FOURTH QUARTER SECTOR STATISTICS REPORT FOR THE FINANCIAL YEAR 2023/2024 (1ST APRIL – 30TH JUNE 2024)

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Although every effort has been made to ensure the 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

2G	Second Generation
3G	Third Generation
4G	Fourth Generation
5G	Fifth Generation
ASPs	Application Service Providers
CA	Communications Authority of Kenya
Dare 1	Djibouti Africa Regional Express 1
DDOS	Distributed Denial of Service
DoS	Denial-of-Service
DSL	Digital Subscriber Line
DTH	Direct-To-Home
DTT	Digital Terrestrial Television
EAC	East African Community
EASSy	Eastern Africa Submarine Cable Systems
FM	Frequency Modulation
FTTH	Fibre-To-The-Home
FTTO	Fibre-To-The-Office
FY	Financial Year
GB	Gigabyte
Gbps	Gigabits per second
ICTs	Information and Communication Technologies
JTL	Jamii Telecommunications Limited
Kbps	Kilobits per second
KE-CIRT/CC	National Kenya Computer Incident Response Team/Coordination Centre
LION 2	Lower Indian Ocean Network 2
LTE	Long Term Evolution
MB	Megabytes
Mbps	Megabits per second
MNOs	Mobile Network Operators
MoU	Minutes of Use
MVNO	Mobile Virtual Network Operator
NCC	National Cybersecurity Centre
OTT	Over-The-Top media services
PCK	Postal Corporation of Kenya
PEACE	Pakistan and East Africa Connecting Europe
PLC	Public Limited Company
SEACOM	Sea Sub-Marine Communications Limited
SIM	Subscriber Identification Module
SMS	Short Messaging Service
TEAMS	The East African Marine System

TKL	Telkom Kenya Limited
UMTS	Universal Mobile Telecommunication System
VoIP	Voice over Internet Protocol

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 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. CA has domesticated the same and the manual containing definitions, methodologies and scope of the various indicators is available on https://www.ca.go.ke/sites/default/files/2023-06/ICT%20Indicators%20Manual%202019.pdf

The main objective of the report is to measure and monitor availablility 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) 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. The Authority collaborates with the Kenyan National Bureau of Statistics (KNBS) to collect the demand side data through National Surveys.

SUMMARY OF ICT INDICATORS

This Fourth Quarter Sector Statistics Report for the 2023/2024 Financial Year provides the performance and trends in supply and uptake of ICT services for the period 1st April to 30th June 2024 in the following categories:

1. Mobile Network Services
2. Fixed Network Services
3. Courier Services
4. Broadcasting Services
5. Frequency Spectrum Management
6. Electronic Transactions and Cyberspace Management
7. Conclusion

Indicator/Period	***Q4 (Apr-Jun 24)***	***Q3 (Jan-Mar 24)***	***Quarterly Variation (%)***
MOBILE NETWORK SERVICES			

Indicator/Period	*Q4 (Apr-Jun 24)*	*Q3 (Jan-Mar 24)*	*Quarterly Variation (%)*
Subscriptions to Mobile Services			
Total Mobile (SIM) Subscriptions	68,892,777	68,046,393	1.2
Machine-to-Machine (M2M) Subscriptions	1,743,134	1,607,536	8.4
Mobile Money Transfer Services			
Number of Registered Mobile Money Agents	347,699	339,282	2.5
Mobile Money Subscriptions	39,831,928	38,649,456	3.1
Mobile Data and Broadband Subscriptions			
Mobile Data Subscriptions	52,544,361	51,276,279	2.5
Mobile Broadband Subscriptions	38,477,030	37,236,783	3.3
Mobile Phones Devices			
Feature Phones	30,871,316	31,211,780	-1.1
Smartphones	35,214,539	34,140,290	3.1
Domestic Mobile Traffic			
Mobile Voice Traffic (Minutes)			
On-Net Voice Traffic	21,171,589,886	21,629,564,931	-2.1
Off-Net Voice Traffic	3,686,193,633	3,539,870,480	4.1
Mobile to Fixed Network	16,164,772	16,081,876	0.5
Mobile SMS Traffic			
SMS On-Net	11,980,521,714	11,812,948,311	1.4
SMS Off-Net	1,531,678,871	1,612,440,587	-5.0
International Mobile Traffic			
Mobile Voice Traffic (Minutes)			
International Incoming Mobile Voice Traffic	119,977,124	113,593,511	5.6
International Outgoing Mobile Voice Traffic	175,750,273	188,999,700	-7.0
Mobile SMS Traffic			
International Incoming SMS	7,532,271	9,122,335	-17.4
International Outgoing SMS	1,716,635	4,197,408	-59.1
Roaming Traffic			
Out-bound Roaming Traffic			
Out-bound Roaming Incoming Voice Traffic (Minutes)	146,592,148	159,086,813	-7.9
Out-bound Roaming Outgoing Voice Traffic (Minutes)	9,940,829	14,501,111	-31.4
Out-bound Roaming Incoming SMS	87,170,506	73,010,024	19.4
Out-bound Roaming Outgoing SMS	5,286,193	5,783,427	-8.6
Data Volumes (MB)	93,222,133	107,662,157	-13.4

Indicator/Period	*Q4 (Apr-Jun 24)*	*Q3 (Jan-Mar 24)*	*Quarterly Variation (%)*
In-bound Roaming Traffic			
In-bound Roaming Incoming Voice Traffic (Minutes)	132,200,139	124,387,268	6.3
In-bound Roaming Outgoing Voice Traffic (Minutes)	4,673,406	4,878,081	-4.2
In-bound Roaming Incoming SMS	47,570,761	44,872,531	6.0
In-bound Roaming Outgoing SMS	1,842,057	1,865,885	-1.3
Data Volumes (MB)	332,380,861	347,558,317	-4.4
FIXED NETWORK SERVICES			
Fixed Voice Subscriptions			
Fixed Line Subscriptions	8,670	8,670	-
Fixed Wireless Subscriptions	1,522	1,503	1.3
Fixed VoIP Subscriptions	60,783	60,842	-0.1
Domestic Fixed Voice Traffic			
Fixed line-Fixed line*	120,072	120,072	0.0
Fixed Wireless-Fixed Wireless	259,040	263,947	-1.9
Fixed to Mobile*	19,799,348	19,799,348	0.0
International Fixed Voice Traffic			
Incoming Fixed Voice Traffic	6,000,626	6,302,624	-4.8
Outgoing Fixed Voice Traffic	996,035	1,042,722	-4.5
Outgoing Fixed VOIP	544,828	555,414	-1.9
Fixed Data and Broadband Services			
Fixed Data/internet subscriptions	1,471,275	1,397,848	5.3
Total Available International Bandwidth (Gbps)	21,244.338	20,744.338	2.4
Total Used International Bandwidth (Gbps)	15,484.73	11,203.60	38.2
POSTAL AND COURIER SERVICES			
Outgoing Domestic Letters	415,818	373,293	11.4
Outgoing Domestic Courier Items	1,911,237	1,797,398	6.3
International Outgoing Letters	392,931	263,522	49.1
International Incoming Letters	102,494	86,227	18.9

Indicator/Period	*Q4 (Apr-Jun 24)*	*Q3 (Jan-Mar 24)*	*Quarterly Variation (%)*
BROADCASTING SERVICES			
DTT Subscriptions	4,486,919	4,465,254	0.5
DTH Subscriptions	1,841,697	1,830,251	0.6
Cable Subscriptions	59,576	77,783	-23.4
FREQUENCY SPECTRUM MANAGEMENT			
Microwave links Deployed	582	131	344.3
Fixed Links Decommissioned	525	0	100.0
FM Sound Broadcasting Frequencies Assigned	28	2	1,300.0
ELECTRONIC TRANSACTIONS AND CYBERSPACE MANAGEMENT			
.KE Domain	106,800	108,338	-1.4
Total Cyber Threats Detected	1,131,696,878	971,440,345	16.5
Total Cyber Threat Advisories**	9,347,363	8,524,132	9.7
POPULATION			
Total Population in Kenya (Millions) †	51,525,602	51,525,602	0

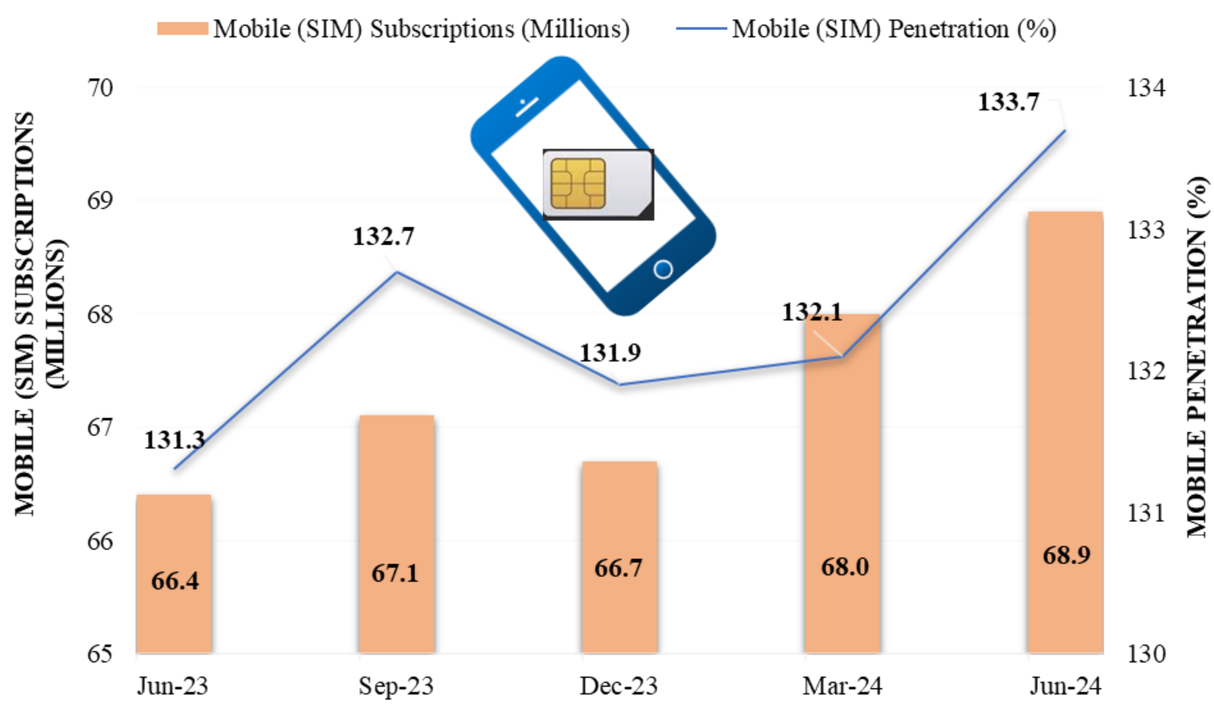
**Provisional Data for Telkom Kenya Limited, **Updated to exclude digital investigations and forensics, † Economic Survey 2024*

