

Figure 12:Distribution of Tariffs, Promotions and Special Offer

1.16 Average Pay-As-You-Go (PAYG) Tariffs

Table 7:Average Pay-As-You-Go (PAYG) Tariffs

Operator/Market	***Average Voice (KES/Min)***	***SMS (KES/SMS)***	***Data (KES/MB)***
Safaricom PLC	4.87	1.20	4.87
Airtel Network Limited	2.78	1.20	4.50
	4.50	1.20	4.50
Telkom Kenya Limited	3.54	1.15	4.50
Average	**3.92**	**1.19**	**4.59**

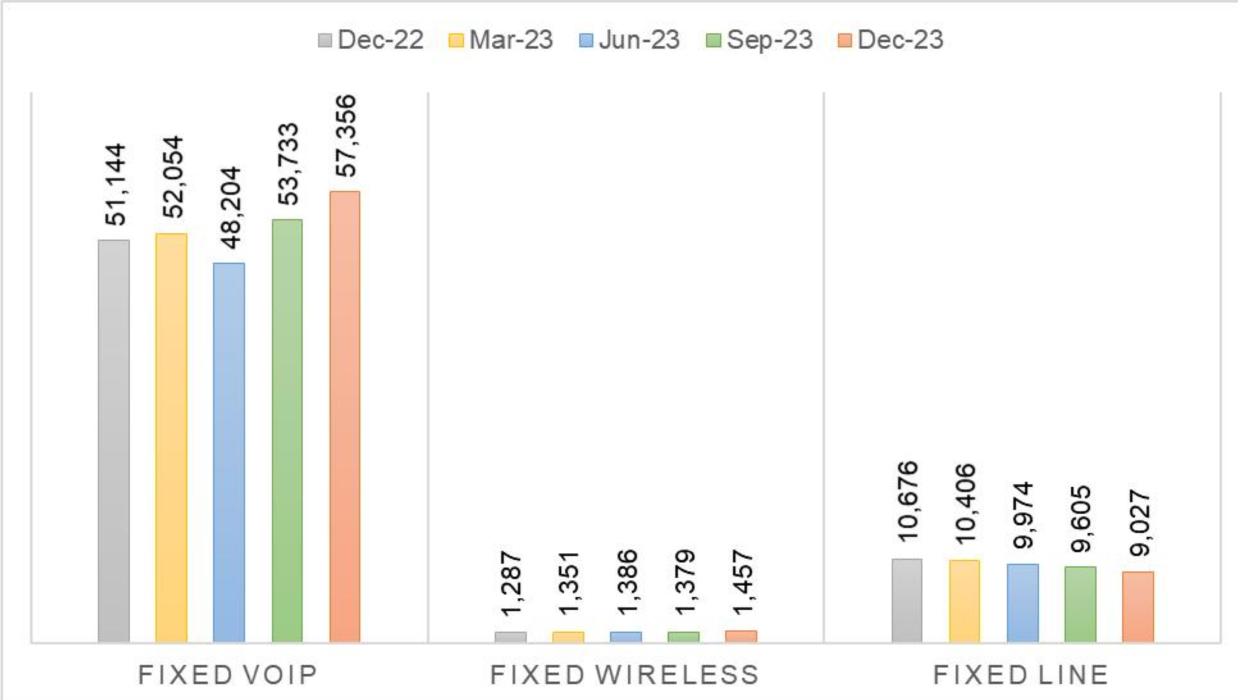
Source: CA

2. FIXED NETWORK SERVICES

2.1 Fixed Telephone Subscriptions

During the quarter, fixed VoIP subscriptions grew by 6.7 percent compared to 11.5 percent growth recorded during the first quarter.

The trends in fixed voice subscriptions are as shown in Figure 13.



Source: CA, Operators' Returns

Figure 13:Fixed Voice Subscriptions

2.2 Domestic Fixed Voice Traffic

The total domestic fixed voice traffic declined by 0.1 percent to report 22.9 million during the quarter under review as shown in Table 8.

