



THIRD QUARTER SECTOR STATISTICS REPORT FOR THE FINANCIAL YEAR 2021/2022 (1ST JANUARY – 31ST MARCH 2022)

**Direct any queries on the report to:
Director/Competition, Tariffs and Market Analysis**

Tel: +254-703 042000, +254-02042000

Email: info@ca.go.ke

Website: www.ca.go.ke

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.

Table of Contents

LIST OF TABLES	iii
LIST OF FIGURES	iii
1. TELEPHONY SERVICES.....	1
1.1 Mobile Services.....	1
1.1.1 Mobile (SIM) Subscriptions	1
1.1.2 Machine-to-Machine Subscriptions.....	3
1.1.3 Mobile Money Services	3
1.1.4 Mobile Phone Devices.....	5
1.1.5 Domestic Mobile Voice Traffic (Minutes).....	5
1.1.6 Mobile SMS Traffic.....	6
1.1.7 Voice and SMS Traffic per Operator	7
1.1.8 Market shares in Domestic Mobile Traffic.....	8
1.1.9 Minutes/Month/Subscription vs SMS/Month/Subscription.....	8
1.1.10 International Mobile Traffic.....	9
1.1.11 Roaming Traffic	9
1.1.12 Tariffs, Promotions and Special Offers	10
1.2 FIXED TELEPHONE SERVICE	11
1.2.1 Fixed Telephone Subscriptions	11
1.2.2 Domestic Fixed Voice Traffic.....	11
1.2.3 International Fixed Voice Traffic	11
2. DATA/INTERNET AND BROADBAND SERVICES.....	12
2.1 Mobile Broadband Subscriptions (3G and 4G).....	12
2.2 Fixed Data/Internet and Broadband Subscriptions	13
2.2.1 Fixed Data Subscriptions by Operator.....	13
2.3 International Bandwidth.....	14
3. POSTAL AND COURIER SERVICES.....	14
3.1 Courier Services	Error! Bookmark not defined.
3.2 Postal Services.....	Error! Bookmark not defined.
4. BROADCASTING SERVICES.....	15
4.1 Television and FM Radio Stations on Air	Error! Bookmark not defined.
4.2 Subscription to Broadcasting Services	Error! Bookmark not defined.
5. FREQUENCY SPECTRUM MANAGEMENT	16
6. ELECTRONIC TRANSACTIONS AND CYBER SPACE MANAGEMENT	16
6.1 Registered Domain Names	16

6.2 National Cyber Space Landscape.....	17
7 CONCLUSION	17

LIST OF TABLES

Table 1: Machine-to-Machine Subscriptions	3
Table 2: Mobile Money Services.....	4
Table 3: Domestic Mobile Voice Traffic	6
Table 4: Minutes of Use per Call	6
Table 5: Domestic Mobile Traffic.....	7
Table 7: International Mobile Traffic	9
Table 8: Outbound Roaming Traffic	9
Table 9: In-bound Roaming Traffic	10
Table 10: Fixed Voice Subscriptions.....	11
Table 11: Domestic Fixed Voice Traffic in Minutes	11
Table 12: International Fixed Voice Traffic	11
Table 13: Data and Broadband Subscriptions	12
Table 14: Fixed Data and Broadband Subscriptions.....	13
Table 15: Fixed Data Subscriptions by Operator	13
Table 16: International Internet Bandwidth (Gbps).....	14
Table 17: Courier Items	14
Table 18: Broadcasting Services.....	15
Table 19: Frequency Spectrum Management.....	16
Table 20: .KE Domains	16
Table 21: Cyber Threats Detected.....	17
Table 22: Cyber Threat Advisories	17

LIST OF FIGURES

Figure 1: Mobile Subscriptions and Penetration	2
Figure 3: Mobile Money Services.....	4
Figure 4: Mobile Phone Devices	5
Figure 5: Domestic SMS Traffic	7
Figure 6: Market Shares in Domestic Mobile Voice and SMS.....	8
Figure 7: MoU/Month/Month vs SMS/Month/Subscription	8
Figure 8: Distribution of Tariffs, Promotions and Special Offers	10
Figure 9: Mobile Broadband Subscriptions	12
Figure 10: Broadcasting Subscriptions	15

LIST OF ACRONYMS

B2B	Business to Business
B2C	Business to Customer
C2B	Customer to Business
C2G	Citizen to Government
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 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
NCC	National Cybersecurity Centre
P2P	Person to Person
SEACOM	Sea Sub-Marine Communications Limited
SIM	Subscriber Identification Module
SMS	Short Messaging Service
TEAMS	The East African Marine System
LTE	Long Term Evolution
UMTS	Universal Mobile Telecommunication System

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 in this report is subject to review during the subsequent quarter in case of any revisions or updates from the licensees.

The Authority developed and published a manual on definitions and methodologies of collecting and reporting administrative data on Telecommunication indicators. The Manual, which was prepared in consultation with the International Telecommunications Union (ITU) is available on <https://ca.go.ke/wp-content/uploads/2020/03/ICT-Indicators-Manual-2019-.pdf>

SUMMARY OF COMMUNICATION INDICATORS

This Third Quarter Sector Statistics Report for the 2021/22 Financial Year provides the performance and trends in the ICT sector for the period 1st January to 31st March 2022 in:

1. Telephony services
2. Data/Internet services
3. Postal and Courier services
4. Broadcasting services
5. Frequency spectrum management
6. Electronic transactions and Cyber space management

Indicator/Period	Q3 (Jan - Mar 2022)	Q2 (Oct-Dec 2021)	Quarterly Variation (%)
TELEPHONY SERVICES			
<i>Subscription To Mobile Services</i>			
Total Mobile (SIM) Subscriptions	64,961,031	65,085,720	-0.2
Machine to Machine (M2M) Subscriptions	1,233,039	1,124,396	9.7
<i>Mobile Money Transfer Services</i>			
Number of Registered Mobile Money Agents	293,589	292,301	0.4
Mobile Money Subscriptions	36,446,216	35,209,037	3.5
Value of C2B Transfers in KES	1,386,297,979,352	1,307,459,065,680	6.0
Value of B2C Transfers in KES	920,527,602,620	900,566,999,062	2.2
Value of B2B Transfers in KES	2,219,776,335,265	2,153,147,988,436	3.1
Value of G2C Transfers in KES	822,857,114	969,063,644	-15.1
Value of C2G Transfers in KES	13,472,032,235	11,746,233,047	14.7
Number of P2P Transfers	1,041,544,760	1,010,377,033	3.1
Value of P2P Transfers in KES	1,110,239,609,627	1,127,245,196,314	-1.5
Total value of Deposits in KES	1,257,851,142,039	1,253,544,558,356	0.3

