Tanzania Communications Regulatory Authority

Communication Statistics

Quarter ending March 2024

About this report

This report presents communication statistics for the third quarter of the financial year 2023/2024. The report provides statistics on telecommunication, mobile money, Internet, broadcasting, postal and courier and other ICT-related services for the quarter.

The statistics have been prepared in line with the statistical standards and International Telecommunications Union (ITU) standards for collecting and reporting administrative/supply-side data on telecommunications/ICT services.

Table of Contents

1. Telecommunication Services Statistics

Telecommunication services statistics on subscriptions, tariffs, traffic minutes, SMS and user devices are highlighted below. The highlights are provided on a monthly, quarterly and annual basis.

1.1. Telecom subscriptions statistics

A count of all active SIM cards and fixed lines that have registered activity or have been used at least once in the past three months describes the telecom subscriptions. There are two types of SIM cards: those subscribed to human communication (Person to Person - P2P) and those for machine communication (Machine to Machine - M2M). The total number of P2P subscriptions (SIM cards and fixed lines) has increased from 70.3 million during the previous quarter (quarter ending December 2023) to 72.5 million subscriptions in March 2024. That is an increase of 3.1%, as summarized below.

December 2023	March 2024	
70.3 million	**72.5 million**	**3.1%**

1.1.1 Telecom subscriptions for P2P per operator

The SIM cards and fixed lines subscribed for P2P per operator in the quarter ending March 2024 are shown in Table 1.1.1.

Table 1.1.1 Number of telecom subscriptions for P2P communication per operator

	AIRTEL	HALOTEL	TIGO	TTCL	VODACOM	TOTAL
JANUARY	18,399,283	8,736,694	19,816,518	1,652,908	21,506,939	70,112,342
FEBRUARY	19,147,213	8,639,524	20,312,995	1,661,618	21,934,638	71,695,988
MARCH	19,144,882	9,298,742	20,275,514	1,669,997	22,106,960	72,496,095

The statistics in Table 1.1.1 show an average monthly increase of 1.7% in total subscriptions within the quarter (between January and March 2024).

1.1.2 Telecom subscriptions for P2P and M2M communications per operator

Table 1.1.2 shows SIM cards subscribed for P2P and M2M communications for January, February and March 2024.

Table 1.1.2 Number of subscriptions for P2P and M2M per operator

OPERATOR	VODACOM	HALOTEL	TTCL	AIRTEL	TIGO	TOTAL
M2M Subscriptions	522,381	55,350	6,544	320,471	24,937	929,683
P2P Subscriptions	22,106,960	9,298,742	1,669,997	19,144,882	20,275,514	72,496,095
Total	22,629,341	9,354,092	1,676,541	19,465,353	20,300,451	73,425,778

Table 1.1.2 shows there were 0.9 million subscriptions for M2M communication in the country by March 2024. That is 1.3% of all active subscriptions, including P2P communications. P2P communication counts for 98.7% of all subscriptions.

1.1.3 Operators' subscriptions market shares

Chart 1.1.3a and 1.1.3b show the telecom market shares by subscriptions per operator. For P2P, it is shown that there is no operator with a market share greater than 35%, which is the minimum level for market dominance. This observation signifies no dominant operator, indicating healthy competition among the operators.

However, for M2M, Vodacom controls the market with more than half (56.2%) of all M2M subscriptions, as shown in Chart 1.1.3b. Airtel ranks second with 34.5%, followed by Halotel with 6.0%.

Chart 1.1.3a Operators' market shares by subscriptions for P2P
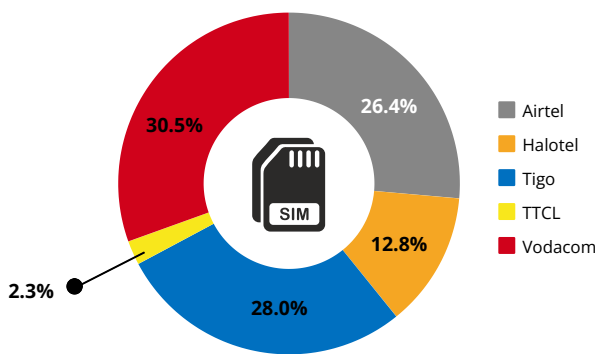
Chart 1.1.3b Operators' market shares by M2M subscriptions for M2M
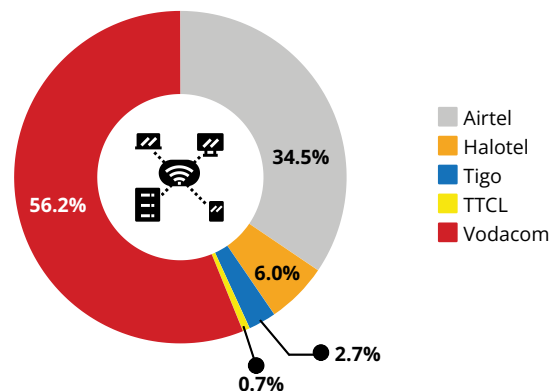
1.1.4 Subscriptions to mobile and fixed networks

Table 1.1.4 presents the number of subscriptions for mobile and fixed networks for January, February, and March 2024. The table shows that the fixed networks have insignificant shares (an average of 0.11% of telecom subscriptions in the country).

Table 1.1.4 Subscriptions to mobile and fixed networks for P2P communication

MONTH	JANUARY	FEBRUARY	MARCH
Mobile Subscriptions	70,035,043	71,618,452	72,418,634
Fixed Subscriptions	77,299	77,536	77,461
Total	**70,112,342**	**71,695,988**	**72,496,095**

1.1.5 Quarterly change in subscriptions per operator

There was an increase in P2P subscriptions in the quarter ending March 2024 of around 2.2 million compared to 3.2 million recorded in the quarter ending December 2023. Chart 1.1.5a indicates the change in subscriptions as of March 2024.

Chart 1.1.5a Quarterly change in P2P subscriptions by operator
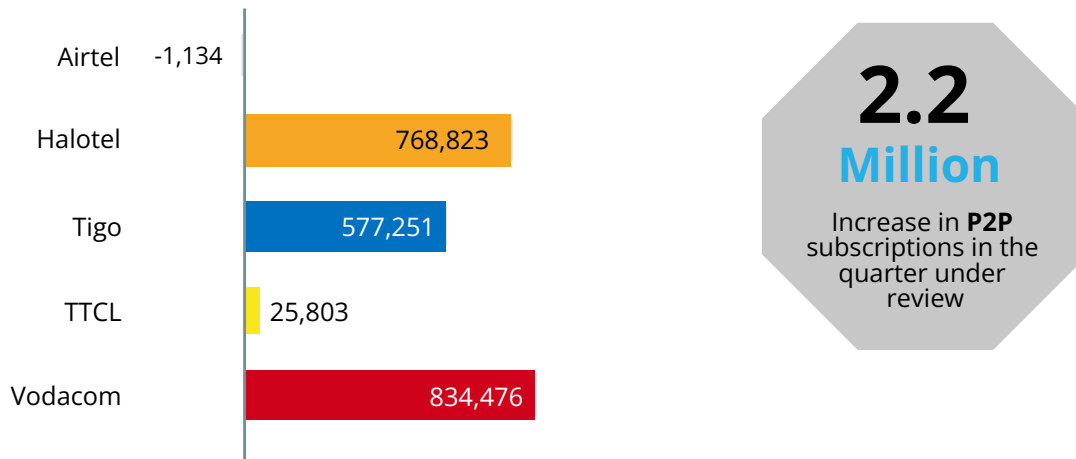
Chart 1.1.5b indicates the change in M2M subscriptions as of March 2024. There was an increase in M2M subscriptions in the quarter ending March 2024 of around 103,970.

Chart 1.1.5b Quarterly change in M2M subscriptions per operator
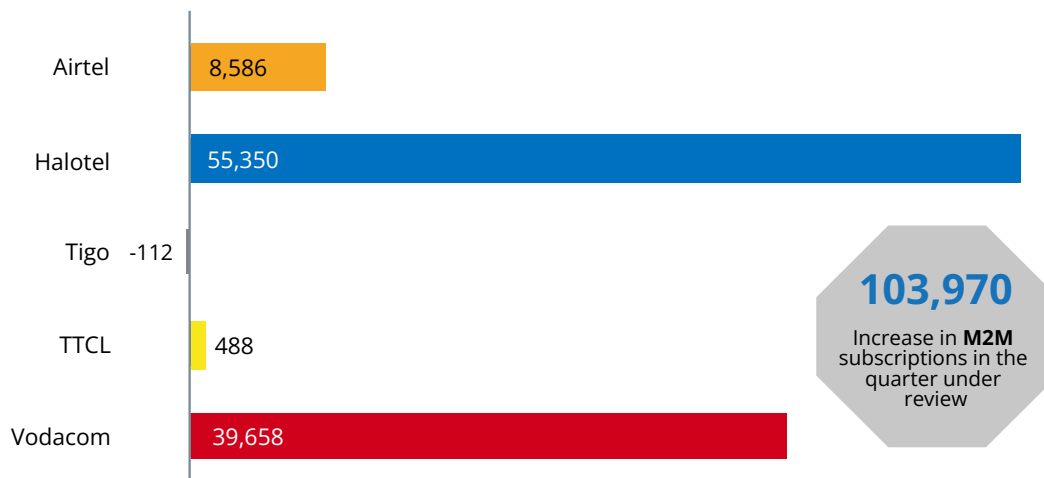
1.1.6 Telecom services P2P subscriptions by region

The distribution of P2P subscriptions per region is depicted in Chart 1.1.6. In the quarter under review, Dar es Salaam ranks first by having 13.3 million of all active subscriptions, Mwanza ranks second with 4.8 million subscriptions, Arusha ranks third with 4.4 million subscriptions, Mbeya ranks fourth with 4.2 million subscriptions, and Dodoma ranks fifth by having 3.9 million of all active subscriptions.

Regions with the lowest contribution of subscriptions to the country's total subscriptions are Kaskazini Unguja 66,277 subscriptions, Kusini Unguja 99,736 subscriptions, and Kusini Pemba 111,871 subscriptions.

Chart 1.1.6 Telecom services P2P subscriptions by region

Region	Subscriptions
Dar es Salaam	13,345,199
Mwanza	4,803,249
Arusha	4,364,431
Mbeya	4,171,381
Dodoma	3,869,789
Morogoro	3,644,014
Tabora	3,506,194
Kilimanjaro	2,797,087
Tanga	2,675,465
Geita	2,417,513
Pwani	2,381,767
Mtwara	2,014,202
Shinyanga	1,966,528
Ruvuma	1,912,966
Manyara	1,812,789
Mara	1,806,790
Kagera	1,784,059
Iringa	1,692,084
Singida	1,686,139
Simiyu	1,666,313
Kigoma	1,446,809
Songwe	1,406,743
Njombe	1,275,338
Lindi	1,259,976
Rukwa	1,190,756
Katavi	749,433
Mjini Magharibi	459,136
Kaskazini Pemba	112,062
Kusini Pemba	111,871
Kusini Unguja	99,736
Kaskazini Unguja	66,277

13.3 million of all active subscriptions are located in **Dar es salaam** region

Map 1.1.6 Telecom P2P subscriptions shares by region as of March 2024

Mwanza
6.63%

Shinyanga
2.71%

Kagera
2.46%

Mara
2.49%

Simiyu
2.30%

Arusha
6.02%

Geita
3.33%

Kilimanjaro
3.86%

Kigoma
2.00%

Manyara
2.50%

Tabora
4.84%

Tanga
3.69%

Singida
2.33%

Dodoma
5.34%

Katavi
1.03%

Kaskazini Pemba	**0.15%**
Kusini Pemba	**0.15%**
Kaskazini Unguja	**0.09%**
Kusini Unguja	**0.14%**
Mjini Magharibi	**0.63%**
Dar es salaam	**18.41%**

Morogoro
5.03%

Pwani
3.29%

Iringa
2.33%

Rukwa
1.64%

Mbeya
5.75%

Songwe
1.94%

Njombe
1.76%

Lindi
1.74%

Key
- 0-5
- 6-10
- 11-15
- 16-20

Ruvuma
2.64%

Mtwara
2.78%

Telecom P2P subscriptions shares by region are shown in Map 1.1.6, describing the number of subscriptions in the regions per total subscriptions in the country. The distribution indicates that Dar es Salaam has the largest subscription share (18.4%) compared to all other regions followed by Mwanza with 6.6%, Arusha with 6.0% and Mbeya with 5.8%.

Regions with the smallest subscription shares in Tanzania Mainland are Katavi (1.03%), Rukwa (1.64%) and Lindi (1.74%), and in Zanzibar are Kaskazini Unguja (0.09%), Kusini Unguja (0.14%) and Kusini Pemba with 0.15%.

1.1.7 Trend of telecom subscriptions over the past five years

The trend of telecom subscriptions for P2P communication for the past five years is shown in Table 1.1.7.

Table 1.1.7 Trend of telecom subscriptions for the past five years

	2019	2020	2021	2022	2023
Mobile Subscriptions	47,685,232	51,220,233	54,044,384	60,192,331	70,215,144
Fixed Subscriptions	76,288	72,469	71,834	84,696	75,732
Total Subscriptions	**47,761,520**	**51,292,702**	**54,118,218**	**60,277,027**	**70,290,876**
PENETRATION	**78%**	**81%**	**88%**	**98%**	**111%**

The total P2P subscriptions show an average increase of 10% per annum and an average penetration rate of 9% per annum. The penetration as of December 2023 reached 111%, implying that 10 residents used 11 lines (SIM cards and fixed lines) for communication services.