Table 8:Domestic Fixed Voice Traffic (Minutes)

Domestic Fixed Voice Traffic (Minutes)	*Oct-Dec 23*	*Jul-Sep 23*	*Quarterly Variation (%)*
Fixed-Fixed	130,811	130,811	0.0
Fixed Wireless-Fixed Wireless	255,122	305,462	-16.5
Fixed to Mobile	22,509,738	22,481,678	0.1
Total Domestic Fixed Network Traffic	**22,895,671**	**22,917,951**	-0.1

Source: CA, Operators' Returns

2.3 International Fixed Voice Traffic

During the reference period, international incoming fixed voice recorded an upward trend whereas outgoing fixed voice and outgoing fixed VoIP traffic recorded a downward trend as shown in Table 9.

Table 9:International Fixed Voice Traffic

Indicator/Period	Oct-Dec 23	Jul-Sep 23	Quarterly Variation (%)
International Incoming Fixed Network Voice traffic	5,255,274	4,332,941	21.3
International Outgoing Fixed Network Voice traffic	960,859	1,054,903	-8.9
International Outgoing Fixed VoIP traffic	544,080	559,440	-2.8

Source: CA, Operators' Returns

2.4 Fixed Data and Broadband Subscriptions

Table 10 shows the breakdown of Fixed Data/Internet and Broadband service subscriptions by technology by speed.

Table 10:Fixed Data and Broadband Subscriptions

Internet Technology/Speed	<256Kbps	=>256Kbps < 2Mbps	=>2 Mbps <10 Mbps	=>10Mbps <30 Mbps	=>30 Mbps <100Mbps	=>100 Mbps <1Gbps	=>1Gbps	Totals
Cable Modem	0	0	49,354	140,306	8,468	223	0	198,351
Copper (DSL)	5	9	148	9	22	0	0	193
FTTH	0	1,698	298,399	244,809	207,729	4,046	0	756,681
FTTO	0	4,922	20,612	23,128	27,005	2,201	362	78,230
Fixed Wireless	10,025	5,542	257,366	16,404	4,785	722	0	294,844
Satellite	31	41	20	127	0	2,714	0	2,933
Other Fixed	0	665	85	29	2	0	0	781
Totals	**10,061**	**12,877**	**625,984**	**424,812**	**248,011**	**9,906**	**362**	**1,332,013**

Source: CA, Operators' Returns.

2.5 Fixed Data Subscriptions by Operator

Table 11 shows Fixed Data Subscriptions and percentage market shares per Operator.

Table 11:Fixed Data Subscriptions by Operator

Service Provider/Indicator	Number of data subscriptions	Market share (%)
Safaricom PLC	487,924	36.7
Jamii Telecommunications Ltd	315,819	23.7
Wananchi Group (Kenya) Limited*	261,723	19.6
Poa Internet Kenya Ltd	169,738	12.8
Mawingu Networks Ltd	26,907	2.0
Dimension Data Solutions East Africa Limited	16,465	1.2
Vilcom Network Limited	13,852	1.0
Liquid Telecommunications Kenya	10,979	0.8
Vijiji Connect Limited	5,131	0.4
Other Fixed Service providers	23,475	1.8

*Source: CA Operators' Returns, * includes Wananchi Group, Wananchi Telecom, ISAT and Simbanet.*

2.6 International Bandwidth

The total available Internet bandwidth capacity in the country dropped to 17,293.743 Gbps from 17,353.722 Gbps posted in the previous quarter. This is attributed to a reduction in LION 2 Lit capacity, as one of the customers transferred their capacity from LION 2 within the quarter. Additionally, there was an increase in EASSY design capacity due to an upgrade.

Utilization of undersea bandwidth on the other hand, rose by 0.3 to record 10.995.452 Gbps out of which 8,041.632 Gbps was used in the country and 2,953.820 Gbps sold outside the country as shown in Table 12.