<i>Domestic Mobile Traffic</i>			
<i>Mobile Voice Traffic (Minutes)</i>			
On-Net Voice Traffic	16,745,457,629	18,139,390,640	-7.7
Off-Net Voice Traffic	2,434,572,630	2,469,428,816	-1.4
Mobile Network to Fixed Network	15,826,294	17,209,431	-8.0
<i>Mobile SMS Traffic</i>			
SMS On-Net	9,718,719,288	8,711,929,299	11.6
SMS Off-Net	1,209,464,333	996,080,213	21.4
<i>International Mobile Traffic</i>			
<i>Mobile Voice Traffic (Minutes)</i>			
International Incoming Mobile Voice Traffic	106,147,976	123,872,762	-14.3
International Outgoing Mobile Voice Traffic	164,359,943	158,350,092	3.8
<i>Mobile SMS Traffic</i>			
International Incoming SMS	7,694,724	8,450,242	-8.9
International Outgoing SMS	4,950,835	5,126,004	-3.4
<i>Roaming Traffic</i>			
<i>Out-bound Roaming Traffic</i>			
Out-bound Roaming Incoming Voice Traffic (Minutes)	125,772,981	118,916,978	5.8
Out-bound Roaming Outgoing Voice Traffic (Minutes)	14,250,715	13,311,940	7.1
Out-bound Roaming Incoming SMS	34,480,916	37,452,333	-7.9
Out-bound Roaming Outgoing SMS	19,356,263	19,029,689	1.7
Data Volumes (MB)	62,046,677	54,017,039	14.9
<i>In-bound Roaming Traffic</i>			
In-bound Roaming Incoming Voice Traffic (Minutes)	35,641,719	39,735,330	-10.3

In-bound Roaming Outgoing Voice Traffic (Minutes)	3,520,914	3,546,898	-0.7
In-bound Roaming Incoming SMS	29,956,990	28,459,567	5.3
In-bound Roaming Outgoing SMS	1,367,989	1,356,208	0.9
Data Volumes (MB)	104,049,977	91,010,910	14.3
<i>Fixed Voice Subscriptions</i>			
Fixed Line Subscriptions	13,626	13,626	0.0
Fixed Wireless Subscriptions	1,226	1,174	4.4
Fixed VoIP Subscriptions	49,387	46,296	6.7
<i>Domestic Fixed Voice Traffic</i>			
Fixed line-Fixed line	104,991	104,991	0.0
Fixed Wireless-Fixed Wireless	292,377	276,125	5.9
Fixed to Mobile	5,039,508	5,410,365	-6.9
<i>International Fixed Voice Traffic</i>			
Incoming Fixed Voice Traffic	3,289,556	3,618,079	-9.1
Outgoing Fixed Voice Traffic	1,511,593	1,442,581	4.8
Outgoing Fixed VOIP	610,776	581,995	4.9
DATA/INTERNET AND BROADBAND SERVICES			
Total Data/internet subscriptions	46,590,085	46,355,022	0.5
Total Broadband subscriptions	30,251,455	29,149,638	3.8
Total Available International Bandwidth (Gbps)	10,891.65	10,891.53	0.0
Total Used International Bandwidth (Gbps)	5,262	4,816.99	9.2
ELECTRONIC TRANSACTIONS AND CYBER SPACE MANAGEMENT			
. CO.KE Domain	97,439	94,526	3.1
Total Cyber Threats Detected	79,175,429	129,001,520	-38.6

Total Cyber Threat Advisories	2,908,755	3,019,055	-3.7
BROADCASTING SERVICES			
Licensed Commercial Free to Air TV	280	261	7.3
Licensed Commercial FM radio	154	122	26.3
Licensed Community Free to Air TV	9	9	0.0
Licensed Community FM Radio	58	28	107.1
DTT Subscriptions	4,227,658	4,169,601	1.4
DTH Subscriptions	1,688,607	1,645,525	2.6
Cable Subscriptions	90,745	88,616	2.4
COURIER SERVICES			
Number of Letters (Up to 350 gms) Posted Locally	280,261	312,172	-10.2
Total Courier Items Sent Locally	1,068,674	1,139,909	-6.2
International Incoming Letters (Up to 350 gms)	101,432	99,827	1.6
International Outgoing Letters (Up to 350 gms)	444,542	348,418	27.6
FREQUENCY SPECTRUM MANAGEMENT			
Microwave links Deployed	210	237	-11.4
Fixed Links Decommissioned	4	9	-55.6
FM Sound Broadcasting Frequencies Assigned	30	24	25.0
POPULATION			
Total Population in Kenya (Millions)	49.4*	48.7**	1.4

*Economic Survey 2022, Economic Survey 2021

1. TELEPHONY SERVICES

1.1 Mobile Services

1.1.1 *Mobile (SIM) Subscriptions*

As at 31st March 2022, the number of active¹ mobile (SIM) subscriptions stood at 64.9 million from 65.1 million subscriptions recorded by the end of 31st December 2021, and representing a mobile (SIM) penetration rate of 131.4%. The decline in SIM subscriptions is partly attributed to the ongoing SIM registration exercise during which a number of SIM cards have been deactivated.

Mobile penetration dropped by 2.5 percentage points, and is attributed to the review of the country's population figures from 48.7 million to 49.4 million as per the Economic Survey 2022.

Figure 1 illustrates the trends in mobile (SIM) 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 to revenue generation such as balance enquiry, unanswered calls, and password resets, among other free services, do not qualify a customer account as active.