1.2 Telecommunication tariff statistics

This section presents average basic and bundle tariffs (Tax inclusive) for voice SMS and data services. The basic tariffs applied in the quarter ending December 2023 and March 2024 are shown below:

	On-net	Off-net	EA	RoW	Local SMS	International SMS	Data
December 2023	26.00	28.00	754.00	1,960.40	7.80	164.40	9.35
March 2024	26.00	28.00	727.80	1,899.00	7.80	189.60	9.35
% Change	**0%**	**0%**	**-3%**	**-3%**	**0%**	**15%**	**0%**

As shown in the summary above, while on-net, off-net and data tariffs remained unchanged, there was a decrease in international tariffs except international SMS tariffs, which increased by 15%.

1.2.1 Voice tariffs (in TZS)

The voice tariffs for the quarter ending March 2024 for local and international services are shown in Table 1.2.1. These are one-minute voice charges when a consumer makes a local or international call without subscribing to a bundle.

Table 1.2.1 Local and international voice tariffs

Operator	On-net	Off-net	EA	RoW
AIRTEL	30.00	30.00	614.00	1,427.00
HALOTEL	10.00	20.00	875.00	1,565.00
TIGO	30.00	30.00	1,025.00	1,673.00
VODACOM	30.00	30.00	829.00	1,959.00
TTCL	30.00	30.00	296.00	2,871.00
Industry Average	**26.00**	**28.00**	**727.80**	**1,899.00**

Table 1.2.1 shows no difference in charges when calling within and outside the network. All operators charge one minute at 30 TZS, except Halotel, who charges 10 TZS (on-net) and 20 TZS (off-net).

The industry average for local voice tariff in the quarter ending March 2024 remained the same as in quarter ending December 2023.

Table 1.2.1 further shows that international voice tariffs differ across networks, unlike local tariffs with the exception of Halotel. The industry average rate of one minute for making calls to East Africa and Rest of the World (RoW) are TZS 727.80 and 1,889.00, respectively.

1.2.2 SMS and data tariffs

The local and international PAYG tariffs (Tax inclusive) for SMS and data as of March 2024 are shown in Table 1.2.2.

Table 1.2.2 SMS and Data tariffs

Operator	Local SMS	International SMS	Data
Airtel	8.00	215.00	9.35
Halotel	5.00	95.00	9.35
Tigo	8.00	215.00	9.35
Vodacom	8.00	285.00	9.35
TTCL	10.00	138.00	9.35
Industry Average	**7.80**	**189.60**	**9.35**

The industry average tariffs for the local SMS (TZS 7.80) and data (TZS 9.35) for March 2024 have remained the same as in the quarter ending December 2023. However, the industry average tariff for international SMS has changed to TZS 189.60 from TZS 164.40 recorded in the quarter ending December 2023.

1.2.3 Disaggregated bundle tariffs (in TZS)

The disaggregated bundle tariffs (per unit prices - Tax inclusive) of one voice minute, one SMS and one MB of data for consumers subscribed to bundled telecom services are shown below.

Period	On-net	Off-net	SMS	Data
Jan - Mar 2024	4.50	6.07	1.37	2.17
Oct - Dec 2023	4.89	6.26	1.38	2.11
% Change	**-7.9%**	**-3.1%**	**-0.6%**	**2.8%**

The above summary indicates that unit bundle tariffs have changed notably for the quarter ending March 2024 compared to the quarter ending December 2023. Tariffs for on-net, off-net voice, and SMS have decreased at different rates, while the unit data tariff in bundle has increased by 2.8%.

The tariffs for the quarter ending March 2024, as shown in Table 1.2.3, indicate that the industry average tariffs for disaggregated bundled services are generally lower than the pay-as-you-go (PAYG) tariffs.

Table 1.2.3 Disaggregated bundle tariffs

Operator	On-Net	Off-Net	SMS	Data
Vodacom	5.21	6.10	1.28	2.33
Tigo	4.46	6.22	1.35	2.13
Airtel	3.54	5.96	1.07	2.04
Halotel	2.07	4.82	0.96	2.15
TTCL	7.23	7.23	2.18	2.19
Industry Average	**4.50**	**6.07**	**1.37**	**2.17**

The industry average bundle tariff for on-net and off-net voice slightly decreased to TZS 4.50 and TZS 6.07 per minute, respectively, in the quarter ending March 2024, down from TZS 4.89 and TZS 6.26 in the previous quarter. Additionally, unit bundle tariffs for SMS decreased by 0.6% and data increased by 2.7%.

1.2.4 Industry average tariffs for all destinations

The industry average tariffs for basic and bundled telecommunications services are shown in Table 1.2.4.

Table 1.2.4 Industry average for basic and bundle tariffs

	On-Net	Off-Net	SMS	Data
Average basic (PAYG) tariff	26.00	28.00	7.80	9.35
Average bundle tariff	4.50	6.07	1.37	2.17

It is shown that average tariffs for all PAYG are almost five times greater compared to bundled unit tariffs. That is the reason for the majority of users (99.9%) to subscribe to bundled services.

1.2.5 Trend of industry average basic tariffs over the past five years

In the past five years, the trend of domestic and international industry average basic tariffs for voice calls and SMS are shown in Table 1.2.5a, 1.2.5b and 1.2.5c, respectively.

Table 1.2.5a Trend of average basic local tariffs per minute in TZS over the past five years

	2019	2020	2021	2022	2023
On-net	149.00	57.00	34.00	32.00	29.00
Off-net	189.00	57.00	34.00	32.00	30.00

Table 1.2.5a shows that the industry average tariffs for on-net and off-net calls dropped considerably between 2019 and December 2023, and the two converged in 2020. Convergence between on-net and off-net tariffs continued from 2020 to December 2022. The noted alignment between on-net and off-net tariffs is linked to a significant drop in the interconnection charges during the same period.

Table 1.2.5b Trend of average basic international tariffs per minute in TZS over the past five years

	2019	2020	2021	2022	2023
EA	770.00	830.00	966.00	1,103.00	1,171.00
RoW	1,357.00	1,379.00	1,564.00	1,817.00	1,776.00

While the trend for local tariffs shows a close convergence, the tariffs for EA and RoW, as shown in Table 1.2.5b, have different trends over time as they depend on rates imposed by international traffic carriers and termination charges .

Table 1.2.5c Trend of average basic local and international SMS tariffs over the past five years

	2019	2020	2021	2022	2023
Local SMS	36.00	20.00	13.00	11.00	11.00
International SMS	160.00	176.00	172.00	193.00	200.00

Also, in the past four years, the trend of industry average bundle tariffs is shown in Table 1.2.5d.

Table 1.2.5d Trend of average bundle tariffs over the past four years

	2020	2021	2022	2023
On-net	9.38	7.84	7.27	4.90
Off-net	11.21	8.69	7.78	6.30
SMS	3.45	3.35	2.69	1.37
Data	1.73	1.61	1.86	2.14

1.3 Telecom traffic minutes statistics

1.3.1 Local traffic minutes

The local on-net and off-net voice traffic for the quarter ending December 2023 and March 2024 are summarised below.

Quarter ending December 2023
39.0 Billion
Local traffic

Quarter ending March 2024
35.0 Billion
Local traffic

Change
-10.3%

The summary indicates a decrease in local traffic minutes by 10.3% in the quarter ending March 2024. Quarter two of 2023/2024 was busier in traffic minutes than the third quarter of 2023/2024, likely due to seasonal holidays.

Further, it is shown in Table 1.3.1 that January 2024 was the busiest month compared to other months of the quarter.

Table 1.3.1 On-net and off-net traffic minutes

	January	February	March	Total
On-net	6,535,684,819	5,750,635,692	6,207,008,109	18,493,328,620
Off-net	5,648,022,853	5,038,572,955	5,783,714,056	16,470,309,864
Total	**12,183,707,672**	**10,789,208,647**	**11,990,722,165**	**34,963,638,484**

Table 1.3.1 shows that around 35 billion minutes were spent in the quarter ending March 2024 compared to 39 billion minutes in the quarter ending December 2023. However, the on-net traffic was significantly higher than off-net traffic throughout the quarter.

1.3.1.1 Percentage shares of local traffic minutes

The share of on-net and off-net local traffic minutes are shown in Chart 1.3.1.1a.

Chart 1.3.1.1a Percentage shares of traffic minutes as of March 2024
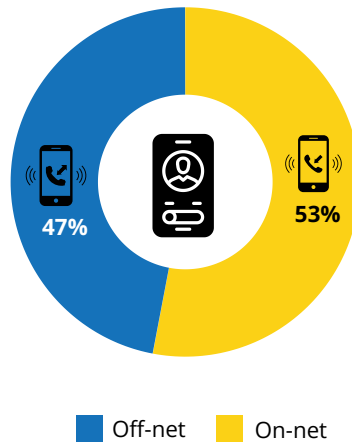
Chart 1.3.1.1a shows that more voice minutes were spent on on-net calls (53%) than off-net calls (47%). This observation indicates that people preferred calling within the same network.

The traffic minutes shares per operator for on-net and off-net traffic calls shown in Chart 1.3.1.1b and Chart 1.3.1.1c indicate that more on-net and off-net traffic were generated in the Airtel network (38.07% and 30.43%, respectively).

Chart 1.3.1.1b Shares of on-net traffic by operator
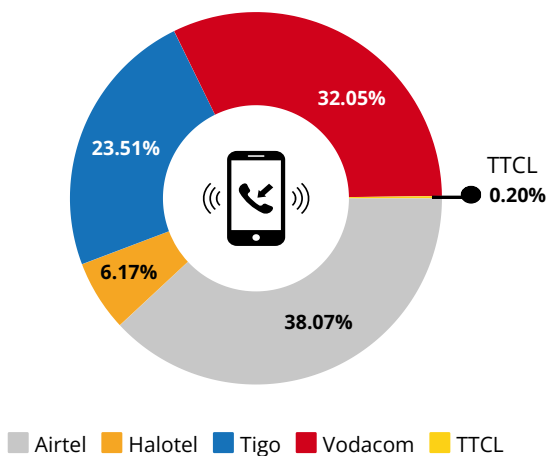
Chart 1.3.1.1c Shares of off-net traffic by operators
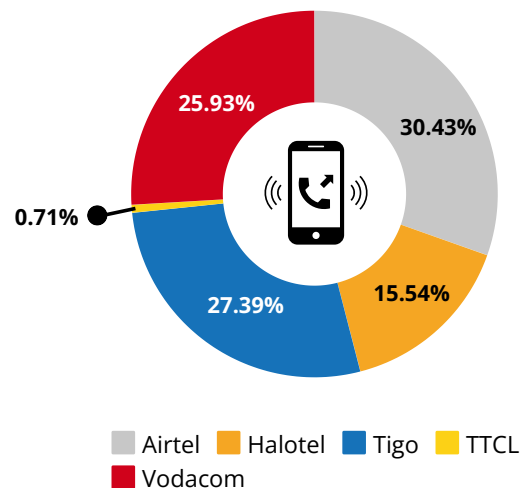
1.3.1.2 Trend of local traffic minutes over the past five years

The trend of traffic minutes over the past five years has been increasing by an average of 9% and 61% for on-net and off-net, respectively, in each year from 2019 to 2023. The trend of local traffic minutes is shown in Table 1.3.1.2.

Table 1.3.1.2 Trend of local traffic minutes for the past five years

	2019	2020	2021	2022	2023
On-net Traffic	55,812,036,633	54,561,254,851	51,673,651,476	62,678,814,642	77,770,241,513
Off-net Traffic	11,570,993,820	27,084,539,242	43,194,917,029	60,064,367,493	67,100,445,506
Total	**67,383,030,453**	**81,645,794,093**	**94,868,568,505**	**122,743,182,135**	**144,870,687,019**

1.3.2 International traffic

The traffic minutes to/from international are summarised below.
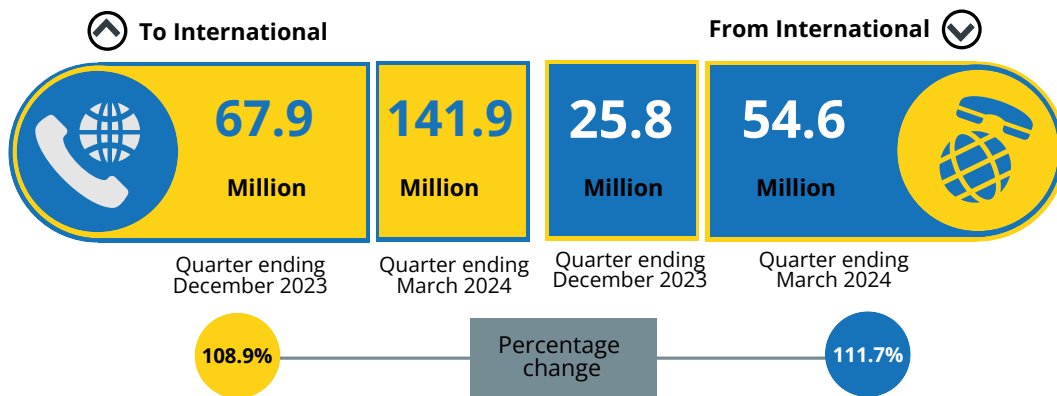
The summary shows a significant increase in traffic minutes to and from international in the quarter under review. The traffic minutes to international grew significantly by 108.9%. On the other hand, there was an increase of 111.7% in traffic minutes from international. This result shows that subscribers originated more calls to international than were received from international in the quarter under review.

