NATIONAL
COMMUNICATIONS
AUTHORITY

COMMUNICATIONS INDUSTRY REPORT (CIR) 2024

Communication For Development

ABOUT THE REPORT

The Communications Industry Report (CIR) highlights key developments in the communications industry in Ghana for the year 2024 and further gives information on a five-year trend analysis from 2020 to 2024. The scope of this report focuses on Mobile Network Operators (MNOs), Fixed Network Operators, Broadband Wireless Access (BWA) Providers, Tower Infrastructure Companies, Television, Radio Broadcasting and other services regulated by the National Communications Authority (NCA).

The report provides critical statistical data for policymakers, telecom analysts, consumers, academia, investors and other stakeholders to support decision-making. It combines concise year-on-year analysis of the trends in the industry with substantial use of tables, graphs and figures for easy understanding. The report is the product of data received from the various authorization and license holders and other relevant stakeholders in the communications industry including ITU.

The publication of the Communications Industry Report (CIR) is consistent with the National Communications Authority's mandate under Section 26 (2)(a) of the 2008, Electronic Communications Act 775.

About NCA

The National Communications Authority (NCA) was established by an Act of Parliament, Act 524, in December 1996, which was repealed and replaced by the National Communications Authority Act, 2008 (Act 769). The Authority is the statutory body mandated to license and regulate electronic communication activities and services in the country.

VISION

A world-class communications Regulator that facilitates innovative, reliable and sustainable communication solutions to meet stakeholders' expectations.

MISSION

Moving from Good to a Great Regulator: An innovative, agile, professional and proactive regulator, adaptive to emerging changes in the communication and digital eco-system and delivering optimally to all stakeholders.

CORE VALUES

TEAMWORK	ACCOUNTABILITY
CONSISTENCY	TRUST
INNOVATION	TRANSPARENCY

Copyright

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The Communications Industry Report (CIR) can be downloaded from the website of the National Communications Authority at www.nca.org.gh

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Mobile Network Services

CHAPTER ONE

MOBILE NETWORK SERVICES

1.0 Introduction

This chapter provides insight into the mobile services offered by Mobile Network Operators in Ghana. As of the end of 2024, there were three (3) mobile network service providers: AT, MTN, and Telecel. The Chapter presents a five-year trend analysis of mobile voice and data subscriptions, traffic volume, short messaging service (SMS), default tariffs, and related topics.

1.1 Mobile Voice Subscriptions and Penetration

Mobile voice subscriptions declined over the last five years, from 40.46 million in 2020 to 39.13 million in 2024, with a compound annual growth rate (CAGR) of negative 0.84 percent. Mobile voice subscriptions grew to 39.13 million in 2024, up from 33.38 million in 2023, reflecting a 17.20 percent increase. The penetration rate fell over the five-year period from 130.85 per cent in 2020 to 118.24 percent in 2024. However, the year-on-year penetration rate rose from 102.94 percent in 2023 to 118.24 in 2024. The mobile voice subscriptions and penetration from 2020 to 2024 are listed in Table 1 and shown in Figure 1.

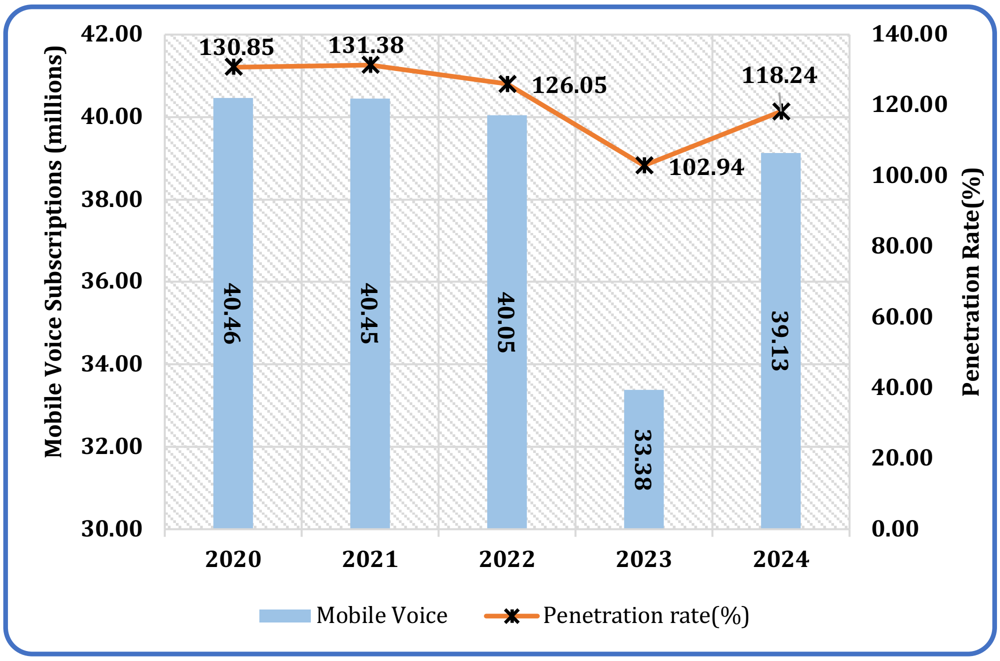

Figure 1: Mobile Voice Subscriptions and Penetration Rate (%)

Table 1: Mobile Voice Subscriptions and Penetration Rate (%)

Subscriptions	2020	2021	2022	2023	2024
Mobile Voice	40,461,609	40,454,073	40,045,308	33,384,460	39,126,056
Growth rate (%)	*-0.97*	-0.02	-1.01	-16.63	*17.20*
Prepaid	40,173,414	40,158,443	39,617,681	32,941,379	38,705,336
Postpaid	288,195	295,630	427,627	443,081	420,720
Net Additions	-395,468	-7,536	-408,765	-6,660,848	5,741,596
Population [1]	30,922,666	30,792,608	31,769,363	32,429,591	33,089,819
Penetration rate (%)	*130.85*	*131.38*	*126.05*	*102.94*	*118.24*

Source: National Communications Authority, 2024

1.2 Prepaid and Postpaid Mobile Voice Subscriptions

Prepaid subscriptions declined to 38.71 million in 2024 from 40.17 million in 2020, while postpaid subscriptions grew from 0.29 million in 2020 to 0.42 million in 2024.

In 2024, 98.92 percent of mobile voice subscriptions were prepaid, totalling 38.71 million, whereas 1.08 percent were postpaid, totalling 0.42 million subscriptions. The prepaid and postpaid mobile voice subscriptions from 2020 to 2024 are summarised in Table 2 and shown in Figure 2.

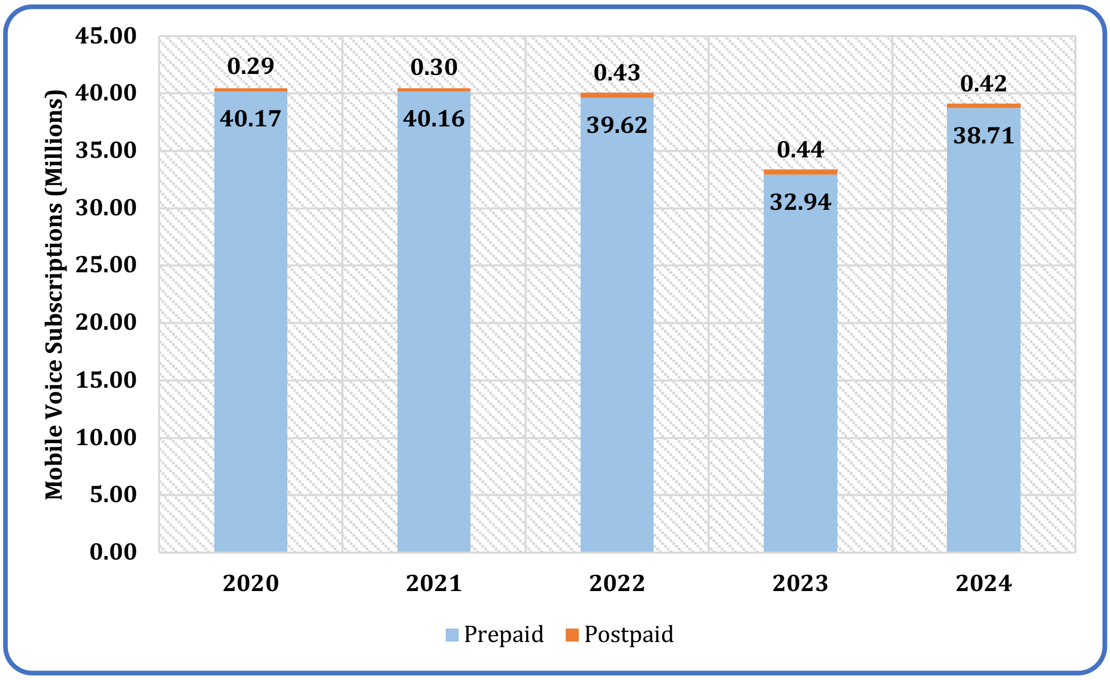

Figure 2: Distribution of Mobile Subscriptions by Prepaid or Postpaid

Table 2: Distribution of Postpaid and Prepaid Subscriptions

	2020	2021	2022	2023	2024
Prepaid	40,173,414	40,158,443	39,617,681	32,941,379	38,705,336
Postpaid	288,195	295,630	427,627	443,081	420,720
Total Mobile Voice Subscriptions	**40,461,609**	**40,454,073**	**40,045,308**	**33,384,460**	**39,126,056**
Growth rate (%)	*-0.97*	-0.02	-1.01	-16.63	*17.20*

Source: National Communications Authority, 2024

1.3 Net Additions

Mobile voice subscriptions recorded a net increase of 5,741,596, rising from 33,384,460 in 2023 to 39,126,056 in 2024. The data on net additions from 2020 to 2024 are shown in Table 1 and Figure 3.

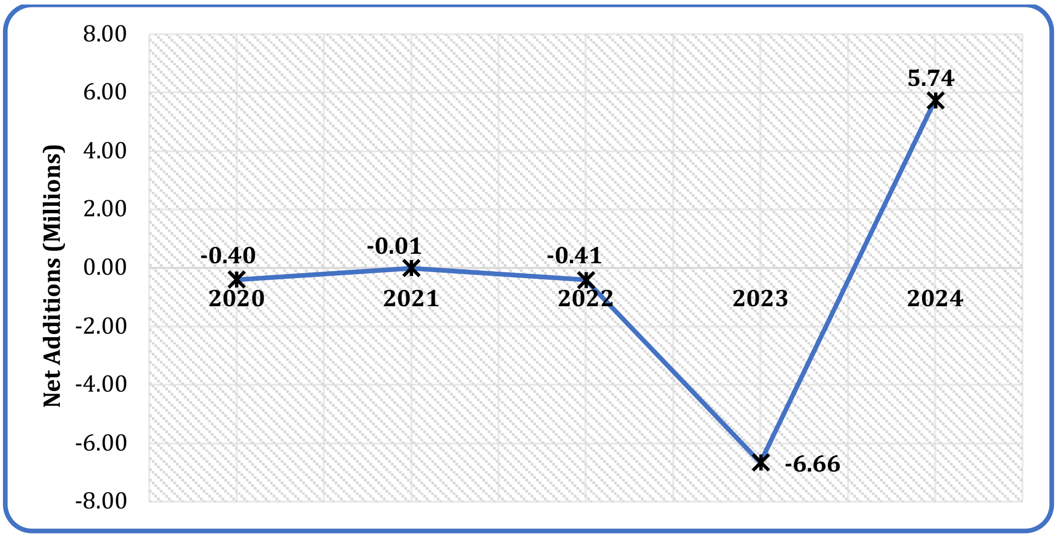

Figure 3: Net Additions in Subscriptions

1.4 Mobile Voice Subscriptions per Operator

MTN recorded 29.12 million subscriptions at the end of 2024, up from 24.65 million in the previous year. Over the last five years, MTN's subscriptions grew from 23.14 million in 2020 to 29.12 million, resulting in a CAGR of 5.91 percent. Telecel had 6.98 million subscriptions in 2024, up from 6.28 million in 2023, a rise of 11.16 percent. Telecel recorded a compound annual growth rate of negative 4.54 percent, declining from 8.40 million subscriptions in 2020 to 6.98 million in 2024.

By the end of 2024, AT had 3.03 million subscriptions, an increase of 575,136 from 2.46 million in 2023. Over five years, AT recorded 8.14 million subscriptions in 2020 and 3.03 million in 2024, resulting in a negative compound annual growth rate of 21.87%. The mobile voice subscriptions per operator from 2020 to 2024 are available in Table 3 and illustrated in Figure 4.

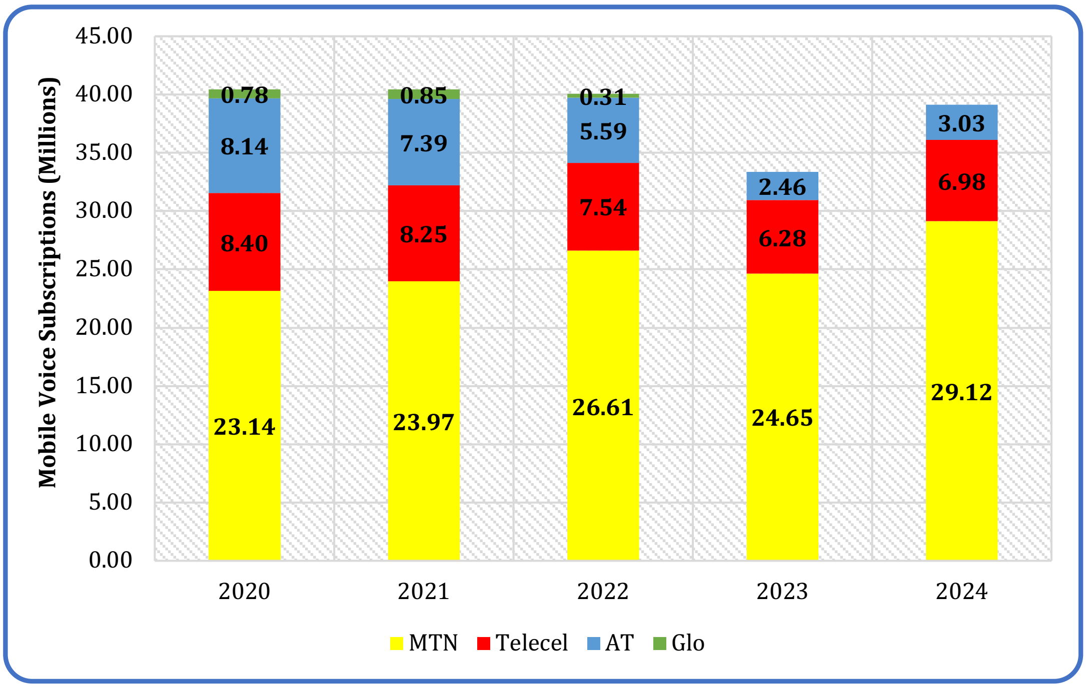

Figure 4: Mobile Voice Subscriptions per Operator

Table 3: Mobile Voice Subscriptions per Operator

Mobile Network Operator		**2020**	**2021**	**2022**	**2023**	**2024**
MTN	Subscriptions	23,144,302	23,966,302	26,613,845	24,652,582	29,118,511
	Market Share (%)	*57.20*	*59.24*	*66.46*	*73.84*	*74.42*
Telecel	Subscriptions	8,400,565	8,250,436	7,537,400	6,275,415	6,975,946
	Market Share (%)	*20.76*	*20.39*	*18.82*	*18.80*	*17.83*
AT	Subscriptions	8,135,618	7,390,278	5,585,510	2,456,463	3,031,599
	Market Share (%)	*20.11*	*18.27*	*13.95*	*7.36*	*7.75*
Glo	Subscriptions	781,124	847,057	308,553		
	Market Share (%)	*1.93*	*2.09*	*0.77*		
Total		**40,461,609**	**40,454,073**	**40,045,308**	**33,384,460**	**39,126,056**

Source: National Communications Authority, 2024

1.5 Market Share (%) per Operator for Mobile Voice Subscriptions

By the end of 2024, MTN voice subscriptions represented 74.42 per cent of total Mobile Voice Subscriptions, up from 73.84 per cent in 2023. Telecel voice subscriptions ended 2024 with a 17.83 per cent share, down from 18.80 per cent in 2023. AT voice subscriptions held a 7.75 per cent market share in 2024, increasing from 7.36 per cent the previous year. The market share per operator for mobile voice subscriptions from 2020 to 2024 is detailed in Table 3 and shown in Figure 5.

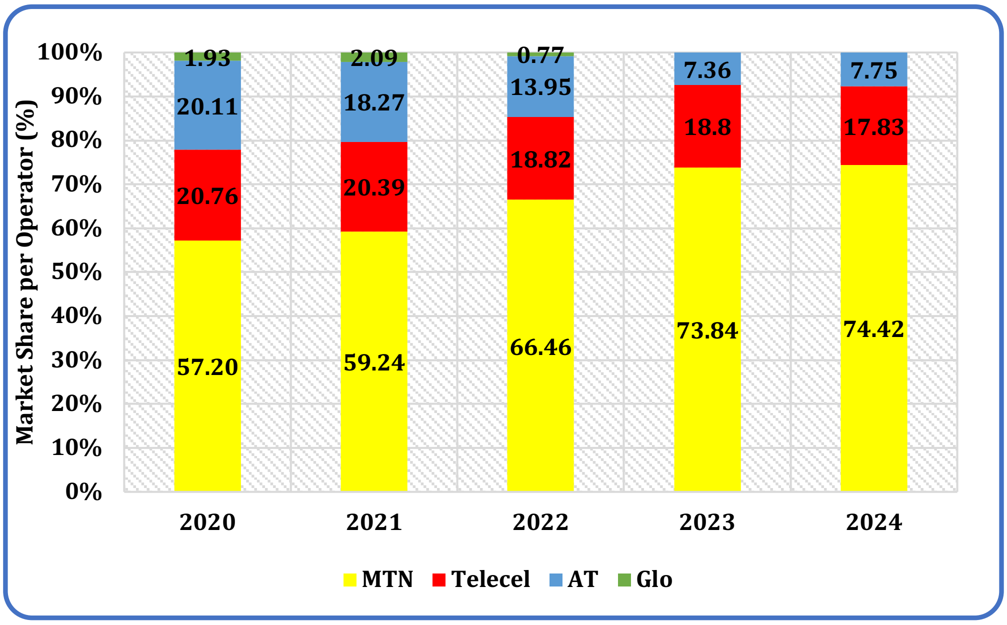

Figure 5: Market Share (%) of the Mobile Voice Subscriptions

1.6 Total Domestic Mobile Voice Traffic

Year on year, total domestic mobile voice traffic increased by 13.42 percent, from 98.74 billion minutes in 2023 to 112.70 billion minutes in 2024.

Domestic mobile traffic grew at a compound annual rate of 3.20 percent, increasing from 99.36 billion minutes in 2020 to 112.70 billion minutes in 2024. The volume rose from 99.36 billion minutes in 2020 to 108.07 billion minutes in 2021 but then fell to 98.81 billion minutes in 2023. The total domestic mobile voice traffic from 2020 to 2024 is shown in Table 4 and illustrated in Figure 6.

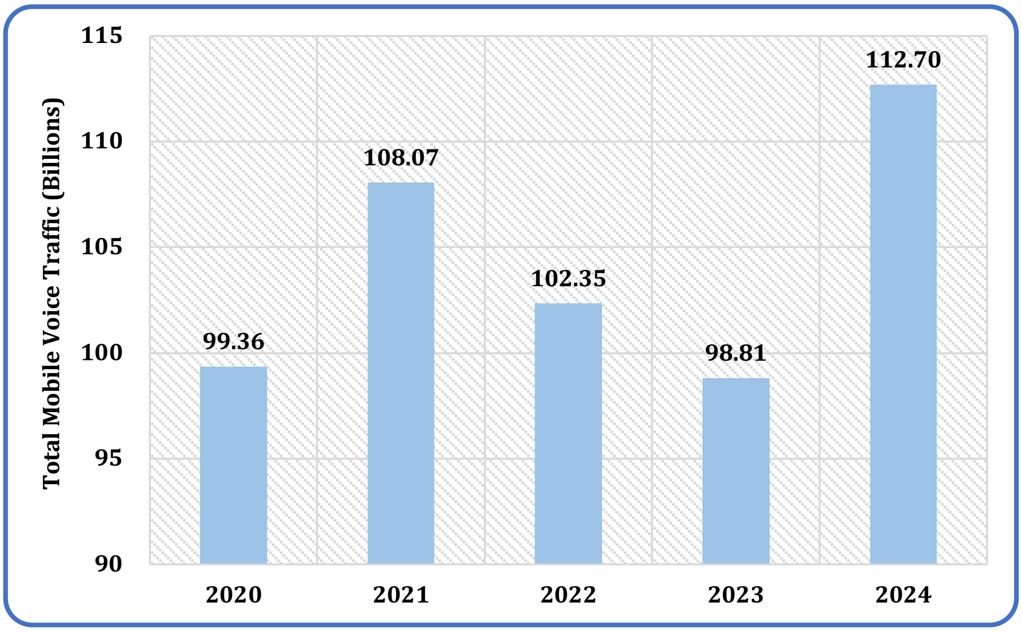

Figure 6: Total Mobile Voice Traffic

Table 4: Mobile Voice Traffic per Operator

Mobile Operator		2020	2021	2022	2023	2024
MTN	Traffic	89,786,199,833	98,334,998,826	92,774,464,908	91,203,644,161	105,854,932,043
	Share (%)	90.36	90.99	90.64	92.30	93.93
Telecel	Traffic	5,215,491,661	5,547,932,163	6,463,007,442	6,641,969,907	6,493,843,802
	Share (%)	*5.25*	*5.13*	*6.31*	*6.72*	*5.76*
AT	Traffic	4,174,073,901	4,010,269,647	3,006,884,218	964,373,396	351,012,791
	Share (%)	*4.20*	*3.71*	*2.94*	*0.98*	*0.31*
Glo	Traffic	188,390,005	179,977,127	110,523,331		
	Share (%)	*0.19*	*0.17*	*0.11*		
Total Voice Traffic		**99,364,155,400**	**108,073,177,76**	**102,354,879,899**	**98,809,987,464**	**112,699,788,636**

Source: National Communications Authority, 2024

1.7 Domestic Off-Net and On-Net Mobile Voice Traffic

During the period under review, off-net mobile voice traffic grew by 7.46 percent from 7.77 billion minutes in 2023 to 8.41 billion minutes. Off-net mobile voice traffic makes up 7.46 percent of the total domestic mobile voice traffic in 2024. Over five years, off-net mobile voice traffic has increased from 7.27 billion minutes in 2020 to 8.41 billion minutes in 2024, with a compound annual growth rate of 3.71 percent.

On-net domestic mobile voice traffic increased from 91.04 billion minutes in 2023 to 104.29 billion minutes in 2024, showing a 14.55 percent growth rate. On-net domestic voice traffic made up 92.54 percent of the total domestic traffic in 2024. Between 2020 and 2024, on-net mobile voice traffic grew at a compound annual rate of 3.16 percent, rising from 92.09 billion minutes to 104.29 billion minutes. The domestic off-net and on-net mobile voice traffic from 2020 to 2024 is listed in Table 5 and illustrated in Figure 7.

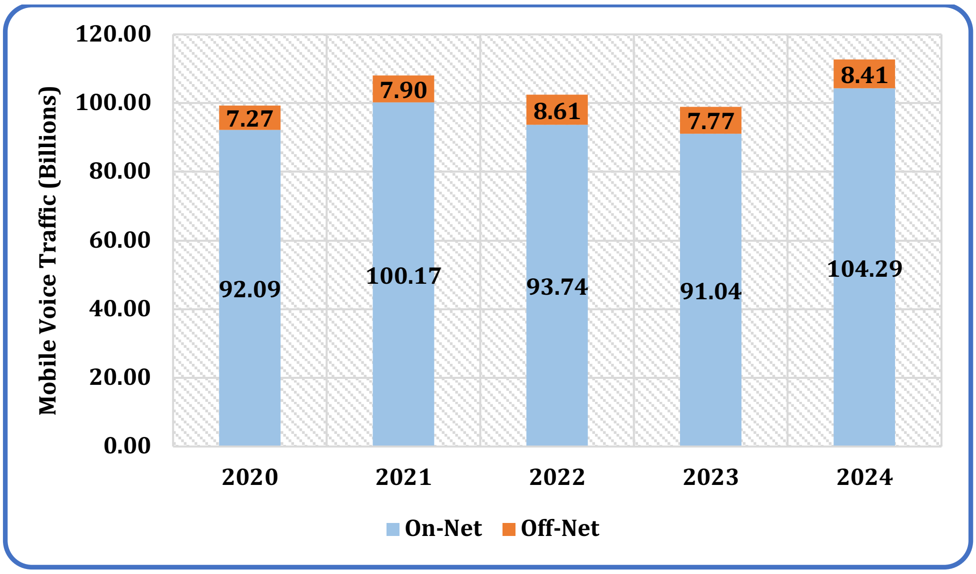

Figure 7: Distribution of Mobile Voice Traffic by On-Net and Off-Net

Table 5: Distribution of On Net and Off Net Traffic

	2020	2021	2022	2023	2024
			On Net		
Traffic	92,094,192,477	100,174,180,889	93,743,975,726	91,038,847,890	104,289,151,715
Share (%)	*92.68*	*92.69*	*91.59*	*92.14*	*92.54*
Growth (%)	*24.83*	*8.77*	*-6.42*	*-2.89*	*14.55*
			Off Net		
Traffic	7,269,962,924	7,898,996,874	8,610,904,173	7,771,139,575	8,410,636,922
Share (%)	*7.32*	*7.31*	*8.41*	*7.86*	*7.46*
Growth (%)	*-2.96*	*8.65*	*9.01*	*-9.75*	*8.23*
Total	**99,364,155,400**	**108,073,177,763**	**102,354,879,899**	**98,809,987,464**	**112,699,788,636**

Source: National Communications Authority, 2024

1.8 Domestic Mobile Voice Traffic per Operator

MTN subscriptions generated 93.93 percent of the total mobile voice traffic, reaching 105.85 billion minutes in 2024. This represents a 16.06 percent increase from 91.20

billion minutes in 2023. From 2020 to 2024, MTN's mobile voice traffic grew from 89.79 billion minutes to 105.85 billion minutes.