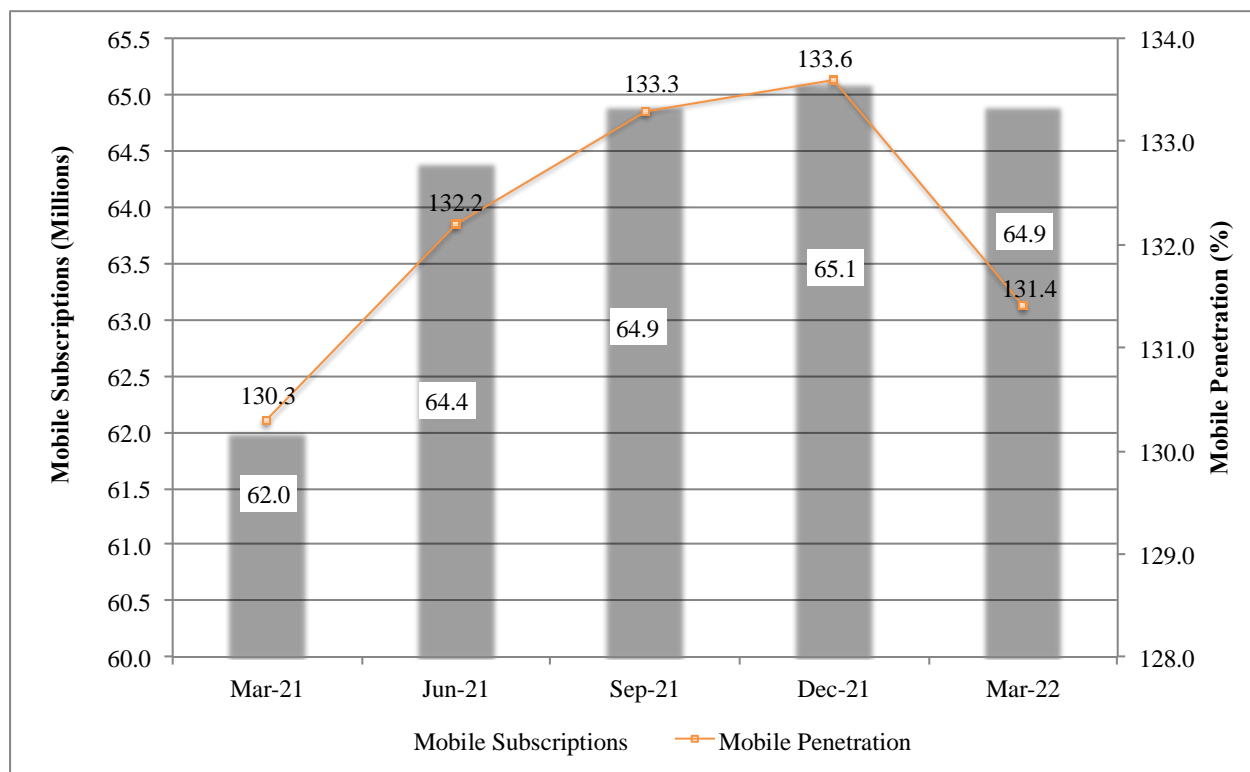


Figure 1: Mobile Subscriptions and Penetration

Figure 2 below demonstrates the number of active mobile (SIM) subscriptions per operator by contract type.

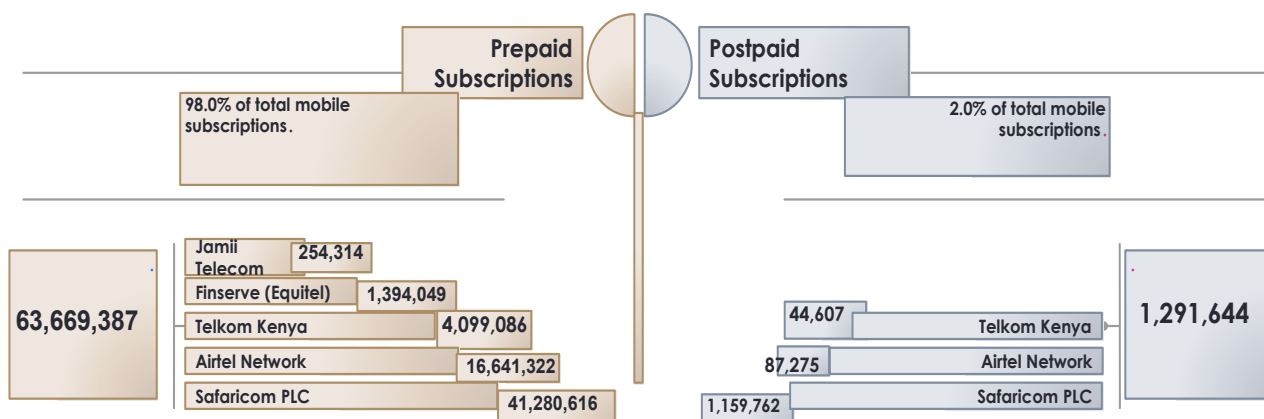


Figure 2: Mobile Subscription per Operator

Source: CA, Operators' Returns, provisional data for TKL

1.1.2 Machine-to-Machine Subscriptions

During the reference period, Machine-to-Machine (M2M)² subscriptions increased by 10.1% to stand at 1.2 million.

Table 1: Machine-to-Machine Subscriptions

<i>Indicator/Period</i>	<i>Mar 22</i>	<i>Dec 21</i>	<i>Quarterly Variation (%)</i>
Machine to Machine (M2M) Subscriptions	1,238,161	1,124,396	10.1

Source: CA, Operators' Returns. * Provisional Data for TKL

1.1.3 Mobile Money Services

Over the years, mobile money service providers have made great efforts in diversifying its value proposition beyond just P2P transfers and cash-in/cash-out transactions, and now plays an important role in people's daily lives as well as businesses. Further, mobile money has been a driving force for financial inclusion for Kenya's underserved and most vulnerable groups, particularly women. During the reference period, mobile money subscriptions grew from 35.2 million recorded as at the end of December 2021 to 36.4 million subscriptions by end of March 2022 hence translating to a penetration rate of 73.8%.

² **Machine to Machine mobile-network subscriptions (M2M subscriptions)** refers 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 should be included. Mobile dongles and tablet subscriptions should be excluded. Only active subscriptions are counted

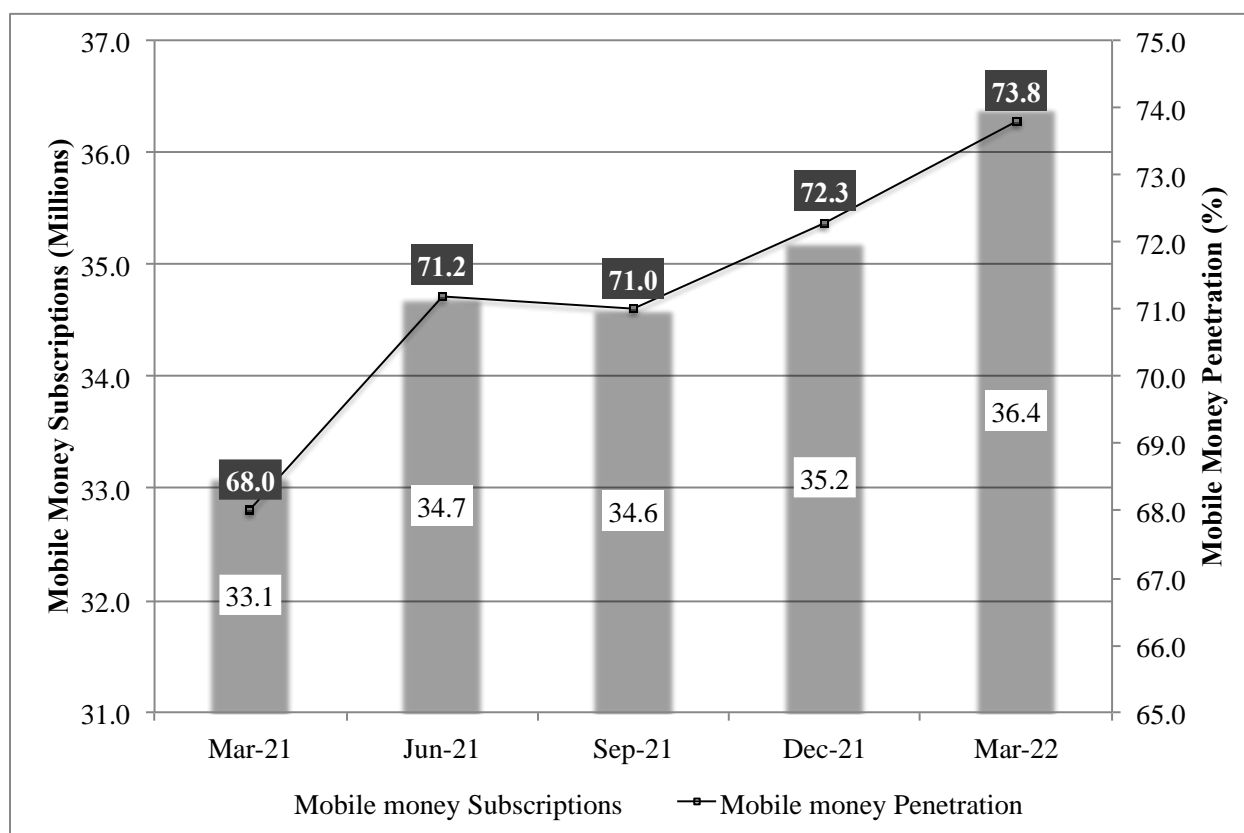


Figure 3: Mobile Money Services

Table 2 shows the mobile money transfer services.