1. MOBILE NETWORK SERVICES

1.1 Mobile (SIM) Subscriptions

The telecommunications sub-sector in the country experienced significant growth during the 2023/24 Financial Year attributed to expansion of telecom infrastructure and increased adoption of smartphone services. However, there was a decline in uptake of mobile SIM cards in the period ending 31st December 2023 attributed to high churn vis-à-vis acquisitions especially across Telkom Kenya Limited network. Notably, the uptake started picking during the subsequent quarters resulting to 68.9 million active[1] mobile (SIM) subscriptions translating to a penetration rate of 133.7 percent by end of June 2024.

Figure 1 illustrates the trends in mobile (SIM) subscriptions and penetration.

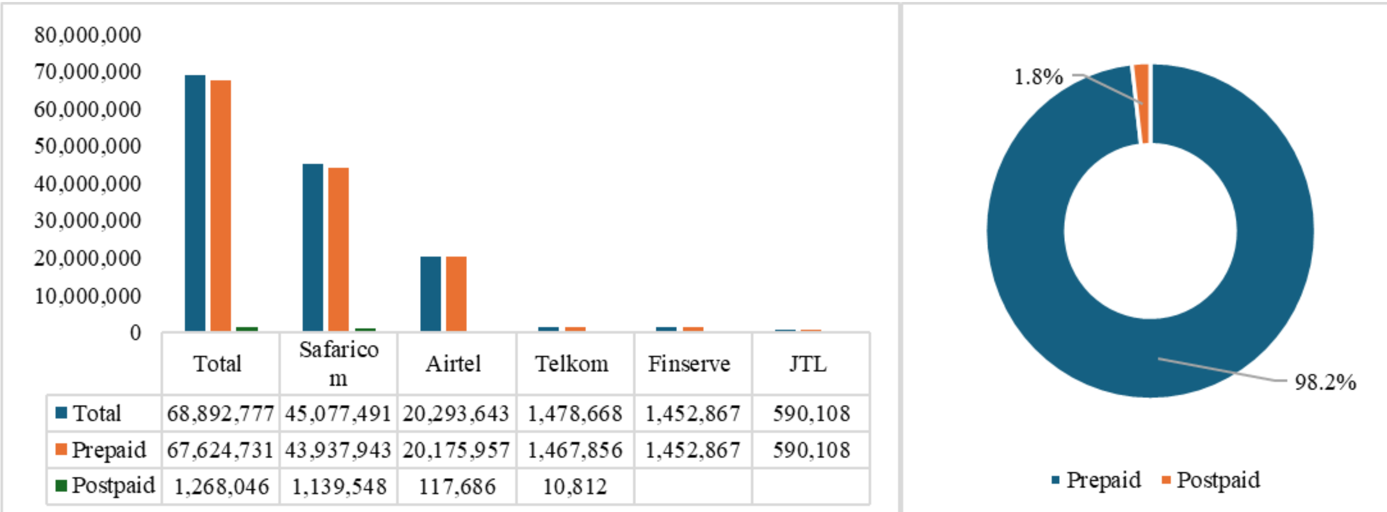


Source: CA, Operators' Returns, Provisional Data for Telkom Kenya Limited

Figure 1: Mobile Subscriptions and Penetration

[1] **Active SIM (Mobile) Subscriptions** refers to those SIM Cards used at least once in the last three months and have generated revenue through making or receiving a call or carrying out a non-voice activity such as sending or receiving an SMS, accessing the Internet, Airtime top-up, transacting using mobile money and mobile banking). Activities that do not result in revenue generation such as balance enquiry, unanswered calls, and password resets, amongst other free services, do not qualify a customer account as active.

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



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

Figure 2: Mobile Subscription per Operator

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

Machine-to-Machine (M2M) subscriptions grew by 8.4 percent to 1.74 million by end of June 2024 and 10.7 percent when compared to 1.57 million reported in June 2023 as shown in Table 1

Table 1: Machine-to-Machine (M2M) Subscriptions

Indicator/Period	*Jun-24*	*Mar-24*	*Quarterly Variation (%)*	*Jun-23*
Machine to Machine (M2M)	1,743,134	1,607,536	8.4	1,574,171

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

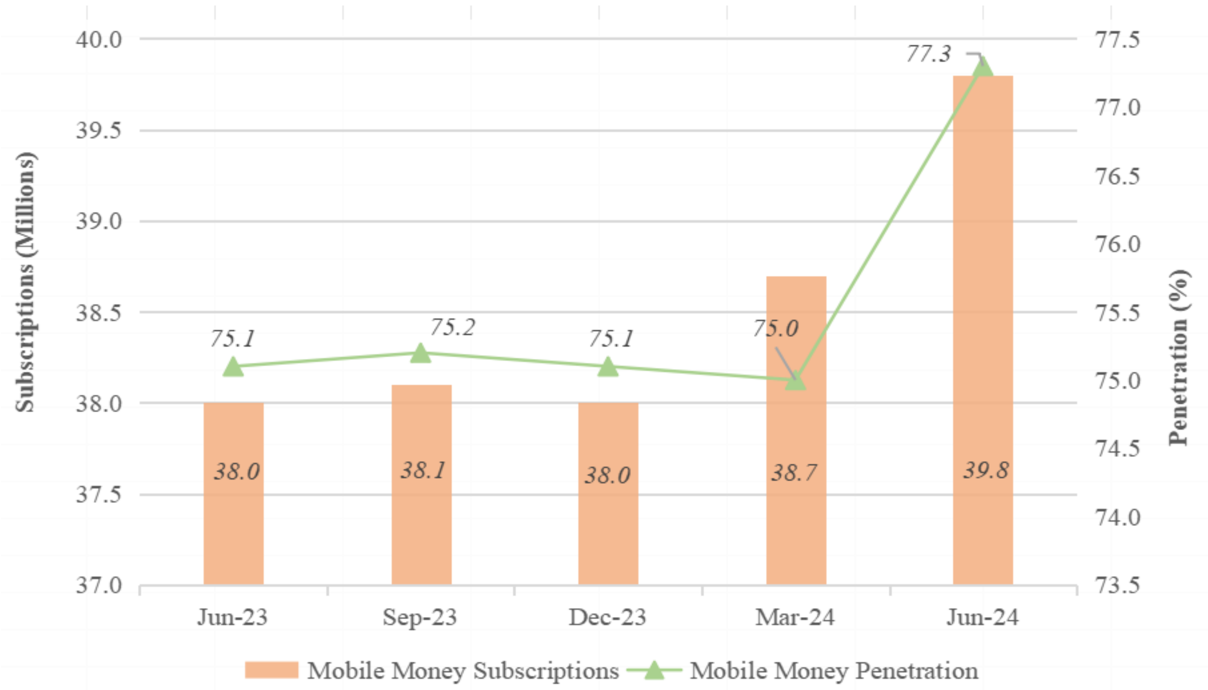
1.3 Mobile Money Services

As at 30th June 2024, mobile money subscriptions stood at 39.8 million translating to a penetration rate of 77.3 percent. This increase is directly proportional to the increase in mobile (SIM) subscriptions. However, the removal of withdrawal codes for transactions sent from M-

[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.

Pesa to Airtel Money enabling funds to be transferred directly into the Airtel Money account (wallet) could have enhanced the uptake for mobile money services.

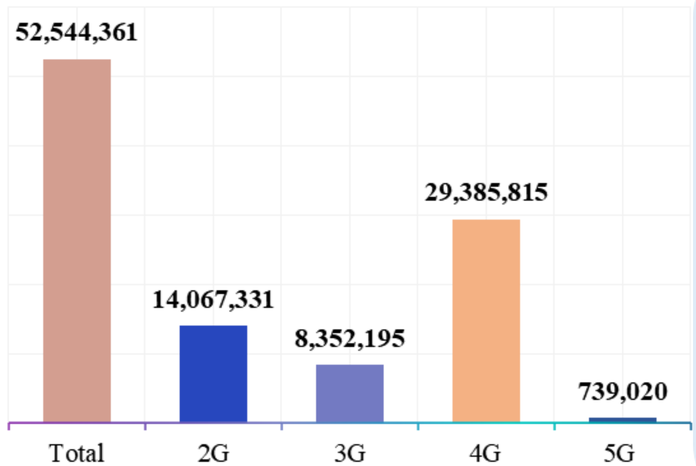
Figure 3 illustrates the trends of Mobile Money subscriptions and penetration.