Telecel generated 6.49 billion minutes of mobile voice traffic, down from 6.64 billion minutes in 2023, representing 5.76 per cent of the total mobile voice traffic. Over five years, Telecel's mobile voice traffic grew from 5.22 billion minutes in 2020 to 5.63 billion minutes in 2024, with a negative compound annual growth rate of 0.15 per cent.

AT also generated 0.35 billion minutes of mobile voice traffic in 2024, representing 0.31 percent of total voice traffic, down from 0.89 billion minutes in 2023. This represents a 60.65 percent year-on-year decline. Over five years, the compound annual growth rate was negative at 46.15 percent, decreasing from 4.17 billion minutes in 2020 to 0.35 billion minutes in 2024. The domestic mobile voice traffic per operator from 2020 to 2024 is shown in Table 4 and illustrated in Figure 8.

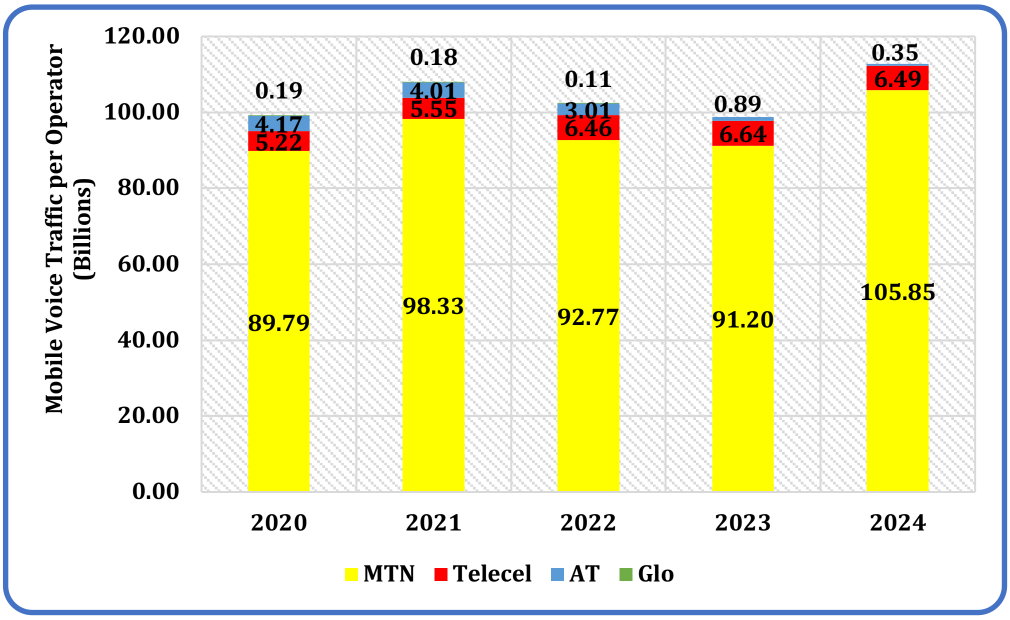

Figure 8: Mobile Voice Traffic per Operator

1.9 International Mobile Voice Traffic

Outgoing International Mobile Voice traffic for 2024 reached 324.39 million minutes, increasing from 267.90 million minutes in 2023, a growth of 21.09 percent. The international mobile voice traffic fell from 319.14 million minutes in 2022 to 267.90 million minutes in 2023. Outgoing International Mobile Voice traffic declined at a compound annual growth rate (CAGR) of 9.12 percent, from 475.44 million minutes in

2020 to 324.39 million minutes in 2024. The international mobile voice traffic is listed in Table 6 and shown in Figure 9.

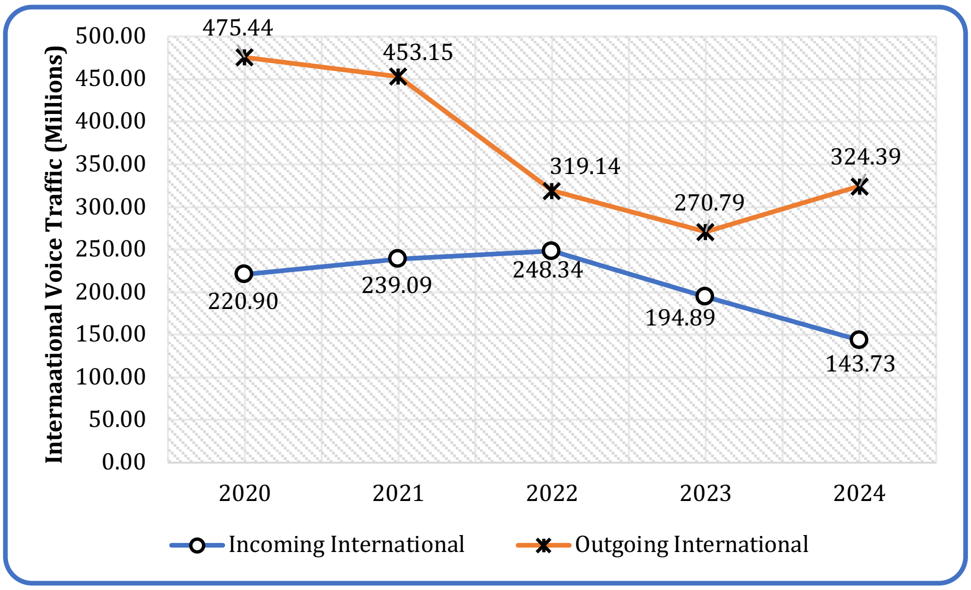

Figure 9: Mobile Voice International Traffic

Table 6: Distribution of International Voice Traffic

	2020	2021	2022	2023	2024
Incoming International					
Traffic	220,895,472	239,092,078	248,344,559	194,888,083	143,728,596
Share (%)	*31.72*	*34.54*	*43.76*	*41.58*	*30.70*
Growth (%)	*-29.43*	*8.24*	*3.87*	*-21.53*	*-26.25*
Outgoing International					
Traffic	475,444,765	453,152,114	319,144,643	270,787,611	324,388,417
Share (%)	*68.28*	*65.46*	*56.24*	*58.42*	*69.30*
Growth (%)	*-8.85*	*-4.69*	*-29.57*	*-15.15*	*19.79*
Total	**696,340,237**	**692,244,192**	**567,489,201**	**465,675,692**	**468,117,013**

Source: National Communications Authority, 2024

1.10 Yearly Average Domestic Traffic per Subscription

The average volume of domestic voice traffic per subscription decreased from 2,960 minutes in 2023 to 2,880 minutes in 2024, representing a 2.68 percent year-on-year decline in average domestic traffic per subscription.

Over five years, the average domestic voice traffic per subscription increased from 2,456 minutes in 2020 to 2,880 minutes in 2024, with a compound annual growth rate of 4.07 percent. The yearly average domestic traffic per subscription is shown in Figure 10.

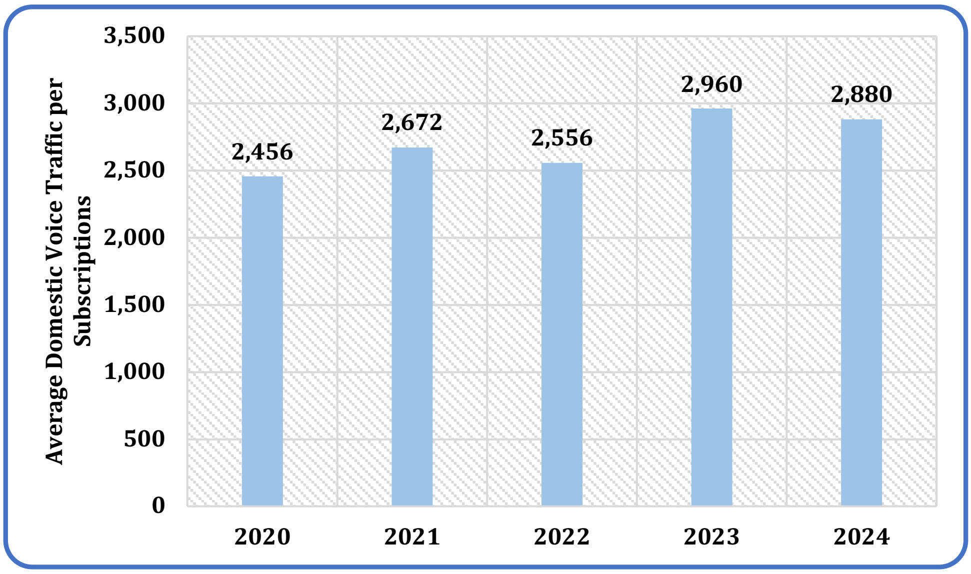

Figure 10: Average Domestic Voice Traffic per Subscription

1.11 Mobile Data Subscriptions and Penetration Rate (%)

By the end of 2024, the total mobile data subscriptions reached 26.13 million, up from 23.21 million in 2023, representing a 12.58% increase. Mobile data subscriptions declined steadily from 2020 to 2022 but grew again from 2023 to 2024. The five-year compound annual growth rate was negative 0.32 percent, rising from 26.47 million in 2020 to 26.13 million in 2024. The penetration rate increased by 7.4 percent, from 71.56 percent in 2023 to 78.96 percent in 2024. Mobile data penetration decreased from 85.60 percent in 2020 to 78.96 percent in 2024. The mobile data subscriptions and penetration rate from 2020 to 2024 are listed in Table 7 and illustrated in Figure 11.

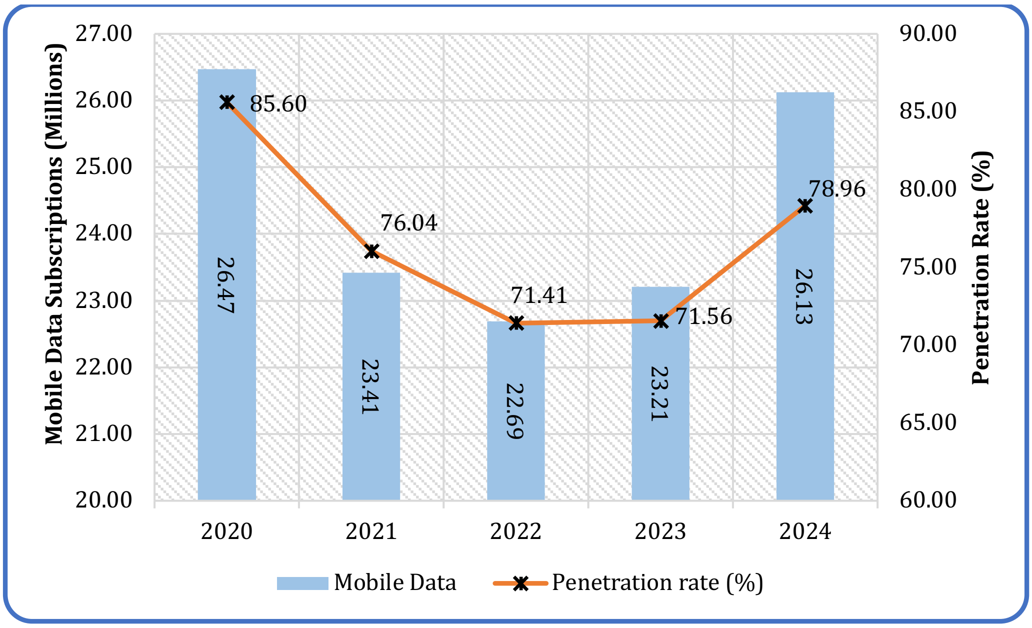

Figure 11: Mobile Data Subscriptions and Penetration Rate (%)

Table 7: Mobile Data Subscriptions and Penetration Rate

Subscriptions	**2020**	**2021**	**2022**	**2023**	**2024**
Prepaid	26,130,249	23,237,338	22,498,227	22,996,027	25,909,066
Postpaid	339,714	177,189	188,331	211,601	218,526
Mobile Data	**26,469,963**	**23,414,527**	**22,686,558**	**23,207,628**	**26,127,592**
Growth rate (%)	*-12.76*	*-11.54*	*-3.11*	*2.30*	*12.58*
Net Additions	-3,871,330	-3,055,436	-727,969	521,070	2,919,964
Population	30,922,666	30,792,608	31,769,363	32,429,591	32,429,591
Penetration rate (%)	*85.60*	*76.04*	*71.41*	*71.56*	*78.96*

Source: National Communications Authority, 2024

1.12 Postpaid and Prepaid Mobile Data Subscriptions

By the end of 2024, mobile prepaid data subscriptions reached 25.91 million, accounting for 99.16 percent of all mobile data subscriptions. Postpaid subscriptions stood at 0.22 million, representing 0.84 percent of total mobile data subscriptions. The postpaid and prepaid mobile data subscriptions from 2020 to 2024 are listed in Table 7 and illustrated in Figure 12.

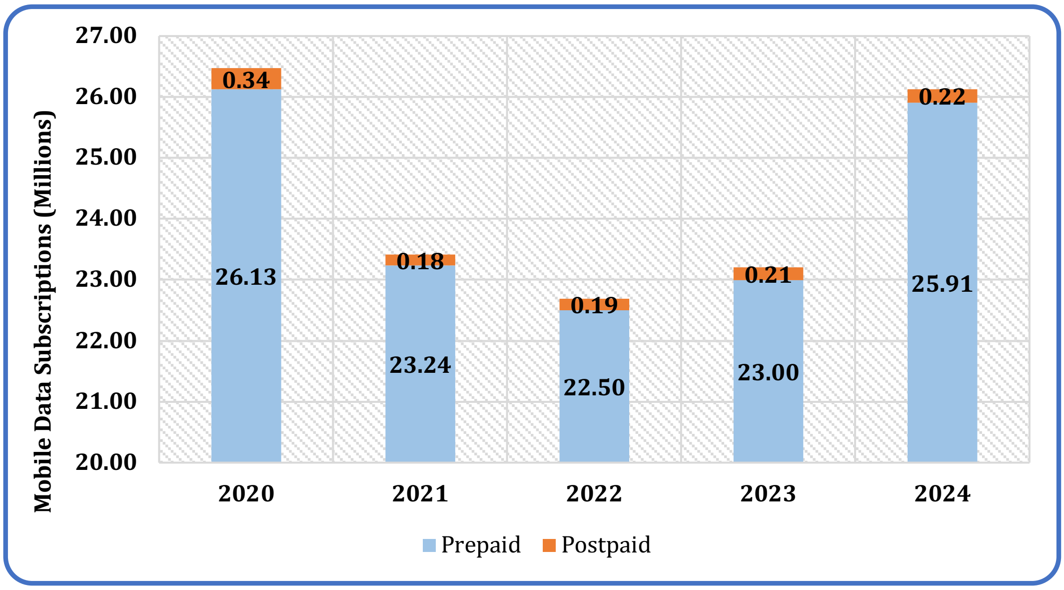

Figure 12: Distribution of Mobile Data Subscriptions by Postpaid and Prepaid

1.13 Mobile Data Subscriptions per Operator

MTN recorded 20.63 million subscriptions at the end of 2024, up from 18.68 million in 2023. The year-on-year growth rate was 10.44 percent over the period. From 2020 to 2024, MTN's mobile data subscriptions increased from 19.15 million in 2020 to 20.63 million, representing a compound annual growth rate of 1.88 percent.

Telecel ended 2024 with 3.89 million subscriptions, representing an increase of 0.82 million from 3.07 million in 2023, a growth of 26.93 percent growth. Over five years, Telecel's subscriptions grew from 3.06 million in 2020 to 3.87 million in 2024, resulting in a compound annual growth rate of 6.24 percent.

AT had 1.61 million subscriptions at the end of 2024, up from 1.47 million in 2023. Year-on-year, AT's mobile data increased by 9.81 percent. AT subscriptions declined from 3.93 million to 1.61 million in 2024, with an average compound growth rate of negative 19.99 percent. The mobile data subscriptions per operator from 2020 to 2024 are listed in Table 8 and shown in Figure 13.

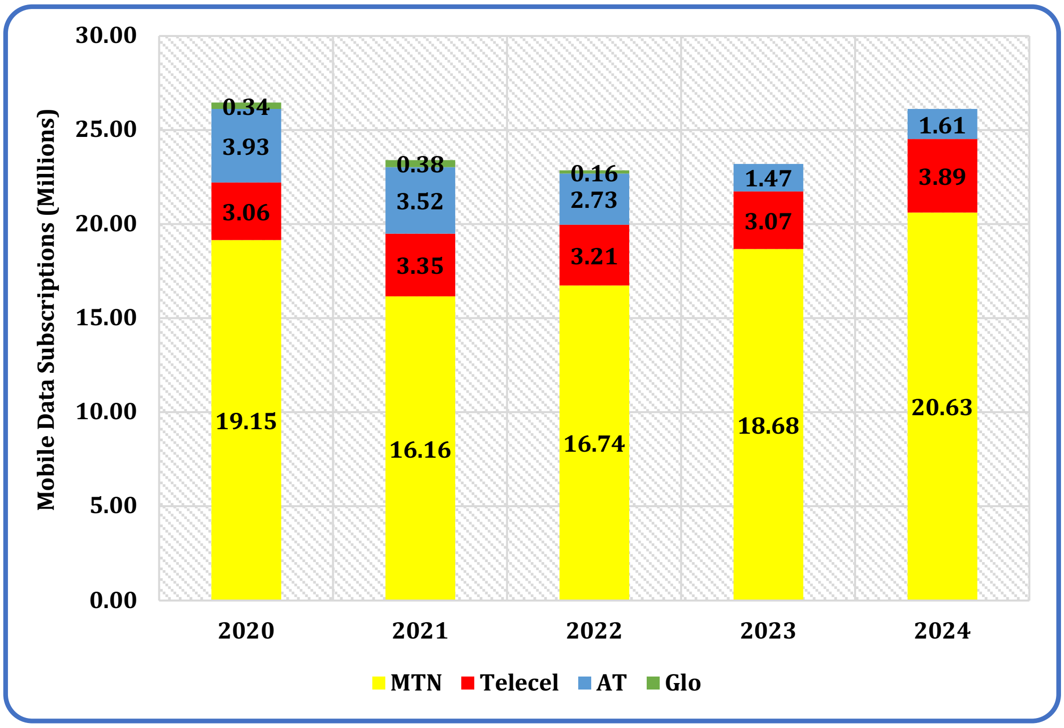

Figure 13: Mobile Data Subscriptions per Operator

Table 8: Mobile Data Subscriptions per Operator

Mobile Network Operator		2020	2021	2022	2023	2024
MTN	Subscriptions	19,146,862	16,159,901	16,744,370	18,675,841	20,626,311
	Market Share (%)	*72.33*	*69.02*	*73.29*	*80.47*	*78.94*
Telecel	Subscriptions	3,055,454	3,346,148	3,210,797	3,066,359	3,892,046
	Market Share (%)	*11.54*	*14.29*	*14.05*	*13.21*	*14.90*
AT	Subscriptions	3,926,130	3,524,022	2,730,454	1,465,428	1,609,235
	Market Share (%)	*14.83*	*15.05*	*11.95*	*6.31*	*6.16*
Glo	Subscriptions	341,517	384,456	160,627		
	Market Share (%)	*1.29*	*1.64*	*0.70*		
Total		**26,469,963**	**23,414,527**	**22,846,248**	**23,207,628**	**26,127,592**

Source: National Communications Authority, 2024

1.14 Market Share (%) per Operator for Mobile Data Subscriptions

By the end of 2024, MTN subscriptions accounted for 78.94 per cent of total mobile data subscriptions, down from 80.47 percent in 2023. Telecel's subscriptions also reached 14.90 per cent of the total data subscriptions, marking an increase from 13.21 percent in 2023. AT's market share decreased slightly from 6.31 percent in 2023 to 6.16 per cent in 2024. The market share (%) per operator for mobile data subscriptions is illustrated in Figure 14.

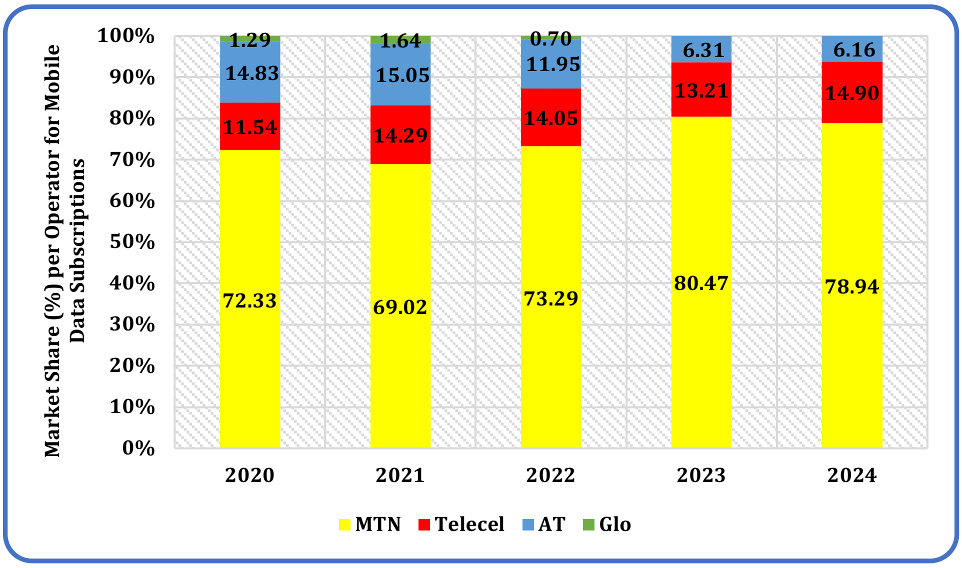

Figure 14: Market Share (%) per Operator for Mobile Data Subscriptions

1.15 Mobile Data Traffic

Total mobile data traffic at the end of 2024 reached 2.51 million terabytes, representing a 35.05 percent increase from 1.86 million terabytes in 2023.

Over five years, the volume of mobile data traffic increased steadily at a Compound Annual Growth Rate of 36.97 percent. Mobile data traffic rose from 0.71 million terabytes in 2020 to 2.51 million terabytes in 2024. The mobile data traffic from 2020 to 2024 is shown in Figure 15.

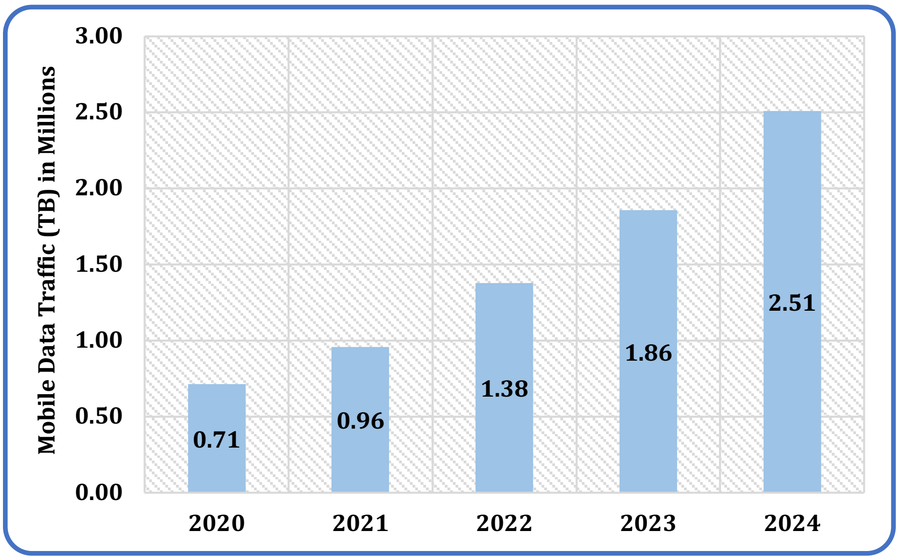

Figure 15: Mobile Data Traffic

1.16 Mobile Data Traffic per Operator

MTN subscriptions generated 2.06 million terabytes in 2024, up from 1.50 million terabytes in 2023, indicating a growth rate of 36.85 percent. MTN's mobile data traffic rose from 0.51 million terabytes in 2020 to 2.06 million terabytes in 2024, with a compound annual growth rate of 41.65 percent.

Telecel's year-on-year mobile data traffic increased by 32.22 percent, from 0.27 million gigabytes in 2023 to 0.36 million terabytes in 2024. From 2020 to 2024, Telecel's mobile data traffic grew from 0.11 million terabytes to 0.36 million terabytes, with a compound annual growth rate of 33.64 percent.

AT's data traffic grew by 10.68 percent, increasing from 0.08 million terabytes in 2023 to 0.09 million terabytes during the review period. It also rose from 0.07 million terabytes in 2020 to 0.09 million terabytes in 2024, with a compound annual growth rate of 6.72 percent. The mobile data traffic per operator from 2020 to 2024 is listed in Table 9 and shown in Figure 16.

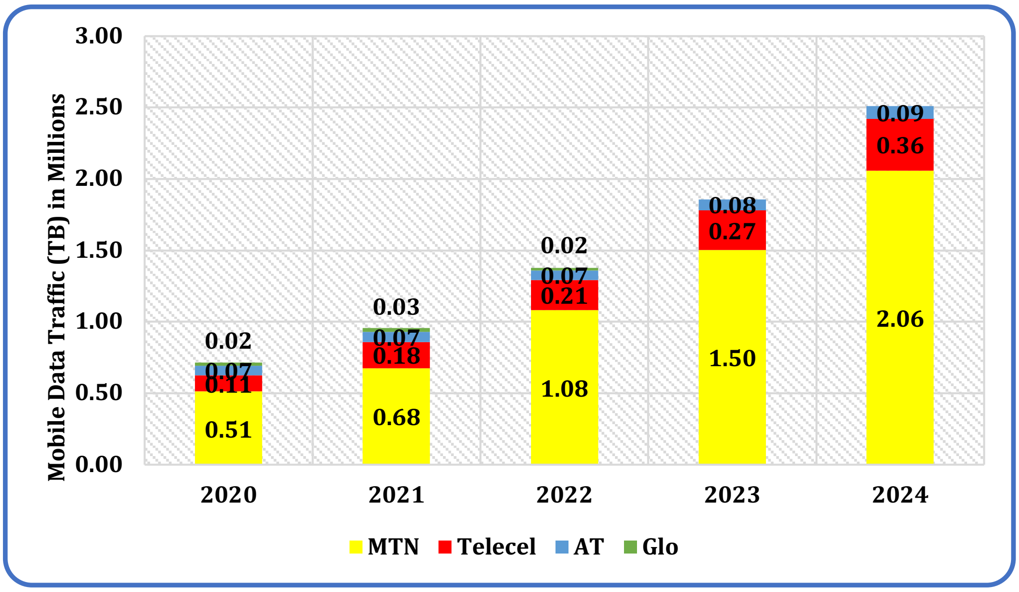

Figure 16: Mobile Data Traffic (GB) per Operator

1.17 Market Share (%) per Operator for Mobile Data Traffic

By the end of 2024, MTN subscriptions accounted for 82.03 percent of the total mobile data subscriptions, up from 80.95 percent in 2023. Telecel's subscriptions also made up 14.47 percent of the total data subscriptions, a decrease from 14.78 percent in 2023. AT's market share dropped from 4.27 percent in 2023 to 3.50 percent in 2024. The market share per operator for mobile data traffic from 2020 to 2024 is listed in Table 9 and illustrated in Figure 17.