Table 2: Mobile Money Services

Mobile Money Brand/Indicator	M-Pesa	Airtel Money	T-Kash*	Total
Agents	262,004	23,236	8,349	293,589
Value of C2B Transfers in KES	1,384,556,455,232	1,655,224,543	86,299,577	1,386,297,979,352
Value of B2C Transfers in KES	919,982,738,037	396,314,690	148,549,893	920,527,602,620
Value of B2B Transfers in KES	2,219,776,335,265	-	-	2,219,776,335,265
Value of G2C Transfers in KES	882,857,114	-	-	882,857,114
Value of C2G Transfers in KES	13,457,682,660	14,287,715	61,860	13,472,032,235
Volume of P2P Transfers	1,040,101,924	805,719	637,117	1,041,544,760
Value of P2P Transfers in KES.	1,109,557,282,367	513,089,592	169,237,668	1,110,239,609,627
Total Value of Deposits in KES	1,256,236,708,169	1,529,497,807	84,936,063	1,257,851,142,039

1.1.4 Mobile Phone Devices

The number of smartphones and feature phones connected to mobile networks as at 31st March 2022 stood at 26.5 million and 33.6 million respectively. Their respective penetration rates computed as a percentage of the total population were recorded at 54.6% and 69.2%.

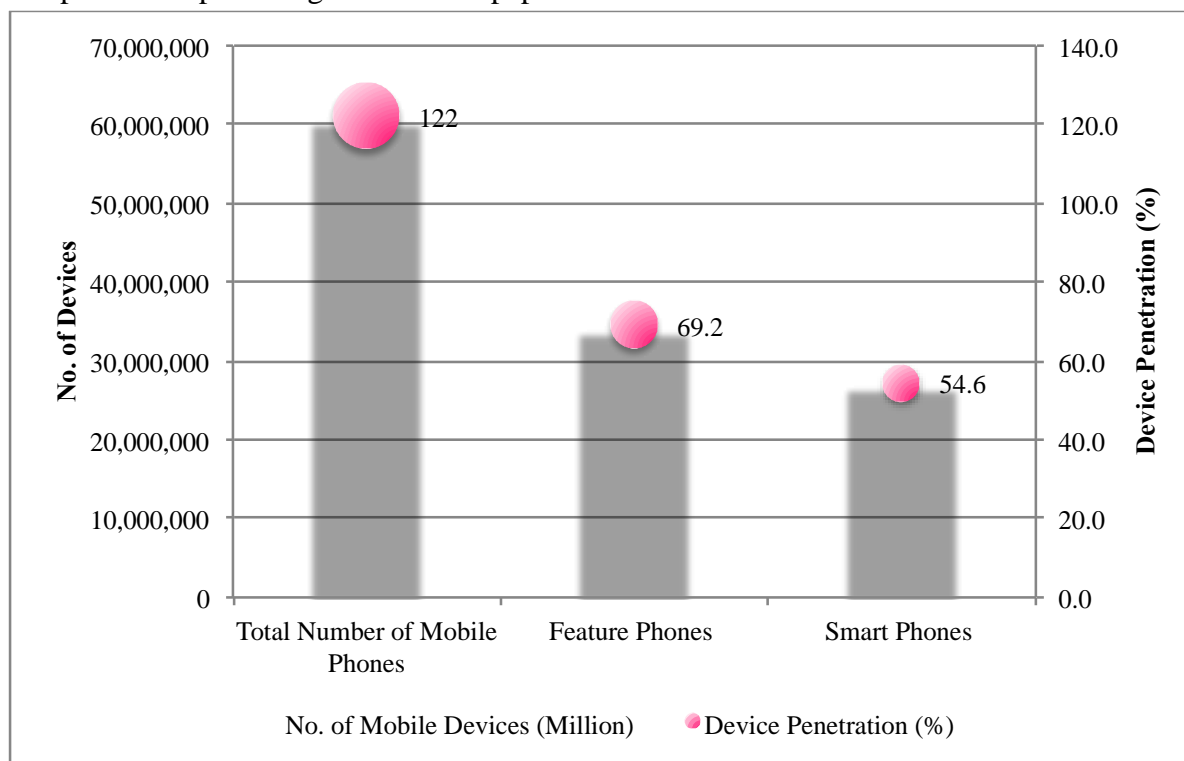


Figure 4: Mobile Phone Devices

1.1.5 Domestic Mobile Voice Traffic (Minutes)

Domestic mobile voice traffic both on-net and off net declined during the quarter under review by 7.7% and 1.4% respectively. This is mainly attributed to the conclusion of various promotions that were running during the previous quarter. Similarly, Mobile to Fixed traffic continued to dwindle owing to the declining number of fixed network subscriptions.

Table 3 shows the trends in domestic voice traffic.

Table 3: Domestic Mobile Voice Traffic

<i>Mobile Traffic</i>	<i>Jan-Mar 22</i>	<i>Oct-Dec 21</i>	<i>Quarterly Variation (%)</i>
<i>Total Outgoing Traffic</i>	19,195,856,553	20,626,028,887	-6.9
<i>On-net</i>	16,745,457,629	18,139,390,640	-7.7
<i>Off-net</i>	2,434,572,630	2,469,428,816	-1.4
<i>Mobile Network to Fixed Network</i>	15,826,294	17,209,431	-8.0

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

1.1.1.1. Minutes of Use per Call per Operator

During the reference period, mobile users spent an average of 1.6 minutes on on-net calls and 1.0 minute on off net calls. Airtel customers spent more time on a single on-net call averaging 2.8 minutes whereas customers of Telkom Kenya Limited recorded the highest number of off-net minutes per call at 1.5.

Table 4 presents the average Minutes of Use per Call by operator.

Table 4: Minutes of Use per Call

<i>Period</i>	<i>Jan-Mar 22</i>		<i>Oct-Dec 21</i>	
<i>Operator/Indicator</i>	<i>On-net</i>	<i>Off-net</i>	<i>On-net</i>	<i>Off-net</i>
<i>Total</i>	1.6	1.0	1.7	1.2
<i>Safaricom PLC</i>	1.4	1.0	1.5	1.1
<i>Airtel networks Limited</i>	2.8	1.0	2.7	1.0
<i>Telkom Kenya Limited*</i>	1.8	1.5	1.8	1.5
<i>Equitel</i>	2.6	1.3	2.6	1.1
<i>Jamii Telecommunications Limited</i>	0.1	1.2	0.1	1.2

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

1.1.6 Mobile SMS Traffic

Domestic SMS traffic increased to 10.9 billion during the referenced period from 9.7 billion messages reported during the preceding quarter. The growth is partly attributed to the promotion ran by the operators during the quarter.