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

Figure 3:Mobile Money Services

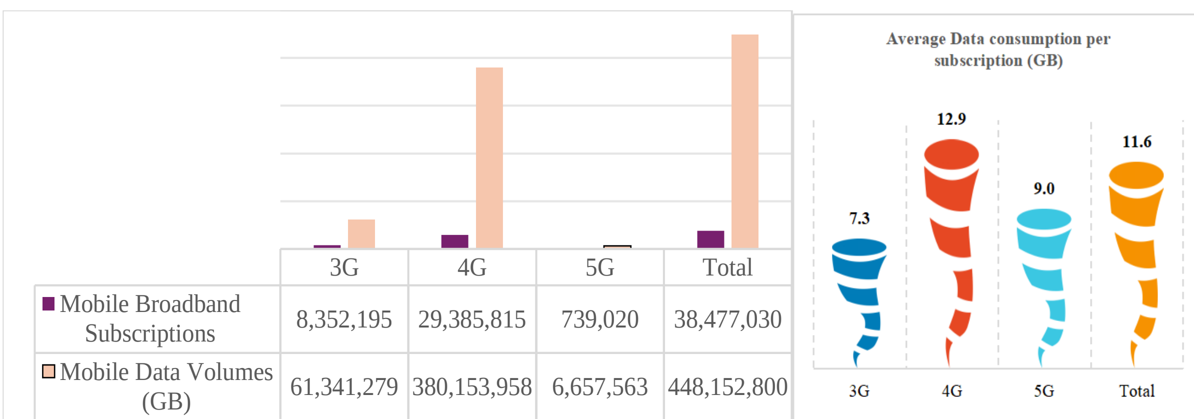
1.4 Mobile Data and Broadband[3] Services



During the reference period mobile data contiued to be the key driver for internet uptake in the country accounting for 97.2 per cent of total data subscriptions. Uptake for 4G and 5G services continued to grow following expansion of these networks coupled with increased consumer prefer for high speed internet.

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

Figure 4: Mobile Data Subscriptions



	3G	4G	5G	Total
Mobile Broadband Subscriptions	8,352,195	29,385,815	739,020	38,477,030
Mobile Data Volumes (GB)	61,341,279	380,153,958	6,657,563	448,152,800

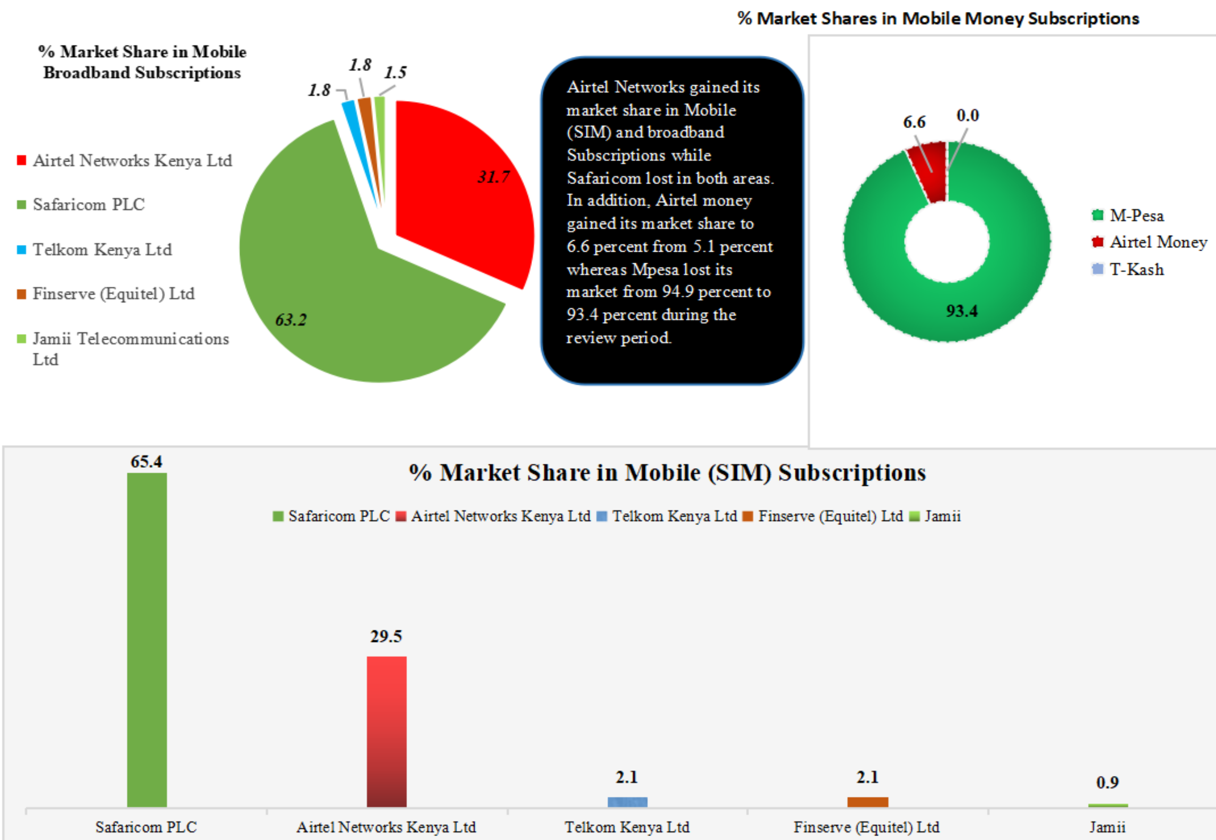
Source: CA, Operators' Returns,Provisional Data for Telkom Kenya Limited

Figure 5: Mobile Broadband Subscription and Consumption

[3] **Mobile broadband** includes 3G, 4G and 5G

1.5 Market Shares in Subscriptions for Mobile Services

The market shares in subscriptions for the respective mobile services is as shown in Figure 6.

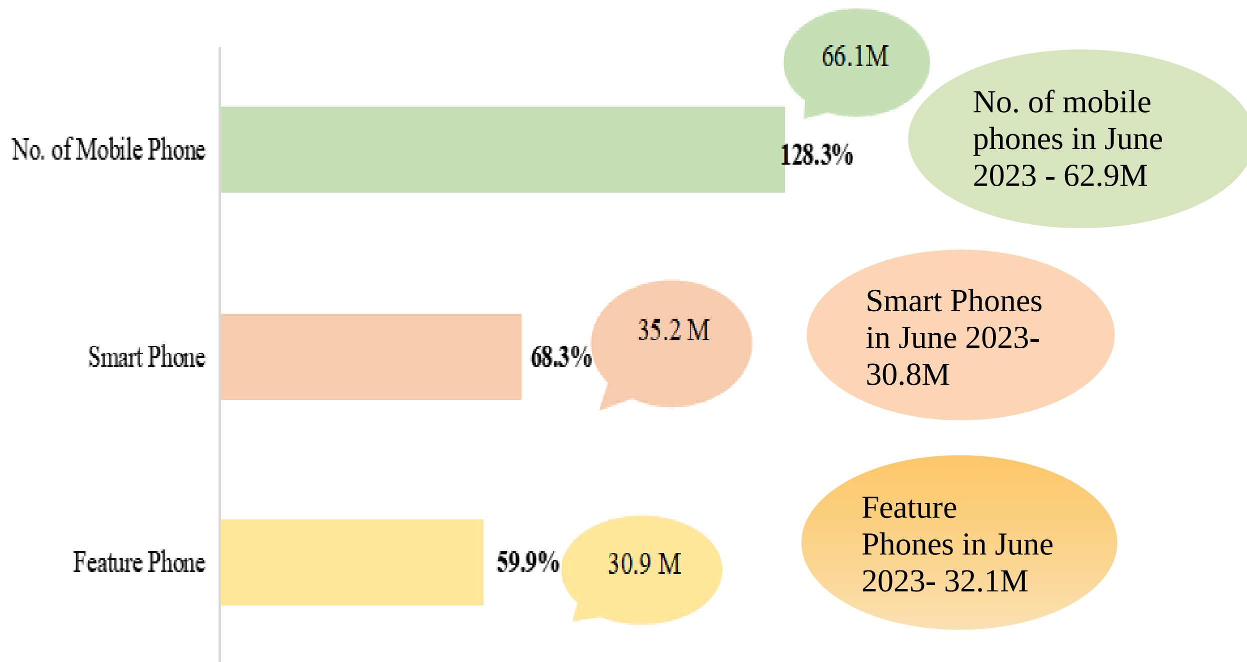


Source: CA, Operators' Returns, Provisional Data for Telkom Kenya Limited

Figure 6: Mobile Market Shares

1.6 Mobile Phone Devices

At the end of the referenced period, the total number of mobile phone devices connected to mobile networks was 66.1 million with a penetration rate of 128.3 percent. The penetration rates for smartphones and feature phones were 68.3 and 59.9 percent respectively as shown in Figure 7.



Source: CA, Operators' Returns

Figure 7: Mobile Phone Devices

1.7 Domestic Mobile Voice and SMS Traffic

Table 2 shows the trends in domestic voice and SMS traffic per operator. Safaricom PLC recorded the highest number of voice calls and SMS, while Jamii Telecommunications Ltd recording the least in the quarter under review.