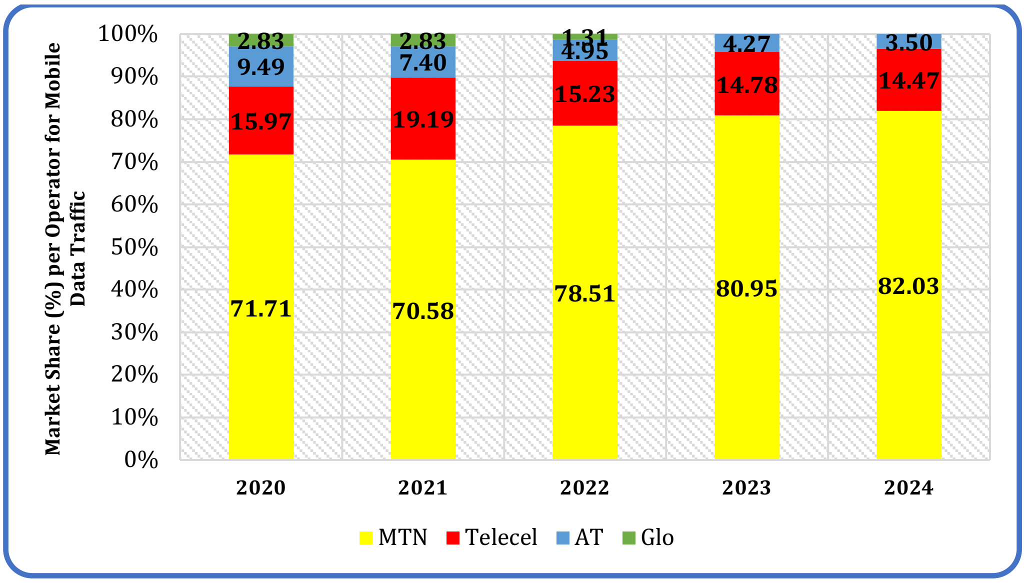

Figure 17: Market Share (%) per Operator for Mobile Data Traffic

Table 9: Mobile Data Traffic per Operator in GB

Mobile Network Operator		**2020**	**2021**	**2022**	**2023**	**2024**
MTN	Data Traffic (GB)	511,530,510	675,662,190	1,082,401,526	1,504,709,782	2,059,247,269
	Market Share (%)	*71.71*	*70.58*	*78.51*	*80.95*	*82.03*
Telecel	Data Traffic (GB)	113,916,081	183,653,560	210,000,989	274,785,598	363,326,382
	Market Share (%)	*15.97*	*19.19*	*15.23*	*14.78*	*14.47*
AT	*Data Traffic (GB)*	67,669,723	70,881,825	68,286,450	79,314,699	87,781,607
	Market Share (%)	*9.49*	*7.40*	*4.95*	*4.27*	*3.50*
Glo	Data Traffic (GB)	20,196,277	27,047,252	18,075,656		
	Market Share (%)	*2.83*	*2.83*	*1.31*		
Total		**713,312,591**	**957,244,828**	**1,378,764,621**	**1,858,810,079**	**2,510,355,257**

Source: National Communications Authority, 2024

1.18 Average Mobile Data Traffic per Subscription

Average mobile data traffic per subscription increased by 19.96 percent, rising from 80.09 gigabytes in 2023 to 96.08 gigabytes in 2024.

Average mobile data traffic per subscription steadily rose from 26.95 gigabytes in 2020 to 96.08 gigabytes over five years, with a compound annual growth rate of 37.41 percent. The average mobile data traffic per subscription from 2020 to 2024 is shown in Table 10 and illustrated in Figure 18.

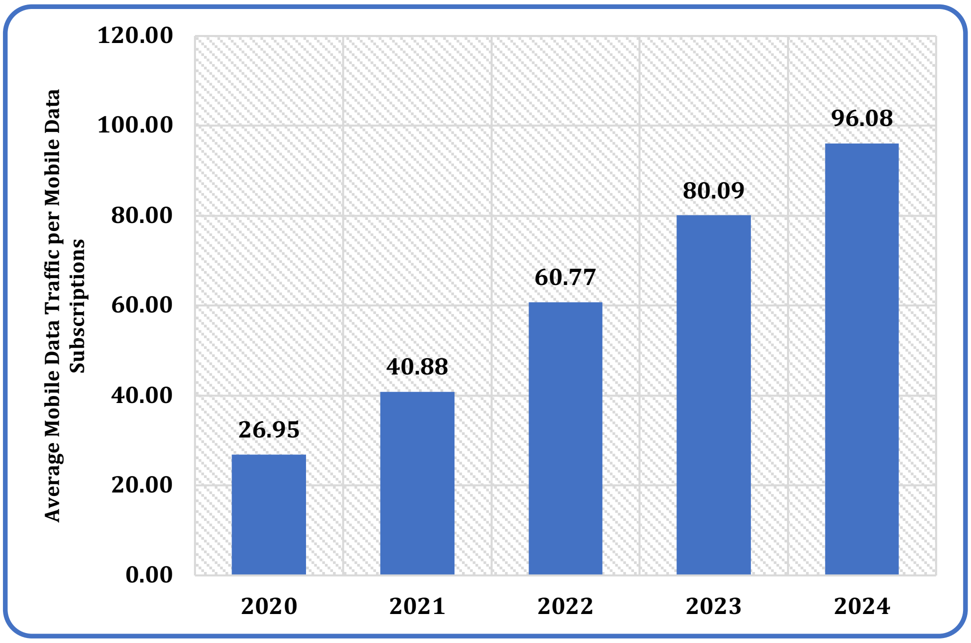

Figure 18: Average Mobile Data Traffic per Mobile Data Subscriptions

Table 10: Average Mobile Data Traffic per Subscription

Subscriptions	2020	2021	2022	2023	2024
Mobile Data Subscription	26,469,963	23,414,527	22,686,558	23,207,628	26,127,592
Mobile Data Traffic (GB)	713,312,591	957,244,828	1,378,764,621	1,858,810,079	2,510,355,257
Average traffic per subscription	26.95	40.88	60.77	80.09	96.08

Source: National Communications Authority, 2024

1.19 Total Short Messaging Service (SMS)

Total Short Messaging Service (SMS) counts increased by 7.14 percent to 3.75 billion in 2024, up from 3.50 billion in 2023.

Over the five years, the total SMS counts have steadily increased, with a compound annual growth rate of 16.44 percent, from 2.04 billion in 2020 to 3.75 billion in 2024. The total number of Short Messaging Service (SMS) from 2020 to 2024 is listed in Table 11 and shown in Figure 19.

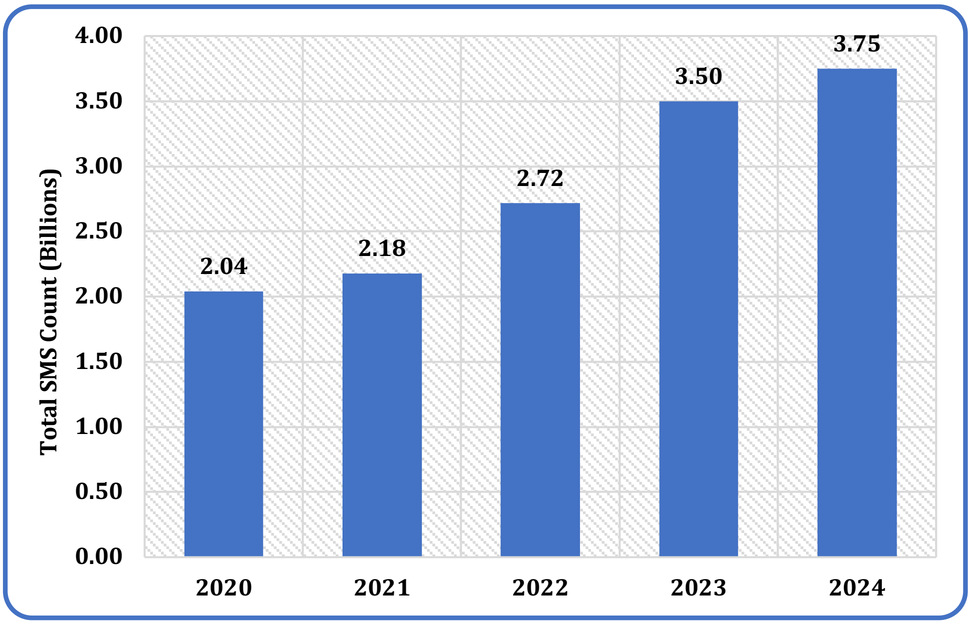

Figure 19: Total SMS Counts

1.20 On-Net and Off-Net SMS Counts

On-net SMS counts fell from 2.30 billion in 2023 to 2.10 billion in the year under review, indicating an 8.70 percent decline. Between 2020 and 2024, On-net SMS counts increased from 1.65 billion to 2.10 billion with a compound annual growth rate of 6.21 percent.

Off-net SMS counts increased by 37.5 percent from 1.20 billion in 2023 to 1.65 billion in 2024. Overall, off-net SMS counts rose from 0.39 billion in 2020 to 1.65 billion in 2024, with a compound annual growth rate of 43.41 percent.

On-net SMS made up 56.05 percent of the total SMS, while Off-net SMS counts represented 43.95 percent. The on-net and off-net SMS counts from 2020 to 2024 are listed in Table 11 and shown in Figure 20.

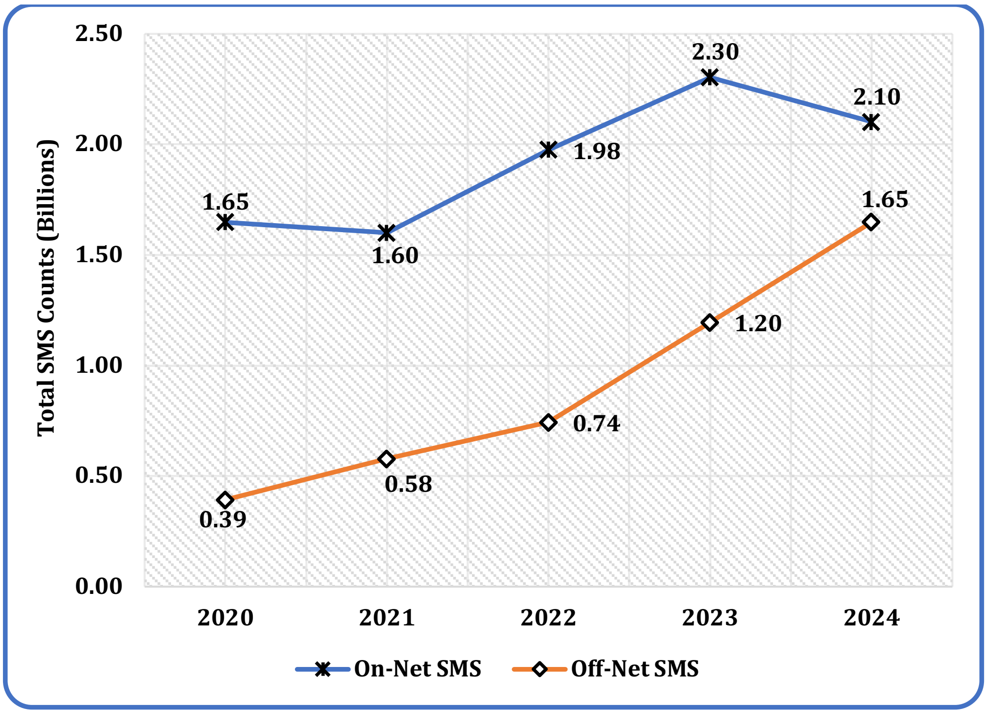

Figure 20: Distribution of Total SMS Count by On-Net and Off-Net

Table 11: Distribution of Off-Net and On-Net SMS Counts

	2020	2021	2022	2023	2024
On Net SMS					
Traffic	1,648,715,441	1,600,711,943	1,976,546,289	2,303,380,905	2,102,023,195
Growth (%)	(30.37)	(2.91)	23.48	16.51	(8.72)
Off Net SMS					
Traffic	392,946,906	577,412,214	742,702,003	1,195,717,077	1,648,207,635
Growth (%)	3.10	46.94	28.63	61.00	37.84
Total	**2,041,662,347**	**2,178,124,157**	**2,719,248,292**	**3,498,641,208**	**3,750,230,830**

Source: National Communications Authority, 2024

1.21 Total SMS Count per Operator

MTN recorded 2.10 billion SMS messages in 2024, down from 2.52 billion in 202, representing 56.07 percent of the total SMS traffic. Between 2020 and 2024, MTN's SMS counts increased from 1.18 billion to 2.10 billion, with a compound annual growth rate of 15.50 percent.

Telecel's SMS count increased from 0.94 billion in 2023 to 1.61 billion in 2024, accounting for 42.98 percent of the total SMS volume. The count rose from 0.83 billion in 2020 to 1.61 billion in 2024, with a compound annual growth rate of 18.01 percent.

AT subscriptions generated 0.036 billion SMS counts, down from 0.042 billion in the previous year, representing 0.96 percent of the market share. AT's SMS counts recorded a compound annual growth rate of 14.42 percent, rising from 0.02 billion in 2020 to 0.04 billion in 2024. The total SMS count per operator from 2020 to 2024 is listed in Table 12 and shown in Figure 21.

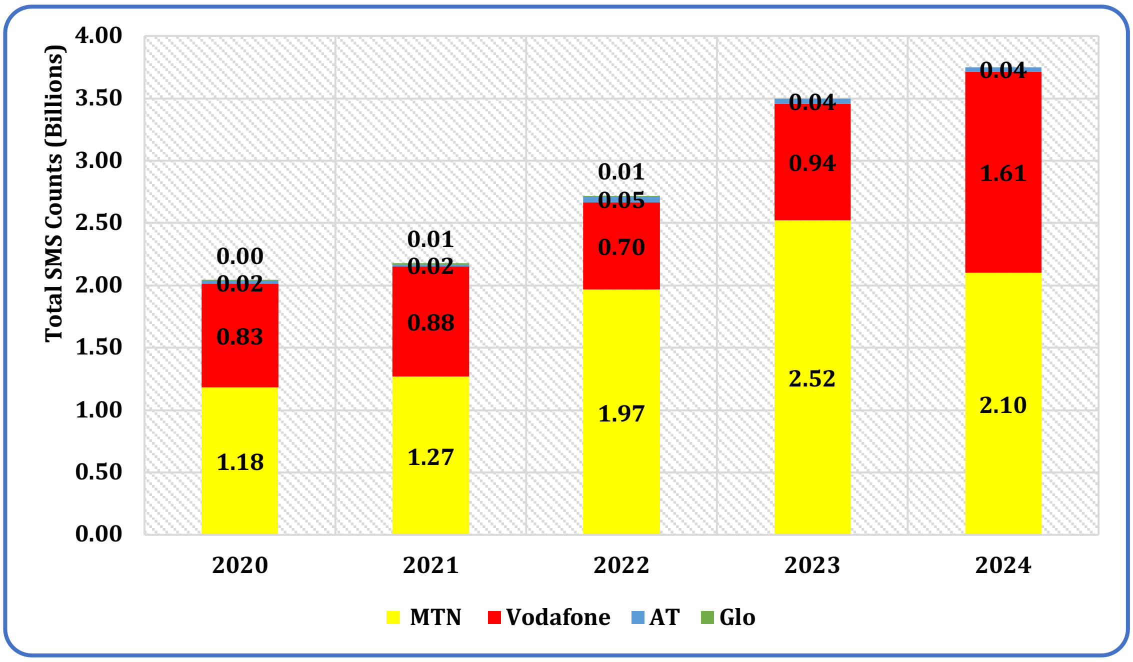

Figure 21: Total SMS Counts per Operator

Table 12: SMS Count per Operator

Operator	2020	2021	2022	2023	2024
MTN	1,184,006,344	1,268,498,378	1,965,836,108	2,520,750,757	2,102,598,897
Telecel	832,384,480	884,774,319	701,508,358	935,516,832	1,611,665,220
AT	21,124,918	17,255,704	45,871,731	42,373,619	35,966,713
Glo	4,146,605	7,595,756	6,032,095		
Total	**2,041,662,347**	**2,178,124,157**	**2,719,248,292**	**3,498,641,208**	**3,750,230,830**

Source: National Communications Authority, 2024

1.22 Average SMS Count per Mobile Voice Subscription

In 2024, the average number of SMS messages fell from 113 in 2023 to 96, a decrease of 15.04 percent.

The average SMS count per subscription rose from 50 in 2020 to 96 in 2024, with a compound annual growth rate of 17.71 per cent. The average SMS count per mobile voice subscription between 2020 and 2024 is presented in Table 13 and Figure 22.

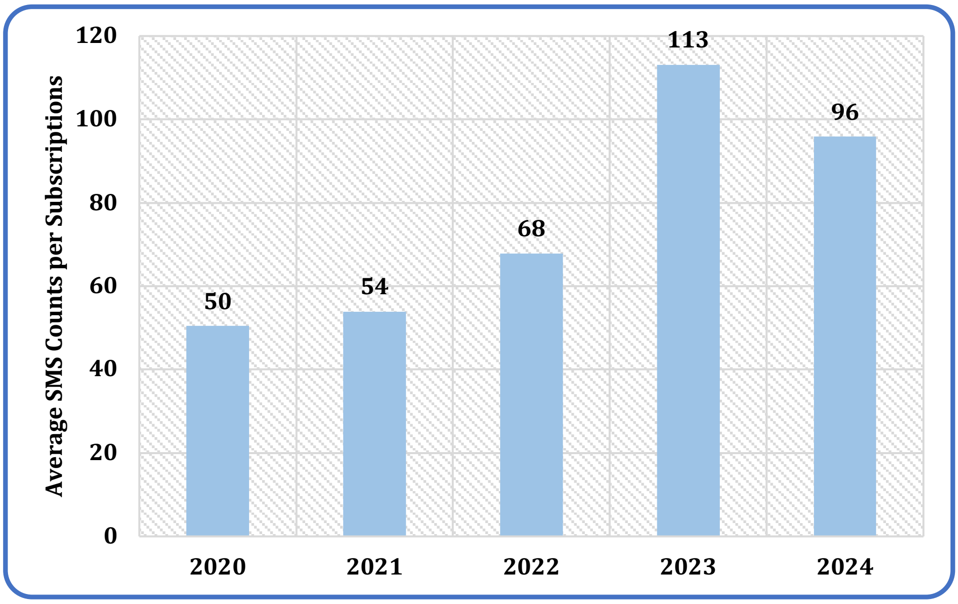

Figure 22: Average SMS Count per Mobile Voice Subscriptions

Table 13: Average SMS Count per Subscription

Subscriptions	2020	2021	2022	2023	2024
Mobile Voice Subscription	40,461,609	40,454,073	40,045,308	33,384,460	39,126,056
Total SMS Count	2,041,662,347	2,178,124,157	2,719,248,292	3,503,050,092	3,750,230,830
Average traffic per subscription	50	54	68	105	96

Source: National Communications Authority, 2024

1.23 Default Tariff on Mobile Services

The average industry tariff for both On-net and Off-net voice services was GHS 0.14p per minute at the end of 2024. The default tariff on mobile services from 2020 to 2024 is shown in Table 14 and Figure 23.

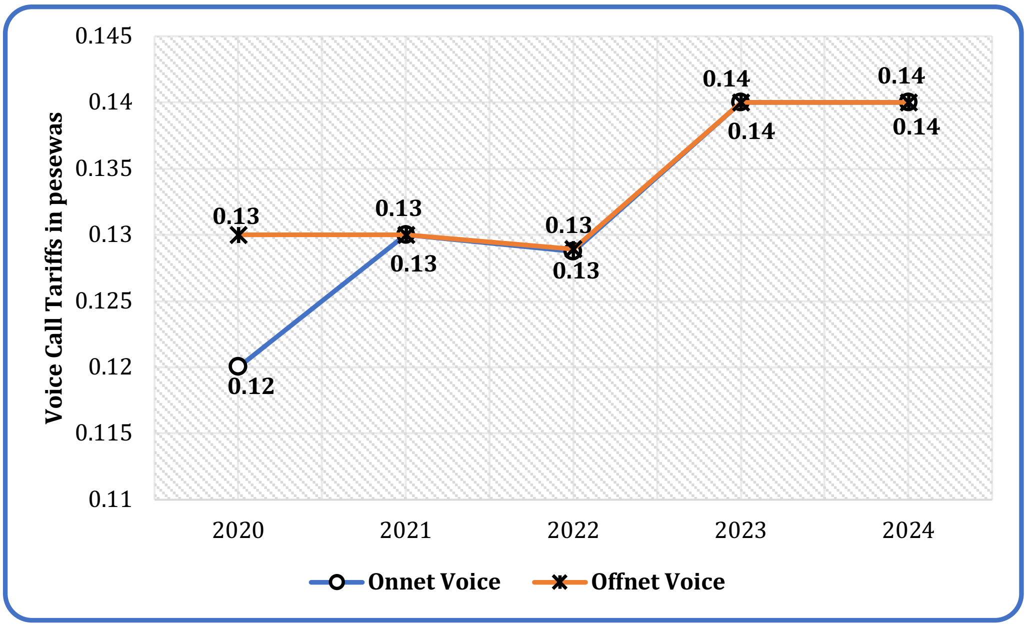

Figure 23: Mobile Voice On net and Off net Tariff

From 2020 to 2024, the average on-net and off-net SMS tariffs were GHS 0.06p and GHS 0.07p per SMS respectively, as shown in Table 14 and Figure 24.

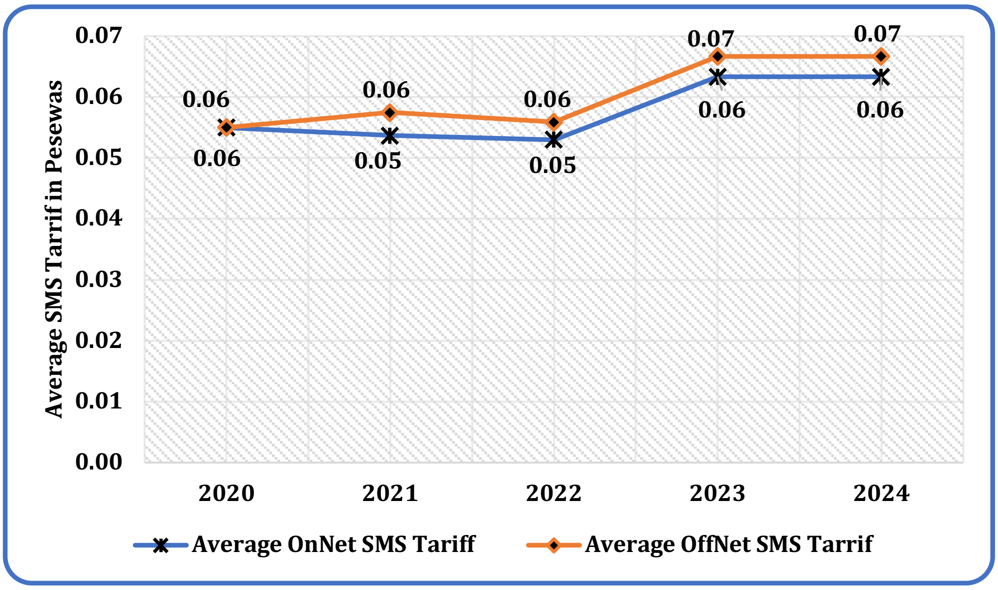

Figure 24: Average SMS Tariff

Over the five years, the average mobile data tariff increased from GHS 0.09p per MB in 2020 to GHS 0.14p per MB in 2024, as shown in Table 14 and Figure 25.

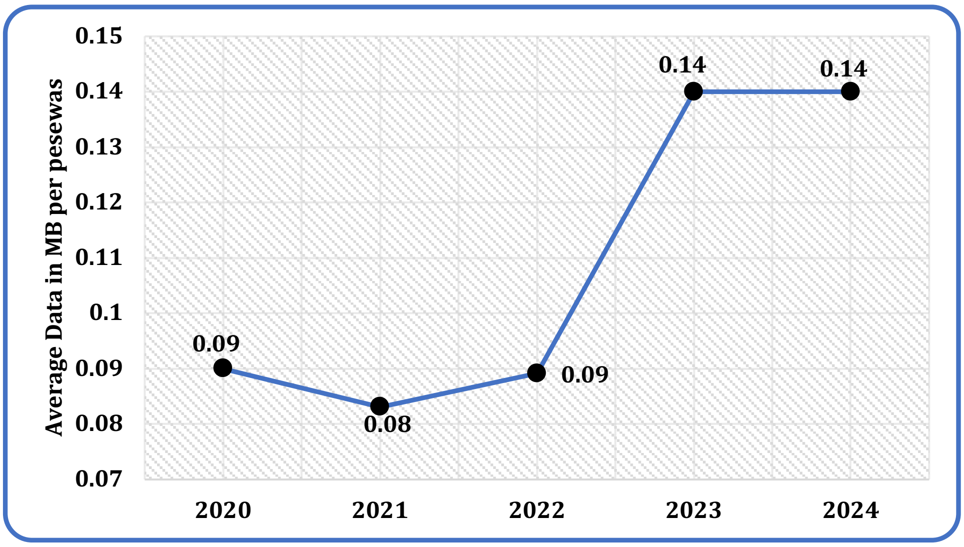

Figure 25: Average Mobile Data Tariff

Table 14: Default Tariffs for Mobile Services

Average Industry Tariffs	2020	2021	2022	2023	2024
On net Voice	0.12	0.13	0.13	0.14	0.14
Off net Voice	0.13	0.13	0.13	0.14	0.14
On net SMS	0.05	0.05	0.05	0.06	0.07
Off net SMS	0.05	0.06	0.06	0.06	0.06
Data/MB	0.09	0.08	0.09	0.14	0.14

Source: National Communications Authority, 2024

1.24 Mobile Number Portability (MNP)

In 2024, a total of 2,579 mobile numbers were ported between networks, compared to 1,113 in the previous year, representing a 131.76 percent increase.