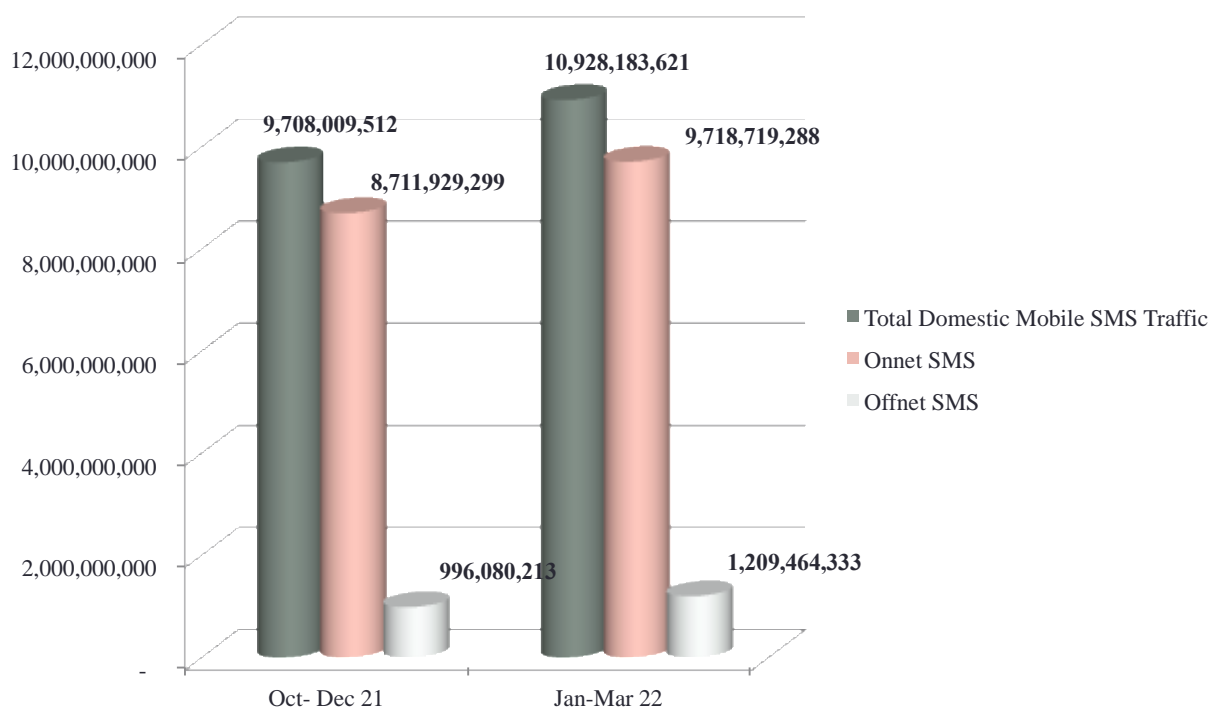


Figure 5: Domestic SMS Traffic

1.1.7 Voice and SMS Traffic per Operator

The trends in domestic voice and SMS traffic per operator are shown in Table 5.

Table 5: Domestic Mobile Traffic

Name of Operator		Safaricom PLC	Airtel Networks Kenya Limited	TKL*	Equitel	JTL	Total	
Jan-Mar 22	Voice	On-net	12,279,979,141	4,252,837,794	210,067,962	2,538,671	34,061	16,745,457,629
		Off-net	726,242,962	1,505,370,673	175,401,788	26,222,876	1,334,331	2,434,572,630
		Total	13,006,222,103	5,758,208,467	385,469,750	28,761,547	1,368,392	19,180,030,259
	SMS	On-net	9,202,183,616	509,510,385	5,689,019	1,323,363	12,905	9,718,719,288
		Off-net	575,606,105	580,709,965	50,005,687	2,824,565	318,011	1,209,464,333
		Total	9,777,789,721	1,090,220,350	55,694,706	4,147,928	330,916	10,928,183,621

Source: CA, Operators' Returns, provisional Data for Telkom Kenya

1.1.8 Market shares in Domestic Mobile Voice and SMS Traffic

The market shares in domestic mobile voice and SMS traffic are as shown in Figure 6.

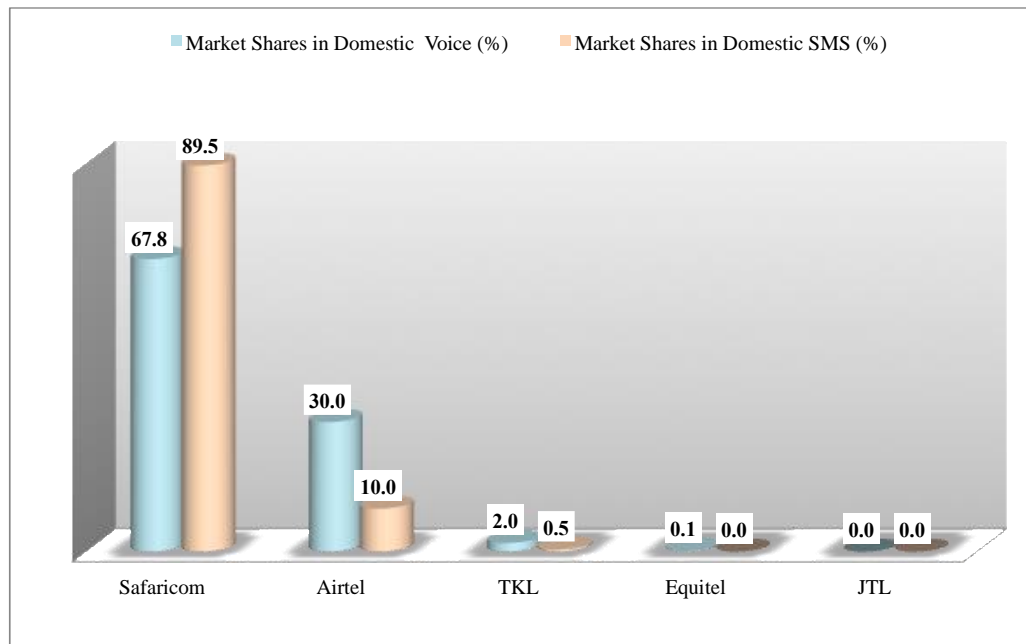


Figure 6: Market Shares in Domestic Mobile Voice and SMS

1.1.9 Minutes/Month/Subscription vs SMS/Month/Subscription

The minutes of use per month per subscription dropped from 105.6 reported in Q2 to 98.3 minutes during the reference period. However, short messages sent per month per subscription increased from 49.7 to 55.9 messages.



Source: CA, Operators' Returns, provisional Data for Telkom Kenya

Figure 7: MoU/Month/Month vs SMS/Month/Subscription

1.1.10 International Mobile Traffic

During the reference period, incoming international mobile voice traffic recorded a dip of 14.3% whereas outgoing international mobile voice traffic grew by 3.8%. Further, both incoming and outgoing international mobile SMS declined by 8.9% and 3.4% respectively. The declines are attributed to reduced activity following the end of the festive season.