Table 2: Domestic Mobile Traffic per Operator

Name of Operator /Indicator			***Safaricom PLC***	***Airtel Networks Kenya Ltd***	***TKL***	***Finserve***	***JTL***	***Total***
Apr-Jun 24	***Voice***	***Total***	**16,426,466,893**	**8,289,315,350**	**114,173,874**	**20,960,983**	**6,866,419**	**24,857,783,519**
		On-net	15,145,968,323	5,963,751,374	60,294,850	1,489,714	85,625	21,171,589,886
		Off-net	1,280,498,570	2,325,563,976	53,879,024	19,471,269	6,780,794	3,686,193,633
	SMS	***Total***	**12,110,707,608**	**1,386,131,381**	**10,598,894**	**3,819,197**	**943,505**	**13,512,200,585**
		On-net	11,275,936,926	702,489,372	738,636	1,313,344	43,436	11,980,521,714
		Off-net	834,770,682	683,642,009	9,860,258	2,505,853	900,069	1,531,678,871
Jan-Mar 24	***Voice***	***Total***	**16,479,784,126**	**8,547,721,440**	**114,173,874**	**21,582,353**	**6,173,618**	**25,169,435,411**
		On-net	15,284,126,263	6,283,419,439	60,294,850	1,646,715	77,664	21,629,564,931
		Off-net	1,195,657,863	2,264,302,001	53,879,024	19,935,638	6,095,954	3,539,870,480
	SMS	***Total***	**12,005,043,988**	**1,404,849,864**	**3,895,251**	**10,598,894**	**1,000,901**	**13,425,388,898**
		On-net	11,172,273,290	638,526,185	1,348,118	738,636	62,082	11,812,948,311
		Off-net	832,770,698	766,323,679	2,547,133	9,860,258	938,819	1,612,440,587

FY 2023/24	***Voice***	***Total***	**62,041,878,563**	**33,128,634,799**	**513,786,250**	**91,106,594**	**23,248,198**	**95,798,654,405**
		On net	57,561,542,795	24,310,620,482	271,411,535	6,983,055	287,685	82,150,845,552
		Off-net	4,480,335,769	8,818,014,317	242,374,715	84,123,539	22,960,513	13,647,808,853
	SMS	***Total***	**47,628,602,243**	**5,537,480,155**	**16,736,051**	**52,457,844**	**3,590,286**	**53,238,866,579**
		On-net	44,318,493,302	2,608,004,535	5,656,965	3,280,700	192,905	46,935,628,407
		Off-net	3,310,108,941	2,929,475,620	11,079,086	49,177,144	3,397,381	6,303,238,172
FY 2022/23	***Voice***	***Total***	**54,241,650,047**	**26,870,305,640**	**1,375,484,457**	**122,416,167**	**10,910,069**	**82,620,766,380**
		On-net	50,745,956,868	20,055,213,430	818,878,006	9,987,078	171,783	71,630,207,165
		Off-net	3,495,693,179	6,815,092,210	556,606,451	112,429,089	10,738,286	10,990,559,215
	SMS	***Total***	**46,888,600,352**	**5,384,234,733**	**123,049,058**	**43,373,030**	**2,177,330**	**52,441,434,503**
		On-net	43,844,311,868	2,381,097,802	10,550,045	8,038,037	104,841	46,244,102,593
		Off-net	3,044,288,484	3,003,136,931	112,499,013	35,334,993	2,072,489	6,197,331,910

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

1.8 Minutes of Use per Call per Operator

The average minutes per on-net and off-net calls remained at 1.8 and 1.2, respectively. Airtel Networks Limited customers spent more time on a single on-net call averaging 2.8 minutes whereas Safaricom PLC consumers spent more on off-net call, averaging at 1.4 minutes.

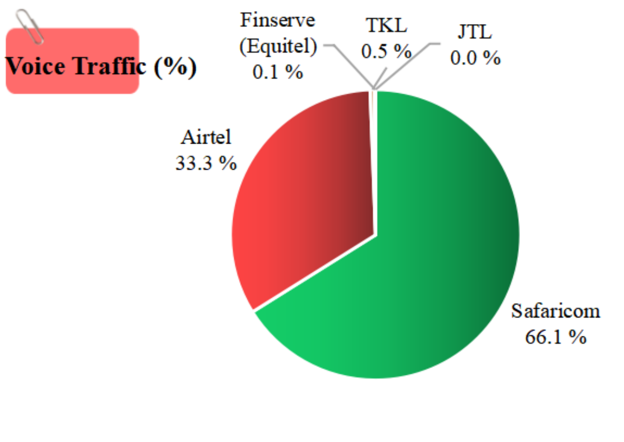
Table 3 shows the average minutes of use per call by the operator.

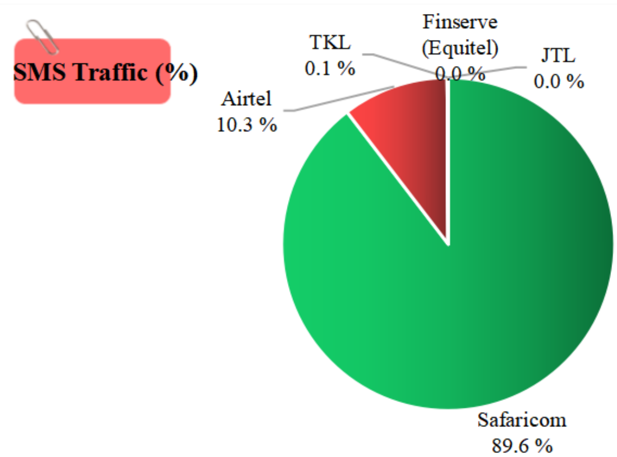
Table 3: MoU per Call

Period	***Apr-Jun 24***		***Jan-Mar 24***		***Apr-Jun 23***	
Operator/Indicator	**On-net**	**Off-net**	**On-net**	**Off-net**	**On-net**	**Off-net**
Total Average	**1.8**	**1.2**	**1.8**	**1.2**	**1.7**	**1.1**
Safaricom PLC	1.6	1.4	1.6	1.3	1.5	1.2
Airtel Networks Limited	2.8	1.2	2.9	1.1	2.8	1.0
Telkom Kenya Limited	1.3	1.2	1.3	1.2	1.6	1.3
Finserve (Equitel)	2.0	1.3	2.1	1.3	2.2	1.3
Jamii Telecommunications Ltd	0.1	1.3	0.1	1.3	0.1	1.4

1.9 Market shares in Domestic Mobile Voice and SMS Traffic

The market shares in domestic mobile voice and SMS traffic are as shown in Figure 8.

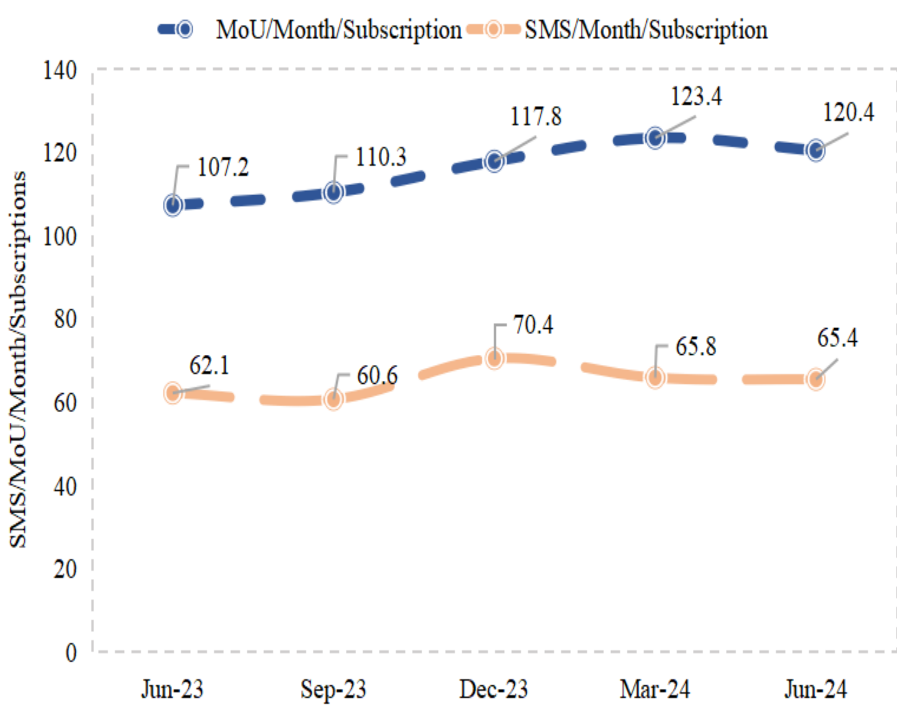




Source: CA, Operators' Returns, Provisional Data for Telkom Kenya Limited

Figure 8: Market Shares in Domestic Mobile Voice and SMS

1.10 Minutes/Month/Subscription vs SMS/Month/Subscription



The Minutes of Use per Month per Subscription dropped to 120.4 minutes from 123.4 minutes recorded in the preceding quarter. Similarly, short messages sent per month per subscription declined to 65.4 from 65.8 messages. Again, this decline is attributed to normalization of usage patterns following the conclusion of the busy festive seasons in quarter two and three.

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

Figure 9: MoU/Month/Subscription vs SMS/Month/Subscription

1.11 International Mobile Traffic

Incoming international mobile voice minutes grew by 5.6 percent to 120.0 million. On the other hand, the outgoing international mobile voice traffic declined from 189.0 million to 175.8 million. Both international incoming and outgoing mobile SMS declined by 17.4 percent and 25.9 percent, respectively. The decline in international mobile SMS usage is attributed to the increased consumer preference for Over-The-Top services (OTTs) and the widespread use of social media platforms.