Over five years, the total number of mobile numbers ported decreased from 236,111 in 2020 to 2,579 in 2024, resulting in a compound annual growth rate of negative 67.67

percent. The total number of ports each year from 2020 to 2024 is shown in Table 15 and Figure 26.

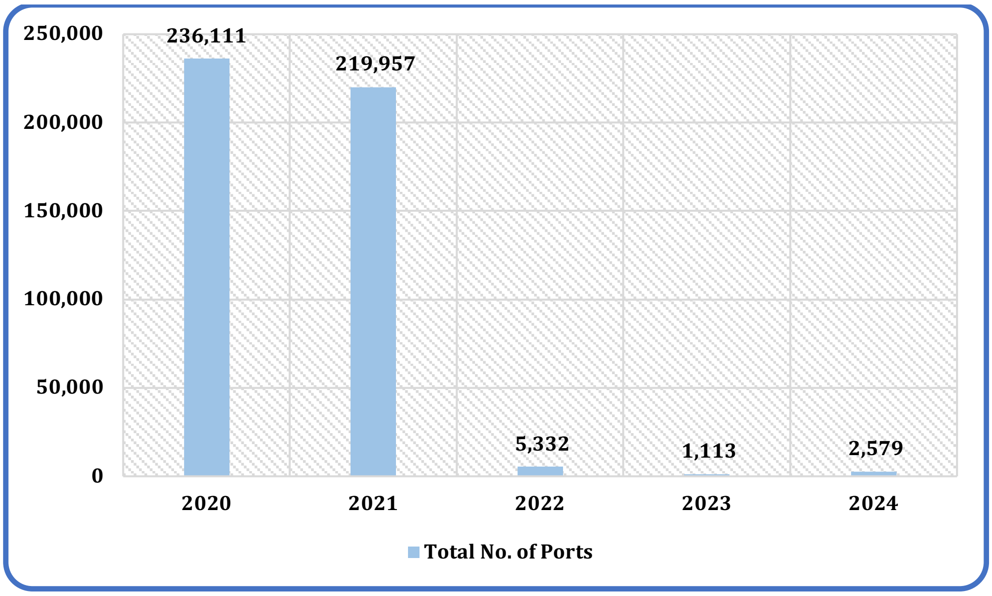

Figure 26: Total number of ports per year

Table 15: Total Number of Ports

Year	Total No. of Ports	Cumulative Total Port	Growth Rate (%)
2020	236,111	4,648,035	*-38.6*
2021	219,957	4,867,992	*-6.8*
2022	5,333	4,873,325	*-97.6*
2023	1,113	4,874,438	*-79.1*
2024	2,579	4,877,016	*131.72*

Source: National Communications Authority, 2024

1.24.1 Cumulative Total Ports

Since the inception of MNP, the total number of mobile number ports carried out by mobile network operators in Ghana stood at 4.88 million by the end of 2024. As of the end of 2020, the total number of ports recorded was 4.65 million. Over the five years, the number of ports has increased with a compound annual growth rate of 1.21 percent. The cumulative total ports from 2020 to 2024 are shown in Table 16 and Figure 27.

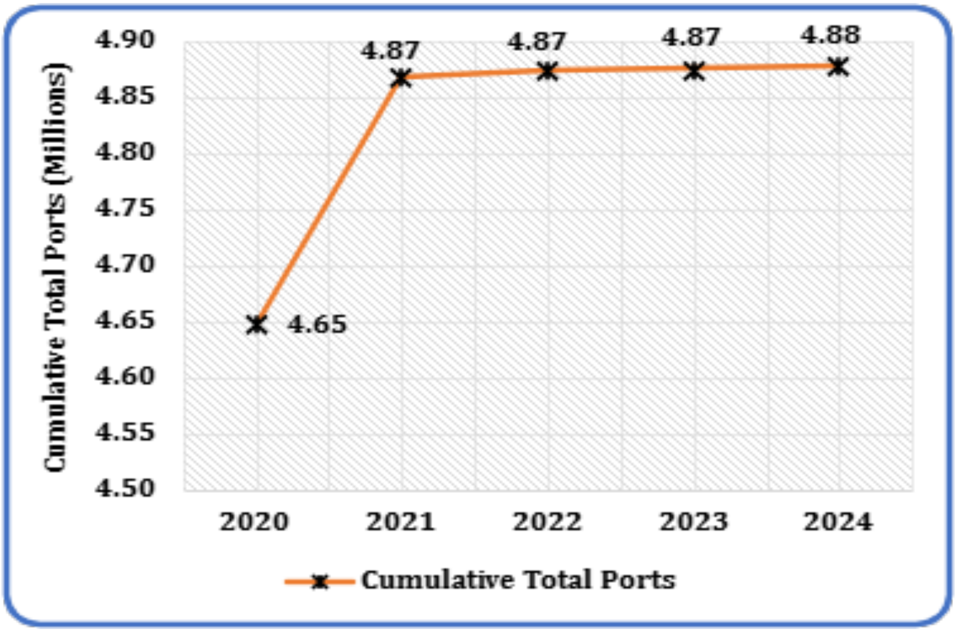

Figure 27: Cumulative Total Ports

Table 16: Net Porting per Operator

	2020	2021	2022	2023	2024
Port In					
MTN	189,818	217,374	3,272	657	2,055
Telecel	43,848	1,730	1,550	389	435
AT	2,314	797	495	67	89
Glo	131	56	16	-	0
Total	**236,111**	**219,957**	**5,333**	**1,113**	**2,579**
Port Out					
MTN	6476	1257	841	166	229
Telecel	45059	2245	763	437	1,427
AT	183813	216003	3520	480	852
Glo	753	447	208	30	71
Expresso	10	5	0	0	
Total	**236,111**	**219,957**	**5,332**	**1,113**	**2,579**

Source: National Communications Authority, 2024

1.25 Categories of Mobile Phones on Mobile Networks[1]

The total number of mobile phones connected to networks increased by 16.41 percent from 34.49 million in 2023 to 40.15 million in 2024. Over the five years, smartphones remained the dominant type, with a market share of 51-58 percent. The number of smartphones on the network grew by 24.34 percent from 18.69 million in 2023 to 23.24 million in 2024. Feature phone users declined from 11.45 million in 2023 to 10.79 million, while basic phone users increased from 4.35 million to 6.12 million between 2023 and 2024, representing a rise of 40.86 percent. The number of mobile phones active on networks in Ghana from 2020 to 2024 is shown in Table 17 and Figure 28.

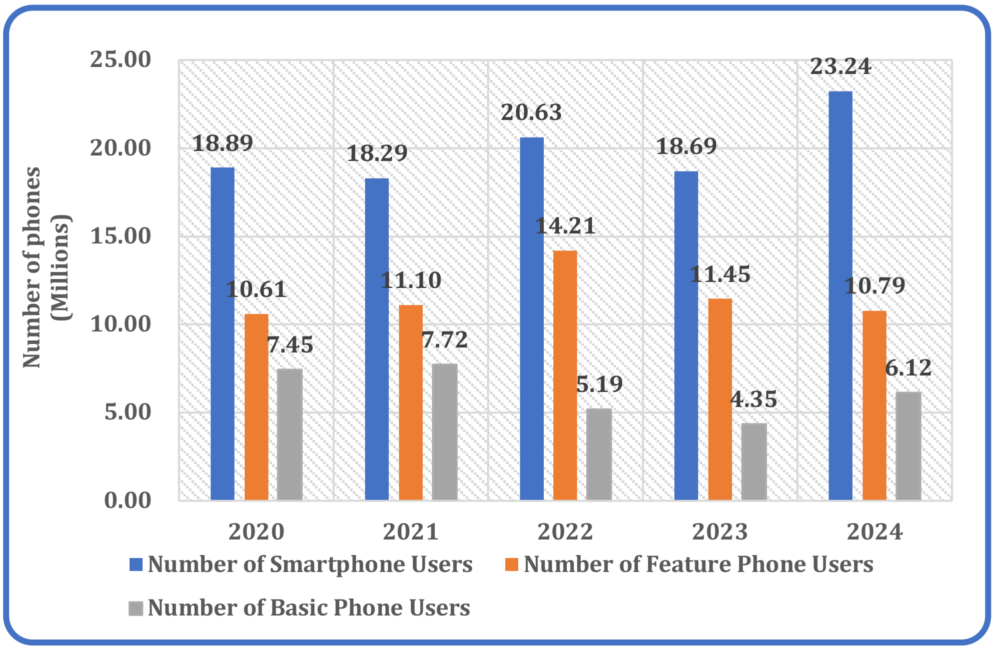

Figure 28: Number of Mobile Phones on the network

1.25.1 Market Share of Mobile Phone Type

The market share for smartphone users increased from 54.19 percent in 2023 to 57.87 percent in 2024. Meanwhile, the feature phone market share decreased from 33.21 percent to 26.88 percent in 2024. Conversely, the basic phone market share rose from 12.61 percent to 15.25 percent in 2024. The market shares of different mobile phone types are shown in Table 17 and Figure 29.

[1] This data covers mobile phones connected to the AT and MTN networks.

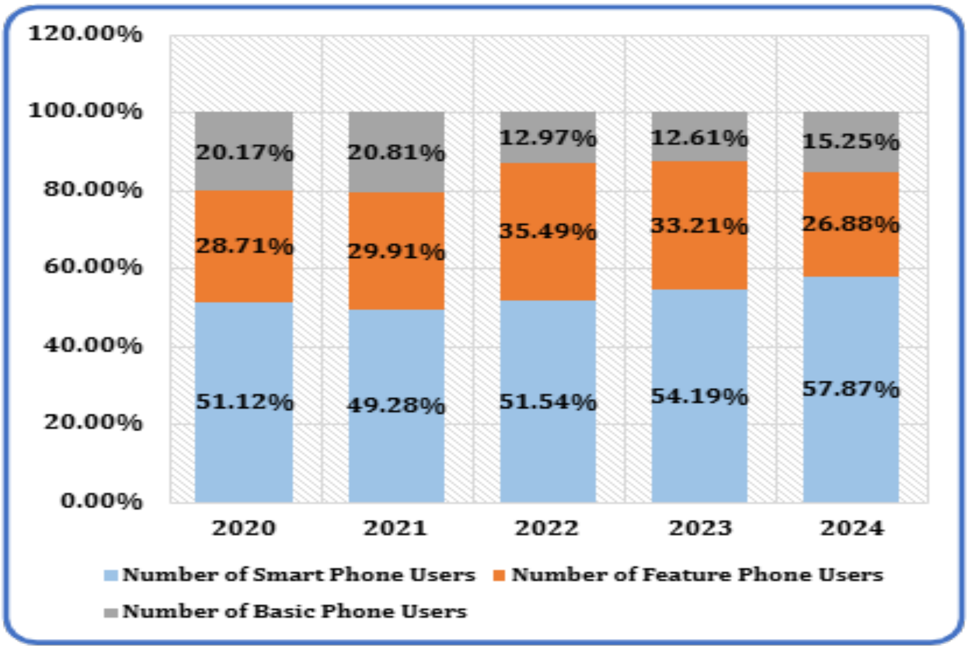

Figure 29: Market Share of Mobile Phone Types

1.25.2 Mobile Phone and Devices on Operator's Network

There was steady growth in mobile phone and device usage, increasing from 36.95 million in 2020 to 40.15 million in 2024. Mobile phones on MTN's network rose from 34.33 million in 2023 to 37.51 million in 2024. Mobile phones on AT's network grew from 0.27 million to 2.64 million in 2024. Mobile phones on Glo's network increased from 0.29 million in 2020 to 0.72 million in 2021. However, Glo discontinued its mobile network services in the telecommunications industry thereafter. Telecel did not provide data on this indicator from 2021 to 2024. The distribution of mobile phones on the network per operator from 2020 to 2024 is shown in Table 17 and Figure 30.

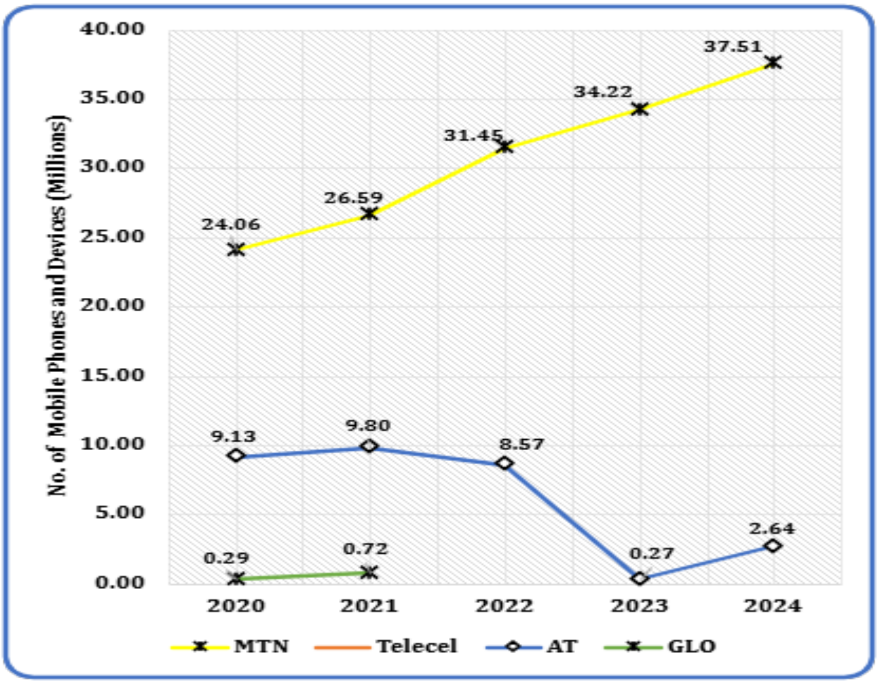

Figure 30: Distribution of mobile phones on the network per operator

Table 17: Types of Mobile Phones connected to the Network

Types of Phones	2020	2021	2022	2023	2024
Number of Smartphone Users	18,889,922	18,288,346	20,626,277	18,686,118	23,236,048
Market Share (%)	51.12	49.28	51.54	54.19	57.87
Number of Feature Phone Users	10,607,310	11,098,344	14,206,200	11,450,697	10792867
Market Share (%)	28.71	29.91	35.49	33.21	26.88
Number of Basic Phone Users	7,454,119	7,723,395	5,190,747	4,347,697	6124118
Market Share (%)	20.17	20.81	12.97	12.61	15.25
Total	**36,951,351**	**37,110,085**	**40,023,224**	**34,484,512**	**40,153,033**

Source: National Communications Authority, 2024

Fixed Network Services

CHAPTER TWO

FIXED NETWORK SERVICES

2.0 Introduction

AT, MTN, and Telecel are the three (3) licensed fixed-line telecommunications operators. The chapter presents a five-year trend analysis of fixed network services from 2020 to 2024.

2.1 Fixed Voice Subscriptions and Penetration Rate (%)

Fixed voice subscriptions declined from 318.46 thousand in 2023 to 269.36 thousand in 2024, a drop of 15.42 percent. Over five years, fixed voice subscriptions decreased at a CAGR of 3.27 percent, from 307.67 thousand in 2020 to 269.36 thousand in 2024.

Subsequently, the penetration rate decreased from 0.98 percent in 2023 to 0.81 percent in 2024. From 2020 to 2024, the fixed voice penetration rate dropped from 0.99 percent to 0.81 percent in 2024, with a negative compound annual growth rate of 4.87 percent. The fixed voice subscriptions and penetration rate from 2020 to 2024 are presented in Table 18 and Figure 31.

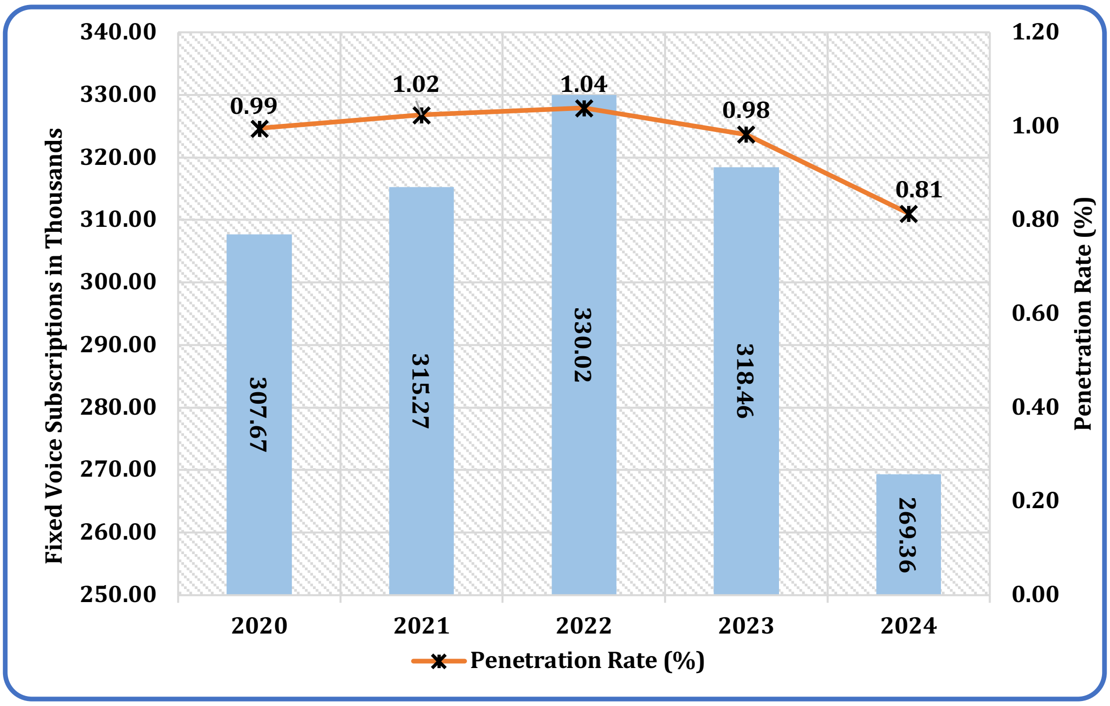

Figure 31: Fixed Voice Subscriptions and Penetration Rate (%)

Table 18: Fixed Voice Subscriptions and Penetration Rate (%)

Subscriptions	2020	2021	2022	2023	2024
Fixed Network Subscriptions	307,668	315,271	330,016	318,460	269,356
Growth Rate (%)	*6.63*	*2.47*	*4.68*	*-3.50*	*-15.42*
Net Additions	19,137	7,603	14,745	-11,556	-49,104
Country Population	30,922,666	30,792,608	31,769,363	32,429,591	33,089,819
Penetration Rate (%)	*0.99*	*1.02*	*1.04*	*0.98*	*0.81*

Source: National Communications Authority, 2024

2.2 Distribution of Fixed Voice Subscriptions by payment method

Fixed prepaid voice subscriptions totalled 135.11 thousand at the end of 2024, accounting for 50.16 percent of the fixed voice subscriptions. Fixed postpaid voice subscriptions also reached 134.25 thousand, representing 49.84 percent of the total fixed voice subscriptions. The fixed voice prepaid and postpaid subscriptions from 2020 to 2024 are shown in Figure 32.

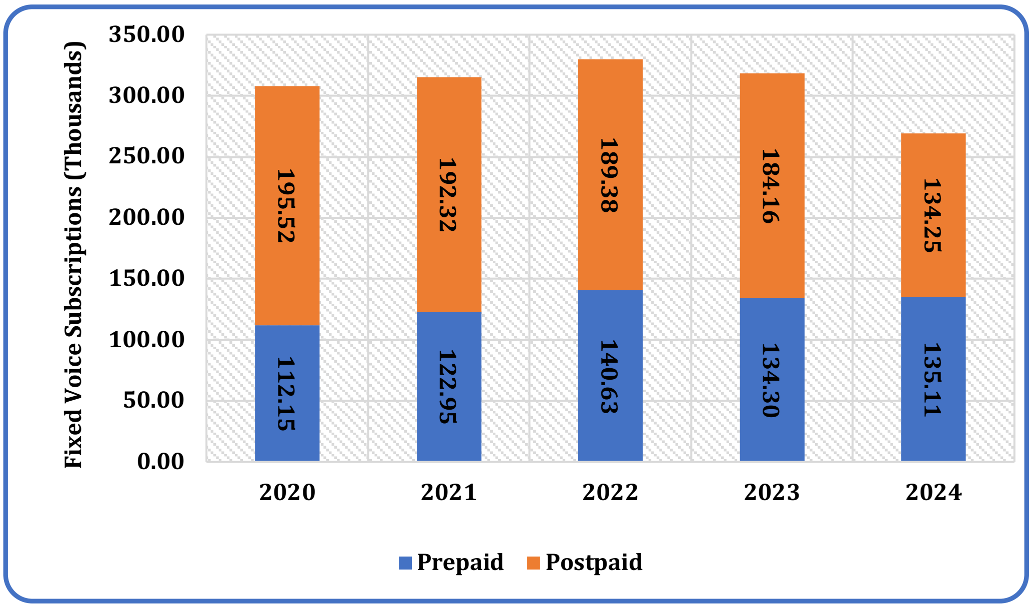

Figure 32: Fixed Voice Prepaid and Postpaid Subscriptions

2.3 Fixed Voice Subscriptions per Operator

Telecel recorded 261,553 fixed voice subscriptions in 2024, representing a decline of 17.26 percent from 316,120 in 2023. Over five years, Telecel's fixed voice subscriptions decreased from 299,802 in 2020 to 261,553 in 2024, with a compound annual growth rate of negative 3.35 percent. AT ended the year with 912 subscriptions, a decrease of 2.25 percent from 933 in 2023. From 2020 to 2024, AT fixed voice subscriptions fell from 6,389 to 912, indicating a negative compound annual growth rate of 38.53 percent. MTN saw a 389.77 percent increase, rising from 1,407 in 2023 to 6,891 in 2024. MTN's fixed voice subscriptions grew from 1,477 in 2020 to 6,891 in 2024, with a compound annual growth rate of 46.97 percent. The fixed voice subscriptions per operator from 2020 to 2024 are shown in Figure 33.

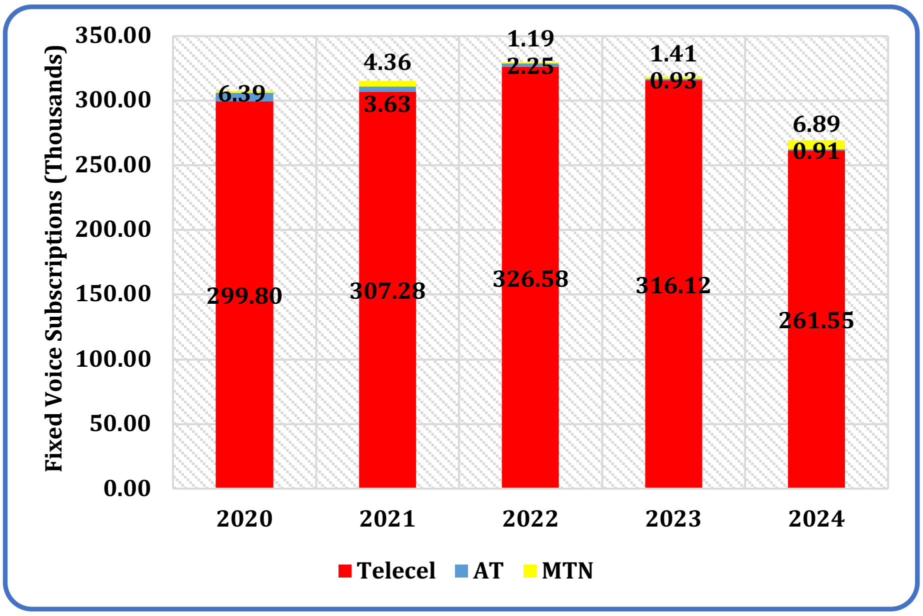

Figure 33: Fixed Voice Subscriptions per Operator

2.4 Fixed Voice Subscriptions Market Share

Telecel's market share of fixed voice subscriptions declined by 2.16 percentage points from 99.27 percent in 2023 to 97.10 percent in 2024. MTN fixed voice subscription market share increased from 0.44 percent in 2023 to 2.56 percent in 2024. AT's market share rose from 0.29 percent in 2023 to 0.34 percent in 2024, indicating a 0.05 percentage point increase. The market share for fixed voice subscriptions in 2024 is shown in Table 19 and Figure 34.