Table 6: International Mobile Traffic

<i>Indicator/Period</i>	<i>Region</i>	<i>Jan-Mar 22</i>	<i>Oct-Dec 21</i>	<i>Quarterly Variation (%)</i>
International Incoming Mobile Voice Minutes	<i>EAC</i>	67,393,245	72,847,409	-7.5
	<i>Others</i>	38,754,731	51,025,353	-24.0
	Total	106,147,976	123,872,762	-14.3
International Outgoing Mobile Voice Minutes	<i>EAC</i>	83,738,419	81,854,628	2.3
	<i>Others</i>	80,621,524	76,495,464	5.4
	Total	164,359,943	158,350,092	3.8
International Incoming Mobile SMS		7,694,724	8,450,242	-8.9
International Outgoing Mobile SMS		4,950,835	5,126,004	-3.4

Source: CA, Operators' Returns, provisional Data for Telkom Kenya

1.1.11 Roaming Traffic

The trends in outbound and inbound roaming traffic are as shown in Tables 8 and 9 below.

Table 7: Outbound Roaming Traffic

Country / Indicator	Incoming Voice (Minutes)	Incoming SMS	Outgoing Voice (Minutes)	Outgoing SMS	Data Volumes (MB)
Uganda	110,806,084	28,490	5,483,077	4,144,876	27,191,059
Tanzania	210,517	9,258,196	474,103	1,118,308	4,138,379
Rwanda	5,612,672	10	476,710	299,230	2,087,763
Burundi	6,655	377,946	3,017	26,329	19,959
S.Sudan	5,287,416	595,638	1,185,824	1,046,429	254,397
EAC Total	121,923,344	10,260,280	7,622,731	6,635,172	33,691,557
Others	3,849,637	24,220,636	6,627,984	12,721,091	28,355,120
Total	125,772,981	34,480,916	14,250,715	19,356,263	62,046,677

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

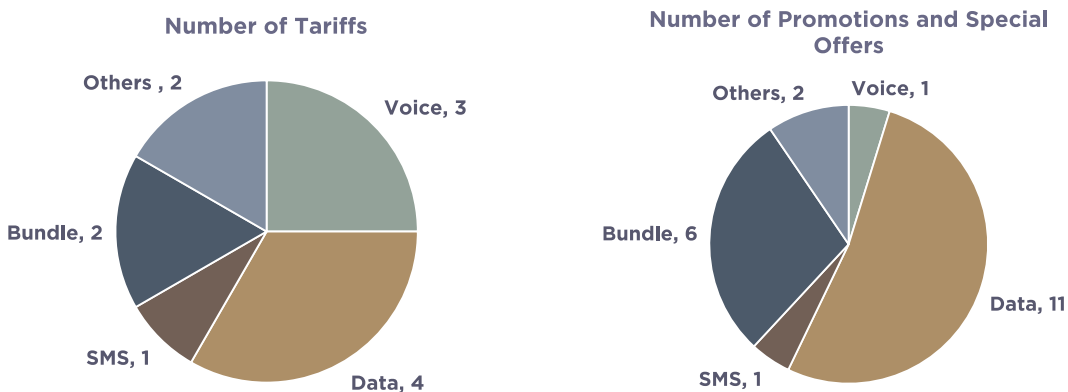
Table 8: In-bound Roaming Traffic

Country / Indicator	Incoming Voice (Minutes)	Incoming SMS	Outgoing Voice (Minutes)	Outgoing SMS	Data Volumes (MB)
Uganda	25,065,969	3,922,863	962,005	147,295	1,752,634
Tanzania	84,511	10,978,814	71,303	119,366	668,766
Rwanda	3,451,274	1,166,811	179,677	20,293	420,093
Burundi	799	14,096	831	1,165	8
S.Sudan	5,832,143	671,623	72,831	32,815	544,560
EAC Total	34,434,696	16,754,207	1,286,647	320,934	3,386,061
Others	1,207,023	13,202,783	2,234,267	1,047,055	100,663,916
Total	35,641,719	29,956,990	3,520,914	1,367,989	104,049,977

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

1.1.12 Tariffs, Promotions and Special Offers

The number of approved applications for promotions and special offers and tariffs offered by operators during the referenced period is as shown in Figure 8. "Other"³ refers to promotions that cannot be clearly attributed to any particular service or bundle of services; neither can they be attributed to a lucky draw



Source: CA, filed tariffs, promotions and special offers

Figure 8: Distribution of Tariffs, Promotions and Special Offers

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

1.2 FIXED TELEPHONE SERVICE

1.2.1 Fixed Telephone Subscriptions

During the quarter under review, fixed line subscriptions remained unchanged from that reported in Q2. Fixed wireless and fixed VoIP on the other hand grew by 4.4% and 6.7% respectively.

Table 9: Fixed Voice Subscriptions

<i>Subscriptions</i>	<i>Mar 22</i>	<i>Dec-21</i>	<i>Quarterly Variation (%)</i>
<i>Fixed Line*</i>	13,626	13,626	0.0
<i>Fixed Wireless</i>	1,226	1,174	4.4
<i>Fixed VoIP</i>	49,387	46,296	6.7

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

1.2.2 Domestic Fixed Voice Traffic

As has been the norm quarter to quarter, the total domestic voice traffic from fixed networks declined to record 5.43 million minutes.

Table 11 shows trends in domestic fixed voice network traffic in minutes.

Table 10: Domestic Fixed Voice Traffic in Minutes

<i>Domestic Fixed Network Traffic</i>	<i>Jan-Mar 22</i>	<i>Oct-Dec 21</i>	<i>Quarterly Variation (%)</i>
<i>Fixed-Fixed</i>	104,991*	104,991	0.0
<i>Fixed Wireless-Fixed Wireless</i>	292,377	276,125	5.9
<i>Fixed to Mobile</i>	5,039,508	5,410,365	-6.9
<i>Total Domestic Fixed Network Traffic</i>	5,436,876	5,791,481	-6.1

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

1.2.3 International Fixed Voice Traffic

During the period under review, international incoming fixed voice recorded a downward trend whereas outgoing fixed voice and outgoing fixed VoIP traffic recorded an upward trend as shown in Table 12.

Table 11: International Fixed Voice Traffic

<i>Indicator/Period</i>	<i>Jan-Mar 22</i>	<i>Oct-Dec 21</i>	<i>Quarterly Variation (%)</i>
<i>International Incoming Fixed Network Voice traffic</i>	3,289,556	3,618,079	-9.1
<i>International Outgoing Fixed Network Voice traffic</i>	1,511,593	1,442,581	4.8
<i>International Outgoing Fixed VoIP traffic</i>	610,776	581,995	4.9

Source: CA, Operators' Returns, Provisional Data from Telkom Kenya

2. DATA/INTERNET AND BROADBAND SERVICES

The total data/internet and broadband subscriptions stood at 46.5 million and 30.2 million respectively during the reference period as shown in Table 13.

Table 12: Data and Broadband Subscriptions

<i>Indicator/Period</i>	<i>Mar 22</i>	<i>Dec 21</i>	<i>Quarterly Variation (%)</i>
Total Data/internet subscriptions	46,590,085	46,355,022	0.5
Total Broadband subscriptions	30,251,455	29,149,638	3.8

Source: CA operator returns, Provisional Data from Telkom Kenya

2.1 Mobile Broadband Subscriptions (3G⁴ and 4G⁵)

As at 31st March 2022, 3G and 4G mobile broadband subscriptions stood at 12.7 million and 16.7 million respectively. The respective data volumes consumed are as shown in Figure 9.