Table 4: International Mobile Traffic

Indicator/Period	*Region*	*Apr-Jun 24*	*Jan-Mar 24*	*Quarterly Variation (%)*	*FY 2023/24*	*FY 2022/23*	*Annual Variation (%)*
International Incoming Mobile Voice Minutes	*EAC*	90,215,662	86,651,182	4.1	313,248,926	231,750,532	35.2
	Others	29,761,462	26,942,329	10.5	97,169,214	111,762,942	-13.1
	Total	**119,977,124**	**113,593,511**	**5.6**	**410,418,140**	**343,513,474**	**19.5**
International Outgoing Mobile Voice Minutes	*EAC*	118,131,400	116,900,886	1.1	457,646,505	384,142,245	19.1
	Others	57,618,873	72,098,814	-20.1	268,550,510	296,579,170	-9.5
	Total	**175,750,273**	**188,999,700**	**-7.0**	**726,197,015**	**680,721,415**	**6.7**
International Incoming Mobile SMS		7,537,517	9,122,335	-17.4	-17.4	35,784,244	0.2
International Outgoing Mobile SMS		3,108,951	4,197,408	-25.9	-25.9	17,954,442	-16.6

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

1.12 Roaming Traffic

Tables 5 and 6 shows the trends in outbound and inbound roaming traffic during the quarter under reference.

Table 5: Outbound Roaming Traffic

Country / Indicator	*Incoming Voice (Minutes)*	*Incoming SMS*	*Outgoing Voice (Minutes)*	*Outgoing SMS*	*Data Volumes (MB)*
Uganda	120,631,051	9,556	3,924,381	1,392,345	39,254,216
Tanzania	14,142,867	14,573,547	1,113,699	615,403	9,972,427
Rwanda	3,220,197	-	395,442	114,958	2,751,569
Burundi	3,667	932,049	849	6,190	8,030
S. Sudan	7,582,553	2,176,338	694,159	244,465	290,043
Democratic Republic of Congo	6,419	103,819	316,843	24,392	9,387,493
EAC Total	**145,586,754**	**17,795,309**	**6,445,373**	**2,397,753**	**61,663,778**
Others	1,005,394	69,375,197	3,495,456	2,888,440	31,558,355
Total	**146,592,148**	**87,170,506**	**9,940,829**	**5,286,193**	**93,222,133**

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

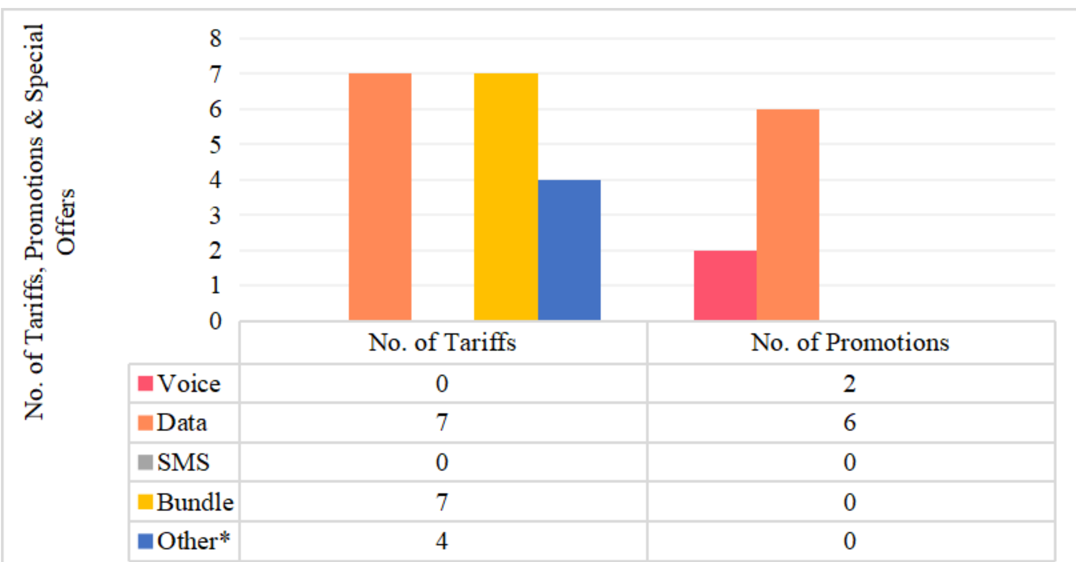
Table 6: In-bound Roaming Traffic

Country / Indicator	***Incoming Voice (Minutes)***	***Incoming SMS***	***Outgoing Voice (Minutes)***	***Outgoing SMS***	***Data Volumes (MB)***
Uganda	25,130,919	4,193,916	1,553,280	182,406	14,025,402
Tanzania	83,667,362	18,386,784	510,263	204,430	1,823,748
Rwanda	20,154,701	2,146,821	194,640	33,591	402,398
Burundi	915	2,652	359	835	99
S. Sudan	1,761,844	792,425	188,413	23,752	114,406
Democratic Republic of Congo	6,497	115,812	62,232	6,443	150,100
EAC Total	**130,722,238**	**25,638,410**	**2,509,187**	**451,457**	**16,516,153**
Others	1,477,901	21,932,351	2,164,219	1,390,600	315,864,708
Total	**132,200,139**	**47,570,761**	**4,673,406**	**1,842,057**	**332,380,861**

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

1.13 Tariffs, Promotions and Special Offers

The number of approved applications for tariffs and, promotions & special offers filed by MNOs during the fourth quarter is as shown in Figure 10.



Source: CA, filed tariffs, promotions and special offers

Figure 10: Distribution of Tariffs, Promotions and Special Offer

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

Pay-As-You-Go charges for voice, SMS, and data are as shown in Table 7.

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

1.15 Mobile Service Revenue and Investment

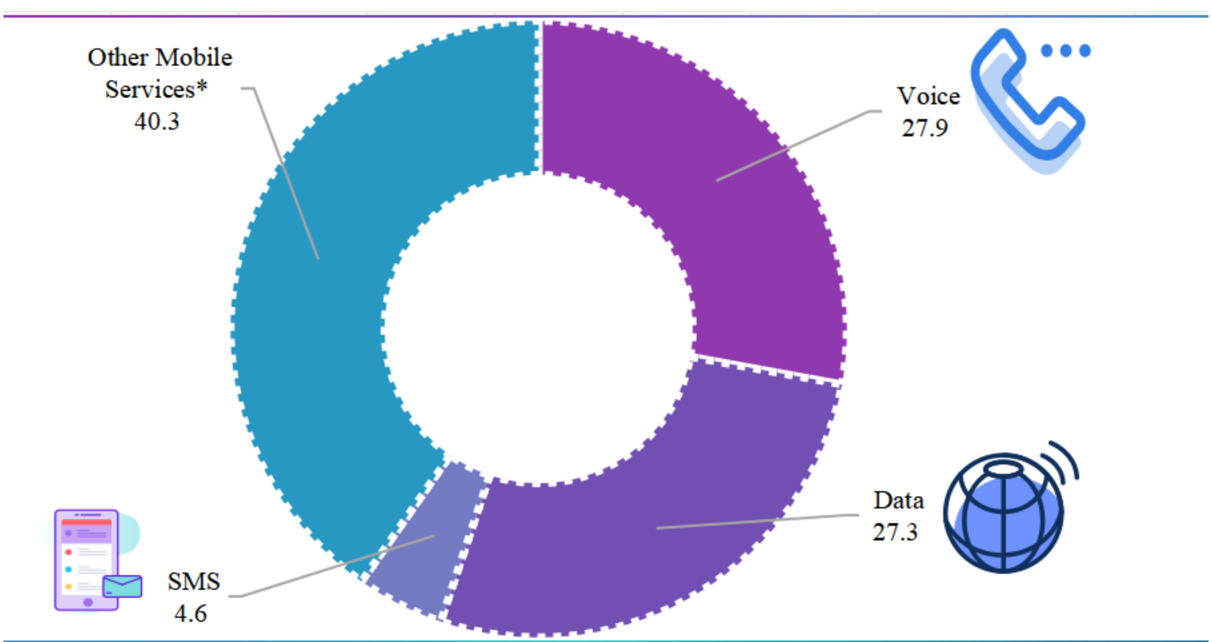
In 2023, mobile services generated KES 384.3 billion in revenue, marking a 13.2 percent increase from 2022. On the same trend, investment in the mobile sub-sector grew by 20.6 percent, to record KES 70.9 billion in 2023.

Table 8: Mobile Service Revenue and Investments

Indicator/Period	***2023***	***2022***	***Annual Variation (%)***
Mobile Service Revenue * (Billions)	384.3	339.4	13.2
Investment (Billions)	70.9	58.8	20.6

*Source: CA, Operators' Returns, *Voice revenue includes fixed voice revenue from TKL: Data revenue also included fixed data revenue from TKL and Safaricom , includes Airtel Money Limited's revenue, Provisional data for TKL*

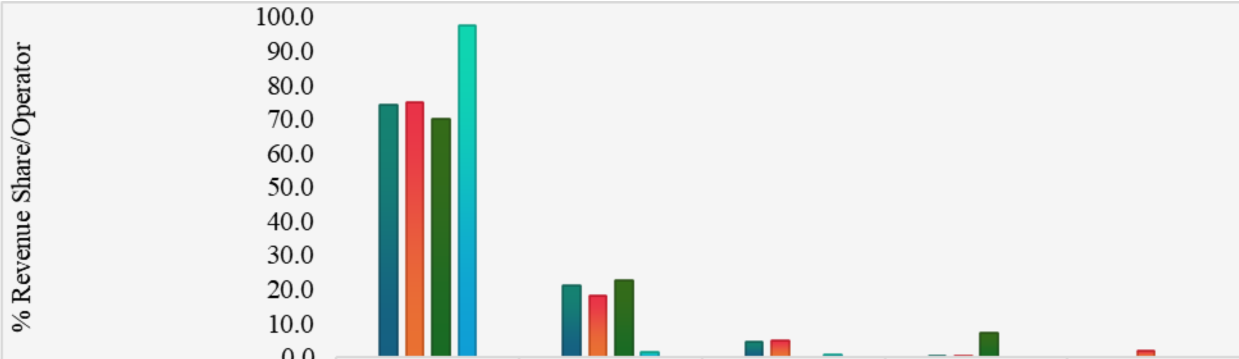
Figure 11 shows the percentage breakdown in revenue based on services.