Total traffic to/from EA and RoW for the quarter ending March 2024 is summarized in Table 1.3.2.

Table 1.3.2 Traffic Minutes to/from EA and RoW

	January	February	March	Total
To East Africa	21,495,560	20,947,202	23,400,532	**65,843,294**
From East Africa	7,791,220	7,750,630	8,716,133	**24,257,983**
To the Rest of the World	24,262,620	24,276,455	27,534,254	**76,073,329**
From the Rest of the World	9,644,000	9,688,903	11,008,992	**30,341,895**

Table 1.3.2 shows that more traffic minutes to EA and RoW were generated in March 2024 compared to other quarter months. The same applies to the traffic minutes received from EA and RoW.

1.3.2.1 Percentage shares of traffic to/from EA

Shares of traffic minutes to/from EA are shown in Chart 1.3.2.1.

Chart 1.3.2.1 Shares of traffic minutes to/from EA

27%

73%

■ From East Africa ■ To East Africa
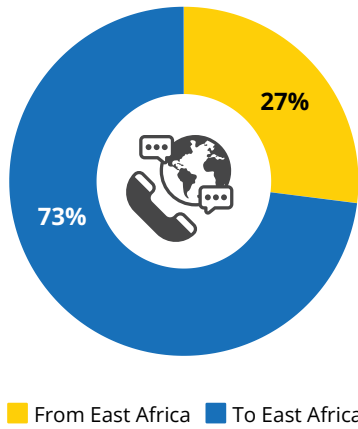
Chart 1.3.2.1 shows that traffic minutes to EA countries is 2.7 times the traffic from EA countries. This observation signifies that, in the quarter ending March 2024, subscribers spent more minutes communicating to other EA countries.

1.3.2.2 Percentage shares of traffic to/from RoW

Shares of traffic minutes to/from EA are shown in Chart 1.3.2.2.

Chart 1.3.2.2 Traffic minute shares to/from RoW

28.5%

71.5%

■ To other International ■ From other International
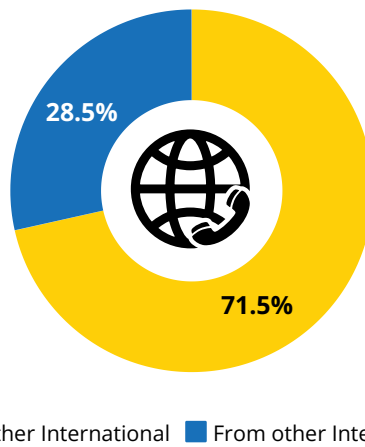
Chart 1.3.2.2 shows that traffic minutes to RoW is 2.6 times the traffic from RoW. This observation signifies that, in the quarter ending March 2024, subscribers spent more minutes communicating to RoW.

1.3.2.3 Trend of EA and RoW traffic minutes over the past five years

The trend of traffic minutes to/from EA and RoW is shown in Table 1.3.2.3.

Table 1.3.2.3 Trend of EA and RoW traffic minutes for the past five years

	2019	2020	2021	2022	2023
To EA	14,252,483	9,738,521	9,097,165	8,927,113	95,473,684
From EA	21,989,062	15,406,649	15,853,362	13,594,473	34,994,641
To RoW	43,297,997	38,014,133	24,856,947	26,034,131	19,510,999
From RoW	45,100,536	45,172,263	49,885,142	33,374,619	23,681,940

As shown in Table 1.3.2.3, more traffic generally comes from EA and RoW than outgoing to the same destinations. However, the traffic to and from EA has been decreasing, and the same trend is noted for the traffic to and from RoW, except for 2023, when the traffic to and from EA has significantly risen.

1.4 Telecom SMS traffic

1.4.1 Local SMS traffic

The summary of SMS traffic for the quarter ending December 2023 and March 2024 is shown below.

Period	On-net SMS	Off-net SMS	Total
October to December 2023	20.89 Billion	30.00 Billion	50.89 Billion
January to March 2024	20.85 Billion	29.60 Billion	50.45 Billion
% Change	-0.2%	-1.4%	-1%

The summary shows a decline in SMS traffic in the quarter under review. The On-net SMS traffic declined by 0.2%, while off-net SMS declined by 1.4%. The overall local SMS traffic decreased by 1%.

The local SMS traffic for the quarter ending March 2024 is detailed in Table 1.4.1 below.
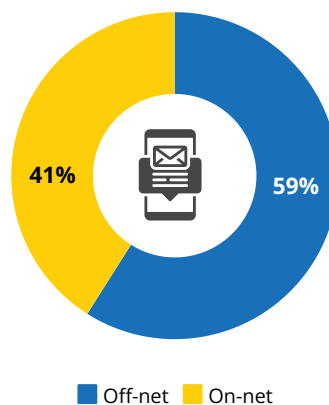
Table 1.4.1 Local SMS traffic

	January	February	March	Total
On-Net SMS	7,069,335,305	6,623,336,781	7,160,099,615	**20,852,771,701**
Off-Net SMS	10,025,740,365	9,405,462,797	10,125,745,722	**29,556,948,884**
Total Local SMS	**17,095,075,670**	**16,028,799,578**	**17,285,845,337**	**50,409,720,585**

Table 1.4.1 shows changes for both on-net and off-net SMS traffic in the quarter under review. The month of March experienced the highest traffic compared to January and February.

For the whole period, the off-net SMS traffic share was higher (59%) than on-net (41%). This indicates that in the quarter, more SMS were sent across networks. Generally, the percentage shares for the on-net and off-net SMS traffic are shown in Chart 1.4.1.

Chart 1.4.1 Percentage of local SMS traffic

41%   59%

■ Off-net   ■ On-net

1.4.2 Trend of local SMS over the past five years

The trend of local SMS over the past five years is shown in Table 1.4.2.

Table 1.4.2 The trend of local SMS traffic in the past five years

|	2019	2020	2021	2022	2023
On-net SMS	53,787,444,093	61,971,569,487	58,875,779,663	65,358,270,089	84,818,793,761
Off-net SMS	51,650,529,287	71,072,186,913	78,200,512,436	88,154,239,625	121,727,776,013
Total	105,437,973,380	133,043,756,400	137,076,292,099	153,512,509,714	206,546,569,774

1.4.3 EA and RoW SMS traffic

The trend of EA and RoW SMS traffic is shown in Table 1.4.3.

Table 1.4.3 EA and RoW SMS traffic

	January	February	March	Total
To East Africa	159,937	147,966	164,746	472,649
From East Africa	3,064,792	2,550,442	18,426,606	24,041,840
To the Rest of the World	586,081	517,273	547,765	1,651,119
From the Rest of the World	440,764,926	424,367,497	490,999,293	1,356,131,716

It is shown in Table 1.4.3 that more SMS were received from RoW than were sent to RoW. Specifically, large amount of SMS traffic were received from EA in March than other months, the same applies for RoW. The proportions of SMS sent and received are shown in Chart 1.4.3a and 1.4.3b.

Chart 1.4.3a Percentage share of SMS traffic to/from EA

1.9%
98.1%

■ To EA ■ From EA
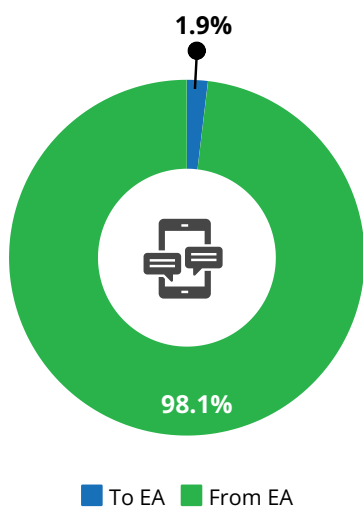
Chart 1.4.3b Percentage share of SMS traffic to/from RoW

0.1%
99.9%

■ To other Int ■ From other Int
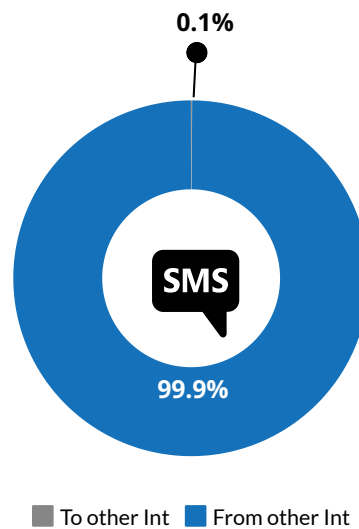
1.4.4 Trend of EA and RoW SMS over the past five years

The trend of EA and RoW SMS for the past five years is shown in Table 1.4.4.

Table 1.4.4 Trend of EA and RoW SMS traffic in the past five years

	2019	2020	2021	2022	2023
Outgoing to EA	3,850,602	1,235,692	1,425,624	1,700,525	2,233,288
Incoming from EA	48,376,608	50,880,982	89,717,530	58,344,672	37,592,410
outgoing to RoW	6,834,308	2,718,443	3,191,041	3,574,956	5,448,764
Incoming from RoW	3,201,524,787	3,935,379,714	4,599,468,894	4,664,200,079	5,562,047,440

1.5 User devices

User devices are the key driver in promoting the uptake of telecommunication/ICT services. The status of devices attached to operators' networks is shown in Table 1.5.

Table 1.5 User devices attached to operators' networks

Device Type	Number of devices	Penetration
Mobile Phone/Feature phone	52,825,801	85.56%
Smartphone	20,118,846	32.59%
Handheld	1,653,551	2.68%
Modem	607,912	0.98%
Portable (including PDA)	64,552	0.10%
Tablet	412,094	0.67%
Module	56,484	0.09%
WLAN Router	130,434	0.21%
Dongle	105,119	0.17%
IoT Device	115,396	0.19%
Vehicle	17,382	0.03%
Connected Computer	12,602	0.02%
Wearable	7,780	0.01%
Device for the Automatic Processing of Data (APD)	2,253	0.0036%

As of March 2024, the penetration of smartphones has increased to 32.59% from 32.13% recorded in December 2023. In contrast, the penetration of feature phones has decreased from 85.62% in December 2023 to 85.56% in March 2024. The penetration for other devices is as indicated in Table 1.5.

1.6 Number of Base Transceiver Stations (BTS) per region

Table 1.6 presents the distribution of deployed Base Transceiver Stations (BTS) across various regions of Tanzania, reflecting the extent of 2G, 3G, 4G, and 5G network coverage as of the quarter ending March 2024.

Table 1.6 Distribution of Base Transceiver Stations per region

Region	Number of BTS			
	2G	3G	4G	5G
Tanzania Mainland				
Arusha	648	618	596	22
Dar-es-salaam	2256	2428	2400	457
Dodoma	620	544	533	28
Geita	364	341	308	5
Iringa	369	293	262	2
Kagera	471	420	370	1
Katavi	145	116	105	0
Kigoma	458	389	348	3
Kilimanjaro	513	497	477	6
Lindi	299	217	218	0
Manyara	301	241	229	0
Mara	381	339	318	3
Mbeya	546	500	426	15
Morogoro	626	560	530	5
Mtwara	387	322	295	0
Mwanza	708	672	644	20
Njombe	294	222	196	2
Pwani	429	398	383	5
Rukwa	270	183	149	0
Ruvuma	416	281	234	1
Shinyanga	338	314	274	5
Simiyu	261	215	183	1
Singida	308	266	249	1
Songwe	230	183	136	11
Tabora	490	431	367	2
Tanga	590	521	497	1
Zanzibar				
Kaskazini Pemba	62	61	56	0
Kaskazini Unguja	79	81	78	2
Kusini Pemba	57	57	55	1
Kusini Unguja	114	114	113	2
Mjini Magharibi	175	202	196	37
Total	**13205**	**12026**	**11225**	**638**

The country exhibits a substantial foundation in 2G and 3G technologies, with 13,205 and 12,026 BTS demonstrating a well-established mobile communication infrastructure. 4G technology, while not as widespread as 2G and 3G, still shows significant coverage with 11,225 BTS. However, 5G infrastructure is developing, with only 638 BTS, concentrated primarily in urban areas like Dar es Salaam and Mjini Magharibi, indicating the initial phases of 5G deployment. Notably, Dar es Salaam leads in all categories, underscoring its status as the country's major hub for connectivity. The data underscores a progressive transition towards advanced mobile technologies, emphasising the need for enhancing 4G and introducing 5G networks to meet future communication demands.

2. Mobile Money Services Statistics

This section presents statistics on mobile money services provided by Mobile Network Operators (MNOs) in terms of subscriptions (number of mobile money accounts) and transactions.

2.1 Mobile money subscriptions

Mobile money subscriptions refer to the count of all active SIM cards with mobile money service accounts that have registered an activity/have been used at least once in the past three months. The subscription increased from 52.9 million accounts in the quarter ending December 2023 to 53.0 million in March 2024.