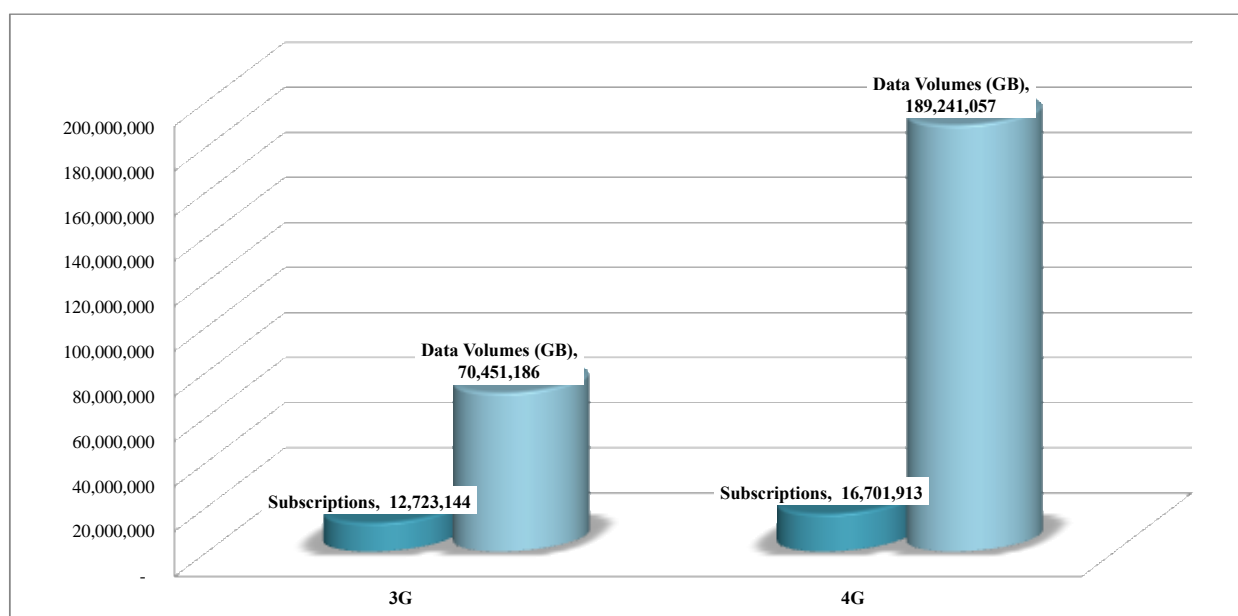


Figure 9: Mobile Broadband Subscriptions

⁴ **Active 3G mobile-broadband subscriptions** refer to the sum of active handset based and computer-based (USB/dongles) SIM Cards that have generated the highest broadband traffic through 3G technologies. It covers actual subscriptions, not potential subscribers, even though the latter may have broadband-enabled handsets. If a subscriber has accessed the Internet through 3G and 4G, the technology where the subscriber has generated the highest traffic will be the one to be counted.

⁵ **Active 4G mobile-broadband subscriptions** refers to the sum of active handset based and computer-based (USB/dongles) SIM Cards that have generated the highest broadband traffic through 4G technology.

2.2 Fixed Data/Internet and Broadband Subscriptions

Fiber to Home and Office recorded the highest number of fixed broadband subscriptions and data speeds between 2Mbps and 10Mbps recorded the highest number of subscriptions.

Table 14 shows the breakdown of fixed data/internet subscriptions by technology and speed.

Table 13: Fixed Data and Broadband Subscriptions

<i>Internet Technology/Speeds</i>	<i><256Kbps</i>	<i>=>256Kbps < 2Mbps</i>	<i>=>2 Mbps <10 Mbps</i>	<i>=>10Mbps <30 Mbps</i>	<i>=>30 Mbps <100Mbps</i>	<i>=>100 Mbps</i>	<i>Totals</i>
<i>Cable Modem</i>	-	-	75,401	96,678	18,242	605	190,926
<i>Copper (DSL)</i>	22	31	468	391	72	-	984
<i>FTTH/O</i>	2	5,643	211,039	166,801	127,485	4,017	514,987
<i>Fixed Wireless</i>	8,223	7,709	120,678	2,551	847	76	140,084
<i>Satellite</i>	29	331	359	127	-	-	846
<i>Other Fixed</i>	-	84	285	159	67	50	645
Totals	8,276	13,798	408,230	266,707	146,713	4,748	848,472

Source: CA, Operators' Returns, Provisional Data from Telkom Kenya

2.2.1 Fixed Data Subscriptions by Operator

During the reference period, Safaricom PLC recorded the highest market shares in fixed data subscriptions at 35.8% followed by Wananchi Group at 28.1%.

Table 14: Fixed Data Subscriptions by Operator

<i>Name of service Provider</i>	<i>Number of data/internet subscriptions</i>	<i>Percentage Market share (%)</i>
<i>Safaricom PLC</i>	303,667	35.8
<i>Wananchi Group (Kenya) Ltd**</i>	238,414	28.1
<i>Jamii Telecommunications Ltd</i>	173,512	20.4
<i>Poa Internet Kenya Ltd</i>	84,388	9.9
<i>Liquid Telecommunications Kenya Limited</i>	14,942	1.8
<i>Mawingu Networks Ltd</i>	12,234	1.4
<i>Dimension Data Solutions East Africa Limited</i>	11,786	1.4
<i>Telkom Kenya Ltd*</i>	4,454	0.5
<i>Truth Wireless Limited</i>	665	0.1
<i>Other Fixed Service providers</i>	4,410	0.5

Source: CA Operators' Returns, * Provisional Data from Telkom Kenya ** includes Wananchi Group, Wananchi Telecom, ISAT and Simbanet.

2.3 International Bandwidth

During the review period, leased/available international Internet bandwidth remained unchanged whereas bandwidth capacity utilized within the country increased by 15.2% to stand at 3,386.19 Gbps.

Table 15: International Internet Bandwidth (Gbps)

Table 15: International Internet Bandwidth (Gbps)						
Indicator/ Operator	Jan-Mar 22			Oct-Dec 21		Quarterly Variation (%)
Total Available (Lit/Equip) Bandwidth Capacity (Gbps)	10,891.65			10,891.53		0.0
Undersea Bandwidth Capacity	SEACOM		3,920.00	SEACOM	3,920.00	0.0
	TEAMS		1,618.00	TEAMS	1,618.00	0.0
	Telkom Kenya	EASSY	4,431.00	EASSY	4,431.00	0.0
		Lion 2	657.20	Lion 2	657.20	0.0
		DARE 1	260.00	DARE 1	260.00	0.0
Satellite Bandwidth Capacity	5.45			5.33		2.3
Total Utilized Bandwidth Capacity (Gbps)						
Undersea Bandwidth Capacity	Sold In Kenya	Sold in other Countries		Sold In Kenya	Sold in other Countries	
	3,383.3	1,875.82		2,938.61	1,875.82	9.2
Satellite Internet Capacity	2.89			2.56		12.9

Source: CA, Operators' Returns, Provisional Data from Telkom Kenya

3 POSTAL AND COURIER SERVICES

During the period January to March 2022, the number of domestic letters sent declined by 10.2% to stand at 280,261. Similarly, the volume of courier items sent out within the country dropped by 6.2% owing to the end of the festive season.