*Source: CA, Operators' Returns, Provisional data for TKL, *includes mobile money, Roaming Revenues, Bulk SMS, "advance airtime" etc*

Figure 11: % Revenue per Service

Figure 12 shows the percentage shares in revenue based on services per operator.



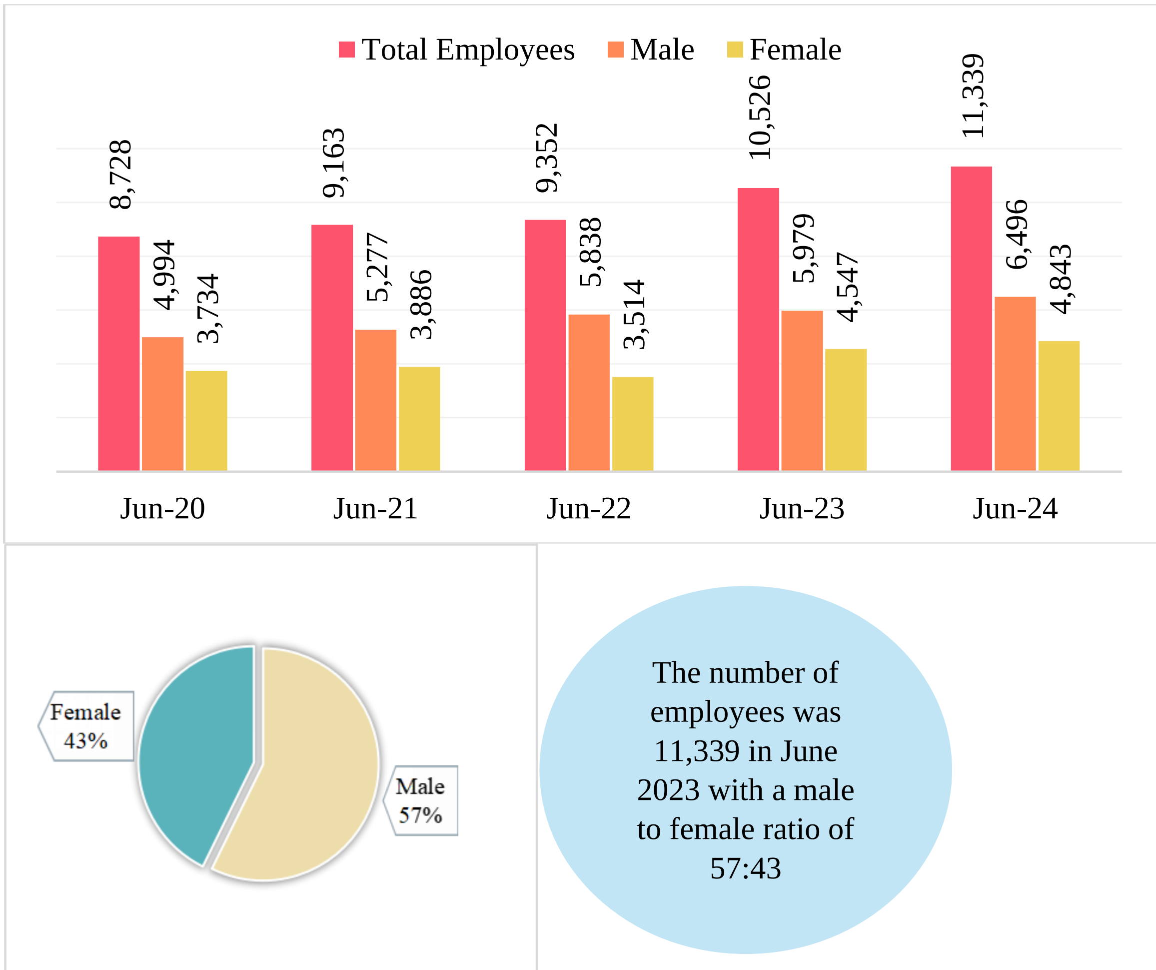
	Safaricom PLC	Airtel Networks	Telkom Kenya	Finserve Ltd	Jamii Telecommunic ations
Voice	74.2	21.1	4.5	0.2	0.0
Data	74.8	18.3	5.0	0.1	1.8
SMS	70.0	22.8	0.0	7.2	0.0
Other Mobile Services*	97.7	1.5	0.7	0.0	0.0

*Source: CA, Operators' Returns, * includes mobile money, Roaming Revenues, Bulk SMS etc, Provisional data for TKL*

Figure 12: % Shares in Revenue by Operator

1.16 Employment in the Mobile Sub-Sector

The five-year trend in employment within the mobile sub-sector is as shown in Figure 13.



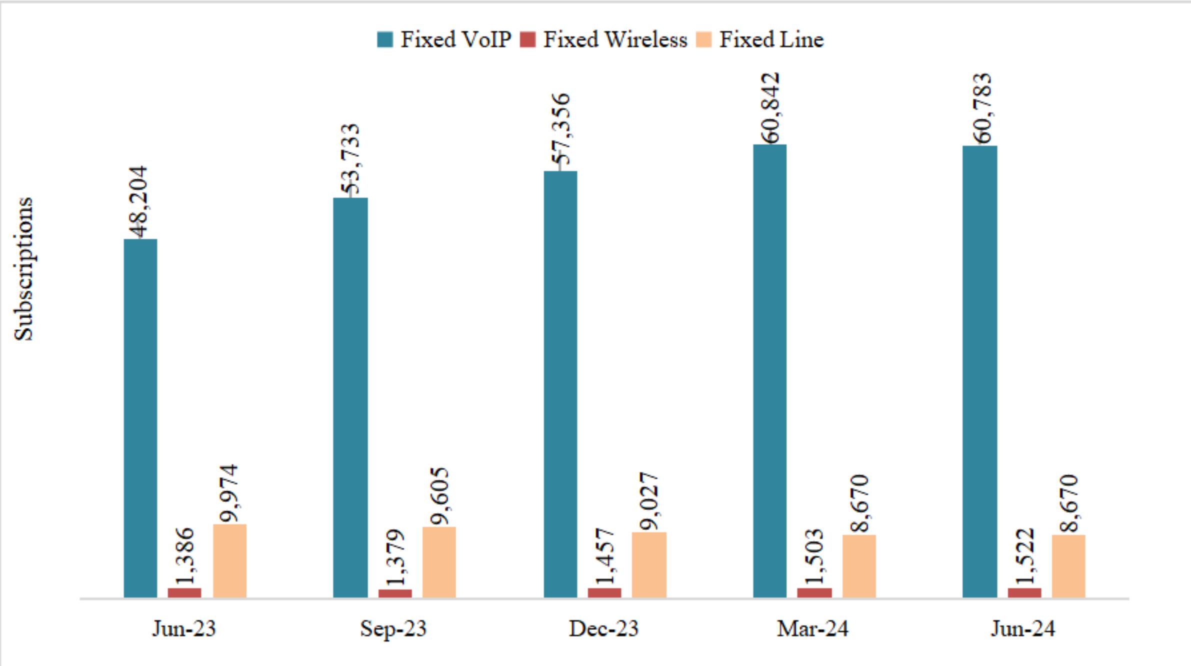
Source: CA, Operators' Returns

Figure 13: Employment in Mobile Sub-Sector

2. FIXED NETWORK SERVICES

2.1 Fixed Telephone Subscriptions

Figure 14 shows the trends in fixed telephone subscriptions as of 30th June 2024.



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

Figure 14: Fixed Voice Subscriptions

2.2 Domestic Fixed Voice Traffic

The total domestic fixed network traffic stood at 20.2 million minutes during the review period. The traffic for FY 2023/24 declined by 11.3 percent to post 86.2 million minutes from 97.1 million reported during the FY 2022/23. Table 9 shows the trends in local fixed voice network traffic.

Table 9: Domestic Fixed Voice Traffic (Minutes)

Domestic Fixed Voice Traffic (Minutes)	*Apr-Jun 24*	*Jan-Mar 24*	*Quarterly Variation (%)*	*FY 2023/24*	*FY 2022/23*	*Annual Variation (%)*
Fixed-Fixed*	120,072	120,072	0.0	501,766	390,161	28.6
Fixed Wireless-Fixed Wireless	259,040	263,947	-1.9	1,083,571	1,148,622	-5.7
Fixed to Mobile*	19,799,348	19,799,348	0.0	84,590,112	95,571,245	-11.5
Total Domestic Fixed Network Traffic	**20,178,460**	**20,183,367**	**0.0**	**86,175,449**	**97,110,028**	**-11.3**

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

2.3 International Fixed Voice Traffic

Table 10 shows a general decline in the volume of international fixed voice traffic. International incoming and outgoing fixed voice traffic declined by 4.8 and 4.5 percent to record 6.0 million and 996,035 voice traffic, respectively during the referenced period.

Table 10: International Fixed Voice Traffic

Indicator/Period	*Apr-Jun 24*	*Jan-Mar 24*	*Quarterly Variation (%)*	*FY 2023/24*	*FY 2022/23*	*Annual Variation (%)*
International Incoming Fixed Network Voice traffic	6,000,626	6,302,624	-4.8	21,891,465	13,067,155	67.5
International Outgoing Fixed Network Voice traffic	996,035	1,042,722	-4.5	4,054,519	5,729,179	-29.2
International Outgoing Fixed VoIP traffic	544,828	555,414	-1.9	2,203,762	2,139,753	3.0

Source: CA, Operators' Returns

2.4 Fixed Internet Subscriptions by Technology

As of 30th June 2024, total fixed data/Internet subscriptions experienced growth driven by increasing reliance on digital platforms for work, education, healthcare, and entertainment, along with attractive tariffs and special offers from service providers. The total fixed Internet subscriptions grew by 7.4 percent to reach 1.5 million. Satellite subscriptions recorded a significant growth of 73.1 percent in quarter four and a 1,955.3 percent growth in the 2023/24 financial year. This growth is attributed to the licensing and subsequent launch of Starlink Internet Services Kenya earlier in the financial year.