December 2023   **March 2024**
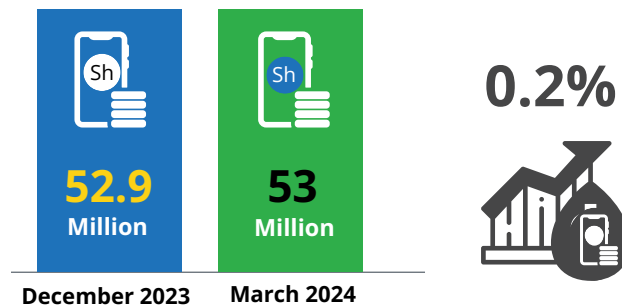
Table 2.1 Mobile money service subscriptions (number of accounts)

	January	February	March
Airtel Money	11,021,284	10,843,285	10,800,078
Halo Pesa	4,046,592	4,016,975	4,089,423
Tigo Pesa	16,323,194	16,534,017	16,472,408
T-Pesa	1,377,483	1,385,213	1,394,278
M-Pesa	20,205,147	20,233,895	20,233,904
Total	**52,973,700**	**53,013,385**	**52,990,091**

Table 2.1 shows that mobile money accounts are increasing at an average rate of 0.02% per month during the quarter under review. Market share on mobile money subscriptions is shown in Chart 2.1.

Chart 2.1 Market shares on mobile money subscriptions

89% of the mobile money market is controlled by **Tigo Pesa, M-Pesa, and Airtel money,** led by M-Pesa with **38%** market share
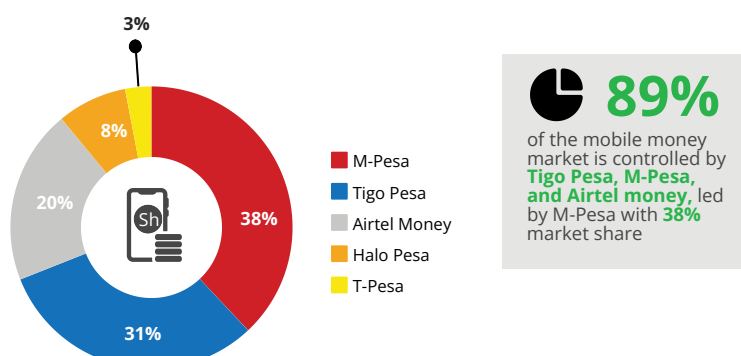
Chart 2.1 indicates that the mobile money market is very competitive as Tigo Pesa, M-Pesa, and Airtel money control around 90% of the market share by subscription, led by M-Pesa with 38% market share.

2.2 Total number of subscriptions and transactions

Table 2.2a shows mobile money subscriptions and transactions in the quarter ending March 2024.

Table 2.2a Total number of transactions

Reporting Month	No. of Subscriptions	No. of Transactions	Average No. Trans/Subs
January	52,973,700	460,624,628	9
February	53,013,385	436,769,835	8
March	52,990,091	473,163,645	9

As shown in Table 2.2a, the number of mobile money transactions for this quarter has been growing at an average of 1.58% per month. Also, mobile money transactions decreased from 549,529,470 in December 2023 to 473,163,645 in March 2024.

Table 2.2b Trend of mobile money transactions in the past five years

Year	No. of Subscriptions	No. of Transactions	Average No. Trans/Subs
2019	25,864,318	3,021,142,958	117
2020	32,268,630	3,412,210,062	106
2021	35,285,767	3,752,084,894	106
2022	40,953,496	4,195,899,414	102
2023	52,875,129	5,273,086,154	100

The trend of mobile money transactions for the past five years, as shown in Table 2.2b, indicates that transactions have increased from 3 billion in 2019 to 5.3 billion, representing a 19% annual growth rate. During the same period, average transactions per subscriber decreased from 117 to 100 transactions per annum.

3. Internet Services Statistics

3.1 Internet subscription

The subscription to mobile and fixed Internet, the primary means of Internet access, is defined as the total number of lines, including SIM cards and fixed lines, that have accessed and used internet services in the last three months, regardless of the technology used (FTTX, GPRS, 3G, 4G, 5G, among others).

The summary of internet subscriptions for the quarter ending March 2024 are shown below.

December 2023	March 2024	
35.9 Million	**36.8 Million**	**2.5%**

There was an increase of 2.5% in subscriptions from 35.9 million in December 2023 to 36.8 million as of March 2024.

Table 3.1a Monthly internet subscriptions for the quarter ending March 2024

Reporting Month	Mobile Wireless Subs	Fixed Wireless Subs	Fixed Wired Subs	Total
January	36,145,670	8,614	57,275	**36,211,559**
February	35,727,226	9,079	61,277	**35,797,582**
March	36,687,794	27,563	56,255	**36,771,612**

Table 3.1b Internet subscriptions by technology for the quarter ending March 2024

Technology	Subscriptions
2G Subs	12,256,233
Mobile Broadband Subs	24,431,561
FTTH Subs	49,163
FTTO Subs	5,126
Other Broadband Subs	29,529
Total	**36,771,612**

The data from Table 3.1b indicate that mobile broadband is the most popular means of accessing internet, with 24,431,561 subscriptions. 2G technology still holds significant usage with 12,256,233 subscriptions. Fibre technologies like Fiber to the Home (FTTH) and Fiber to the Office (FTTO) have fewer subscriptions, at 49,163 and 5,126, respectively.

Chart 3.1 Trend of Internet subscriptions over the past five years

9.8%
average annual growth rate of Internet subscriptions over the past five years

Year	Subscriptions
2019	25,794,560
2020	26,078,506
2021	29,103,482
2022	31,172,544
2023	35,885,592
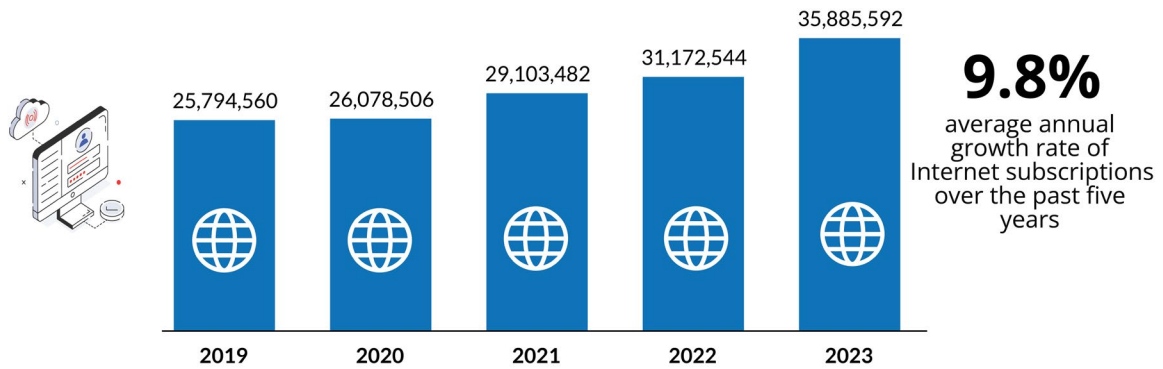
Chart 3.1 indicates an average annual growth rate of 9.8% in internet subscriptions over the past five years. Subscriptions rose from 25.8 million in 2019 to 35.9 million in 2023.

3.2 Internet usage per month

Internet usage is counted as the amount of data traffic (in Petabytes) used in a given period. (Note that 1 Petabyte =1000^3 Megabytes).

299 Petabytes **December 2023** → **335** Petabytes **March 2024** → **12%**
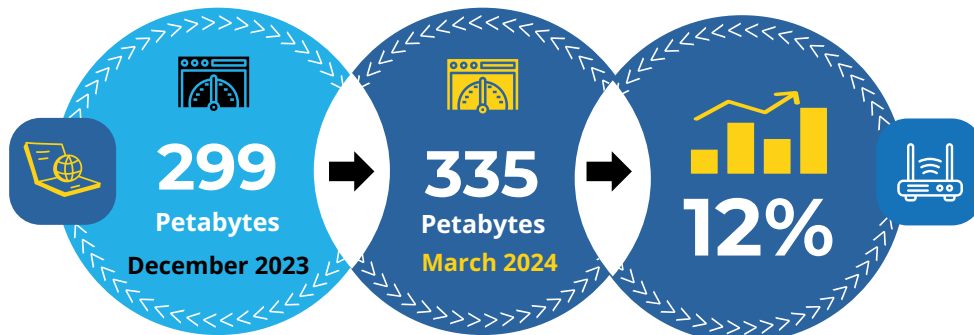
Table 3.2 Amount of data used in the past three months

	January	February	March
Petabytes	107	91	137
MBs per Subscriptions	2,966	2,538	3,714

Data traffic in petabytes shown in Table 3.2 indicates that 3,714 MB per subscriber were used in March which is higher than January and February 2024.

3.3 Internet link capacity

For international links, the outgoing and incoming capacity support internet usage locally and internationally. Table 3.3 shows that the country has a 3,644.81 Gbps duplex capacity for new activation.

Table 3.3 International Internet Capacity as of March 2024

Reporting Month	Outgoing capacity (Gbps)	Incoming capacity (Gbps)
Total /Owned	5,100	5,100
Activated	1455.19	1455.19
Available for new activation	3,644.81	3,644.81

3.4 Roll out of mobile broadband network and quality of internet speed

Investment in the telecommunication infrastructure has increased the rollout of mobile broadband networks coverage and speed as shown in Table 3.4.

Table 3.4 Network coverage and quality of internet speed for mobile and fixed as of March 2024

S/N	Indicator	Category	December 2023		March 2024	
1	Percentage of the population covered by a mobile broadband network signal (3G, 4G or higher)	3G	86%		88%	
		4G	79%		80%	
		5G	-		13%	
2	Percentage of Geographical coverage by mobile network signal (3G, 4G or higher)	3G	70%		72%	
		4G	63%		64%	
		5G	-		1%	
3	Network Quality Indicator: Average download and upload speeds (in Mbit/s		Upload speed	Download speed	Upload speed	Download speed
		Mobile broadband	6.14 Mbps	11.03 Mbps	11.1 Mbps	11.4 Mbps
		Fixed broadband speed	32.9 Mbps	34.11 Mbps	35.1 Mbps	42.1 Mbps

Significant achievements were attained in the sector during this quarter, as shown in Table 3.4, including expanding 4G and 5G coverage to reach population coverages of 80% and 13%, respectively.

3.5 Country Code Top Level Domains

The total cumulative number of registered domain names increased from 29,006 at the end of December 2023 to 29,968 by the end of March 2024, as shown in Table 3.5.

Table 3.5 Number of domain names

S/N	Zone	December 2023	March 2024
1	co.tz	22,913	23,600
2	or.tz	2,458	2,541
3	ac.tz	1,028	1,083
4	go.tz	883	890
5	.tz	1,424	1,549
6	sc.tz	236	243
7	ne.tz	34	35
8	me.tz	10	8
9	info.tz	4	3
10	hotel.tz	3	3
11	Mobi.tz	5	5
12	tv.tz	4	5
13	mil.tz	4	3
Total		**29,006**	**29,968**

4. Broadcasting Services Statistics

This section presents statistics on the number of television (TV) subscriptions through Digital Terrestrial Television (DTT), Digital to the Home (DTH), and Cable Television (Cable TV) as well as the population coverage of broadcasting signals in the country.

4.1 Active decoders

The number of active decoders (set-top boxes) accessing TV broadcasting services has increased by 2.5% from 3.7 million in December 2023 to 3.8 million during the quarter ending March 2024.

Quarter ending December 2023	Quarter ending March 2024	
3.7 million	**3.8 million**	2.5%

It is shown in Table 4.1 that Star Media has the most significant number of active decoders (subscriptions) for the DTT category compared to other players, followed by Azam. In contrast, Azam has more subscriptions for the DTH category than other players, followed by Star Media. Also, the total number of DTH subscriptions is slightly higher than that of DTT.

Table 4.1 Number of active decoders per operator as of March 2024

	DTT	DTH	Total
Agape Associates Ltd	2,023	1,978	4,001
Azam	238,202	1,039,561	1,277,763
BTL	17,392	0	17,392
CONTINENTAL	38,020	30,842	68,862
MULTICHOICE	0	238,467	238,467
Star Media	1,506,342	614,249	2,120,591
ZUKU	0	25,094	25,094
Total	**1,801,979**	**1,950,191**	**3,752,170**

4.2 Quarterly changes in active decoders per operator

The changes in active decoders recorded in the quarter ending March 2024 are depicted in Chart 4.2. Azam recorded a significant increase, adding 142,284 new decoders, the highest increment compared to other operators in any previous quarter.

Meanwhile, Multichoice, Star Media and Zuku experienced a decrease in active decoders. Agape and BTL did not add any new decoders during the quarter under review. Generally, the industry gained 90,194 new decoders in the quarter.

Chart 4.2 Quarterly changes in active decoders per operator

Based on the regional distribution of active decoders (subscriptions) shown in Map 4.2, Dar es Salaam is ranked first, Arusha is second, Mwanza is third, Mbeya is ranked fourth, and other regions are as shown on the chart. The region in Tanzania mainland with the smallest number of active decoders is Songwe, followed by Simiyu.

Map 4.2 Number of Active Decoders per Region

4.3 Active decoders in the past five years

The active decoders in the past five years per type of service (DTT or DTH) are shown in Chart 4.3.