Table 12:International Internet Bandwidth (Gbps)

Indicator/ Period	***Oct-Dec 23***			***Jul – Sep 23***		***Quarterly Variation (%)***
Total Available (Lit/Equip) Bandwidth Capacity (Gbps)			**17,293.743**		**17,353.722**	**-0.3**
Undersea Bandwidth Capacity	**SEACOM**		3,920.000	**SEACOM**	3,920.000	0.0
	TEAMS		4,063.000	**TEAMS**	4,063.000	0.0
	Telkom Kenya	***EASSY***	5,450.000	***EASSY***	5,450.000	0.0
		Lion 2	820.500	***Lion 2***	880.500	-6.8
		DARE 1	1,386.000	***DARE 1***	1,386.000	0.0
		PEACE	1,651.405	***PEACE***	1,651.405	0.0
Satellite Bandwidth Capacity			2.838		2.817	0.7
Total Utilized Bandwidth Capacity (Gbps)						
Undersea Bandwidth Capacity	Sold in Kenya	Sold in other Countries		Sold in Kenya	Sold in other Countries	Quarterly Variation (%)
	8,041.632	2,953.820		8,011.046	2,953.820	0.3
Satellite Internet Capacity			0.448		0.427	4.9

Source: CA, Operators' Returns,

3. COURIER SERVICES

3.1 Private Operator Traffic

Table 13 illustrates courier traffic for the period between 1st October to 31st December 2023.

Table 13:Courier Items

Indicator/Period	***Oct-Dec 23***	***Jul-Sep 23***	***Quarterly Variation (%)***
Outgoing Domestic Letters	288,233	413,720	-30.3
Outgoing Domestic Courier Items	1,451,307	1,427,436	1.7
International Outgoing Letters	405,398	411,194	-1.4
International Incoming Letters	110,328	111,533	-1.1

Source: CA, Operators' Returns,

4. BROADCASTING SERVICES

Table 14 shows licensees within Broadcast License Framework as at 31st December 2023 and the category of services offered.

Table 14:Licensees under Broadcast License Framework

Indicator/Period	***Dec-23***	***Sep-23***	***Quarterly Variation (%)***
Broadcast Signal Distributor	2	2	0.0
Self-Provisioning Broadcast Signal Distributor	3	3	0.0
Commercial Free to Air TV	346	337	2.7
Community Free to Air TV	9	9	0.0
Commercial FM radio	212	202	5.0
Community FM Radio	78	76	2.6
Subscription Broadcasting Service	18	18	0.0
Subscription Management Service	4	4	0.0
Landing Rights Authorization	5	5	0.0
Total	**677**	**656**	**3.2**

Source: CA, Operators' Returns

4.1 Subscription to Broadcasting Services

The number of subscriptions within the broadcasting sub-sector grew by 0.6 percent to record 6.378 million as the end of Q2 FY 2023/24.

Table 15:Broadcasting Subscriptions

Indicator/Period		***Dec- 23***	***Sep-23***	***Quarterly Variation (%)***
DTT	Go TV	2,746,512	2,735,461	0.4
	Star Times	1,741,365	1,741,365	0.0
	Sub-Total	**4,487,877**	**4,476,826**	**0.2**
DTH	Azam	76,714	73,758	4.0
	MultiChoice (DSTV)	1,152,998	1,137,898	1.3
	Star Times	304,610	304,610	0.0
	Wananchi (Zuku)	278,126	285,404	-2.6
	Sub-Total	**1,812,448**	**1,801,670**	**0.6**
Cable	Cable One	2,685	2,658	1.0
	CTN (MSA)	2,060	2,048	0.6
	Wananchi (ZUKU)	69,674	56,230	23.9
	Hirani	3,600	3,600	0.0
	Wadani Cable	95	95	0.0
Sub-Total		**78,114**	**64,631**	**20.9**
Total		**6,378,439**	**6,343,127**	**0.6**