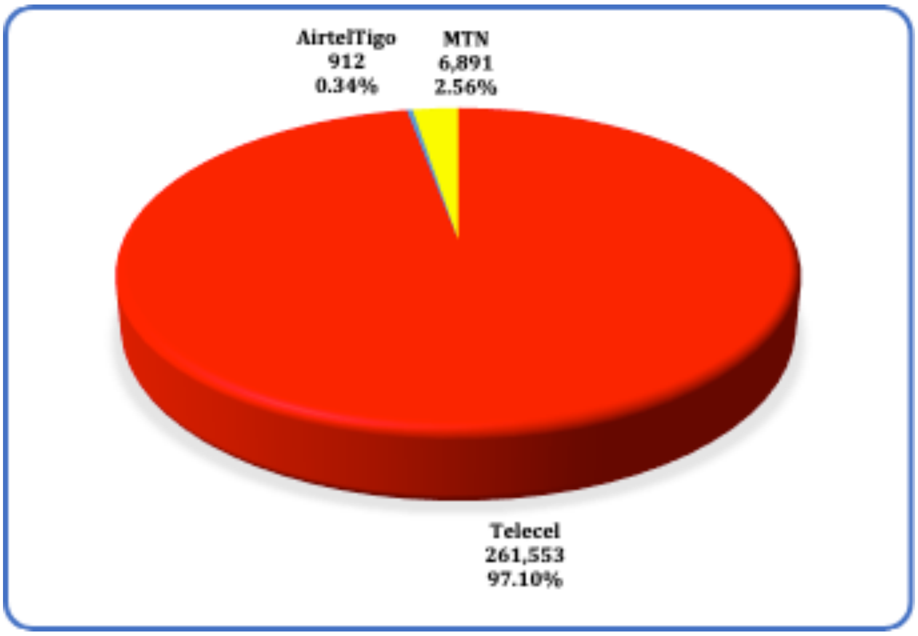

Figure 34: Market share (%) for Fixed Voice Subscriptions

Table 19: Fixed Voice Subscriptions per Operator

Fixed Network Operators		2020	2021	2022	2023	2024
Telecel (Formerly Vodafone)	Subscriptions	299,802	307,278	326,579	316,120	261,553
	Share (%)	*97.44*	97.46	98.96	99.27	97.10
AT (Formerly AirtelTigo)	Subscriptions	6,389	3,634	2,247	933	912
	Share (%)	*2.08*	*1.15*	*0.68*	*0.29*	*0.34*
MTN	Subscriptions	*1477*	4,359	1,190	1,407	6,891
	Share (%)	*0.48*	*1.38*	*0.36*	*0.44*	*2.56*
Total Industry Subscriptions		**307,668**	**315,271**	**330,016**	**318,460**	**269,356**

Source: National Communications Authority, 2024

2.5 Fixed Voice Traffic in Minutes

Traffic generated from fixed voice subscriptions was 29.71 million minutes, down from 37.44 million minutes in 2023, marking a decline of 20.76 percent. Over five years, fixed voice traffic steadily decreased from 39.84 million minutes in 2020 to 36.65 million minutes in 2022. It then increased to 37.44 million minutes in 2023 before dropping to 29.61 million minutes, resulting in a negative compound annual growth rate of 7.15 percent. The fixed voice traffic in minutes from 2020 to 2024 is shown in Table 20 and Figure 35.

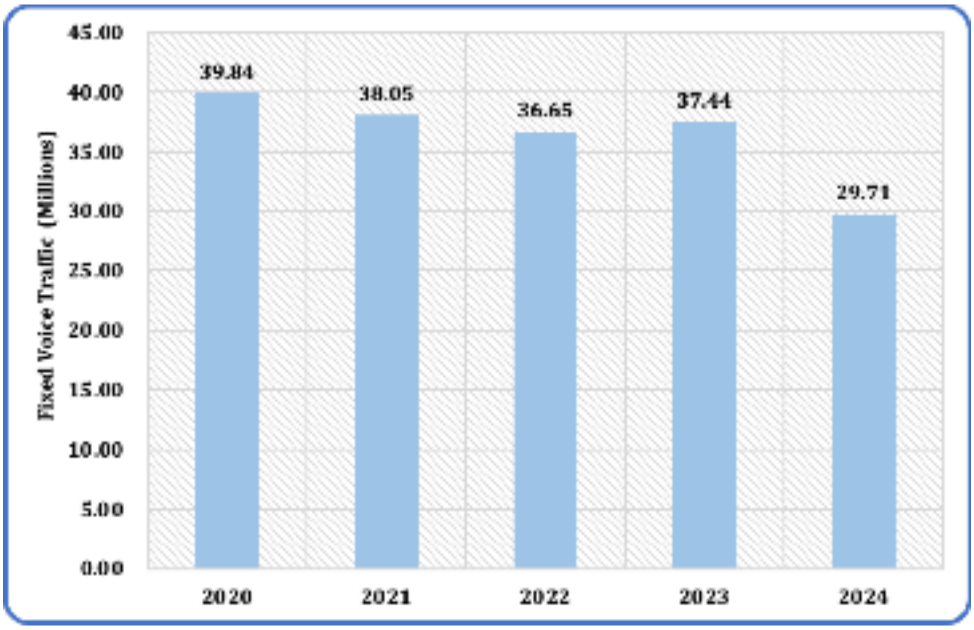

Figure 35: Fixed Voice Traffic in Minutes

Table 20: Fixed Voice Traffic per Operator

Fixed Network Operators		**2020**	**2021**	**2022**	**2023**	**2024**
Telecel (Formerly Vodafone)	Traffic in minutes	35,907,849	37,144,772	36,635,138	37,330,800	29,668,101
	Share (%)	*90.14*	*97.63*	*99.96*	*99.71*	*99.86*
AT (Formerly AirtelTigo)	Traffic in minutes	3,926,459	873,298	15,032	40,457	947
	Share (%)	*9.86*	*2.30*	*0.04*	*0.11*	*0.00*
MTN	Traffic in minutes	*1294*	28,265	739	67,034	41,925
	Share (%)	*0.00*	*0.07*	*0.00*	*0.18*	*0.14*
Total Fixed Voice Traffic		**39,835,602**	**38,046,335**	**36,650,909**	**37,438,291**	**29,710,973**

Source: National Communications Authority, 2024

2.6 Fixed Data Subscription & Penetration Rate (%)

Fixed data subscriptions increased from 77,022 in 2020 to 113,722 in 2021 but then declined to 102,952 in 2022. However, subscriptions rose again from 102,952 in 2022 to 116,860 in 2023, and by 8.46 percent to 126,742 in 2024. Overall, Fixed Data Subscriptions saw a 13.26 percent compound annual growth from 2020 to 2024. The penetration rate grew from 0.25 percent in 2020 to 0.37 percent in 2021, then decreased to 0.32 percent in 2022 before rising again to 0.38 percent in 2024. The details on fixed data subscriptions and penetration rate from 2020 to 2024 are shown in Table 21 and Figure 36.

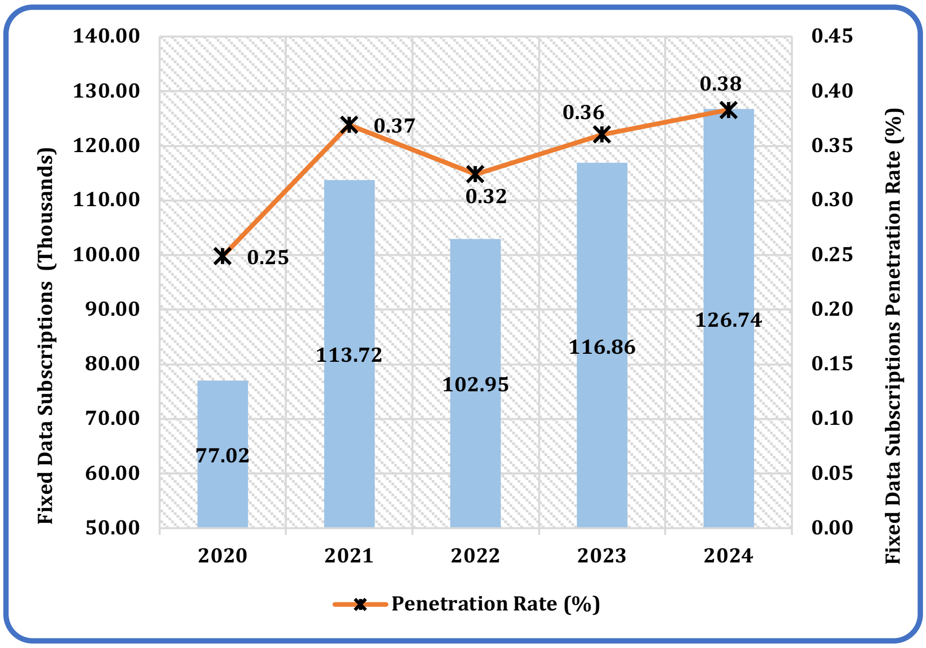

Figure 36: Fixed Data Subscriptions and Penetration Rate (%)

Table 21: Fixed Data Subscriptions and Penetration Rate (%)

Subscriptions	**2020**	**2021**	**2022**	**2023**	**2024**
Fixed Network Subscriptions	77,022	113,722	102,952	116,860	126,745
Growth Rate (%)	*34.00*	*47.65*	*-9.47*	*13.51*	*8.46*
Net Additions	19,629	36,700	-10,770	13,908	9,882
Country Population	30,922,666	30,792,608	31,769,363	32,429,591	33,089,811
Penetration Rate (%)	*0.25*	*0.37*	*0.32*	*0.36*	*0.38*

Source: National Communications Authority, 2024

2.7 Fixed Data Subscriptions per Operator

Telecel fixed data subscriptions increased from 80,465 in 2023 to 84,307 in 2024, recording a 4.77 percent growth rate. Over five years, Telecel fixed data subscriptions grew at a compound annual growth rate of 7.86 percent, from 62,284 subscriptions in 2020 to 84,307 in 2024.

MTN's fixed data subscription increased from 14,038 in 2020 to 42,041 in 2024, indicating a compound annual growth rate of 31.55 percent. It also rose by 16.63 percent from 36,047 in 2023 to 42,041 in 2024.

AT recorded 394 fixed data subscriptions in 2024, up from 348 in 2023, reflecting a 13.22 percent increase. However, AT's fixed data subscriptions declined from 700 in 2020 to 394 in 2024, with a negative compound annual growth rate of 13.38 percent. The fixed data subscriptions per operator from 2020 to 2024 are shown in **Error! Reference source not found.** and Figure 37.

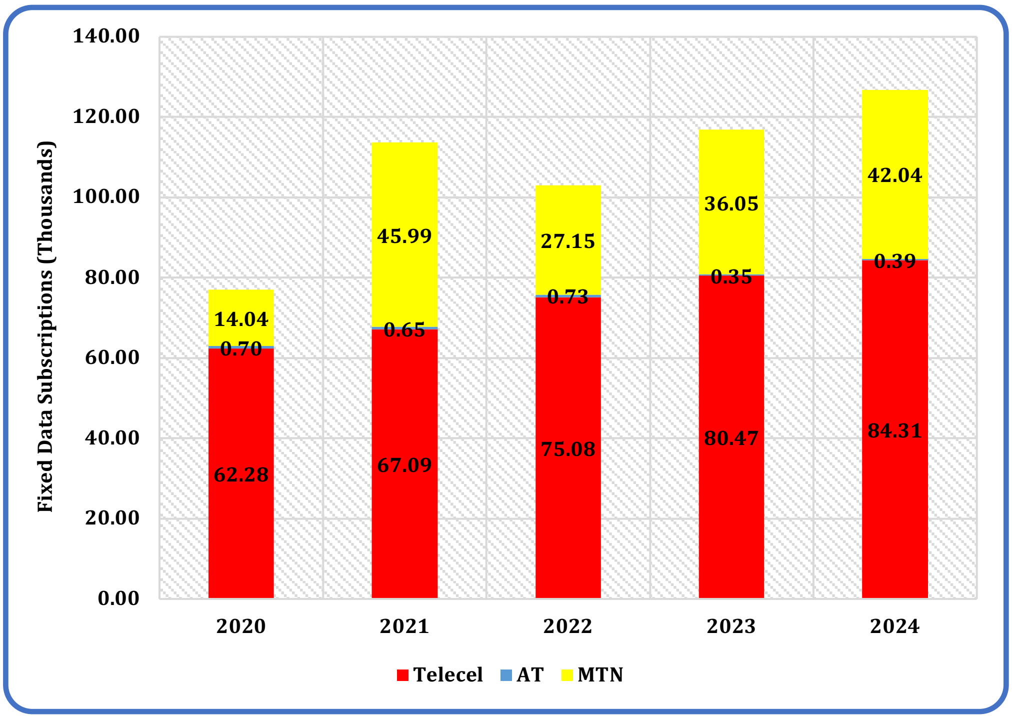

Figure 37: Fixed Data Subscriptions per Operator

2.8 Market Share (%) per Operator

Over the five years, Telecel's market share declined from 80.87 percent in 2020 to 66.52 percent in 2024. MTN fixed data subscriptions' market share doubled from 18.23 percent in 2020 to 33.17 percent in 2024. AT's fixed data subscriptions accounted for 0.91 percent of the market share in 2020 and decreased to 0.31 percent in 2024. The market share of fixed data subscriptions from 2020 to 2024 is shown in Table 22 and Figure 38.

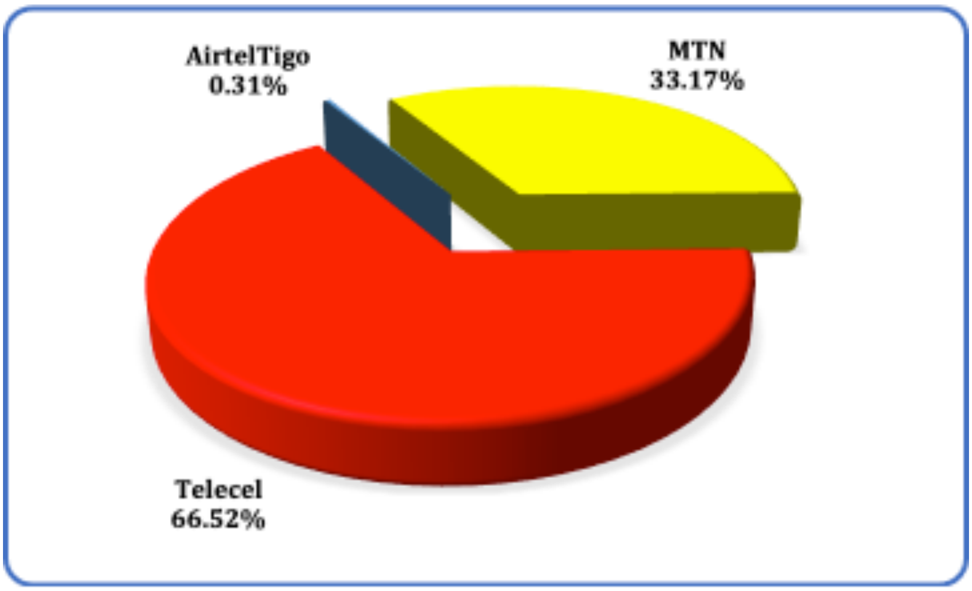

Figure 38: Market Share (%) of Fixed Data Subscriptions

Table 22: Fixed Data Subscriptions per Operator

Fixed Network Operator		2020	2021	2022	2023	2024
Telecel	Subscriptions	62,284	67,086	75,078	80,465	84,307
	Shares (%)	80.87	58.99	72.93	68.86	66.52
AT	Subscriptions	700	649	726	348	394
	Shares (%)	*0.91*	*0.57*	*0.71*	*0.30*	*0.31*
MTN	Subscriptions	14,038	45,987	27,148	36,047	42,041
	Shares (%)	*18.23*	*40.44*	*26.37*	*30.85*	*33.17*
Total Industry Subscriptions		**77,022**	**113,722**	**102,952**	**116,860**	**126,742**

Source: National Communications Authority, 2024

2.9 Fibre Broadband Subscriptions and Penetration Rate (%)

Fibre broadband subscriptions at the end of 2024 numbered 221,153, down from 223,278 in 2023, reflecting a decline of 0.95 percent. Since 2020, fibre broadband subscriptions have grown from 89,456 to 221,153 in 2024, with a compound annual growth rate of 28.55 percent.

The penetration rate for fibre broadband increased from 0.29 percent in 2020 to 0.67 percent in 2024. The fibre broadband subscriptions and penetration rates from 2020 to 2024 are shown in Table 23 and Figure 39.

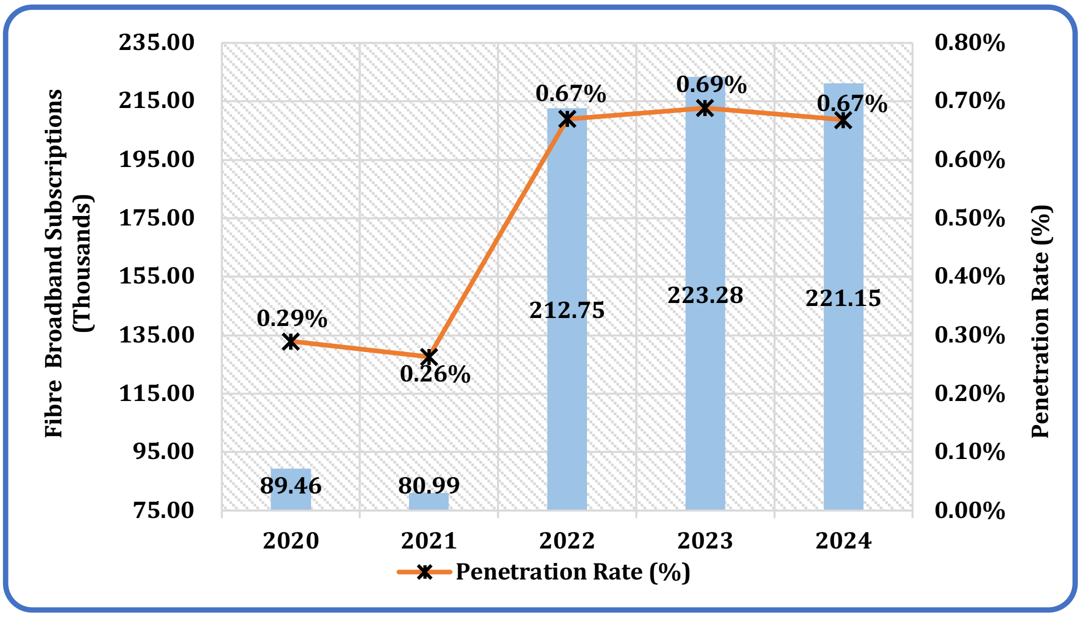

Figure 39: Fibre Broadband Subscriptions and Penetration Rate (%)

2.10 Fibre Broadband Subscription per Operator

MTN fibre broadband subscriptions declined from 29,924 in 2020 to 16,533 in 2021, then sharply increased to 144,967 in 2023. MTN recorded 139,267 subscriptions, representing 64.93 per cent of the total in 2024. Over the five years, Telecel subscriptions steadily grew from 59,532 in 2020 to 81,886 in 2024, accounting for the remaining 35.07 percent of the market share. The fibre broadband subscriptions per operator from 2020 to 2024 are shown in Table 23 and Figure 40.

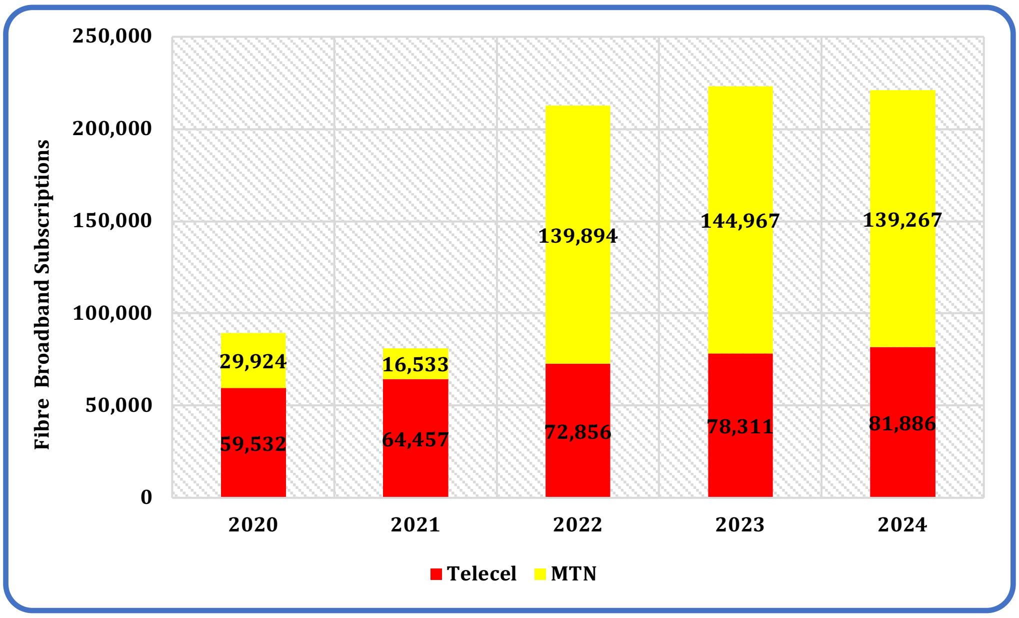

Figure 40: Fibre Broadband Subscriptions per Operator

Table 23: Fibre Broadband Subscriptions per Operator

Fibre Broadband Operator		2020	2021	2022	2023	2024
Telecel	Subscriptions	59,532	64,457	72,856	78,311	81,886
	Shares (%)	*66.55*	*79.59*	*34.24*	*35.07*	*37.03*
MTN	Subscriptions	29,924	16,533	139,894	144,967	139,267
	Shares (%)	*33.45*	*20.41*	*65.76*	*64.93*	*62.97*
Total		**89,456**	**80,990**	**212,750**	**223,278**	**221,153**

Source: National Communications Authority, 2024

2.11 Fibre Broadband Traffic[2]

Fibre broadband traffic gradually increased from 232.56 million gigabytes in 2021 to 306.83 million gigabytes in 2023. The traffic rose by 10.92 percent, from 276.62 million gigabytes in 2022 to 306.83 million gigabytes in 2023. The fibre broadband traffic from 2020 to 2024 is shown in Figure 41.

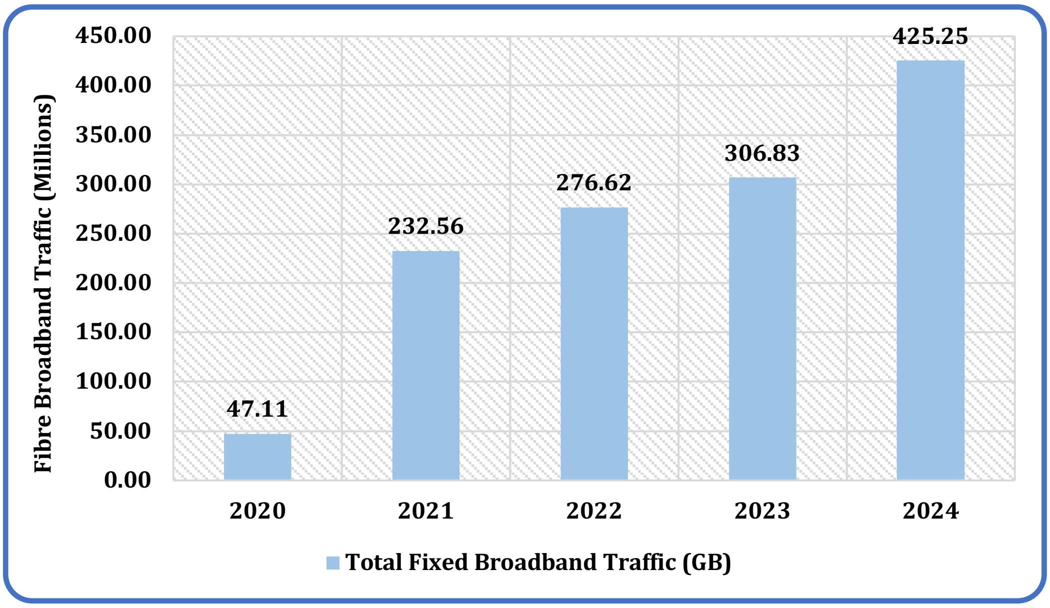

Figure 41: Fibre Broadband Traffic

[2] The fibre broadband traffic for 2020 was collected for the months of October, November and December 2020.

2.12 Fibre Broadband Traffic per market share

Telecel subscriptions accounted for 51.92 percent of total fibre broadband traffic in the market, while MTN subscriptions made up 48.08 percent. The fibre broadband traffic per operator in 2024 is shown in Figure 42.

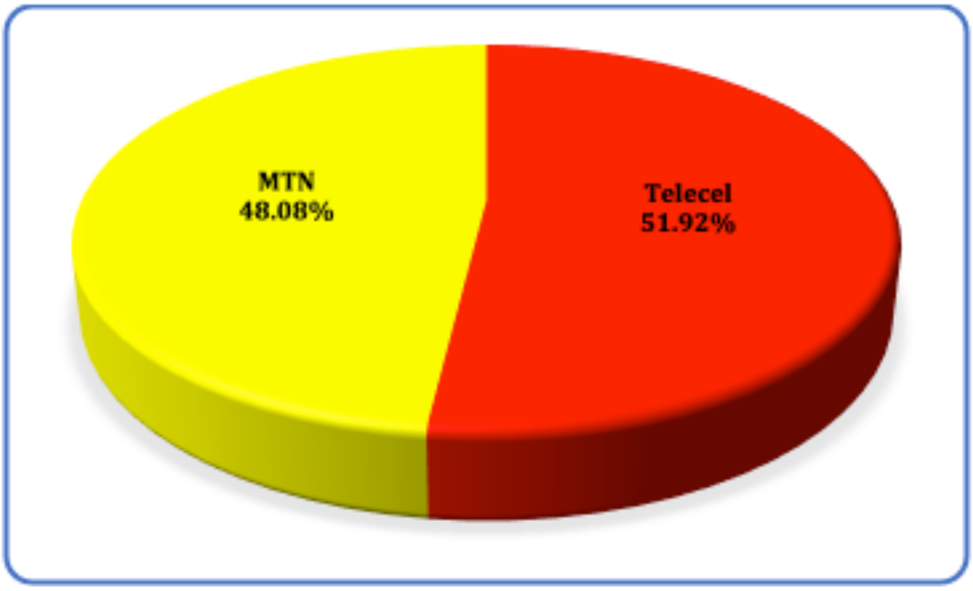

Figure 42: Fibre Broadband Traffic per Operator

Table 24: Fibre Broadband Traffic

Fibre Network Operator		2020	2021	2022	2023	2024
Telecel	Traffic	30,360,312	126,533,459	157,793,466	201,680,600	220,774,331
	Shares (%)	*64.44*	*54.41*	*57.04*	*65.73*	*51.92*
MTN	*Traffic*	*16,750,138*	106,031,417	118,824,426	105,153,657	204,479,640
	Shares	*35.56*	*45.59*	*42.96*	*34.27*	*48.08*
Total Traffic (GB)		**47,110,450**	**232,564,876**	**276,617,892**	**306,834,257**	**425,253,971**

Source: National Communications Authority, 2024

Broadband Wireless Access

CHAPTER THREE

BROADBAND WIRELESS ACCESS

3.0 Introduction

By 2023, four (4) out of five (5) Broadband Wireless Access (BWA) providers had ceased operations; namely Surfline, BBH, Busy, and Blu. Telesol remained the only licensed provider still in operation. This chapter presents an analysis of subscriptions, penetration, and traffic volume.