Chart 4.3 Trend of active decoders over the past five years
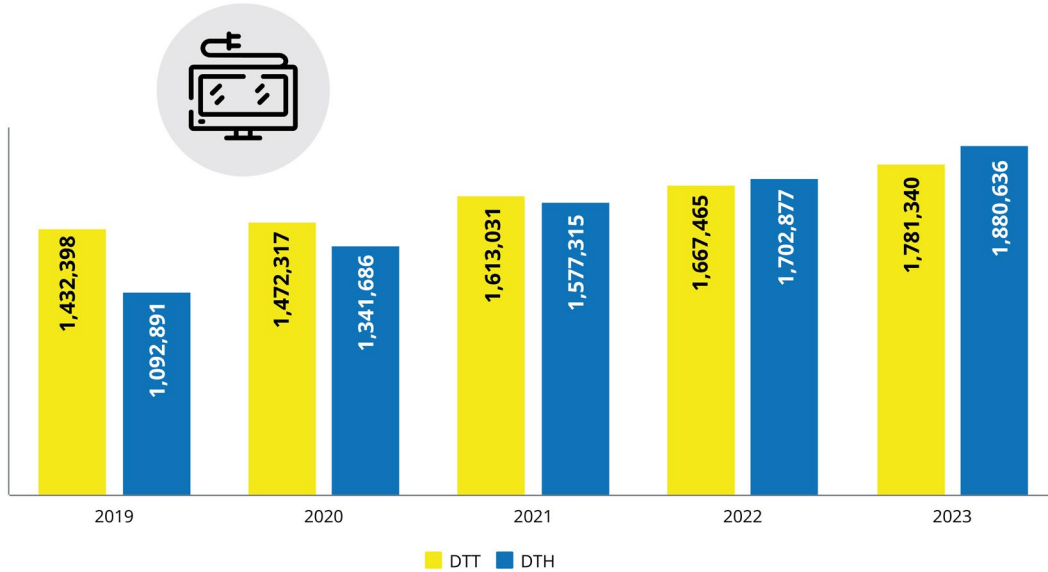
There is a growing trend in DTT and DTH subscriptions, as shown in Chart 4.3, from year to year, where 2023 recorded the highest number of subscriptions.

4.4 Cable TV subscriptions

The number of cable TV subscriptions decreased by 3% from 16,223 in the quarter ending December 2023 to 15,781 during the quarter ending March 2024, as shown below.

December 2023   Subs **16,223**

March 2024   Subs **15,781**

-3%
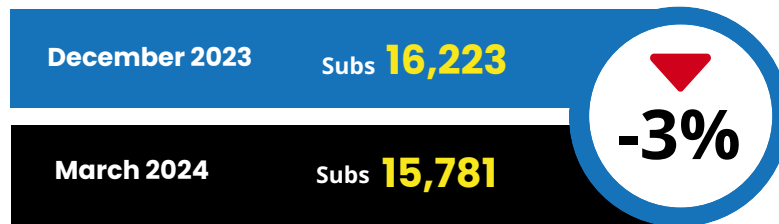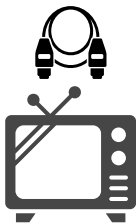
Chart 4.4 Cable TV subscriptions in Tanzania as of March 2024

Region	Subscriptions
Shinyanga	3,450
Mwanza	1,875
Tabora	1,290
Dar es Salaam	1,268
Dodoma	940
Geita	923
Singida	680
Mara	670
Songwe	598
Arusha	590
Kagera	585
Simiyu	507
Manyara	407
Rukwa	353
Njombe	281
Mbeya	275
Ruvuma	268
Tanga	240
Kigoma	200
Iringa	196
Katavi	185

50% half of the total Cable TV subscribers are found in Shinyanga, Mwanza, Tabora and Dar es salaam
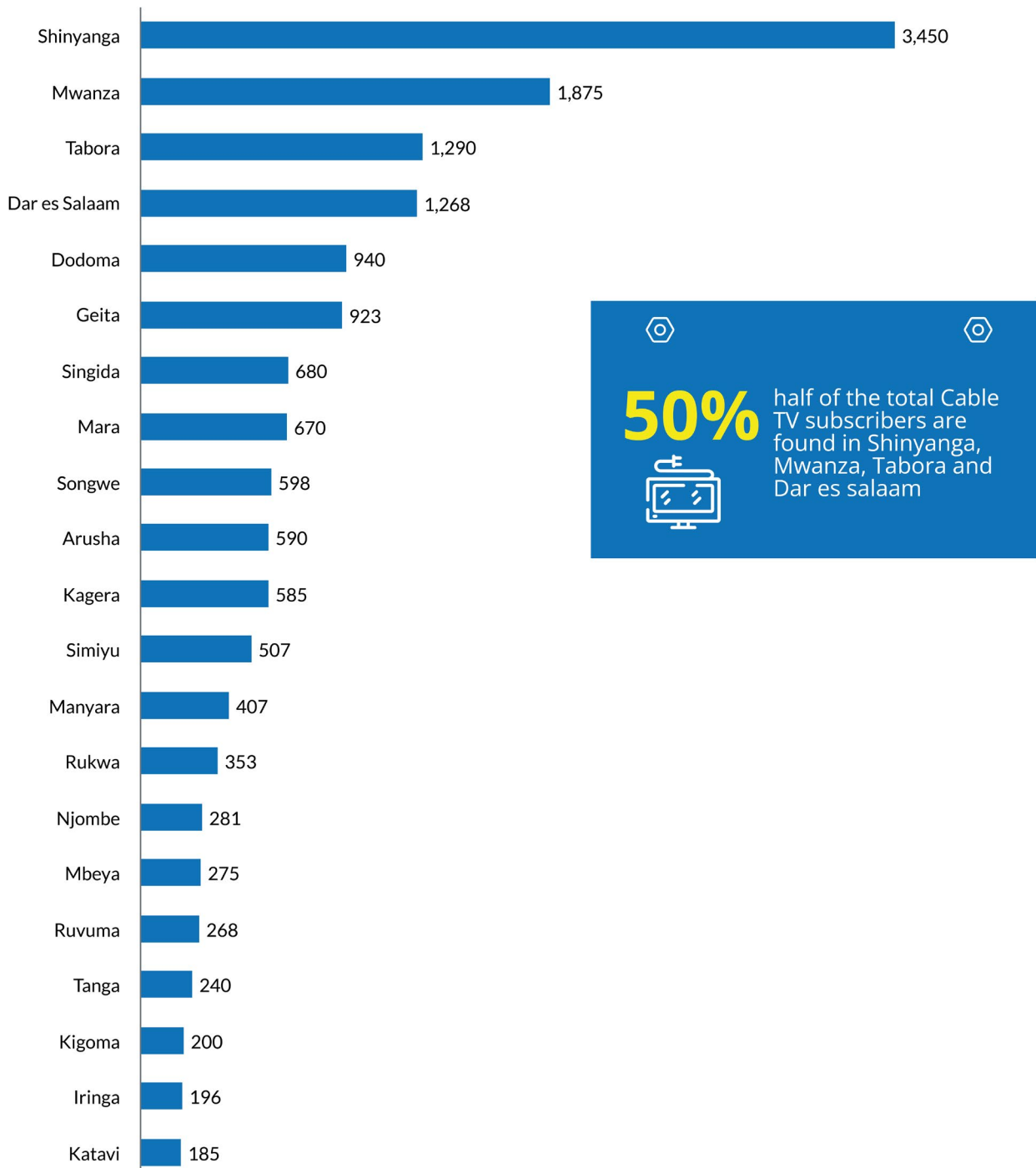
Among all regions of Tanzania mainland, Shinyanga leads by having 3,450 Cable TV subscriptions, followed by Mwanza with 1,875, Tabora with 1,290 and Dar es Salaam with 1,268. Regions with the least Cable TV subscriptions are Kigoma, which has 200 subscriptions; Iringa, which has 196 subscriptions; and Katavi, which has 185 subscriptions.

4.5 Trend of cable TV subscriptions in the past five years

Cable TV subscriptions increased, especially between 2020 and 2022, but decreased in December 2023, as shown in Table 4.5. The decrease in subscriptions might be attributed to the increased penetration of DTT and DTH in the country.

Table 4.5 Trend of Cable TV subscription for the past five years

	2019	2020	2021	2022	2023
Subscriptions	15,245	14,350	19,739	22,295	16,223

4.6 Coverage of broadcasting network

The broadcasting signal coverage shown in Table 4.6 highlights significant disparities among DTT, DTH, and FM broadcasting technologies. DTH provides complete coverage geographically and in terms of population, serving as a critical resource for reaching remote areas.

Table 4.6 Broadcasting signal coverage as of March 2024

Indicator	March 2024
Percentage of the population covered by DTT signal	56%
Percentage of the population covered by DTH signal	100%
Percentage of the population covered by FM broadcasting signal	75.85%
Percentage of the geography covered by DTT signal	32%
Percentage of the geography covered by DTH signal	100%
Percentage of the geography covered by FM broadcasting signal	55.14%

5. Postal & Courier Services Statistics

This section presents statistics for postal and courier customers, posted and delivered items, such as mail, parcels and documents, to and from local (Domestic), East Africa (EA) and the Rest of the World (RoW).

5.1 Subscription to postal receptacles

Tanzania Posts Corporation (TPC) provides basic postal services of letter boxes and private bags to private individuals and corporate customers. During the period from January to March 2024, there is no significant change in the number of letter boxes and private bags as shown in Table 5.1.

Table 5.1 TPC letter boxes and private bags

Reporting Month	No. of Letter Boxes	No. of Private Bags	Total
January	158,183	10,000	**168,183**
February	158,183	10,000	**168,183**
March	**316,182**	**10,069**	**326,251**

5.2 Courier customers

Courier customers for the period under review are shown in Table 5.2.

Table 5.2 Courier customers

Reporting Month	Corporate Customers	Individual Customers	Total
January	33,170	19,645	**52,815**
February	32,005	18,350	**50,355**
March	30,748	34,152	**64,900**

Data in Table 5.2 indicates that the number of corporate courier service customers for the months of January and February 2024 was higher than that of individual customers.

5.3 Local posted items

The number of posted items within the country (local) has increased by 38% from 953,151 items between October and December 2023 to 1,314,596 items between January and March 2024, as shown below.

	Oct to Dec 2023	Jan to Mar 2024	% Change
TPC	811,032	1,239,506	**53%**
Courier	142,119	75,090	**-47%**
Total	**953,151**	**1,314,596**	**38%**

The number of local posted items in the quarter under review is shown in Table 5.3. The statistics show that letter mails were the most posted items in the quarter under review, followed by documents. Cargos were the least posted items in the quarter.

Table 5.3 Local posted items for the quarter ending March 2024

Reporting Month	Letter Mails	Parcels	Packets	Documents	Cargo	Total
January	284,630	47,612	1,448	46,158	838	380,686
February	396,328	12,321	1,495	41,140	596	451,880
March	420,272	8,184	1,239	52,121	214	482,030
Total	**1,101,230**	**68,117**	**4,182**	**139,419**	**1,648**	**1,314,596**

The market shares for the items sent locally by courier services providers and Tanzania Posts Corporation (TPC) are shown in Chart 5.3. The chart shows that TPC holds a significant share (94.3%) of all local posted items.

Chart 5.3 Market shares for the local posted items

5.7%

94.3%

◼ Other Couriers   ◼ TPC
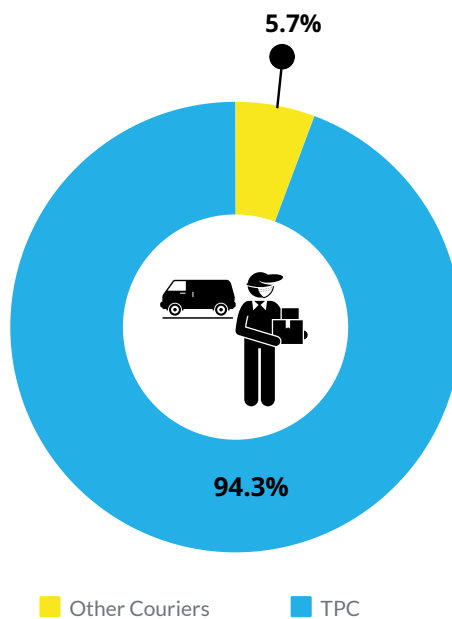
5.4 International posted items

The number of international items posted through TPC and Courier decreased by 69%, from 322,432 between October and December 2023 to 110,852 items between January and March 2024, as in the summary below.

	Oct to Dec 2023	Jan to Mar 2024	% Change
TPC	280,275	88,174	**-69%**
Other Couriers	42,157	22,678	**-46%**
Total	**322,432**	**110,852**	**-66%**

Further, the summary shows that the items posted through TPC decreased significantly (69%) compared to those posted through courier.

Table 5.4 below shows the number of internationally posted items. The statistics shown in Table 5.4 indicate that letter mails are the most posted items to international in the quarter under review, followed by packets and cargo.

Table 5.4 Number of internationally posted items

Reporting Month	Letter Mails	Parcels	Packets	Documents	Cargo	Total
January	22,464	3,485	859	3,205	141	30,154
February	23,352	3,411	878	3,120	153	30,914
March	38,661	3,780	79	7,095	169	49,784
Total	**84,477**	**10,676**	**1,816**	**13,420**	**463**	**110,852**

5.5 Local delivered items

The total number of local delivered items through TPC and Courier was 1,003,352. In comparison to the number of local posted items in Table 5.5, the statistics show that 311,244 items were not delivered.

Table 5.5 Local delivered items for the quarter ending March 2024

Reporting Month	Letter Mails	Parcels	Packets	Documents	Cargo	Total
January	352,827	11,309	1,604	40,234	724	406,698
February	112,518	30,014	13,154	43,270	704	199,318
March	326,767	11,826	1,576	56,247	578	396,994
Total	**792,112**	**53,149**	**16,334**	**139,751**	**2,006**	**1,003,352**

5.6 International delivered items

The summary of international delivered items is shown below. Generally, the items decreased by 4% from 261,983 between October and December 2023 to 251,680 items between January and March 2024. Courier service providers experienced a tremendous decrease of about 88%.