Source: CA, Operators' Returns

4.2 Average Pay TV Tariffs

Table 16:Average Pay TV Tariffs

Indicator	***Tariff (KSh.)***
Average Lowest Monthly Bouquet (KES) for DTT	249.00
Average Highest Monthly Bouquet (KES) for DTT	1,599.50
Average Lowest Monthly Bouquet (KES) for DTH	424.50
Average Highest Monthly Bouquet (KES) for DTH	4,737.00

Source: CA, Operators' Returns,

5. FREQUENCY SPECTRUM MANAGEMENT

During the reference period, the Authority approved deployment of 120 microwave links and decommissioning of 33 fixed links. Moreover, the Authority assigned 4 FM sound broadcasting frequencies to sound broadcasters.

Table 17:Frequency Spectrum Management

Indicator/Period	***Oct-Dec 23***	***Jul-Sep 23***	***Quarterly Variation (%)***
Microwave links Deployed	120	203	-40.9
Fixed Links Decommissioned	33	11	200.0
FM Sound Broadcasting Frequencies Assigned	4	4	0.0

Source: CA, Operators' Returns,

6. ELECTRONIC TRANSACTIONS AND CYBER SPACE MANAGEMENT

6.1 Registered Domain Names

As shown in Table 18 .CO.KE sub-domain recorded the highest market share of users at 84.8 percent as at 31st December 2023.

Table 18:KE Domains

SUB-DOMAIN	USER	Dec-23	
		Number of Users	% Share
TOTAL		**105,936**	**100**
CO.KE	Companies	89,883	84.8
ME.KE	Personal Websites and E-mail	5,874	5.5
.KE	Second level	5,192	4.9
OR.KE	Non-Profit-Making Organizations	1,963	1.9
AC.KE	Institutions of Higher Education	1,134	1.1
SC.KE	Lower and Middle-Level Institutions	894	0.8
GO.KE	Government Institutions	726	0.7
INFO.KE	Information	196	0.2
NE.KE	Personal Websites and E-mail	48	0.0
MOBI.KE	Mobile Content	26	0.0

Source: Kenic.

6.2 National Cyber Space Landscape

The trends in cyber threats detected and cyber threat advisories are as shown in Table 19 and Table 20.

Table 19: Cyber Threats Detected

Cyber Threat Detected	Oct-Dec 23	Jul-Sep 23	Quarterly Variation (%)
Malware	13,221,698	7,514,964	75.9
Brute Force Attacks (DDOS/Botnet)	9,670,849	5,101,538	89.6
Web Application Attacks	72,536	106,603	-32.0
System Vulnerabilities	1,269,267,620	111,149,684	1,041.9
Mobile Application Attacks	52,705	27,147	94.1
Total	**1,292,285,408**	**123,899,936**	**943.0**

Source: National KE-CIRT/CC

Table 20: Cyber Threat Advisories

Cyber Threat Advisories	Oct-Dec 23	Jul-Sep 23	Quarterly Variation (%)
Malware	781,561	156,982	397.9
DDOS	118,940	584,166	-79.6
Web Application Attacks	2,041,236	1,755,467	16.3
System Vulnerabilities	3,511,238	3,077,164	14.1
Mobile Application attacks	34,425	7,193	378.6
Digital Investigations	270	301	-10.3
Digital Forensics	213	81	163.0
Total	**8,061,267**	**5,581,354**	**44.4**

Source: National KE-CIRT/CC

7. CONCLUSION

The ICT sector experienced significant growth during the reference period as evident by the increase in data/Internet subscriptions, traffic, and international Internet bandwidth. However, there was a decline in mobile subscriptions which is attributed to high churn vis-à-vis acquisitions and especially with regard to Telkom Kenya Limited. However, the Authority remains committed to identifying and addressing any existing and potential barriers in the market with an aim of ensuring ICT consumers have access to reliable and affordable ICT services.