3.1 BWA Subscriptions and Penetration Rate (%)

Broadband Wireless Access (BWA) subscriptions dropped from 44,247 in 2022 to 1,431 in 2023, reflecting a 96.77 percent decrease. They rose slightly to 1,454 subscriptions by the end of 2024. Broadband Wireless subscriptions ranged from 47,108 in 2019 to 1,454 in 2024, showing a negative compound annual growth rate of 58.25 percent over the five years. The penetration rate remained at 0.04 percent in 2024, unchanged from 2023. BWA subscriptions and penetration rates from 2020 to 2024 are shown Table 25 and Figure 43.

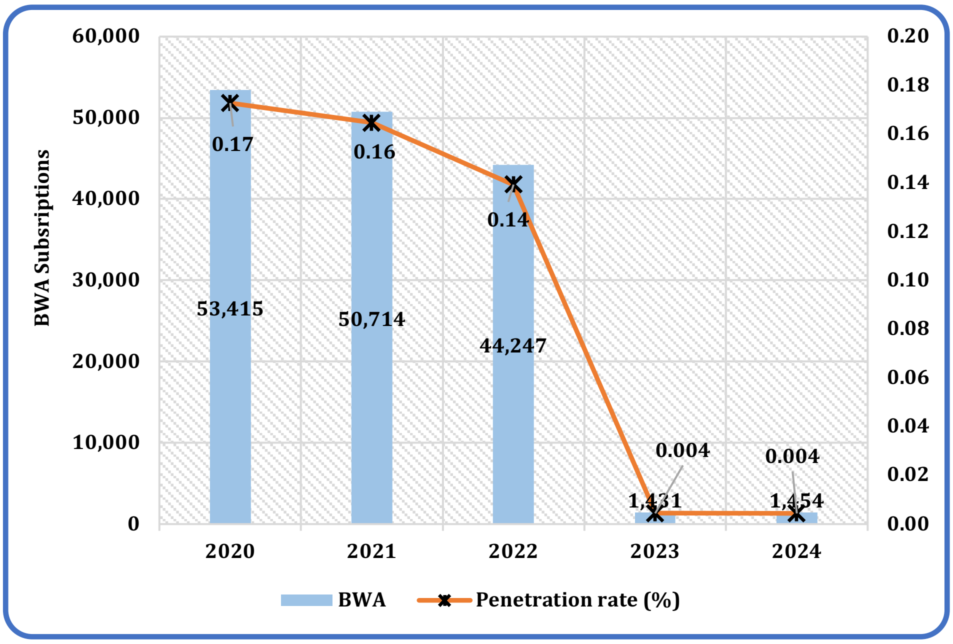

Figure 43: BWA Subscriptions and Penetration Rate

Table 25: BWA Subscriptions and Penetration Rate (%)

Subscriptions	2020	2021	2022	2023	2024
BWA	53,415	50,714	44,247	1,431	1,454
Growth rate (%)	*13.39%*	*-5.06%*	*-12.75%*	*-96.77%*	*1.61*
Net Additions	6,307	-2,701	-6,467	-42,816	23
Population	30,922,666	30,792,608	31,769,363	32,429,591	33,089,819
Penetration rate (%)	*0.17%*	*0.16%*	*0.14%*	*0.0044%*	*0.004%*

Source: National Communications Authority, 2024

3.2 BWA Subscriptions per Operator

Telesol ended 2024 with 1,454 subscriptions, a slight increase of 23 compared to the previous year. With Telesol's subscription, they remained the sole providers in the BWA market throughout 2024. The BWA Subscriptions per Operator from 2020 to 2024 are shown in

Table 26 and Figure 44.

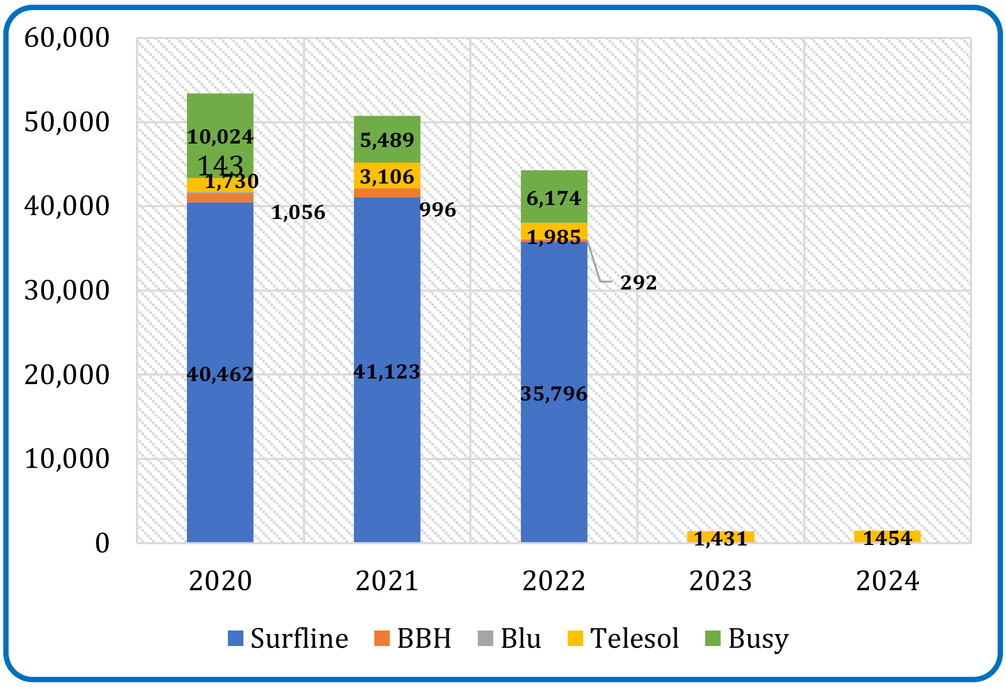

Figure 44: BWA Subscriptions per Operator

Table 26: BWA Subscriptions per Operator

Source: National Communications Authority, 2024

BWA Operator		2020	2021	2022	2023	2024
Surfline	Subscriptions	40,462	41,123	35,796		
	Growth rate (%)	*-7.48*	*1.63*	*-12.95*		
	Market Share (%)	*75.75*	*81.09*	*80.90*		
BBH	Subscriptions	1,056	996	292		
	Growth rate (%)	-0.19	-5.68	-70.68		
	Market Share (%)	1.98	1.96	0.66		
Blu	Subscriptions	143	n/a	n/a		
	Growth rate (%)	-32.23	n/a	n/a		
	Market Share (%)	0.27	n/a	n/a		
Busy	Subscriptions	10,024	5,489	6,174		
	Growth rate (%)	n/a	-45.24	12.48		
	Market Share (%)	18.77	10.82	13.95		
Telesol	Subscriptions	1,730	3,106	1,985	1,431	1,454
	Growth rate (%)	n/a	79.54	-36.09	-27.91	1.61
	Market Share (%)	3.24	6.12	4.49	100.00	100.00
Total		**53,415**	**50,714**	**44,247**	**1,431**	**1,454**

3.3 BWA Traffic in Gigabytes

Total data traffic generated by BWAs at the end of 2024 was 825,231 gigabytes, indicating a decrease of 5.25 percent from 870,950 gigabytes in the previous year. The BWA traffic in gigabytes from 2020 to 2024 is shown in Table 27 and Figure 45.

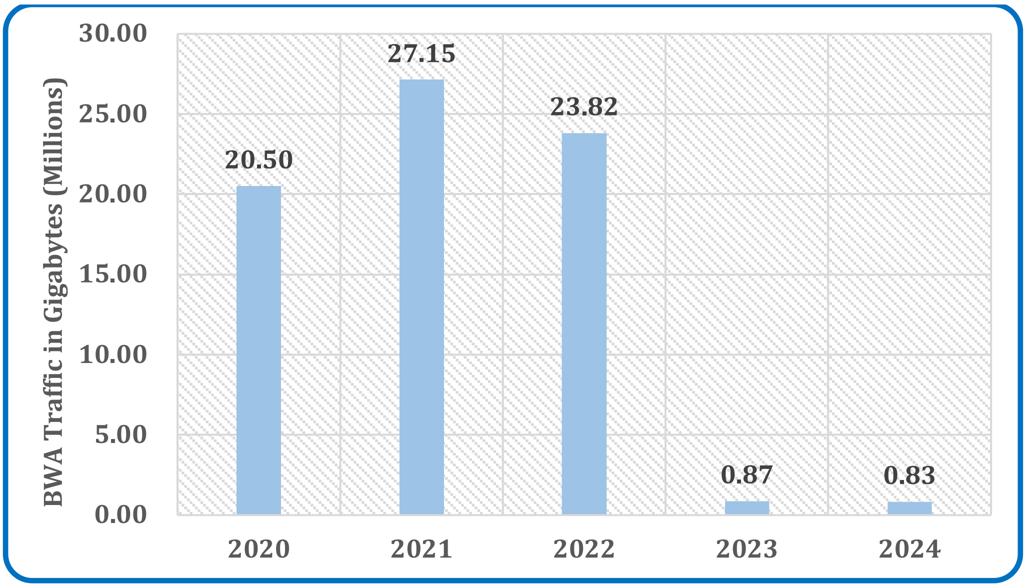

Figure 45: BWA Traffic in Gigabytes (Millions)

3.4 BWA Traffic per Operator

Telesol generated 825,231 gigabytes of data traffic during the year under review, down from 870,950 gigabytes, indicating a 17.37 percent decline in growth. The BWA Traffic per Operator from 2020 to 2024 is shown in Table 27 and Figure 46.

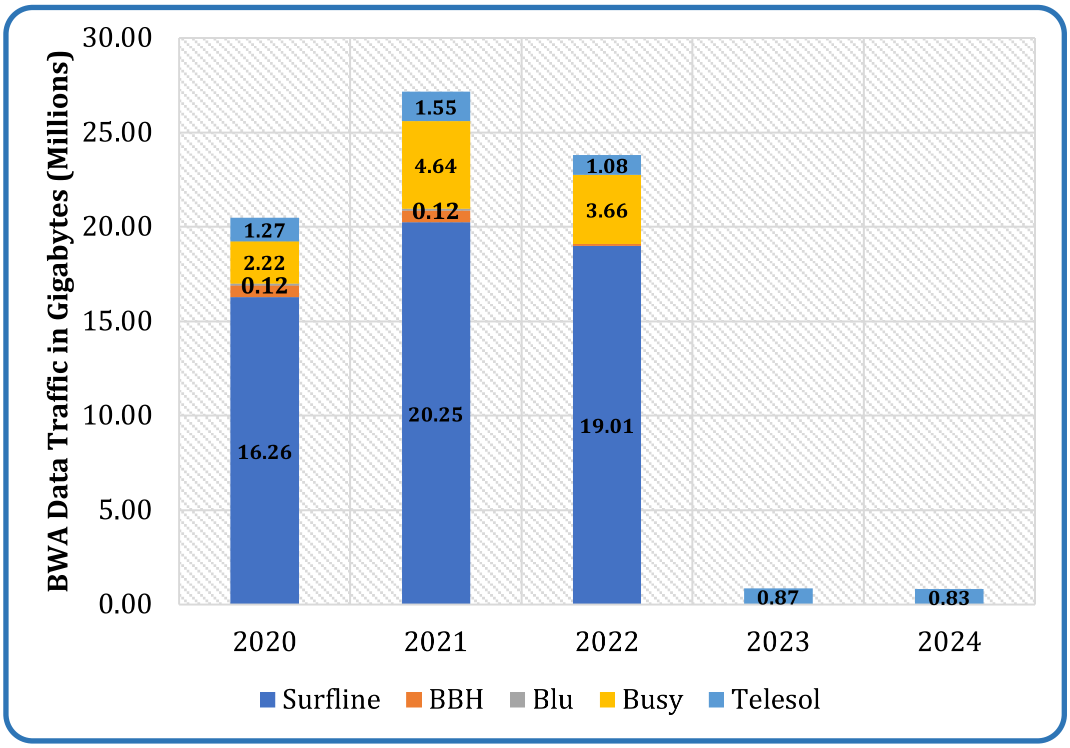

Figure 46: BWA Traffic per Operator

Table 27: BWA Traffic in Gigabytes per Operator

	2020	2021	2022	2023	2024
Surfline	16,263,920	20,247,645	19,005,586		
BBH	621,066	593,566	75,478		
Blu	119,969	118,983			
Busy	2223327	4,635,201	3,655,594		
Telesol	1,268,272	1,553,628	1,079,396	870,950	825,231
Total	**20,496,554**	**27,149,023**	**23,816,054**	**870,950**	**825,231**

Source: National Communications Authority, 2024

3.5 Internet Service Providers

By the end of 2024, the Authority had granted authorisation to 79 Internet Service Providers, up from 19 in the previous year. Over five years, it increased from 27 authorisations in 2020 to 79 in 2024, reflecting a 30.79 percent compound annual growth rate. The authorised Internet Service Providers from 2020 to 2024 are shown in Table 28 and Figure 64.

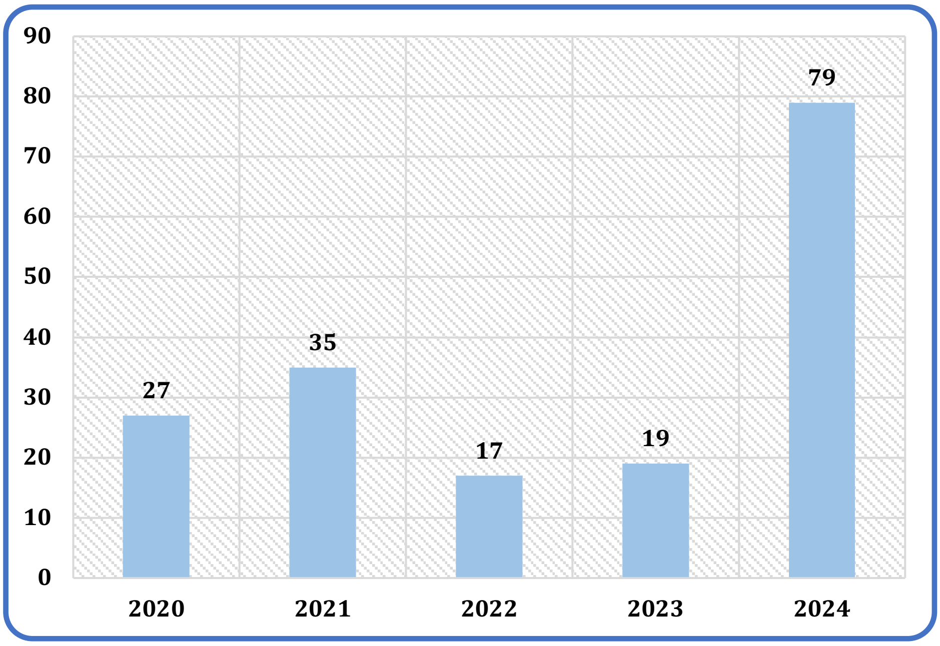

Figure 47: Authorised Internet Service Providers

Table 28: Internet Service Providers

Year	2020	2021	2022	2023	2024
Number of Authorised ISPs	27	35	17	19	79

Source: National Communications Authority, 2024

Broadcasting Services

CHAPTER FOUR

BROADCASTING SERVICES

4.0 Introduction

This chapter provides information on Frequency Modulation (FM), television (TV) broadcasting, amateur radio, maritime, and aeronautical radio services in Ghana.

4.1 Types of Authorised Frequency Modulation (FM) stations

In the reference year, 805 FM stations were authorised. A total of 549 FM stations (68.20%) were operational, while 256 stations were not in operation (31.80%). Of the authorised FM stations, 583 (72.42%) were Commercial FM stations, 161 (20.00%) were Community FM stations, 31 (3.85%) were public FM stations, 25 (3.11%) were campus FM stations, and 5 (0.62%) were Public (Foreign) FM stations. The types of authorised FM stations as of 2024 are shown in Table 29 and Figure 47.

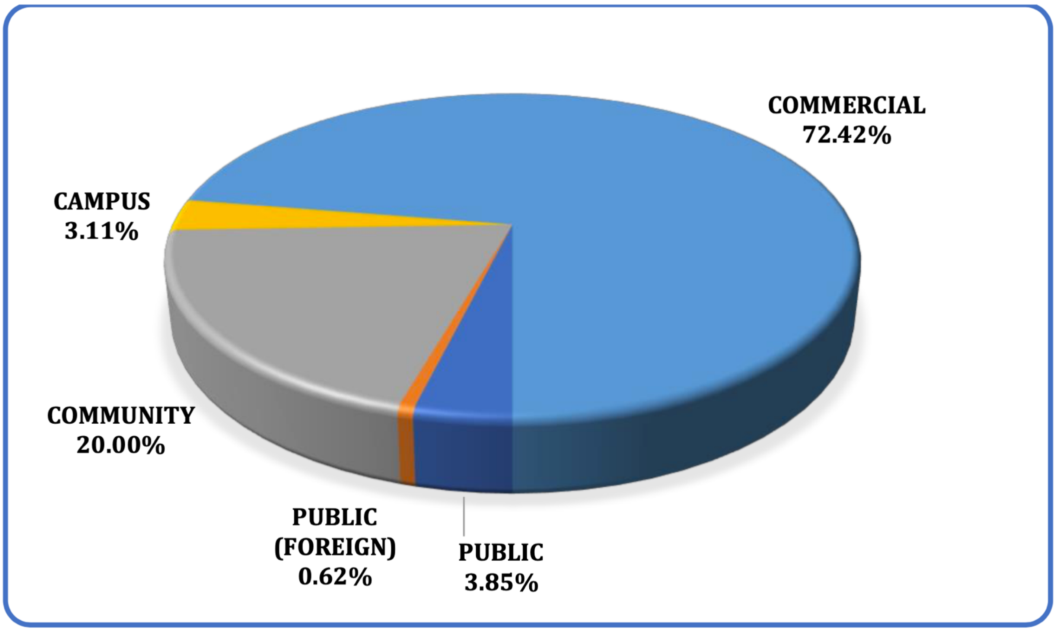

Figure 48: Types of Authorised FM Station

4.2 Regional Distribution of Authorised FM Stations

The Ashanti Region has the highest number of authorised FM stations, with 117 radio stations, while the North East has the fewest, with 13 authorised FM stations. The regional distribution of authorised FM stations as of the end of 2024 is shown in Table 29 and Figure 48.

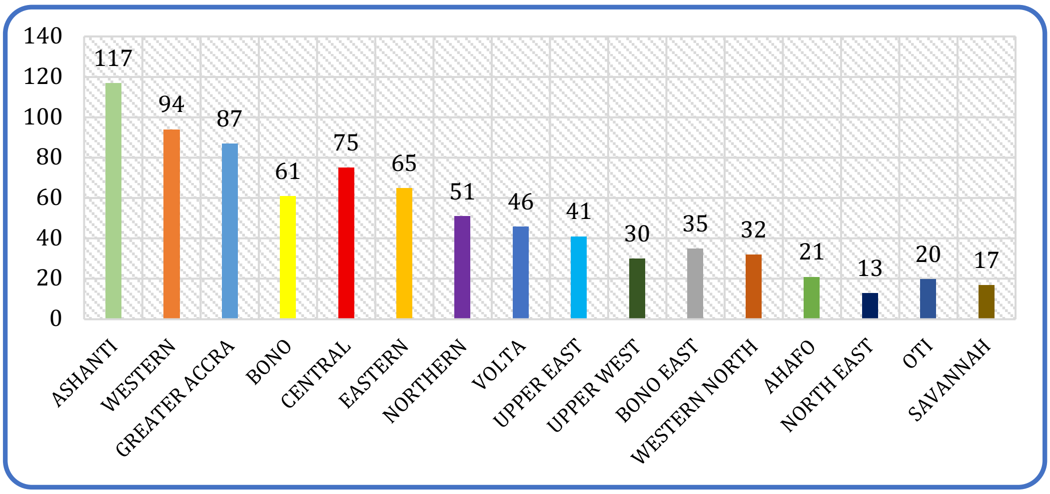

Figure 49: Regional Distribution of Authorised FM Stations

Table 29: Regional Distribution of Authorised FM in Ghana as at the end of 2024

NO.	NAME OF REGIONS	TOTAL NO. AUTHORISED	PUBLIC	PUBLIC (FOREIGN)	COMMUNITY	CAMPUS	COMMERCIAL	TOTAL NO. IN OPERATION	TOTAL NO. NOT IN OPERATION
1	ASHANTI	**117**	2	1	28	5	81	86	31
2	BONO	**94**	2	1	9	2	80	62	32
3	BONO EAST	**87**	2	3	17	3	62	70	17
4	AHAFO	**61**	1	0	6	3	51	48	13
5	CENTRAL	**75**	2	0	20	4	49	48	27
6	EASTERN	**65**	2	0	24	1	38	46	19
7	GREATER ACCRA	**51**	3	0	9	1	38	27	24
8	NORTHERN	**46**	3	0	4	1	38	32	14
9	SAVANNAH	**41**	2	0	11	3	25	27	14
10	NORTH EAST	**30**	2	0	10	2	16	20	10
11	UPPER EAST	**35**	2	0	7	0	26	28	7
12	UPPER WEST	**32**	3	0	0	0	29	18	14
13	VOLTA	**21**	0	0	4	0	17	12	9
14	OTI	**13**	1	0	3	0	9	3	10
15	WESTERN	**20**	1	0	3	0	16	11	9
16	WESTERN NORTH	**17**	3	0	6	0	8	11	6
TOTAL		**805**	**31**	**5**	**161**	**25**	**583**	**549**	**256**

Source: National Communications Authority, 2024

4.3 Types of Television Broadcasting Platforms

At the end of 2024, there were 181 authorised television stations, of which 133 were operational (73.48 percent) and 48 were not operational (26.52 percent).

There are four (4) platforms through which TV signals are transmitted in Ghana: satellite, terrestrial, cable, and internet. Satellite television stations account for 64.09 percent of the authorised TV stations, with 116 stations, while terrestrial stations make up 34.81 percent, with 63 stations. One television station has been authorised for cable and internet respectively, each representing 0.55 percent of the market. The types of TV broadcasting platforms as of the end of 2024 are shown in Table 30 and Figure 49.

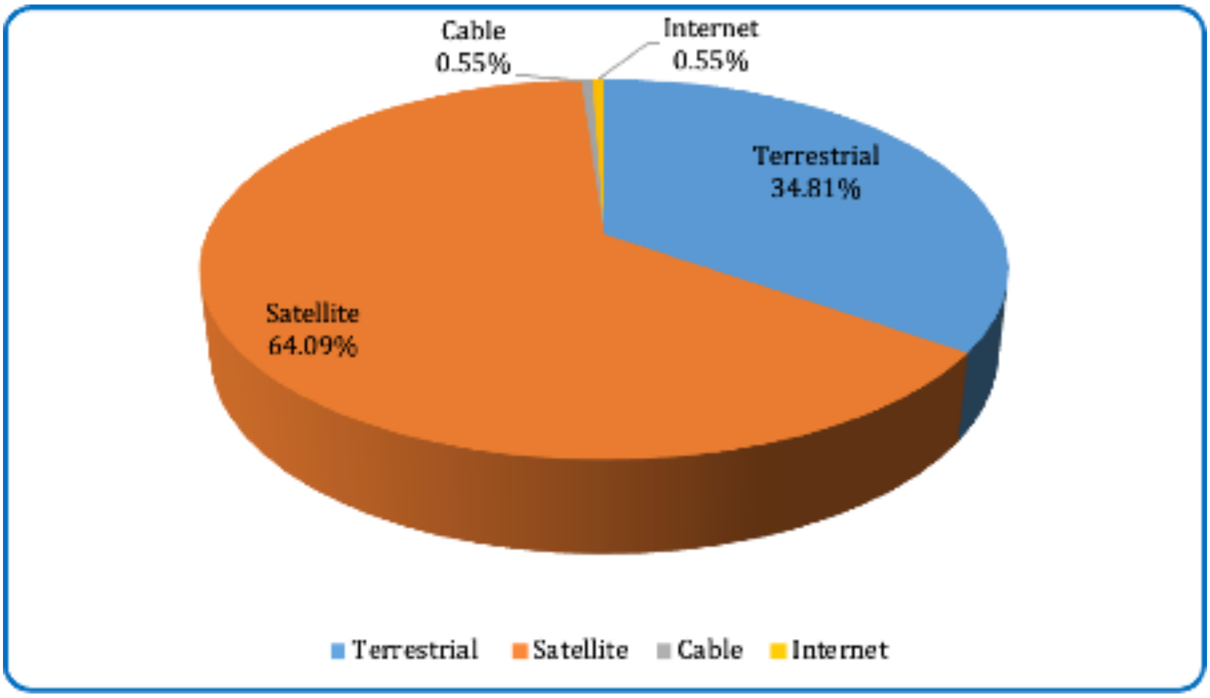

Figure 50: Types of TV Broadcasting Platforms

4.4 Categories of Television Services

The Authority authorised 14 categories of Television Services. The most authorised TV category is Satellite Television Broadcasting (Free-to-home direct-to-home bouquet) with 104 TV stations. The categories of television services as of the end of 2024 are shown in Table 30 and Figure 50.