Table 16: Courier Items

<i>Indicator/Period</i>	<i>Jan-Mar 22</i>	<i>Oct-Dec 21</i>	<i>Quarterly Variation (%)</i>
Outgoing Domestic Letters	280,261	312,172	-10.2
Outgoing Domestic Courier Items	1,068,674	1,139,909	-6.2
International Outgoing Letters	444,542	348,418	27.6
International Incoming Letters	101,432	99,827	1.6

Source: CA, Operators' Returns, Data excludes Postal corporation of Kenya (PCK)

4 BROADCASTING SERVICES

The Authority in its mandate to promote and facilitate the development of diverse range of broadcasting services in Kenya, while maintaining a competitive broadcasting market, issues licenses to service providers on continuous basis.

Table 18 provides the number of licensed broadcasters.

Table 17: Licensees under Broadcast License Framework

<i>Indicator/Period</i>	<i>Mar 22</i>	<i>Dec 21</i>	<i>Quarterly Variation (%)</i>
Broadcast Signal Distributor	2	2	0.0
Self-Provisioning Broadcast Signal Distributor	3	3	0.0
Commercial Free to Air TV	280	261	7.3
Commercial FM radio	154	122	26.3
Community Free to Air TV	9	9	0.0
Community FM Radio	58	28	107.1
Subscription Broadcasting Service	18	17	5.9
Subscription Management Service	4	4	0.0
Landing Rights Authorization	5	5	0.0

Source: CA, Operators' Returns

During the third quarter of FY 2021/22, subscriptions to broadcasting services grew by 1.8% to a total of 6.0 million from 5.9 million reported at the end of the second quarter. Digital terrestrial television (DTT) broadcasting service recorded the highest number of subscriptions at 4.2 million whereas cable television recorded the least subscriber base at 90, 745.

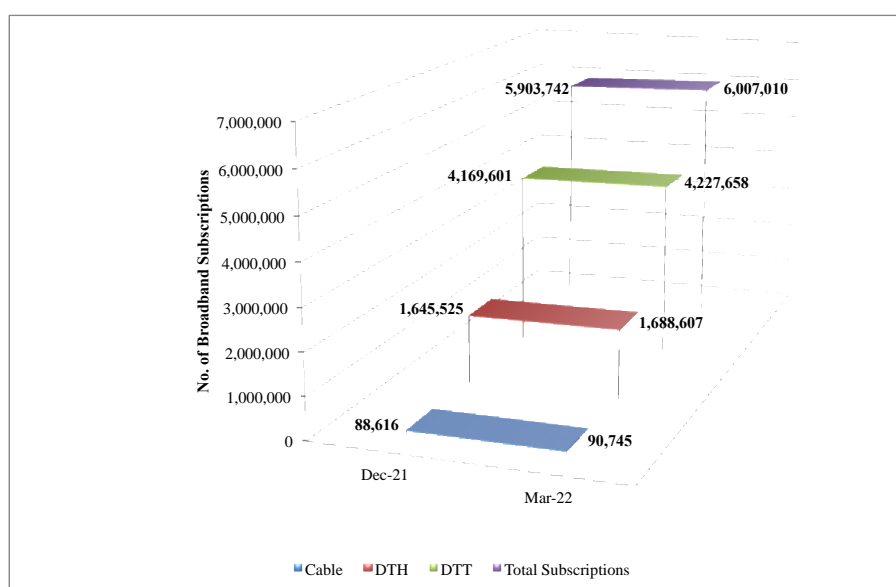


Figure 10: Broadcasting Subscriptions

Source: CA, Operators' Returns.

5 FREQUENCY SPECTRUM MANAGEMENT

During the period under review, the Authority assigned frequencies to various operators for deployment of 210 microwave links and processed the decommissioning of 4 fixed links. In addition, the Authority assigned 30 FM sound broadcasting frequencies to broadcasters.

Table 18: Frequency Spectrum Management

<i>Indicator/Period</i>	<i>Jan-Mar 22</i>	<i>Oct-Dec 21</i>	<i>Quarterly Variation (%)</i>
Microwave links Deployed	210	237	-11.4
Fixed Links Decommissioned	4	9	-55.6
FM Sound Broadcasting Frequencies Assigned	30	24	25.0

Source: CA,

6 ELECTRONIC TRANSACTIONS AND CYBER SPACE MANAGEMENT

6.1 Registered Domain Names

The total number of users for .KE domains stood at 97,439 as at 31st March 2022 with.CO.KE sub-domain recording the highest market shares in users at 89.64%.

Table 20 illustrates the various sub-domains and their respective users.

Table 19: .KE Domains

<i>SUB-DOMAIN</i>	<i>USER</i>	<i>Mar 22</i>	
		Number of Users	% Users
CO.KE	Companies	87,341	89.64
OR.KE	Non-Profit-Making Organizations	1,920	1.97
AC.KE	Institutions of Higher Education	1,051	1.08
SC.KE	Lower and Middle Level Institutions	1,031	1.06
NE.KE	Personal Websites and E-mail	50	0.05
ME.KE	Personal Websites and E-mail	1,005	1.03
MOBI.KE	Mobile Content	38	0.04
INFO.KE	Information	139	0.14
GO.KE	Government Institutions	615	0.63
. KE	Second level	4,249	4.36
Total		97,439	100.00

Source: CA, Operators' Returns.

6.2 National Cyber Space Landscape

During the third quarter, total cyber threat events detected and cyber threat advisories dropped by 38.6% and 3.6% respectively.

Table 20: Cyber Threats Detected

Indicator/Period	Jan-Mar 22	Oct-Dec 21	Quarterly Variation (%)
Malware	37,012,510	66,765,638	-44.6
DDOS/Botnet	19,695,287	28,128,957	-30.0
Web Application Attacks	324,836	223,720	45.2
System vulnerabilities	22,142,796	33,883,205	-34.6
Totals	79,175,429	129,001,520	-38.6

Source: National KE-CIRT/CC

Table 21: Cyber Threat Advisories

Cyber Threat Advisories	Jan-Mar 22	Oct-Dec 21	Quarterly Variation (%)
Malware	54,643	63,165	-13.5
Botnet	25,252	35,675	-29.2
Web Application Attacks	28,848	27,415	5.2
System Vulnerabilities	2,799,688	2,892,290	-3.2
Others	324	510	-36.5
Totals	2,908,755	3,019,055	-3.6

Source: National KE-CIRT/CC

7 CONCLUSION

The communications sub-sector in the country has continued to connect people, facilitate ecommerce, remote working and learning as well as financial services. In order to meet the growing demand for mobile voice and data services, communication service providers have embarked on expanding and upgrading their network infrastructure. Noting that there has been a tremendous shift from voice to data, new projects have been initiated including rural tower expansion, 4G, 5G and fibre infrastructure rollout. As we approach the electioneering period, the industry is expected to experience increased activity considering that ICTs will be a major facilitator of the General Elections.