Table 11 provides a breakdown of data/internet subscriptions based on the type of technology.

Table 11: Fixed Internet Subscriptions by Technology

Indicator/Period	*Jun 24*	*Mar 24*	*Quarterly Variation (%)*	*Jun 23*	*Annual Variation (%)*
Total Wireless Subscriptions	**365,045**	**336,214**	**8.6**	**248,309**	**47.0**
Terrestrial Wireless Data Subscribers	356,721	331,406	7.6	247,904	43.9
Satellite Data Subscribers	8,324	4,808	73.1	405	1,955.3
Total Fixed (Wired) Subscriptions	**1,135,895**	**1,061,634**	**7.0**	**929,894**	**22.2**
Fixed DSL Data Subscribers (Copper)	137	159	-13.8	709	-80.7
Fixed Fibre Optic Data Subscribers	939,553	859,475	9.3	733,071	28.2
Fixed Cable Modem Subscribers	195,319	201,114	-2.9	195,323	0.0
Other Fixed Data Subscribers (e.g. Radio)	886	886	0.0	791	12.0
Total Subscriptions	**1,500,940**	**1,397,848**	**7.4**	**1,178,203**	**27.4**

Source: CA, Operators' Returns

2.5 Fixed Data and Broadband Subscriptions

Fixed data/Internet customers were mainly subscribed to data speeds between 2Mbps and 10Mbps. Satellite subscriptions maintained an upward trend following the launch of Starlink services during the year, with 96.9 per cent of satellite customers subscribed to speeds between 100 Mbps and 1 Gbps.

Table 12: Fixed Data and Broadband Subscriptions

Internet Technology/Speeds	*<256Kbps*	*=>256Kbps < 2Mbps*	*=>2 Mbps <10 Mbps*	*=>10Mbps <30 Mbps*	*=>30 Mbps <100Mbps*	*=>100 Mbps <1Gbps*	*=>1Gbps*	*Totals*
Cable Modem	0	0	39,726	147,591	7,766	236	0	195,319
Copper (DSL)	4	7	126	0	0	0	0	137
FTTH	0	3,340	348,882	257,815	241,727	4,526	0	856,290
FTTO	0	4,805	15,801	30,946	29,879	1,565	267	83,263
Fixed Wireless	14,422	6,883	302,291	18,819	13,475	831	0	356,721
Satellite	0	126	6	124	0	8,068	0	8,324
Other Fixed	0	78	478	235	95	0	0	886
Totals	14,426	15,239	707,310	455,530	292,942	15,226	267	1,500,940

Source: CA, Operators' Returns.

2.6 Fixed Data Subscriptions by Operator

Table 13 shows the top 10 fixed data service providers and their respective market shares by subscriptions. In the fourth quarter, Safaricom PLC reported the largest market share of 36.4 percent followed by Jamii Telecommunications Ltd and Wananchi Group at 24.0 and 17.5 percent respectively. Starlink Internet Services Kenya that was licensed earlier in the financial year to provide satellite Internet services had a market share of 0.5 percent as of 30th June 2024.

Table 13: Fixed Data Subscriptions by Operator

Service Provider/Indicator	***Number of data subscriptions***	***Percentage Market share (%)***
Safaricom PLC	545,812	36.4
Jamii Telecommunications Ltd	360,446	24.0
Wananchi Group (Kenya) Ltd*	263,008	17.5
Poa Internet Kenya Ltd	198,609	13.2
Mawingu Networks Ltd	38,601	2.6
Vilcom Network Ltd	21,912	1.5
Dimension Data Solutions East Africa Ltd	17,022	1.1
Liquid Telecommunications Kenya	14,936	1.0
Vijiji Connect Ltd	8,147	0.5
Starlink Internet Services Kenya	8,063	0.5
Other Fixed Service Providers	24,384	1.6

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

2.7 International Bandwidth

The total lit international internet Bandwidth Capacity in the country grew by 2.4 percent to 21,244.338 Gbps by end of June 2024. SEACOM Ltd lit additional capacity during the quarter with the aim of meeting increasing customer demands. Utilization of Undersea Bandwidth Capacity rose by 31.3 to record 14,644.284 Gbps out of which 11,690.464 Gbps (55.0%) were used in the country and 2,953.820 Gbps (13.9%) sold outside the country. Further, utilized Satellite Internet Capacity increased remarkably from 48.438 to 840.448 Gbps (1,635.1% increase) following the launch of Starlink Internet services in the country as shown in Table 14.

Table 14: International Internet Bandwidth (Gbps)

Indicator/ Period	*Apr-Jun 24*			*Jan-Mar 24*		*Quarterly Variation (%)*	*Apr-Jun 2023*	*Annual Variation (%)*
Total Available (Lit/Equip) Bandwidth Capacity (Gbps)			**21,244.338**		**20,744.338**	**2.4**	**16,523.303**	**28.6**
Undersea Bandwidth Capacity	**SEACOM**		6,850.000	**SEACOM**	6,350.000	7.9	3,920.000	74.7
	TEAMS		4,063.000	**TEAMS**	4,063.000	0.0	4,063.000	0.0
	Telkom Kenya	***EASSY***	6,290.000	***EASSY***	6,290.000	0.0	5,250.000	19.8
		Lion 2	707.500	***Lion 2***	707.500	0.0	750.500	-5.7
		DARE 1	1,670.000	***DARE 1***	1,670.000	0.0	1,386.000	20.5
		PEACE	1,661.000	***PEACE***	1,661.000	0.0	1,151.000	44.3
Satellite Bandwidth Capacity			2.838		2.838	0.0	2.803	1.2
Total Utilized Bandwidth Capacity (Gbps)								
Undersea Bandwidth Capacity	***Sold In Kenya***	***Sold in other Countries***		***Sold In Kenya***	***Sold in other Countries***			
	11,690.464	2,953.820		8,201.334	2,953.820	31.3	9,676.029	51.3
Satellite Internet Capacity			840.448		48.438	1,635.1	0.413	203,398.3

Source: CA, Operators' Returns.

2.8 Revenues and Investment by Application Service Providers

Table 15 shows the ASPs' Revenue and Investments for the year 2023 and 2022.

Table 15: Revenues and Investments by ASPs

Indicator/Period	*2023*	*2022*	*Annual Variation (%)*
Service Revenue (Billions)	22.33	21.24	5.1
Investment (Billions)	6.23	6.53	-4.6

Source CA operator returns, *excludes revenues by MNOs and MVNOs. Revenues only include revenue generated through communication services*

3. COURIER SERVICES

3.1 Private Operators Traffic

As shown in Table 16, there was a general increase in domestic and international courier traffic during the review period. The volume of outgoing local letters and parcels grew from 373,293 and 1.8 million to 415,818 and 1.9 million respectively. Additionally, the number of international outgoing and incoming letters increased from 263,522 and 86,227 to 392,931 and 102,494, respectively during the quarter under review.

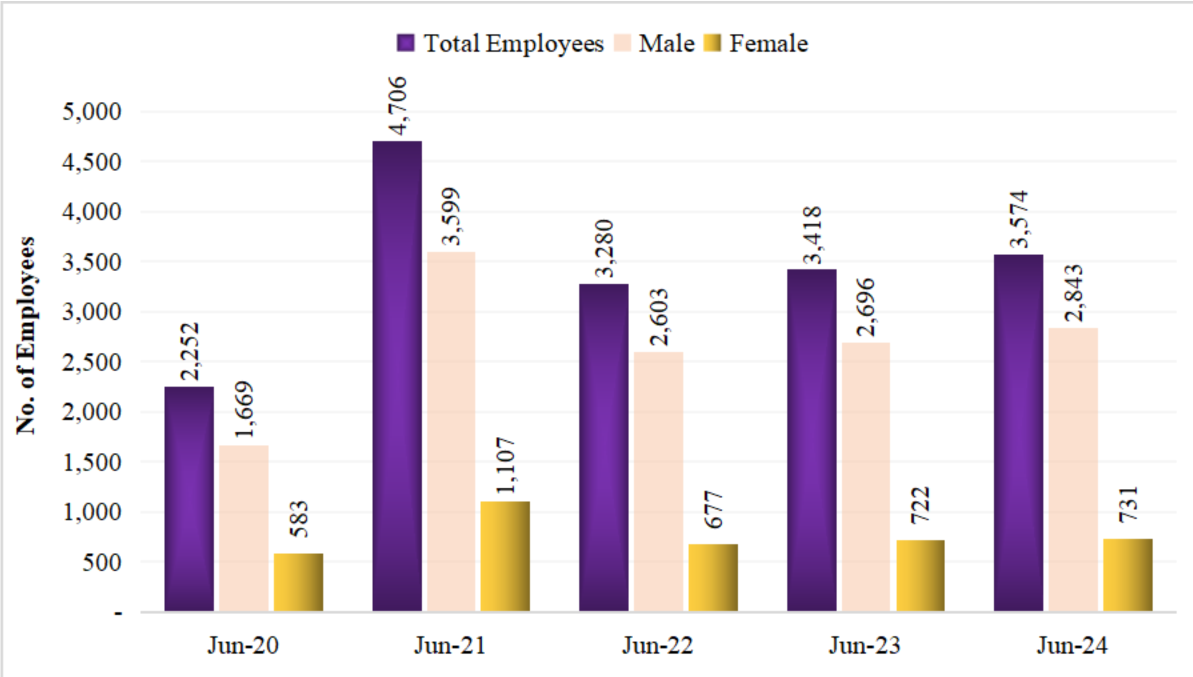
Table 16: Private Courier Items

Indicator/Period	*Apr-Jun 24*	*Jan-Mar 24*	*Quarterly Variation (%)*	*FY 2023/24*	*FY 2022/23**	*Annual Variation (%)*
Outgoing Domestic Letters	415,818	373,293	11.4	1,817,297	1,133,104	60.4
Outgoing Domestic Parcels	1,911,237	1,797,398	6.3	7,843,900	4,878,548	60.8
International Outgoing Letters	392,931	263,522	49.1	1,893,745	1,686,818	12.3
International Incoming Letters	102,494	86,227	18.9	534,098	462,061	15.6

*Source: CA, Operators' Returns, *Revised to exclude PCK*

3.2 Employment in Courier Market Segment

The number of persons employed by courier operators by end of June 2024 was 6,112 with a male to female ratio of 64:36 as shown in Figure 15.