	Oct to Dec 2023	Jan to Mar 2024	% Change
TPC	143,840	237,715	**65%**
Other Couriers	118,143	13,965	**-88%**
Total	**261,983**	**251,680**	**-4%**

The international delivered items are shown in Table 5.6. Letter mail was the majority of items delivered in the quarter under review. Cargo were the least delivered items in the quarter.

Table 5.6 International delivered items for the quarter ending March 2024

Reporting Month	Letter Mails	Parcels	Packets	Documents	Cargo	Total
January	56,507	3,061	5,793	1,621	137	67,119
February	66,439	3,071	6,172	2,454	186	78,322
March	95,401	2,302	4,419	3,722	395	106,239
Total	**218,347**	**8,434**	**16,384**	**7,797**	**718**	**251,680**

The market shares of international posted and delivered items are shown in Chart 5.6. The chart shows that Tanzanians post fewer items (30.6%) compared to delivered.

Chart 5.6 Share of international posted and delivered items

- International posted items
- International delivered items
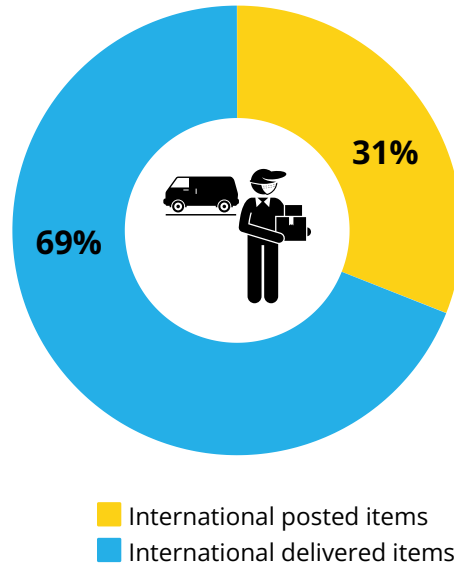
5.7 Trend of local and international posted items over the past five years

The trend of posted items over the past five years is shown in Chart 5.7.

Chart 5.7 Trend of posted items domestically and internationally over the past five years

	2019	2020	2021	2022	2023
Posted to Domestic	9,280,229	4,024,371	2,745,674	2,371,970	2,123,212
Posted to RoW	2,873,312	1,116,069	564,528	937,124	979,625
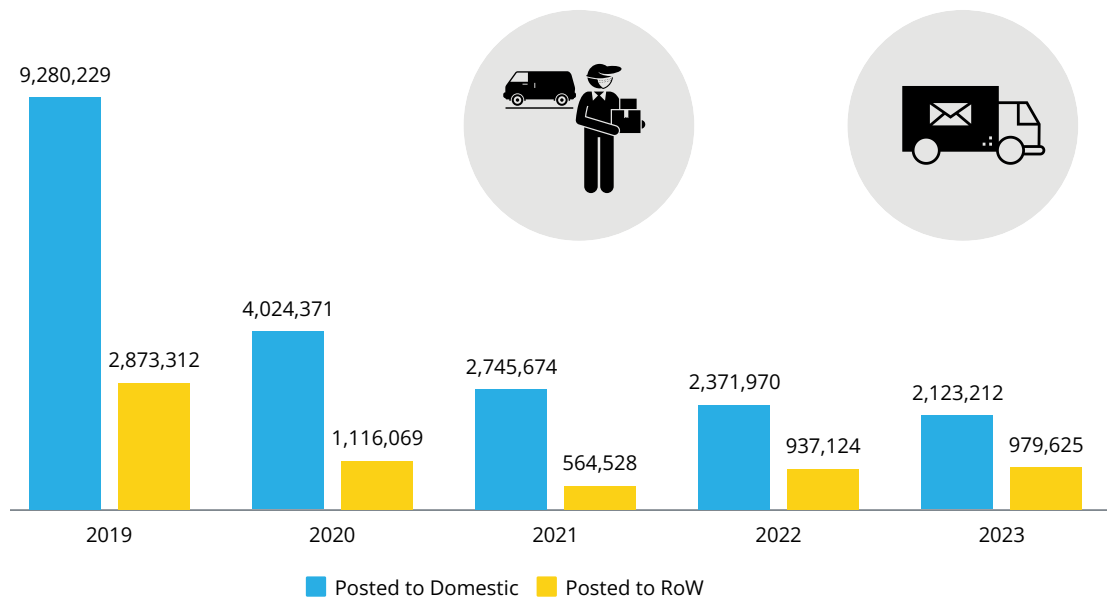
It is shown in Chart 5.7 that more items were posted to domestic destinations than to international destinations. However, the number of posted items has decreased over time.

5.8 Trend of international posted and delivered items over the past five years

Chart 5.8 depicts the number of items posted and delivered from the international during the past five years.

Chart 5.8 Trend of posted items to international and delivered from international over the past five years
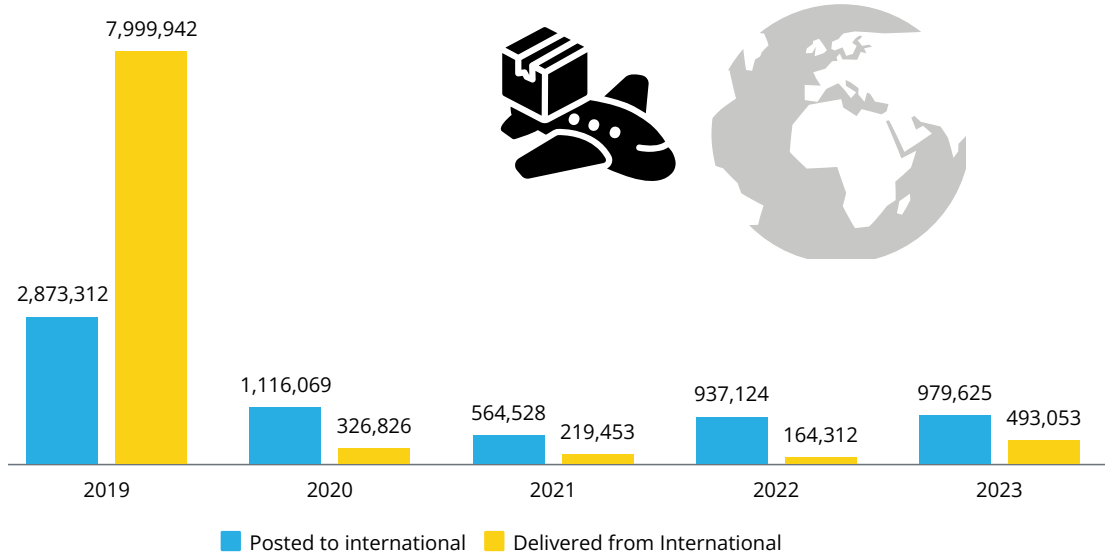

Chart 5.8 shows that the number of items posted to international destinations has decreased from 2,873,312 items in 2019 to 493,053 items in 2023. On the other hand, delivered items experienced an almost similar decreasing trend. However, more items have been posted to other countries than delivered from other countries.

6. Quality of Services & Frauds Practices Statistics

6.1 Quality of services (QoS)

The following is the summary of the results on the quality of service (QoS) of mobile networks in Tanzania from January to March 2024. Measurements were conducted considering the QoS parameters and measurement methods specified in the Electronic and Postal Communications (Quality of Service) Regulations, 2018.

6.1.1 Network availability

Network Availability measures how well the mobile network is available when consumers want to use mobile network services. The threshold for compliance is greater than 99%.

Airtel passed the target in all thirteen measured service areas. Halotel and Tigo passed the target in twelve out of thirteen measured service areas. Vodacom passed the target in eleven out of thirteen measured service areas and TTCL in nine, as shown in Chart 6.1.1.
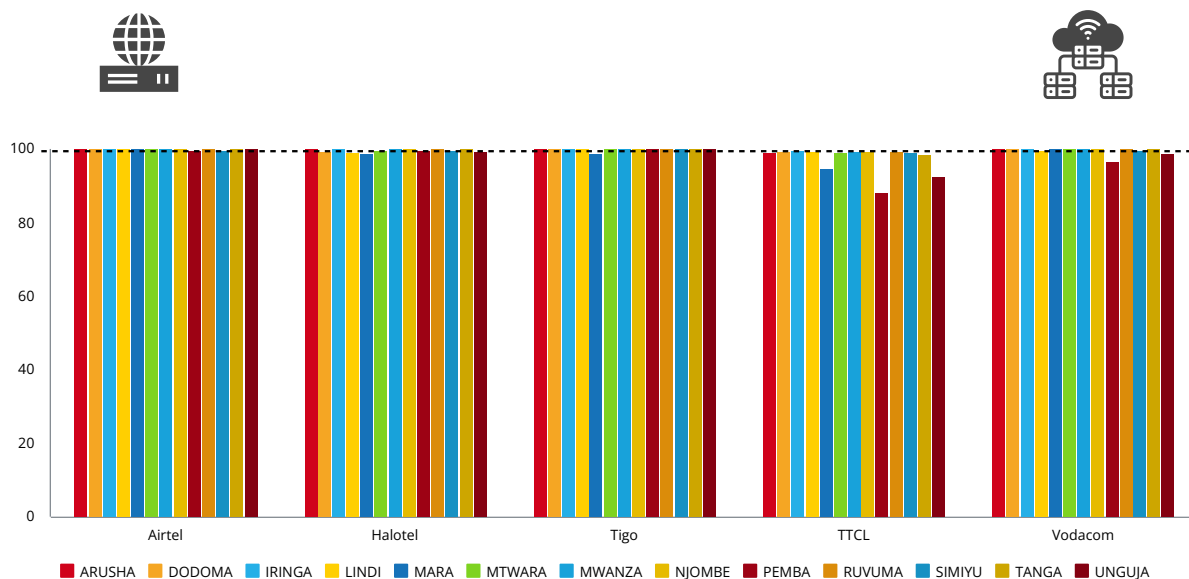
Chart 6.1.1. Network Availability (%) (Target is above 99%)

6.1.2 Call Connection Failure Rate (CCFR)

The Call Connection Failure Rate measures the percentage of calls that failed to connect after dialing due to technical reasons. The threshold for compliance is less than 2%.

Airtel and Vodacom passed the target in all thirteen areas. Halotel passed the target in twelve areas, Tigo in ten service areas, and TTCL in two service areas, as shown in Chart 6.1.2.
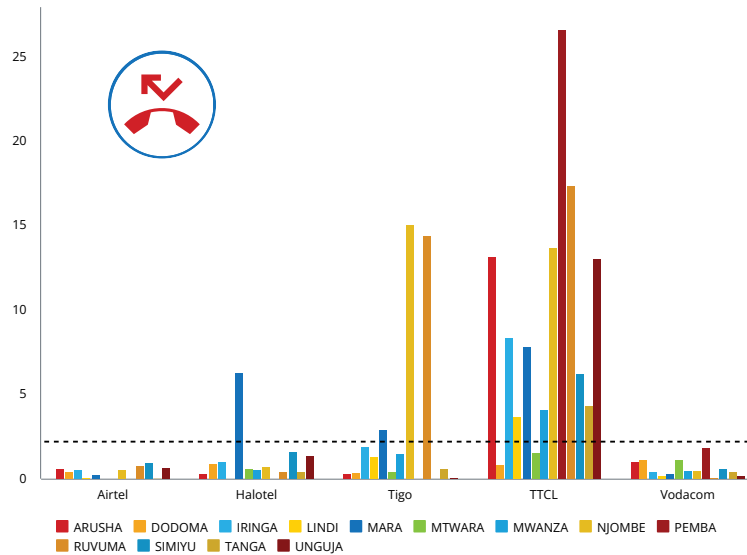
Chart 6.1.2 Comparative results on the Call Connection Failure Rate

6.1.3 Call drop rate

Call Drop Rate measures the percentage of calls cut off due to technical reasons before the speaking parties finish their conversation and one of them hangs up (dropped calls). The threshold for compliance is less than 2%.

Airtel, Vodacom, Halotel and Tigo passed the target in all thirteen measured service areas, while TTCL passed the target in eleven areas, as shown in Chart 6.1.3.

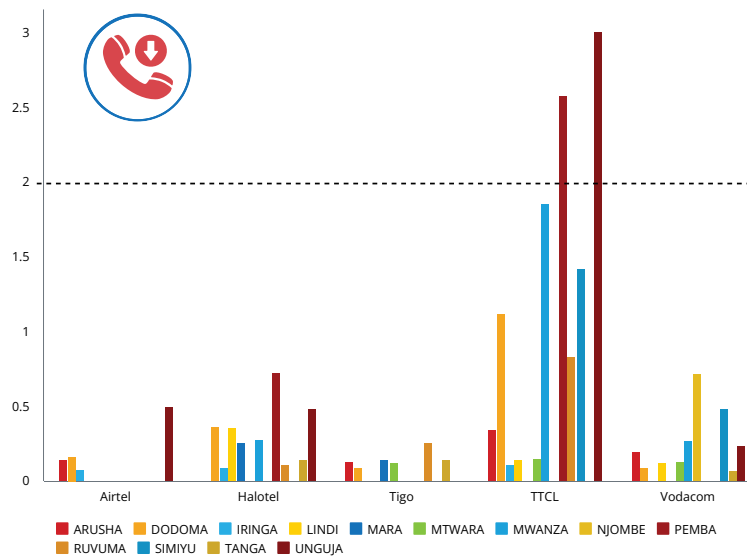Chart 6.1.3. Comparative results on the Call Drop Rate.