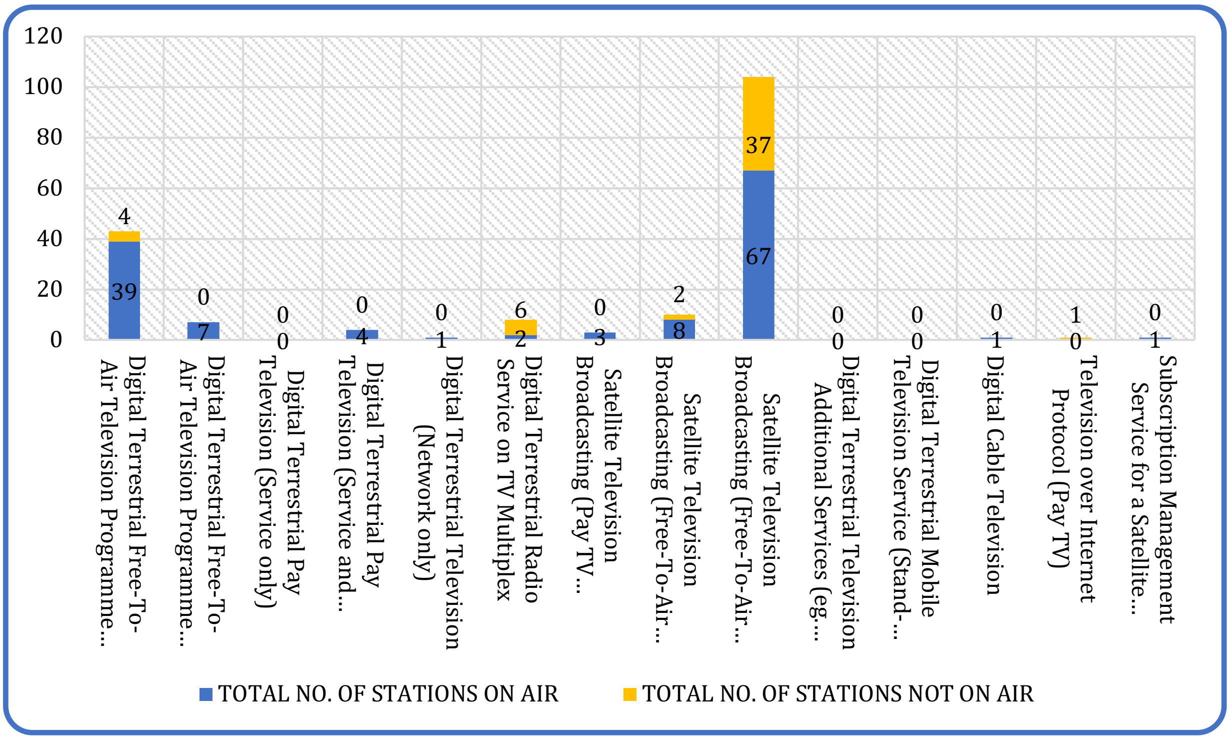

Figure 51: Categories of Television Services

Table 30: Categories of TV Stations as at the end of 2024

NO.	TYPE OF TELEVISION SERVICE	TOTAL NO. OF AUTHORISED STATIONS	TOTAL NO. OF STATIONS ON AIR	TOTAL NO. OF STATIONS NOT ON AIR
1	Digital Terrestrial Free-To-Air Television Programme Channel (Nationwide Coverage)	43	39	4
2	Digital Terrestrial Free-To-Air Television Programme Channel (Regional Coverage)	7	7	0
3	Digital Terrestrial Pay Television (Service only)	0	0	0
4	Digital Terrestrial Pay Television (Service and Network)	4	4	0
5	Digital Terrestrial Television (Network only)	1	1	0
6	Digital Terrestrial Radio Service on TV Multiplex	8	2	6
7	Satellite Television Broadcasting (Pay TV Direct-To-Home Bouquet)	3	3	0
8	Satellite Television Broadcasting (Free-To-Air Direct-To-Home Bouquet)	8	8	2
9	Satellite Television Broadcasting (Free-To-Air Direct-To-Home Single Channel)	104	67	37
10	Digital Terrestrial Television Additional Services (e.g. Teletext, etc.)	0	0	0

11	Digital Terrestrial Mobile Television Service (Stand-alone Authorisation)	0	0	0
12	Digital Cable Television	1	1	0
13	Television over Internet Protocol (Pay TV)	1	0	1
14	Subscription Management Service for a Satellite Television Broadcasting (Pay TV Direct-To-Home Bouquet)	1	1	0
TOTAL NO. OF AUTHORISED TV STATIONS		181	133	50

Source: National Communications Authority, 2024

4.5 Amateur Radio Services

At the end of the reference period, 35 amateur radio licences were issued. Twenty-seven (27) of these were advanced stations, representing 77.14 percent; 17.14 per cent, with six licences, were for intermediate stations; and two licences, representing 5.71 per cent, were for beginner stations.

From 2020 to 2024, the number of amateur radio licences decreased from 41 to 35 licences, with a compound annual growth rate of negative 3.88 percent. The total number of amateur radio licences is shown in Table 31 and Figure 51.

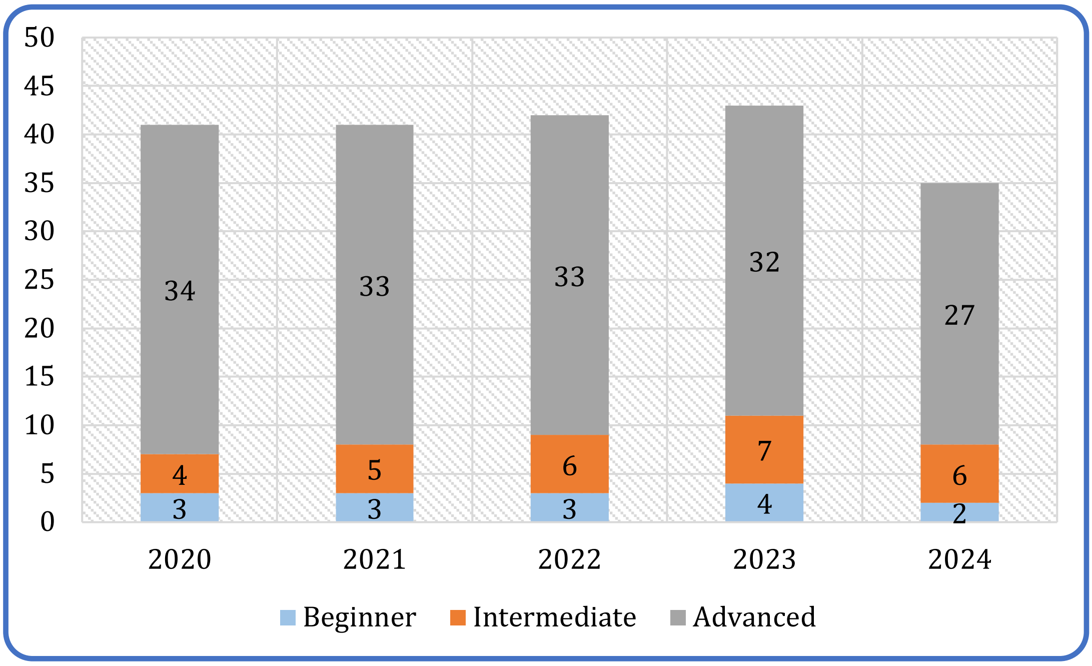

Figure 52: Total Number of Amateur Radio Licences

Table 31: Amateur Radio Services

Class Options	2020	2021	2022	2023	2024
Beginner	3	3	3	4	2
Intermediate	4	5	6	7	6
Advanced	34	33	33	32	27
Total	41	41	42	43	35

Source: National Communications Authority, 2024

4.6 Maritime Radio Service

By the end of 2024, the number of authorisations issued for maritime radio services increased by 21.95 percent to 50 from 41 in 2023. The compound annual growth rate over five years was negative 8.56 percent, rising from 36 in 2020 to 50 in 2024. The total number of maritime licences from 2020 to 2024 is shown in Table 32 and Figure 52.

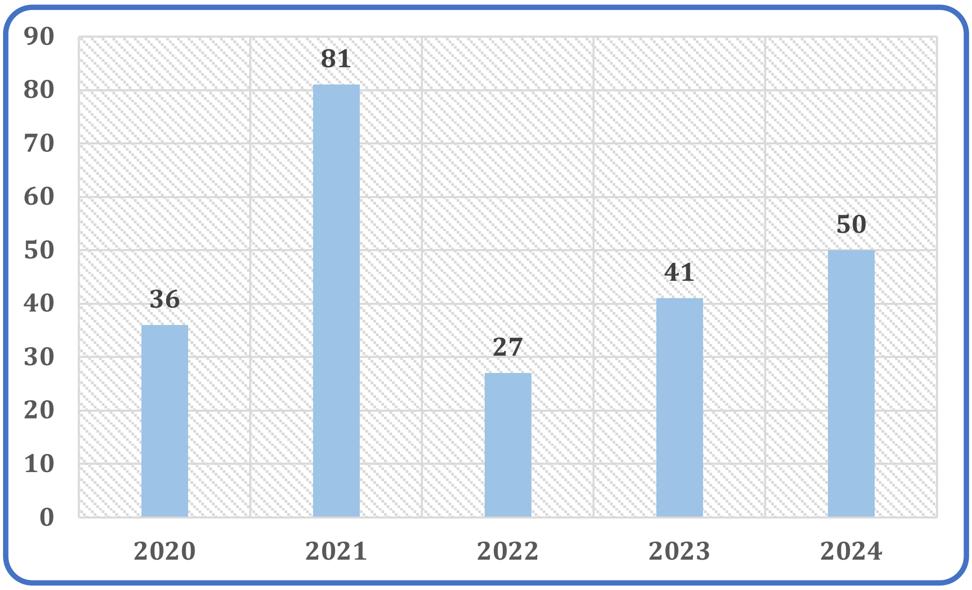

Figure 53: Total Number of Maritime Licences

Table 32: Maritime Services

Types/Classes of Authorisations	2020	2021	2022	2023	2024
Total number of Authorisations	36	81	27	41	50

Source: National Communications Authority, 2024

4.7 Aeronautical Radio Services

Twenty-four (24) aircraft radio licences were issued in 2024. Over the five-year period, the number of issued aircraft radio licences declined from 24 in 2020 to 21 in 2021 and 2022. It then increased back to 24 licences, representing a 14.29 percent rise. The total number of aircraft radio licences from 2020 to 2024 is shown in Table 33 and Figure 53.

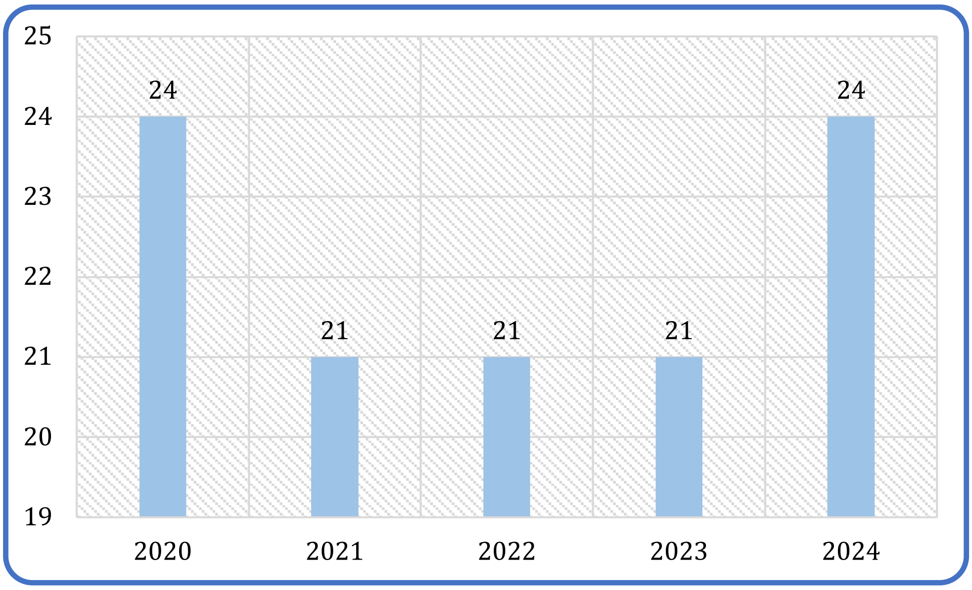

Figure 54: Total Number of Aircraft Radio Licences

Table 33: Aeronautical Services

Types/Classes of Authorisations	2020	2021	2022	2023	2024
Total number of Authorisations	24	21	21	21	24

Source: National Communications Authority, 2024

4.8 Public Land Mobile Radio

In 2024, the number of Public Land Mobile Radio licences decreased from 119 in 2023 to 114. Over five years, trends show that licences for Public Land Mobile Radio fluctuated with a compound annual growth rate of 1.13 percent, from 109 licences in 2020 to 114 licences in 2024. The total number of public land mobile licences from 2020 to 2024 is shown in Table 34 and Figure 54.

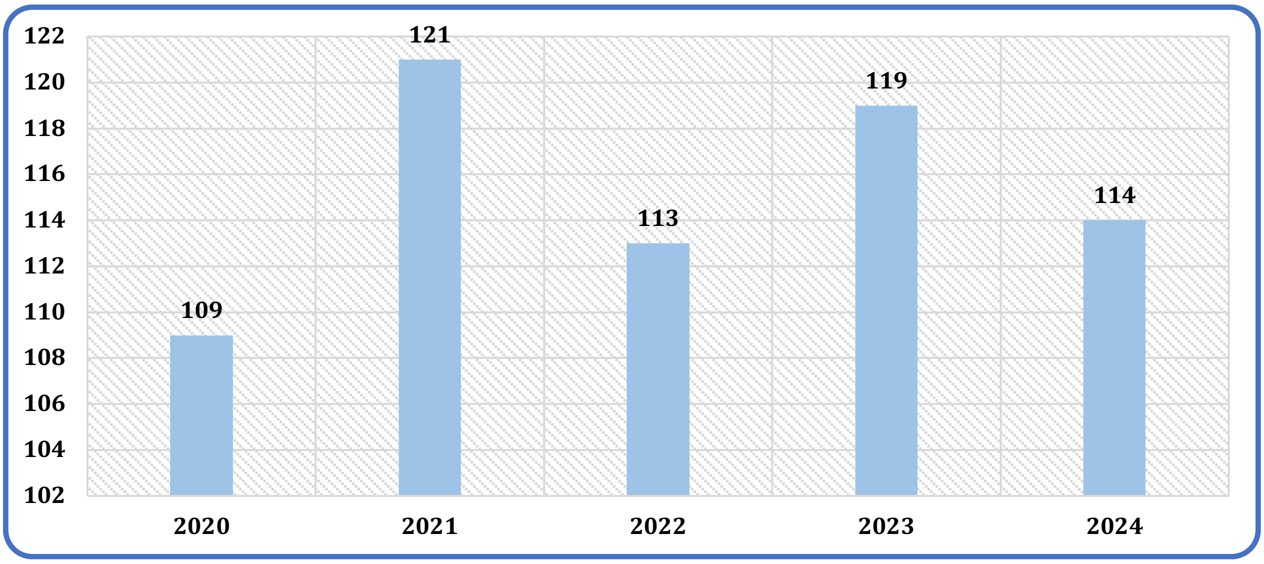

Figure 55: Total Number of Public Land Mobile Licenses

Table 34: Public Land Mobile Licenses

Authorisations	2020	2021	2022	2023	2024
Total number of Authorisations	109	121	113	119	114

Source: National Communications Authority, 2024

Infrastructure Services

CHAPTER FIVE

INFRASTRUCTURE SERVICES

5.0 Introduction

This chapter presents an overview of the infrastructure services provided by Towers Companies, International Submarine Operators, and Domestic Inland Fibre. It covers the total number of towers, tenancy ratios, regional distribution of towers, and the potential and utilised capacities of submarine and inland fibre operators.

5.1 Total Number of Towers

The total number of towers owned and managed by the Tower Companies increased from 4,602 in 2023 to 4613 in 2024, representing a 0.24 percent growth. Over the five years, the number of towers declined from 4,980 in 2020 to 4,602 in 2023 and then increased to 4,613 in 2024, with a compound annual growth rate of negative 1.90 percent. Between 2022 and 2023, American Towers decommissioned some tower infrastructure after acquiring Eaton Tower in 2020. The total number of towers from 2020 to 2024 is shown in Table 35 and Figure 55.

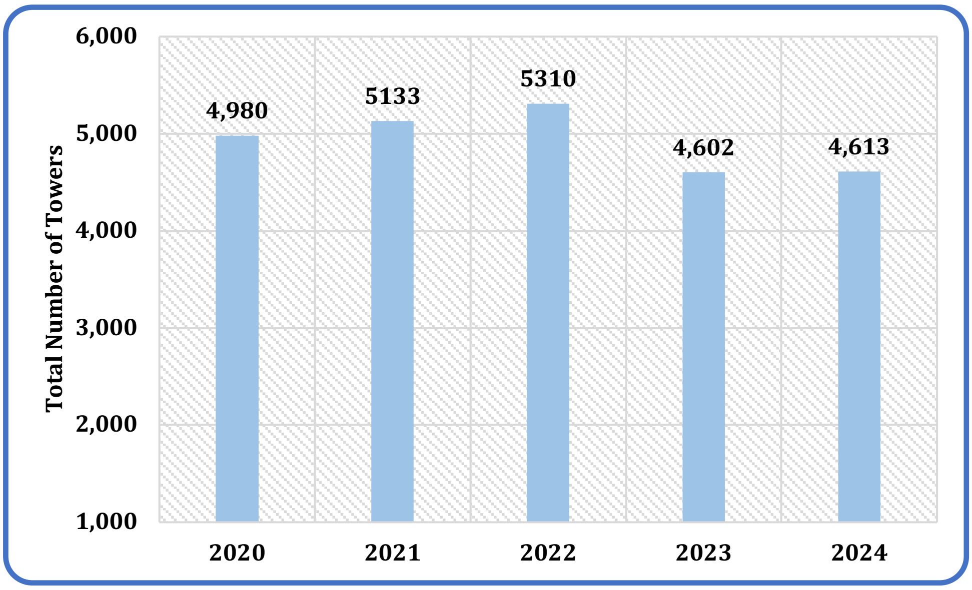

Figure 56: Total Number of Towers

5.2 Number of Towers by Tower Companies

American TowerCo. managed 3,514 towers, a decrease of 0.26 percent from 3,523 towers in 2023. Helio TowerCo. managed 1,099 towers, a 1.85 percent increase. The total number of towers managed and owned by American Tower rose from 3,989 in 2020 to 4,196 in 2022 and then declined to 3,514 in 2024, resulting in a negative compound annual growth rate of 3.12 percent.

Over five years, Helios TowerCo's towers increased from 991 in 2020 to 1,114 in 2022, then declined to 1,079 in 2023. The rise to 1,099 in 2024 results in a compound annual growth rate of 2.62 percent. The market shares of tower companies from 2020 to 2024 are shown in Table 35 and Figure 56.

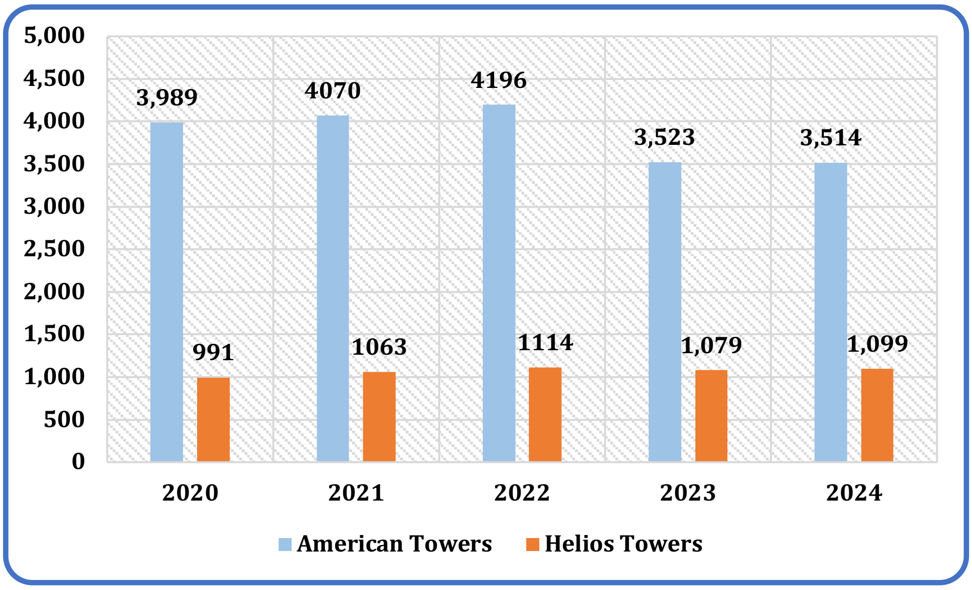

Figure 57: Market Shares of Tower Companies

Table 35: Total Number of Towers per TowerCo.

Tower Company		**2020**	**2021**	**2022**	**2023**	**2024**
American Towers	Number of Towers	3,989	4,070	4,196	3,523	3,514
	Market Share (%)	*80.1*	*79.3*	*79.0*	*76.6*	*76.20*
Helios Towers	Number of Towers	991	1063	1,114	1,079	1,099
	Market Share (%)	*19.9*	*20.7*	*21.0*	*23.4*	*23.80*
Industry Total		**4,980**	**5,133**	**5,310**	**4,602**	**4,613**

Source: National Communications Authority, 2024

5.3 Types of Towers

The tower company deployed three different types of towers: Greenfield, Rooftop, and Indoor network/mobile site towers. By the end of 2024, 91.05 percent of the total towers were Greenfield towers, 8.13 percent were Rooftop towers, and 0.82 percent were Indoor network/mobile sites. The types of towers deployed from 2020 to 2024 are shown in Table 36 and Figure 57.

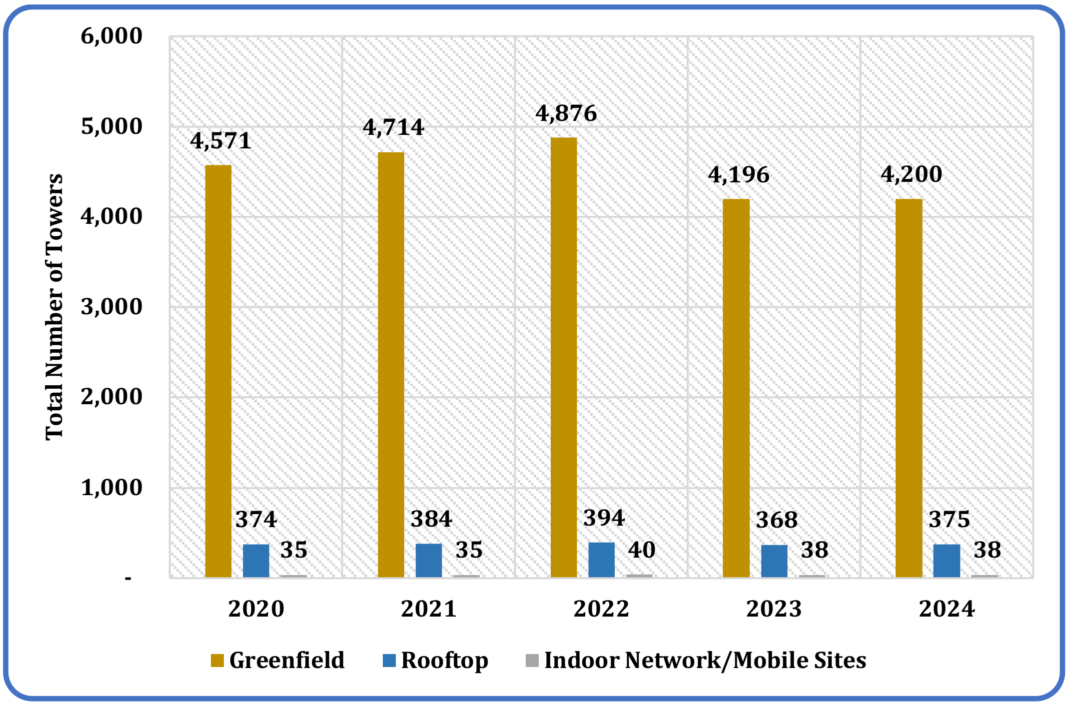

Figure 58: Types of Towers deployed

Table 36: Distribution of Towers by Type

TOWER	2020	2021	2022	2023	2024
Greenfield	4,571	4,714	4,876	4,196	4,200
Rooftop	374	384	394	368	375
Indoor/Mobile Sites	35	35	40	38	38
Total number of towers	**4,980**	**5,133**	**5,310**	**4,602**	**4,613**

Source: National Communications Authority, 2024

5.4 Regional Distribution of Towers in Ghana

Most towers are located in the Greater Accra region (1268 towers), mainly because this region is more densely populated than the others. The North East Region has the fewest, with 62 towers. The regional distribution of towers as at the end of 2024 is shown in Table 37 and Figure 58.

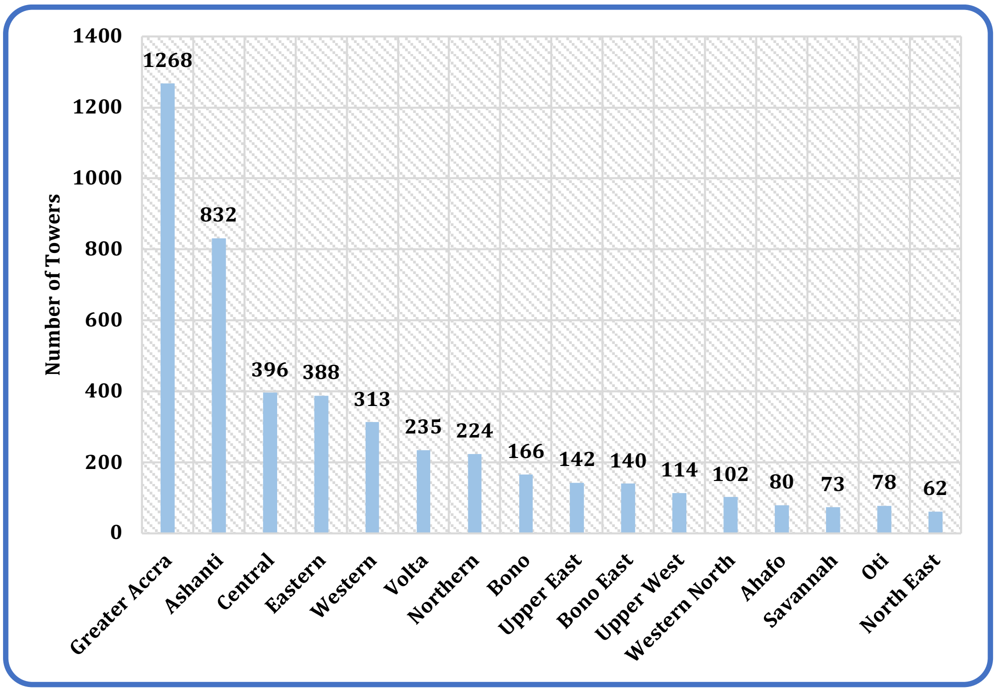

Figure 59: Regional Distribution of Towers

Table 37: Regional Distribution of Towers and Tenancy Ratio

Region	Number of Towers	Number of Tenants	Tenancy Ratio
Ahafo	80	113	1.41
Ashanti	832	1267	1.52
Bono	166	271	1.63
Bono East	140	205	1.46
Central	396	642	1.62
Eastern	388	567	1.46
Greater Accra	1268	2364	1.86
North East	62	86	1.39
Northern	224	326	1.46
Oti	78	97	1.24
Savannah	73	93	1.27
Upper East	142	190	1.34
Upper West	114	161	1.41
Volta	235	343	1.46
Western	313	503	1.61
Western North	102	153	1.50
Total	**4613**	**7381**	**1.60**

Source: National Communications Authority, 2024

5.5 Tenancy Ratio

The tenancy ratio fell from 1.87 in 2023 to 1.60 in 2024, representing a decrease of 14.44 percent. Over five years, the tenancy ratio experienced a compound annual growth rate of negative 0.80 percent from 2020 to 2024. The tower tenancy ratio from 2020 to 2024 is shown in Table 38 and Figure 59.