Source: CA,Operators' Returns, Revised to exclude PCK

Figure 15: Employment in Postal and Courier

3.3 Revenues in Courier Market Segment

The total revenues realized by private courier operators through national and international courier services grew by 12.1 percent in 2023 to KES. 6.22 billion.

Table 17: Revenues in Courier Market Segment

Indicator/Period	*2023*	*2022*	*Annual Variation (%)*
National Courier Revenue (Billion) in KES	0.90	0.62	45.2
International Courier Revenue (Billion) in KES	5.32	4.93	7.9
Total Revenues in KES	6.22	5.55	12.1

Source: CA, Operators' Returns, Only includes revenues generated through Courier services

4. BROADCASTING SERVICES

4.1 Subscription to Broadcasting Services

The total number of subscriptions to broadcasting services grew by 0.2 percent to post 6.39 million as at the end of June 2024. Table 18 shows the breakdown of subscriptions by category per broadcaster.

Table 18: Broadcasting Subscriptions

Indicator/Period		***Jun-24***	***Mar-24***	***Quarterly Variation (%)***	***Jun-24***	***Jun-23***	***Annual Variation (%)***
DTT	Go TV	2,793,579	2,779,227	0.5	2,793,579	2,709,323	3.1
	Star Times	1,693,340	1,686,027	0.4	1,693,340	1,741,365	-2.8
	Sub-Total	**4,486,919**	**4,465,254**	**0.5**	**4,486,919**	**4,450,688**	**0.8**
DTH	Azam	81,553	78,982	3.3	81,553	73,031	11.7
	MultiChoice (DSTV)	1,195,775	1,178,803	1.4	1,195,775	1,100,687	8.6
	Star Times	361,953	354,390	2.1	361,953	304,610	18.8
	Wananchi (Zuku)	202,416	218,076	-7.2	202,416	231,067	-12.4
	Sub-Total	**1,841,697**	**1,830,251**	**0.6**	**1,841,697**	**1,709,395**	**7.7**
Cable	Cable One	2,758	2,715	1.6	2,758	2,608	5.8
	CTN (MSA)	2,067	2,064	0.1	2,067	2,372	-12.9
	Wananchi (ZUKU)	53,898	72,169	-25.3	53,898	48,474	11.2
	Hirani	758	740	2.4	758	3,600	-78.9
	Matrucchaya	-	-	-	-	0	-
	Wadani Cable	95	95	0.0	95	95	0.0
	Sub-Total	**59,576**	**77,783**	**-23.4**	**59,576**	**57,149**	**4.2**
Total		**6,388,192**	**6,373,288**	**0.2**	**6,388,192**	**6,217,232**	**2.7**

Source: CA, Operators' Returns

4.2 Broadcast Signal Distribution (BSD) Tariffs

During 2023/24 FY, the Authority reviewed BSD tariffs as shown in Table 19.

Table 19: BSD Tariffs

Service		**New Tariffs**	**Previous Tariffs**
Transmission (KES Per site per Mbit/s per month)	Nairobi	127,030.12	93,411
	Other cities/towns	97,715.49	39,074
	Rural	68,400.84	34,352
Satellite linking (KES per channel)	Nairobi	427,592	234,594
Satellite reception (KES per channel)	Nairobi	N/A	723
	Other cities/towns	N/A	904
	Rural	N/A	904
Local insertion (KES per channel)		N/A	1,597

5. FREQUENCY SPECTRUM MANAGEMENT

In quarter four, the Authority assigned 582 frequencies to various operators for deployment of microwave links and processed 525 fixed links to be decommissioned at the licensees' request. The trends in deployment and decommissioning of fixed links and assignment of FM frequencies are as shown in Table 20.

Table 20: Frequency Spectrum Management

Indicator/Period	*Apr-Jun 24*	*Jan-Mar 24*	*Quarterly Variation (%)*	*FY 2023/24*	*FY 2022/23*	*Annual Variation (%)*
Microwave Links Deployed	582	131	344.3	1,036	1,742	-40.5
Fixed Links Decommissioned	525	0	100.0	569	1,568	-63.7
FM Sound Broadcasting Frequencies Assigned	28	2	1,300.0	38	62	-38.7

Source: CA, Operators' Returns.

6. ELECTRONIC TRANSACTIONS AND CYBER SPACE MANAGEMENT

6.1 Registered Domain Names

Table 21 illustrates various registered sub-domains and their respective number of users as at the end of June 30th, 2024.

Table 21: .KE Domains

SUB-DOMAIN	*USER*	*Number of Users*					
		Jun-24	*Mar-24*	*Quarterly Variation (%)*	*Jun-24*	*Jun-23*	*Annual Variation (%)*
Total		**106,800**	**108,338**	**-1.4**	**106,800**	**103,298**	**3.4**
CO.KE	Companies	90,165	91,818	-1.8	90,165	90,868	-0.8
ME.KE	Personal Websites and E-mail	5,806	5,962	-2.6	5,806	2,697	115.3
.KE	Second level	5,721	5,513	3.8	5,721	4,717	21.3
OR.KE	Non-Profit-Making Organizations	1,979	1,973	0.3	1,979	1,975	0.2
AC.KE	Institutions of Higher Education	1,162	1,134	2.5	1,162	1,111	4.6
SC.KE	Lower and Middle-Level Institutions	918	913	0.5	918	1,019	-9.9
GO.KE	Government Institutions	770	752	2.4	770	696	10.6
INFO.KE	Information	206	204	1.0	206	137	50.4
NE.KE	Personal Websites and E-mail	46	43	7.0	46	47	-2.1
MOBI.KE	Mobile Content	27	26	3.8	27	31	-12.9

Source: Kenic.

6.2 National Cyber Space Landscape

The total cyber threats detected rose by 16.5 percent from 971.4 million reported in the previous quarter to 1.1 billion recorded in the quarter under reference. The trends detected for cyber threats and cyber threat advisories during the review period are as shown in Table 22.

Table 22: Cybersecurity Landscape

Indicator/Period	***Threats and Advisories***	***Apr-Jun 24***	***Jan–Mar 24†***	***Quarterly Variation (%)***	***FY 2023/24***	***FY 2022/23***	***Annual Variation (%)***
Threats	Malware	31,936,666	33,187,524	-3.8	85,860,852	121,250,616	-29.2
	Brute Force Attacks	26,854,341	28,011,638	-4.1	69,638,366	-	-
	Web Application Attacks	146,903	199,435	-26.3	525,477	677,781	-22.5
	System Vulnerabilities	1,065,325,993	871,223,680	22.3	3,316,966,977	677,784,925	389.4
	Mobile Application Attacks	99,294	171,232	-42.0	350,378	-	-
	DDOS	7,333,681	38,646,836	-81.0	45,980,517	55,841,666	-17.7
	Total Cyber Threats	**1,131,696,878**	**971,440,345**	**16.5**	**3,519,322,567**	**855,554,988**	**311.3**
Advisories	Malware	643,142	1,182,484	-45.6	2,764,169	326,011	747.9
	Brute Force Attacks	950,346	825,787	15.1	3,933,683	-	-
	Web Application Attacks	3,041,312	2,681,912	13.4	9,519,927	152,126	6,157.9
	System Attacks	4,694,754	3,809,705	23.2	15,092,861	22,614,914	-33.3
	Mobile Application attacks	6,237	9,056	-31.1	56,911	-	-
	DDOS	11,572	15,188	-23.8	145700	101,270	43.9
	Others	-	-	-	-	1,015	-
	Total Cyber Advisories	**9,347,363**	**8,524,132**	**9.6**	**31,513,251**	**23,195,336**	**35.9**

Source: National KE-CIRT/CC, † Updated to exclude digital investigations and forensics

7. CONCLUSION

In general, the 2023/24 FY and the fourth quarter of the same period experienced significant growth in mobile (SIM) subscriptions, data/Internet subscriptions, Internet traffic, and international Internet bandwidth capacity. The growth is mainly attributed to the expansion of 4G and 5G telecom infrastructure coupled with increased adoption of smartphones as well as increased demand for high Internet speeds among consumers. Further, mobile money service has continued to play a major role in financial inclusion as uptake peaked following the removal of transaction codes for transactions between M-pesa and Airtel money enhancing convenience while transacting across the two mobile wallets.

The reference period was also marked by a significant increase in satellite internet subscriptions and bandwidth following the licensing and subsequent roll out of Starlink Internet services in the country. This trend is expected to continue in the coming periods considering that this technology provides high-speed, low-latency broadband connectivity especially in areas where internet is currently unavailable or unreliable.