6.1.4 2G Service coverage

2G Service Coverage indicates how well service areas are covered by a particular mobile network operator signal for consumers to get mobile network service. Consumers cannot get 2G mobile network services in areas with no coverage or very poor coverage. The threshold for compliance for 2G technologies is -85 dBm.

Airtel passed the target in eight out of nine areas, Tigo passed in five out of six areas, Halotel passed in eleven out of thirteen areas, Vodacom in eight out of eleven areas, and TTCL in eight out of twelve service areas, as shown in Chart 6.1.4.
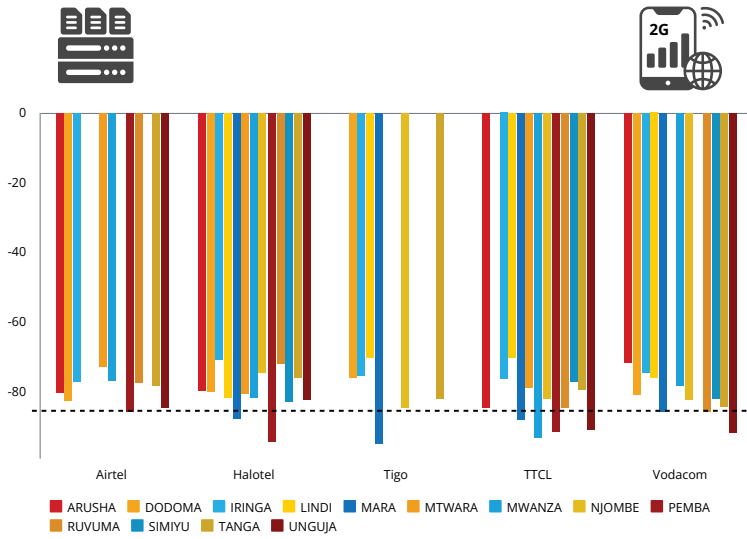

Chart 6.1.4. Comparative results on 2G Coverage.

6.1.5 3G Service coverage

The 3G Service Coverage indicates how well service areas are covered by a particular mobile network operator signal for consumers to get mobile network service. Consumers cannot get 3G mobile network services in areas with no coverage or very poor coverage. The threshold for compliance for 3G technologies is -85 dBm.

Halotel, Tigo and Vodacom passed the target in all thirteen measured service areas. Airtel passed the target in eleven areas, while TTCL passed the target in eight service areas, as shown in Chart 6.1.5.
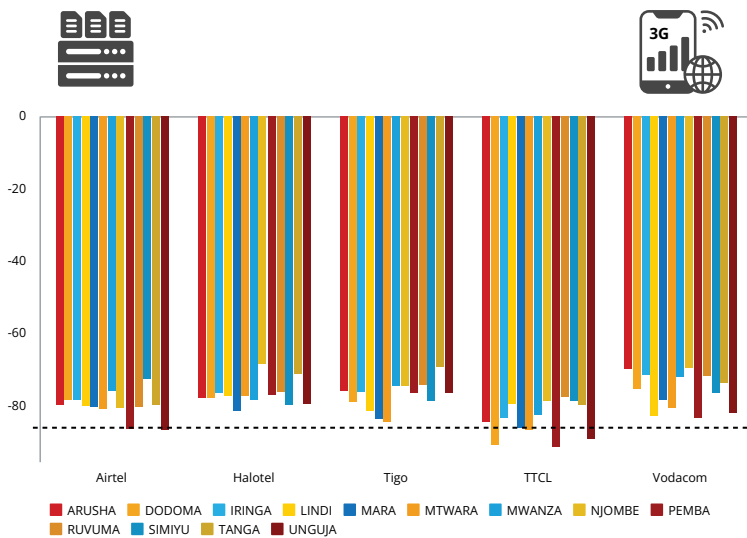

Chart 6.1.5. Comparative results on 3G Coverage.

6.1.6 4G Service coverage

4G Service Coverage indicates how well service areas are covered by a particular mobile network operator signal for consumers to get mobile network service. Consumers cannot get 4G mobile network services in areas with no coverage or very poor coverage. The threshold for compliance for 4G technology is -95 dBm.

Tigo passed the target in all thirteen measured service areas. Airtel passed the target in twelve areas. TTCL and Vodacom passed the target in ten areas and Halotel in nine service areas, as shown in Chart 6.1.6.
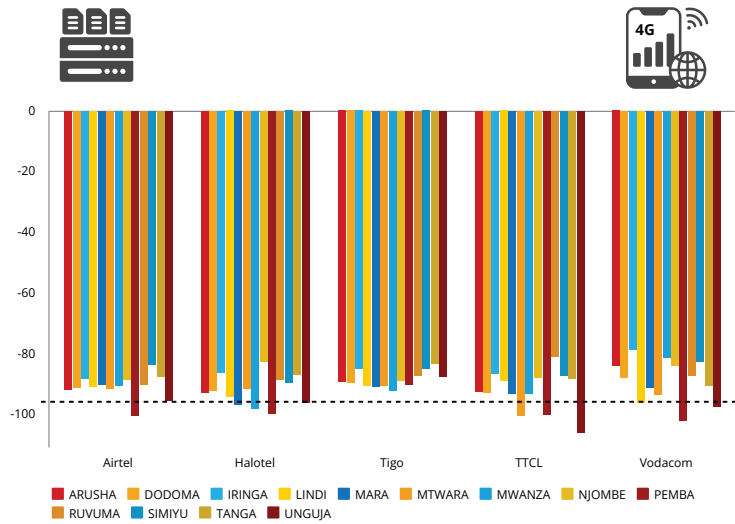

Chart 6.1.6. Comparative results on 4G Coverage.

6.1.7 Call Success Rate

Call Success Rate measures the percentage of calls completed successfully after dialling, such that they were neither blocked nor dropped. The threshold for compliance is equal to or greater than 95%.

Airtel and Vodacom passed the target in all thirteen measured service areas. Tigo passed the target in eleven areas, Halotel in twelve areas, and TTCL in four areas, as shown in Chart 6.1.7.
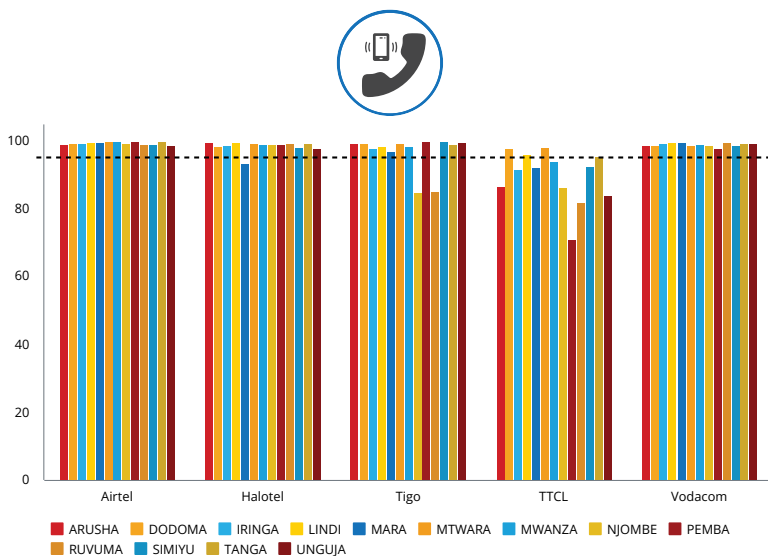

Chart 6.1.7. Comparative results on Call Success Rate.

6.1.8 Handover Success Rate

Handover Success Rate measures how well voice calls are transferred from one communication tower to another without dropping while the user moves. The threshold for compliance is equal to or greater than 98%.

Airtel, Halotel and Vodacom passed the target in all thirteen measured service areas, Tigo passed the target in twelve areas, while TTCL passed the target in ten areas, as shown in Chart 6.1.8.
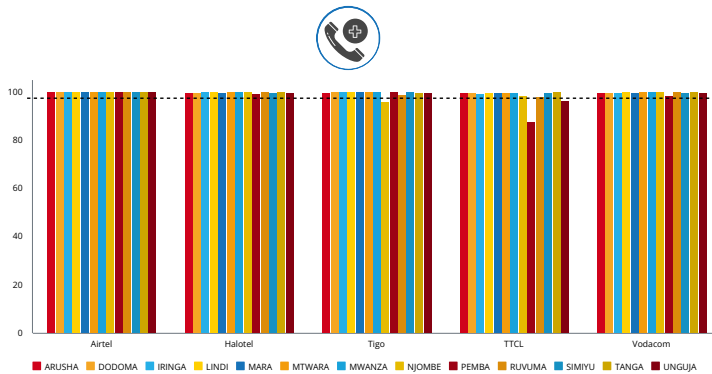

Chart 6.1.8. Comparative results on Handover Success Rate.

6.1.9 Voice Quality (MOS)

Voice Quality (MOS) is a measure of the perception of the audio quality of the conversation during a call. The MOS Score scale ranges from 1 to 5, with 1 being poor and 5 being excellent audio quality. The threshold for compliance is an average of all Voice Quality (MOS) measurement samples being greater than 3.5.

Airtel, Tigo, TTCL and Vodacom passed the target in all thirteen out of thirteen measured service areas, and Halotel in twelve out of twelve areas, as shown in Chart 6.1.9.
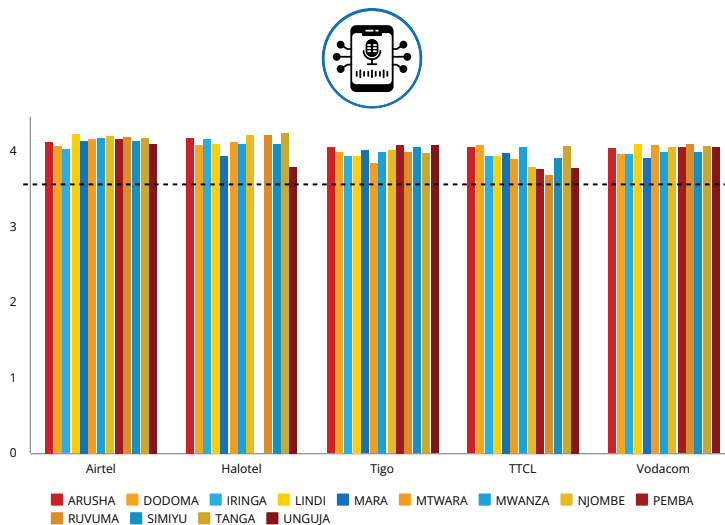

Chart 6.1.9. Comparative results on Voice Quality.

6.1.10 Download Mean Data Rate

Download Mean Data Rate is a measure of the rate of data transfer on a network. It measures how fast data is transferred from a file transfer protocol (FTP) server to a mobile device. The compliance threshold is average, greater or equal to 4000 kbps.

Vodacom, Tigo, and Halotel passed the target in all thirteen measured service areas, and Airtel and TTCL passed the target in twelve areas, as shown in Chart 6.1.10.
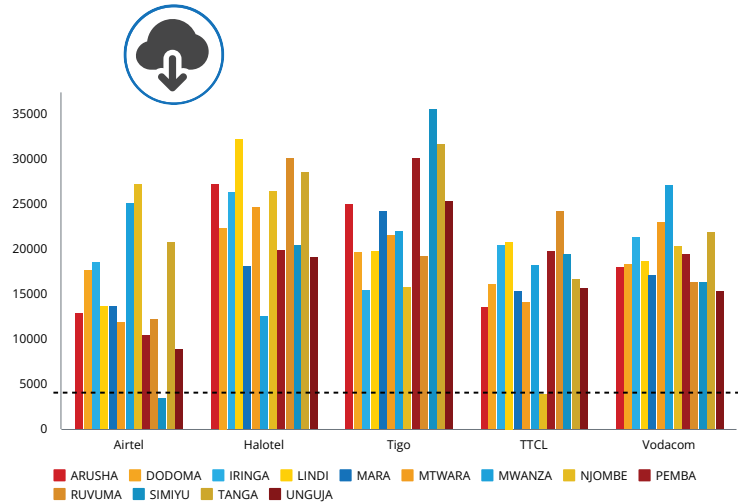

Chart 6.1.10. Comparative results on Download Mean Data Rate.

6.1.11 Ping Round Trip Time

Ping Round Trip Time measures the time the user equipment takes to send a request and receive a response from the server. The threshold for compliance is average, being less than 400 ms.