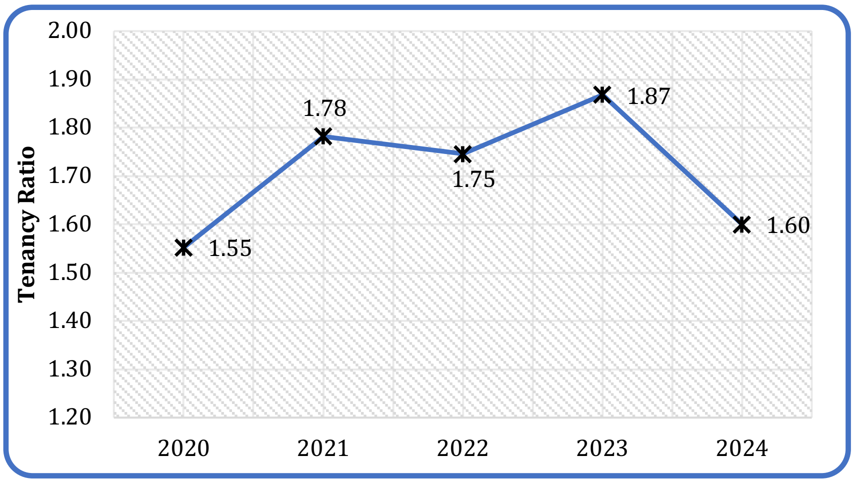

Figure 60: Tenancy Ratio

Table 38: Tenancy Ratio

	2020	2021	2022	2023	2024
Total Number of Towers	4,980	5,133	5,310	4,602	4,613
Total Number of Tenants	7,729	9,148	9,270	8,597	7,381
Tenancy Ratio	**1.55**	**1.78**	**1.75**	**1.87**	**1.60**

Source: National Communications Authority, 2024

5.6 Submarine Cable Service

There were five (5) authorised Submarine Cable Landing operators in the country, namely: Scancom PLC (WACS), MainOne Cable Company Ltd., ETG (Dolphin) Integrated Services Ltd, Telecel (formerly Vodafone) Ghana Ltd (SAT 3), and Glo-1 Mobile Ghana Ltd. However, the report will not cover data from SAT 3 and Glo-1.

5.7 Total Submarine Capacity Available in Gbps

The total capacity available in 2024 was 8,525.90 Gbps, an increase from 3,796.00 Gbps in 2023, representing a 124.60 percent rise in available capacity. Capacity additions from MainOne and WACS drove this growth. Over the five-year period, submarine capacity steadily increased from 2,684.00 Gbps in 2020 to 8,525.00 Gbps in 2024, with a compound annual growth rate of 26.01 percent. The total capacity in use rose to 3,646.20 Gbps from 2,528.01 Gbps in 2023, a 44.23 percent increase in utilised capacity. This means 42.77 percent of the available capacity is being utilised. The total submarine capacity from 2020 to 2024 is shown in Table 39 and Figure 60.

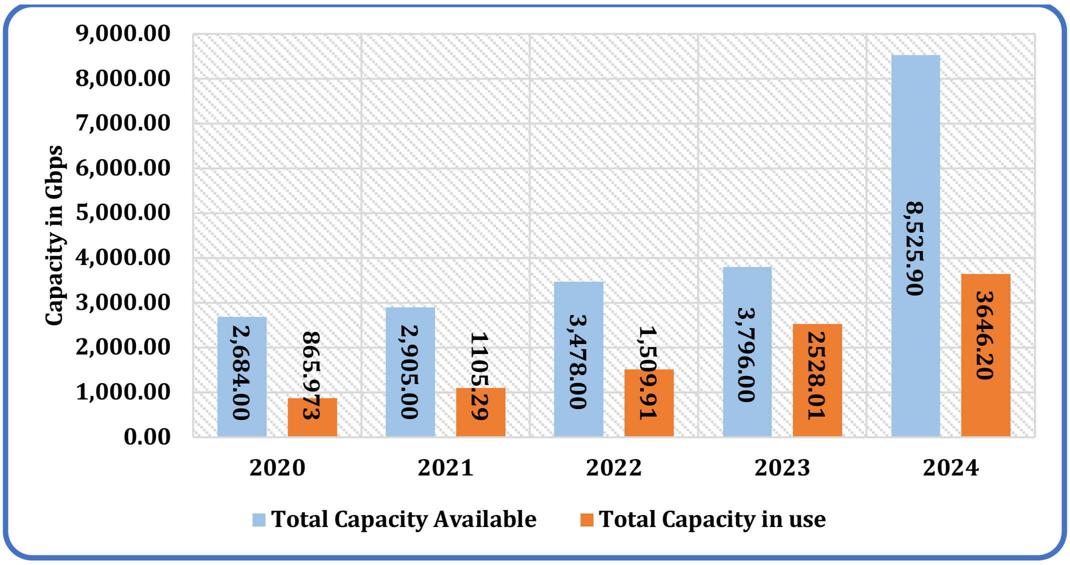

Figure 61: Total Submarine Capacity Available

Table 39: Total Submarine Capacity Available (Gbps)

Total Capacity Available (Gbps)	2020	2021	2022	2023	2024
SAT 3	74.00	95.00	168.00	196.00	
WACS	1,580.00	1,580.00	1,580.00	1580.00	3,620.00
MainOne	270.00	470.00	970 .00	1300.00	4,600.00
ETG (Dolphine)	720.00	720.00	720 .00	720.00	305.90
GLO-1	40.00	40.00	40 .00		
Total	**2,684.00**	**2,905.00**	**3,478 .00**	**3,796.00**	**8,525.90**

Source: National Communications Authority, 2024

5.8 Share of Submarine Capacity in Use in Gbps

In 2024, MainOne utilises 51 percent of its capacity, followed by WACS with 40 percent and ETG (Dolphin) with 9 percent. The proportion of submarine capacity in use at the end of 2024 is shown in Table 40 and Figure 61.

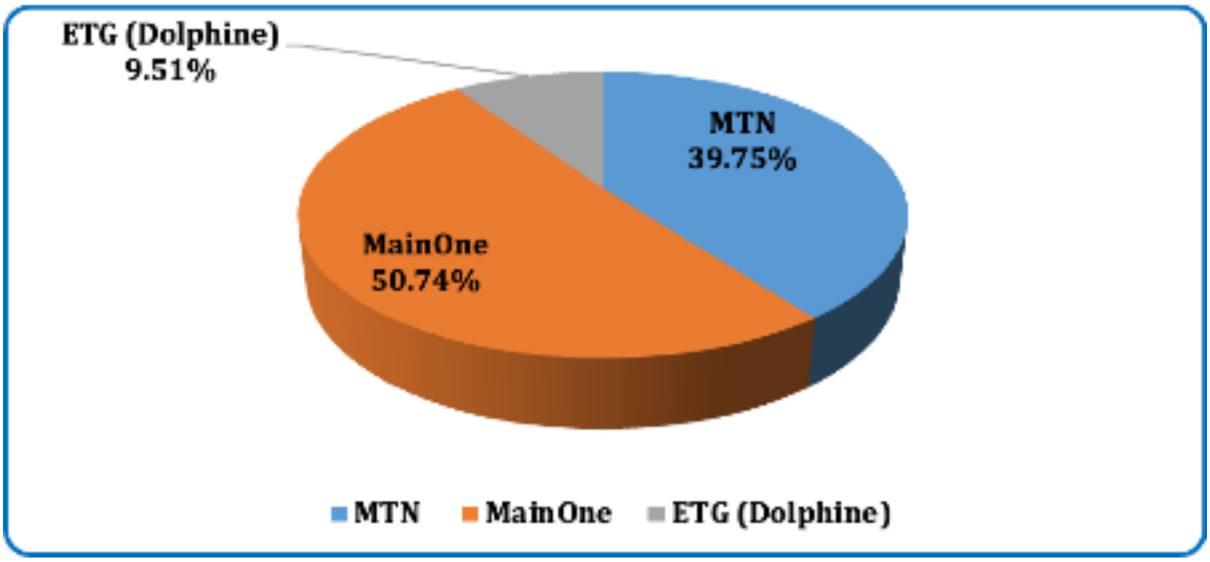

Figure 62: Share of Submarine Capacity in Use

Table 40: Total Submarine Capacity in Use (Gbps)

Total Capacity in Use (Gbps)	2020	2021	2022	2023	2024
SAT 3	42	55	125.00	144.00	
WACS	616.8	561.3	624.60	1,111.70	1,449.27
MainOne	124.053	360	398.00	840.00	1,850
ETG (Dolphine)	43.12	98.99	332.31	432.31	346.93
GLO-1	40.00	30.00	30.00		
Total	**865.973**	**1,105.29**	**1,509.91**	**2,528.01**	**3,646.20**

Source: National Communications Authority, 2024

5.9 Domestic Inland Fibre Optics

The data in this section covers three (3) of the ten (10) Domestic Inland Fibre operators: MainOne, Scancom PLC (MTN), and C-Squared Ghana Ltd.

5.10 Total Domestic Fibre Capacity Available in Gbps

In 2024, the total capacity available was 51,552.24 Gbps with 41,661 Gbps used, representing 80.81 percent of the available capacity. The domestic fibre capacity available and in use are shown in Table 41 and Figure 62.

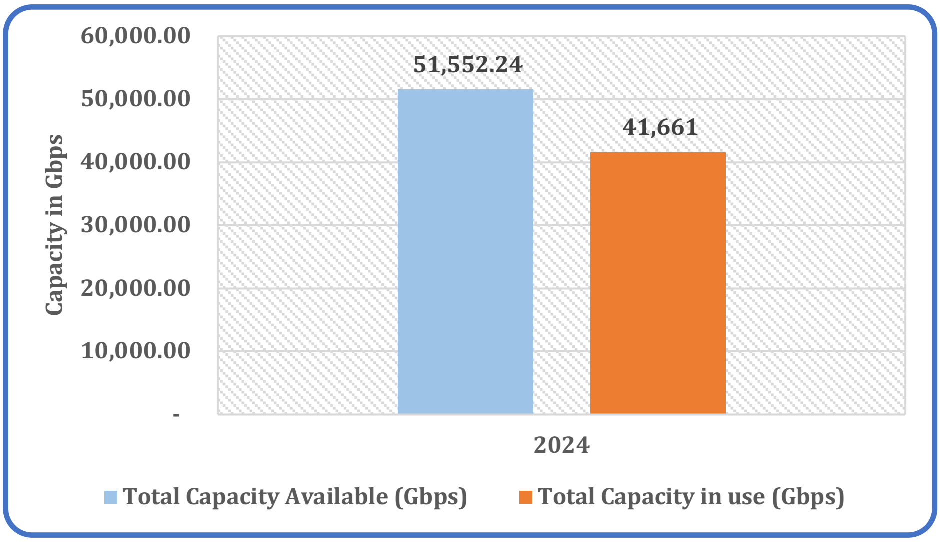

Figure 63: Domestic Fibre Capacity Available and in Use

Table 41: Total Terrestrial Fibre Capacity Available (Gbps)

Total Capacity Available (Gbps)	2022	2023	2024
Comsys	8.00	10.00	
Spectrum Fiber Co.	200.00	200.00	
MainOne	970.00	1300.00	4,600.00
C Squared Ghana Ltd	300.00	300.00	330.00
Scancom PLC			46,622.00
Total	**1,478.00**	**1,810.00**	**51,552.00**

Source: National Communications Authority, 2024

5.11 Share of Inland Fibre Capacity in Use in Gbps

Scancom (MTN) PLC had 90.44 percent of the total capacity in use, followed by MainOne with 8.92 percent and C Squared Ghana Ltd with 0.64. The share of inland fibre capacity in use is shown in as at the end of 2024 is shown in Table 42 and Figure 53.

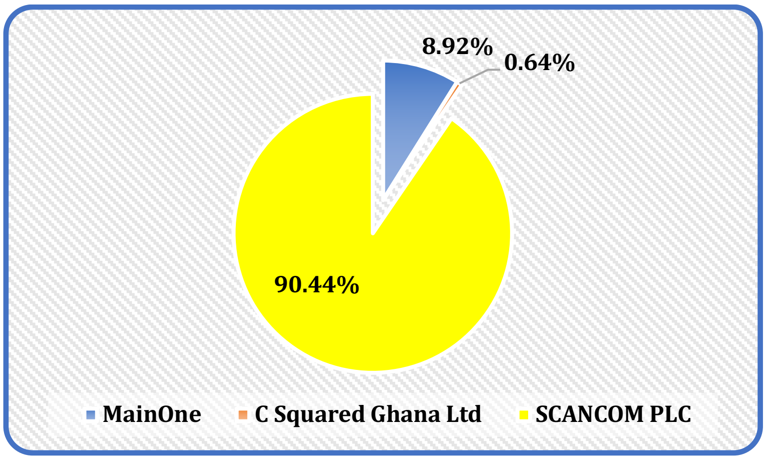

Figure 64: Share of Inland Fibre Capacity in Use

Table 42: Total Terrestrial Fibre Capacity in Use (Gbps)

Total Capacity in use (Gbps)	2022	2023	2024
Comsys	6.30	8.00	
Spectrum Fiber Co.	5.50	61.70	
MainOne	398.00	840.00	1,850.00
C Squared Ghana Ltd	409.80	158.15	203.00
Scancom PLC			39,608.23
Total	**819.59**	**1067.85**	**41,661.23**

Source: National Communications Authority, 2024

5.12 Fibre Cuts in 2024

In 2024, the total fibre cuts amounted to 1,658. The operator most affected was MTN, with approximately 1,614 cuts. These fibre cuts are mainly caused by road construction, private developers, illegal mining activities, cable theft, vandalism, and other factors. The terrestrial fibre cuts for 2023 and 2024 are shown in Table 43.

Table 43: Terrestrial Fibre Cuts

FIBRE CUTS	2023	2024
Comsys	62	
Spectrum Fiber Co.	530	
MainOne	31	19
C Squared Ghana Ltd	128	25
Scancom PLC		1,614
Total	**751**	**1,658**

Source: National Communications Authority, 2024

Other Services

CHAPTER SIX

OTHER SERVICES

6.1 Type Approval

In 2024, 482 type approval certificates were issued, representing a 10.05 percent increase from 438 certificates in 2023. Type approval certificates issued between 2020 and 2024 are shown in Table 44 and Figure 65.

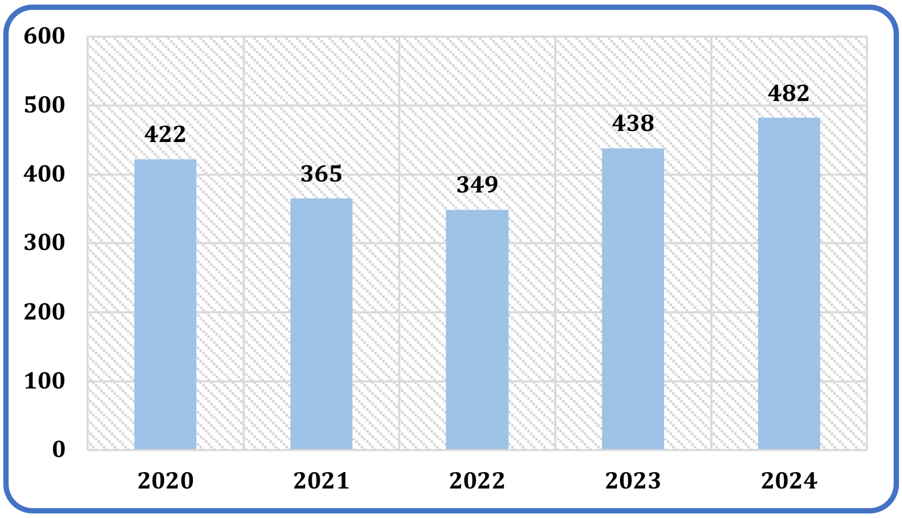

Figure 65: Type Approval Certificates

Table 44: Type Approval Certificates

Year	2020	2021	2022	2023	2024
Number of Type Approval certificates	422	365	349	426	482

Source: National Communications Authority, 2024

6.3 Numbering Resources

The Authority regulates and authorises two Telephony Numbering Resources: the Normal Numbering Resource and the Special Numbering Resource.

At the end of 2024, 133,215,000 numbering resources have been assigned to various service providers. In 2024, no new blocks of SIMs were issued. The normal numbering resources assigned as of the end of 2024 are shown in Table 45 and Figure 66.

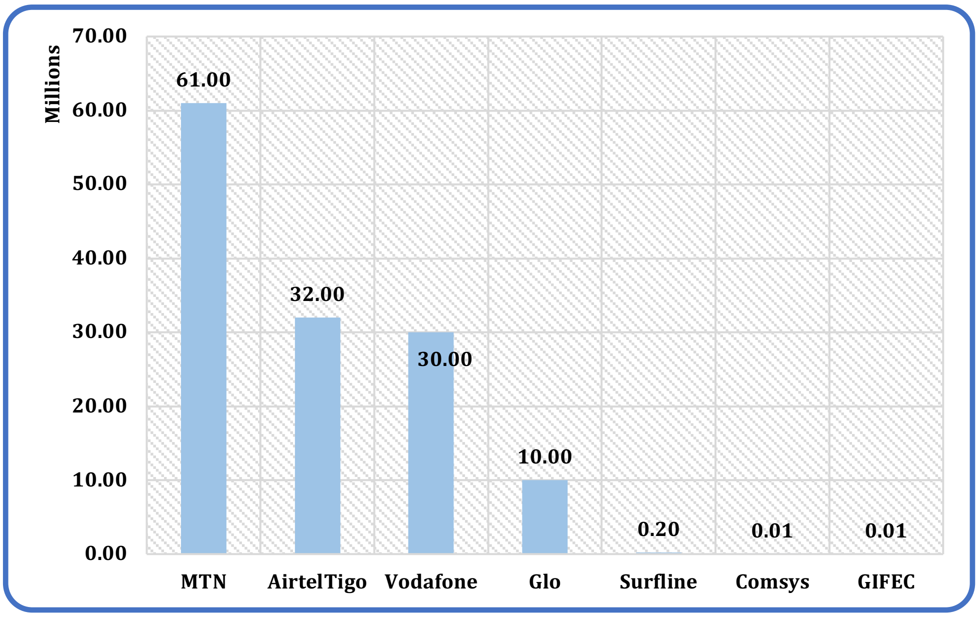

Figure 66: Normal Numbering Resources

6.4 Special Numbering Resources Assigned

In 2024, 1,242 numbers were Toll Free, accounting for 72.00 percent of the special numbers issued. Short Codes numbered 474 (27.48%), and Premium Numbers were 9, representing 0.52 percent. The special numbering resources assigned as of the end of 2024 are detailed in Table 45 and Figure 67.

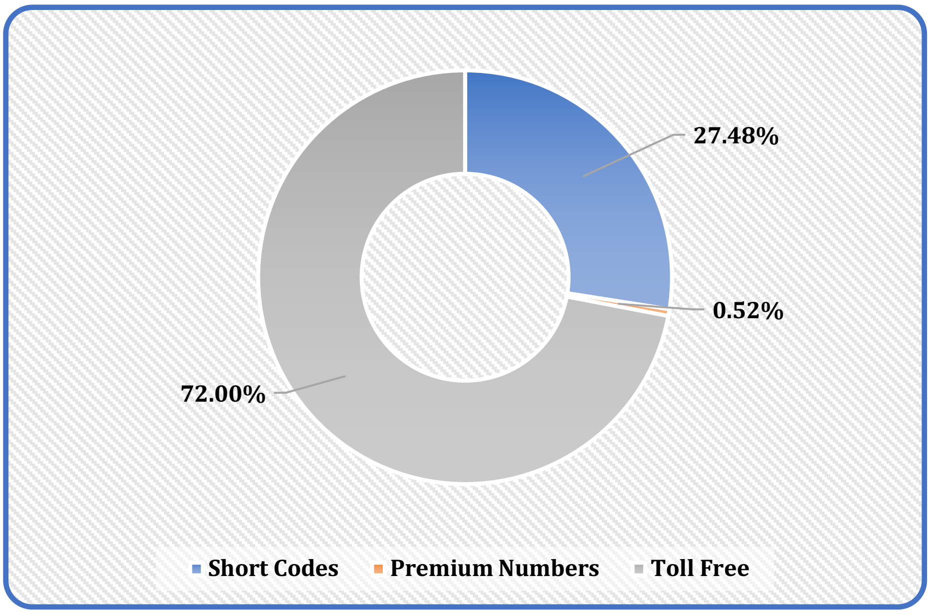

Figure 67: Special Numbering Resources

Table 45: Numbering Resources

Numbering Resources	2020	2021	2022	2023	2024
Short Codes	605	437	464	398	474
Premium Numbers	8	5	3	9	9
Toll Free	1159	1033	292	1259	1242
Mobile Numbers (SIM Cards)	105,610,000	116,410,000	123,215,000	133,215,000	133,215,000

Source: National Communications Authority, 2024

6.5 Dealership

In 2024, there are seven (7) dealership licences compared to six (6) in 2023. Over five years, the number of dealerships has decreased from 15 licences in 2020 to 7 licences. The dealership licences issued as of the end of 2024 are shown in Table 46 and Figure 68.

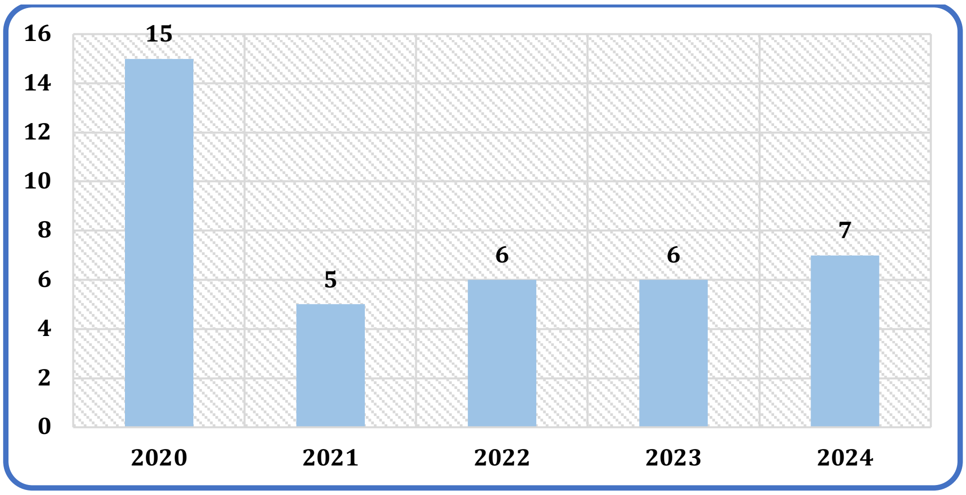

Figure 68: Dealership Licences

Table 46: Dealership Certificates

CLASS	2020	2021	2022	2023	2024
Class A	8	1	3	2	3
Class B	5	3	1	2	
Class C	1	1	2	2	4
Class D	1				

Source: National Communications Authority, 2024

6.6 VSAT Authorisation

As of the end of 2024, 21 VSAT authorisations had been issued. Between 2020 and 2024, the number of VSAT authorisations increased from 27 to 35 in 2021, then decreased to 17 in 2022. It subsequently rose again to 21 authorisations in 2024. Overall, VSAT authorisations experienced a compound annual growth rate of negative 6.09 percent. The VSAT authorisations issued from 2020 to 2024 are shown Table 47 and Figure 69.

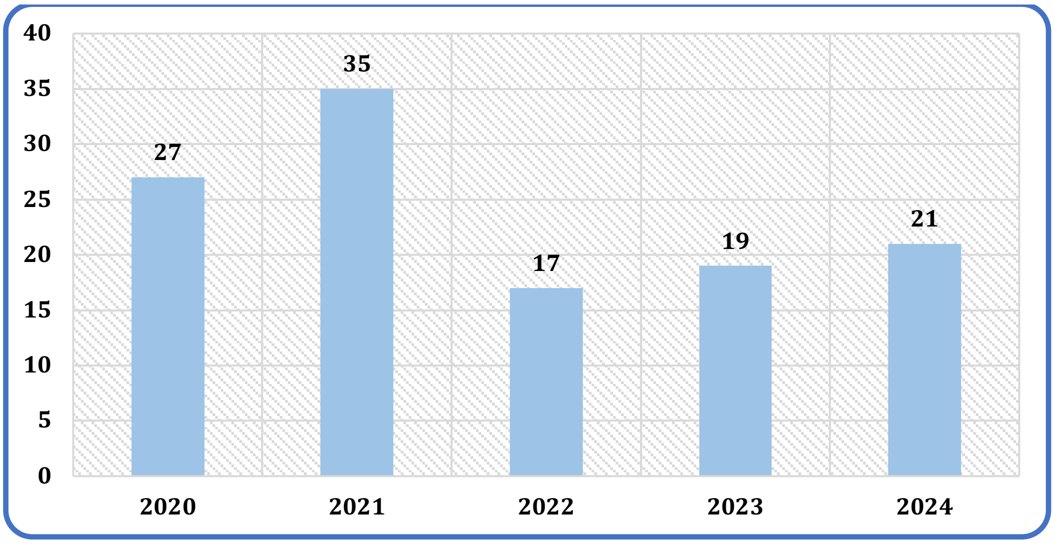

Figure 69: VSAT Authorisation

Table 47: VSAT Services

VSAT	2020	2021	2022	2023	2024
Total number of VSAT Authorisations	27	35	17	19	21
Total Number of Class 1 Authorisations	2	2	1	1	2
Total Number of Class 2 Authorisations	1	1	1	2	0
Total Number of Class 3 Authorisations	9	9	6	7	0
Total Number of Class 4 Authorisations					1
Total Number of Class 5 Authorisations					8
Landing Right Licence					1
Corporate Licence					6
Educational Licence					1
Gateway Licence					2

Source: National Communications Authority, 2024