Airtel, Halotel, Tigo and Vodacom passed the target in all thirteen measured service areas, while TTCL passed the target in nine service areas, as shown in Chart 6.1.11.
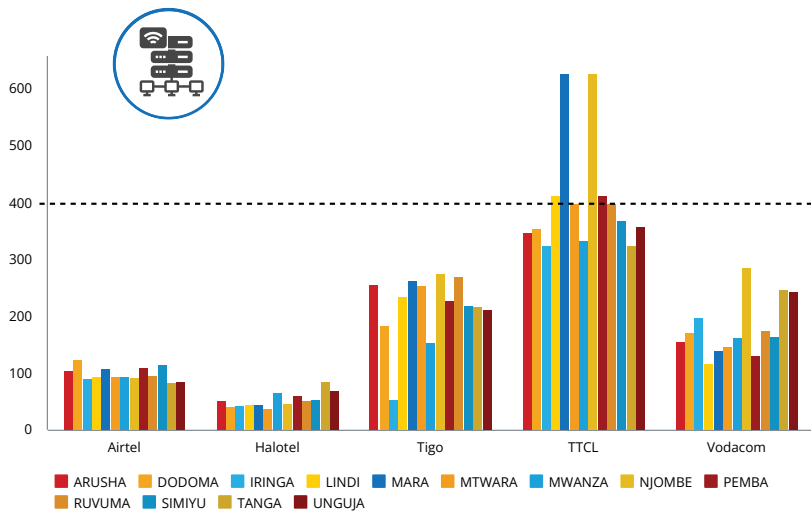

Chart 6.1.11. Comparative results on Ping Round Trip Time.

6.1.12 Attach Failure Ratio

Attach Failure Ratio refers to the percentage of failures when a mobile phone fails to connect to the network when powered ON or flight mode is turned OFF. The threshold for compliance is less than 2%.

Halotel and Airtel passed the target in all thirteen measured service areas. Tigo passed the target in twelve service areas, Vodacom in five service areas, and TTCL in one service area, as shown in Chart 6.1.12.
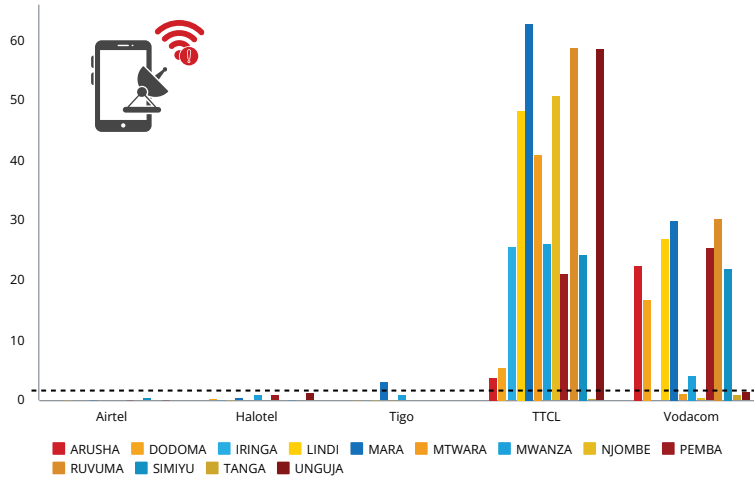
Chart 6.1.12. Comparative results on Attach Failure Ratio.

6.1.13 Attach Setup Time

Attach Setup Time refers to the time a mobile phone takes to connect to the network when powered ON or flight mode turned OFF. The threshold for compliance is less than 5 seconds.

Airtel, Halotel, Tigo, TTCL, Vodacom and Halotel passed the target in all thirteen measured service areas, as shown in Chart 6.1.13.
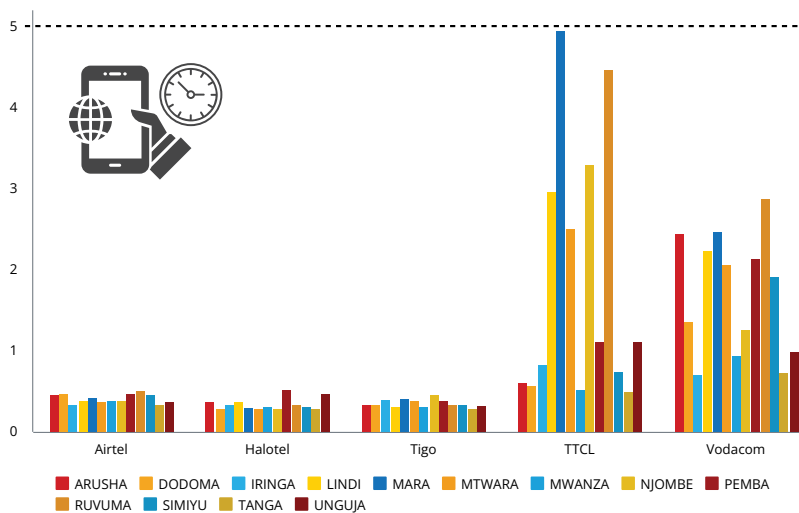

Chart 6.1.13. Comparative results on Attach Setup Time.

6.1.14 Call Setup Time

Call Setup Time measures the time a call takes to connect after dialling. The threshold for compliance is less than 10 seconds.

Airtel, Halotel, Tigo, TTCL, Vodacom and Halotel passed the target in all thirteen measured service areas, as shown in Chart 6.1.14.
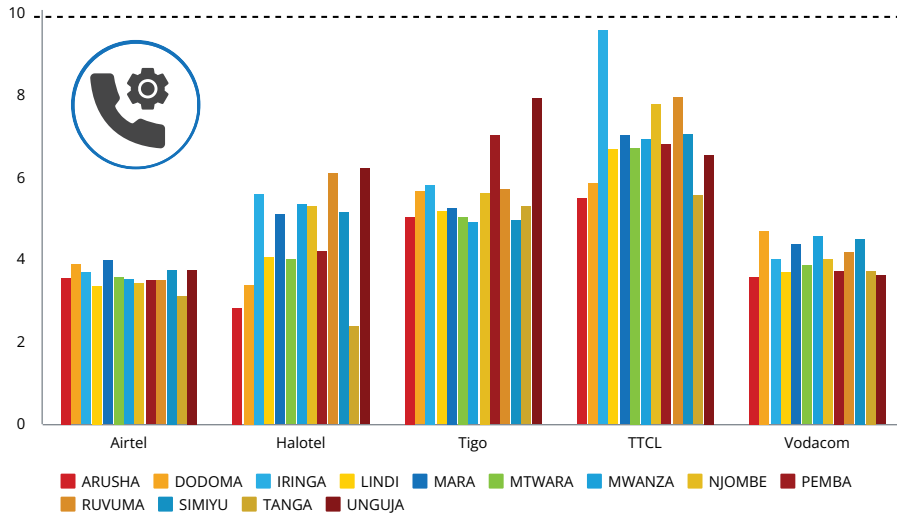

Chart 6.1.14. Comparative results on Call Setup Time.

The general quality of service results from January to March 2024 indicate that Airtel scored 97.2%, Halotel 94.9%, Tigo 94.8%, Vodacom 91.5%, and TTCL scored 70.1% in performance, as shown in Table 6.1.

Table 6.1 Summary of QoS scores per MNO for Q2 and Q3 of 2023/2024

Operator	December 2023	March 2024	% Change
Airtel	95.1%	97.2%	2%
Vodacom	96.9%	91.5%	-6%
Tigo	98.6%	94.8%	-4%
Halotel	90.2%	94.9%	5%
TTCL	67.0%	70.1%	5%
Industry average	89.6%	89.7%	1%

Over the two quarters, Table 6.1 shows improvement by three operators while the performance of the other two declined. The overall industry performance improved by a 1% score.

6.2 Fraudulent attempts

Table 6.2 shows fraudulent attempts per operator for the quarter ending December 2023 and March 2024. Tigo has recorded the highest number of fraudulent attempts compared to other MNOs, while Halotel has the least.

Quarter ending	Airtel	Halotel	Tigo	TTCL	Vodacom	Total
December 2023	6,580	616	8,163	2,704	2,876	20,939
March 2024	5,120	148	6,011	2,304	3,735	17,318
Percentage change	-21%	-76%	-26%	-15%	30%	-17%

The results further show that all operators except Vodacom have significantly reduced the number of fraudulent attempts by at least 15%. Fraudulent attempts in Vodacom have increased by 30% from 2,876 attempts in the quarter ending December to 3,735 attempts in the quarter ending March 2024.

Fraudulent attempts per region are shown in Chart 6.2a. Rukwa and Morogoro are the most venerable regions, with more than one-third of all fraudulent attempts in the country. Mbeya, Dar es Salaam and Tabora follow with fraudulent attempts of more than 1% to 10%.

Other regions, such as Kaskazini Pemba, Kusini Unguja and Kusini Pemba, have an insignificant number of attempts. Each recorded 0.01%.

Chart 6.2a Distribution of fraudulent attempts per region in the quarter ending March 2024

Region	Attempts
Rukwa	6,861
Morogoro	6,126
Mbeya	1,625
Dar es salaam	757
Tabora	462
Mwanza	186
Arusha	144
Songwe	143
Katavi	116
Kilimanjaro	99
Dodoma	93
Kagera	84
Pwani	65
Iringa	59
Tanga	56
Ruvuma	51
Shinyanga	51
Singida	38
Kigoma	33
Mjini Magharibi	33
Geita	31
Mara	26
Njombe	23
Simiyu	23
Manyara	21
Lindi	19
Mtwara	12
Kaskazini Unguja	3
Kaskazini Pemba	2
Kusini Unguja	2
Kusini Pemba	1

Rukwa and Morogoro are the most venerable regions, with more than one-third of all fraudulent attempts in the country. Mbeya, Dar es Salaam and Tabora follow with fraudulent attempts of more than **1%** to **10%**

0.01% Other regions, such as Kaskazini Pemba, Kusini Unguja and Kusini Pemba, have an insignificant number of attempts. Each recorded 0.01%.

Chart 6.2b Fraudulent attempts per operator in the quarter ending March 2024

- Vodacom — 21.6%
- Tigo — 34.7%
- Airtel — 29.6%
- Halotel — 0.9%
- TTCL — 13.3%
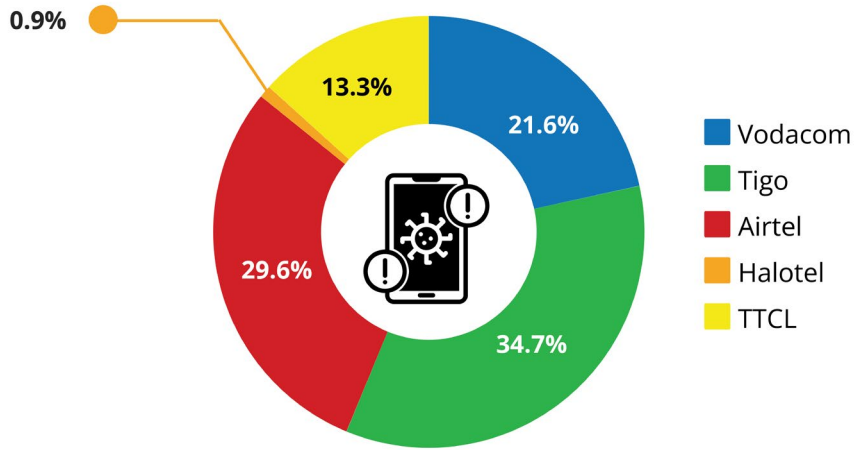
7. Number of Licenses and Certificates

7.1 Licenses

Telecommunications and Internet		
Category	**Number**	
	December 2023	**March 2024**
Network Facilities Licences	36	35
Network Services Licences	17	14
Application Services Licences	146	135
Aircraft Stations	163	171
Amateur Stations	18	18
Fixed VSAT Terminals	47	45
Mobile VSAT Terminals	2	2
Satellite Ground Earth Stations	1	1
Ship Stations	45	47
HF Radio Stations	22	21
VHF- UHF Radio Repeaters	2	2
VHF - UHF Radio Station with Pair of Frequency	122	119
VHF - UHF Radio Station with Single Frequency	202	200
Numbering	533	536

Broadcasting		
Category	**Number**	
	December 2023	**March 2024**
National Content Television (FTA) Licences	17	16
District Content Television (FTA) Licences	20	24
National Content Radio Licences	13	14
Regional Content Radio Licences	32	31
District Content Radio Licences	165	169
Community Radios	11	17
Community Televisions	-	-
National Content Televisions by Subscription	10	16
District Content Televisions by Subscription	2	9
National Content (support services)	3	3
Online Content Aggregators	3	3
Weblogs (Blogs)	60	67
Online Radios	6	7
Online Televisions	220	231
Cable Televisions	56	60

Postal and Courier		
Category	**Number**	
	December 2023	**March 2024**
International Courier	6	6
East Africa Courier	1	1
Intercity Transporters	50	65
Intracity Courier	14	15
Public Postal	1	1
Domestic Courier	45	46

7.2 Certificates

Category	**Number**	
	December 2023	**March 2024**
Global Maritime Distress and Safety Systems	103	132
Type Approval	2175	2281
Registration for Satellite Mobile Phones	4	12

8. Conclusion

The communications landscape in the quarter ending March 2024 has shown marked advancements and witnessed an upsurge in telecommunication services uptake, supported by the sustained competitiveness of service tariffs. Key among these achievements was the substantial expansion of mobile network coverage across different technologies, where 3G coverage now extends to 88% of the population, broadening access to data services. In contrast, 4G's reach at 80% has elevated Internet speed and reliability. Meanwhile, the opening expansion of 5G to 13% announces a new era of high-speed mobile broadband, essential for modern connectivity needs. This progressive expansion is coupled with improvements in service quality and a downturn in fraudulent attempts, collectively reinforcing the infrastructure that underpins the nation's digital and economic expansion.

Additionally, the broadcasting subsector experienced a positive trend, with a 2.5% increase in active decoders compared to the previous quarter. This growth indicates a rising consumer engagement with digital broadcasting services and reflects the sector's dynamic evolution in response to user demands. These collective enhancements across the communications sector are essential in fostering a more connected and digitally empowered society.

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