



2020 SUBSCRIBER/NETWORK DATA REPORT

POLICY COMPETITION AND ECONOMIC ANALYSIS DEPARTMENT

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CHAPTER ONE

1. Introduction

The provision of up to date industry statistics is a responsibility imposed by the Nigerian Commissions Commission through the provisions of the Nigerian Communications Act 2003 which empowers the commission to amongst other functions:

- Facilitate private investment and entry into the Nigerian telecoms Market for the provision of telecoms services as well as supply of equipment and facilities
- Licensing companies to provide communications services
- Create much needed conducive environment for investors in the telecoms environment
- Ensure fair competition amongst players in the industry
- Ensure subscribers are protected from unfair practices by telecommunications providers

The collection, collation and analysis of the 2020 Year End Subscriber/ Network Report for the period January–December 2020 provides the following highlights.

A documentation of questionnaires to four (4) Categories of operators:

i. Mobile (GSM)

ii. Fixed Telephony Operators (Fixed/ Fixed Wireless)

iii. Internet Service Providers (ISPS)

iv. Others Operators (Operators Other than Mobile & Fixed Telephony, ISP's)

1. **Telecoms Industry Network/Subscriber Statistics** – Subscriber number increased from **184,699,409** subscribers in 2019 to **204,601,313** active voice subscriptions as at December 2020 with an increase 19,901,904 **subscriptions**. This represents about **10.78%** increase in total subscription within the period under consideration.
2. **Teledensity** –Nigeria`s teledensity **increased** from 96.76% as at December 2019 to 107.18% by December 31st 2020.
3. **Broadband Penetration** increased from 37.80% as at December 2019 to 45.02% as at December, 2020. Similarly, Broadband Subscriptions increased from 72,153,824 subscriptions in December 2019 to 89,941,222 subscriptions as at December 2020.

4. **Contribution to the (GDP)** – Telecoms industry contribution to the Nigerian Gross Domestic Products increased from 10.60% in the Fourth Quarter, 2019 to **12.45%** in the fourth quarter of 2020.

5. **Capital Inflow (Foreign Direct Investment)** into the Nigerian Telecoms Industry in Year 2020 was approximately (**USD 417,481,615.30**) Four Hundred and Seventeen Million Four Hundred and Eighty One Million Six Hundred and Fifteen Million US Dollars Thirty Cents against **USD 942, 863,833.96** (Nine Hundred and Forty Two Million Eight Hundred and Sixty Three Thousand Eight Hundred and Thirty Three US Dollars and Ninety Six Cents as at Year 2019. (Source CBN).

This translates to a decline of 55.7% in Capital Importation year on year. The decline in capital importation was largely attributed by the Operators to the outbreak of the COVID-19 pandemic that distorted global businesses and impacted businesses negatively.

CAPEX (domestic investment) was stood at **N408, 151,627,158.62 as at Year 2020** based on submissions from responsive Licensees. The CAPEX investment declined by 18.62% due to probably challenges of the global pandemic in Year 2020.

2019 Year End Telecom Provider’s CAPEX (Domestic Investment)			
	Category	2019	2020
1.	GSM	339,772,000,000.00	404,819,000,000.00
2.	FIXED	-	599,000,000.00
3.	Other Telecom Operators	161,769,147,252.77	2,733,627,158.62
	Total	501,541,147,252.77	408,151,627,158.62

Table 1. Telecom Provider’s CAPEX (Domestic Investment) (2019 and 2020)

6. **Infrastructural Development** - A substantial telecom infrastructure deployment was recorded in 2020 by Telecoms providers, as seen below:

- (1) A total of **32,939 Towers** were recorded from Mobile and Collocation & Infrastructure Companies with a total number of **36,998** Base Stations.
- (2) **Microwave** coverage declined from **302,036km** recorded in Year 2019 to **290,126.59Km** as at Year 2020. This covers the Mobile, Fixed and Other Operators. Some Operators recorded a decrease in the microwave coverage due to the decommissioning of backbone microwave links to accommodate increased and higher volumes of traffic.
- (3) The Mobile Fixed and Other Operators recorded a total of number **194 Gateways** in use in the Industry as at December 2020.
- (4) Fiber Optics Deployment stood at **104,586.34 km** (terrestrial fiber & submarine cable) as at December 2020.

7. Finance:

2019 Year End Telecom Provider's Operating Cost and Revenue			
	Category	Operating Cost (₦) 2019	Revenue (₦) 2019
1.	GSM	1,415,891,290,000.00	2,019,639,000,000.00
2.	FIXED	5,437,000,000.00	6,041,000,000.00
3.	ISP	41,106,763,063.46	53,745,324,069.20
4.	Other Telecom Operators	319,927,316,381.14	437,494,465,530.11
	Total	1,782,362,369,444.60	2,516,919,789,599.31
2020 Year End Telecom Provider's Operating Cost and Revenue			
	Category	Operating Cost (₦) 2020	Revenue (₦) 2020
1.	GSM	1,395,276,770,000.00	2,268,567,930,000.00
2.	FIXED	7,651,000,000.00.00	8,432,000,000.00
3.	ISP	53,693,342,714.31.00	68,962,667,309.31
4.	Other Telecom Operators	327,059,524,410.24	534,698,112,592.94
	Total	1,783,680,637,124.55	2,880,660,709,902.25

Table 2. Telecom Provider's Operating Cost and Revenue (2019 and 2020)

- Revenue:** Table 2 indicates that revenue increased from ₦ 2.516 Trillion in year 2019 to ₦ 2.880 Trillion as at the end of Year 2020. This represents a 12.63% increase in revenue Year on Year. (This collation was based on the submissions received).
- Operating cost:** Table 2 also indicates that Operating cost grew slightly from N1.782 Trillion in year 2019 to N 1.783 Trillion as at end of Year 2020 representing a 0.07% decline within the period under review. (This collation was based on the submissions received).

8. Staff Head Count-2019 and 2020

GSM	FIXED	ISP	OTHERS	TOTAL
7,750	2,146	2,877	2,055	14,828

Table 3a: Staff Head Profile as at Year End 2019

GSM	FIXED	ISP	OTHERS	TOTAL
7,576	221	2392	4,797	14,986

Table 3b: Staff Head Profile as at Year End 2020

The Total number of staff from responsive licensees at Year end 2020 stands at 14,986. This is an increase of over 1% of the total number of staff reported in Year 2019. A breakdown of the staff categories is disaggregated in the report of each category.

9. **Analysis of Towers across the States-:** The top five states with highest number of towers are Lagos, Ogun, Oyo Rivers and FCT while the states with the least number of base stations are: Jigawa, Ebonyi, Gombe, Yobe and Zamfara.

States	LAGOS	OGUN	OYO	RIVERS	FCT	EDO
Number of Towers	5686	1834	1761	1720	1495	1270

Table 4a: States with the Highest Number of Towers (December 2020)

States	JIGAWA	EBONYI	GOMBE	YOBE	ZAMFARA
Number of Towers	329	311	295	248	248

Table 4b: States with the Lowest Number of Towers (December 2020)

CHAPTER TWO

Telecoms Industry Review

TELECOM INDUSTRY REVIEW IN A YEAR- (December 2019- December 2020)

. The global pandemic altered the way and manner business activities were hitherto carried out globally. Year 2020 witnessed a significant surge in data Usage. That perhaps reflected the industry performance for the year 2020 which challenged the global telecom industry generally and Nigerians particularly.

The number of Internet Subscribers increased from 135,743,324 subscription as at March 2020 to 154,437,623 Subscriptions as at November 2020 representing an increase of 13.77%. Data usage also increased from 147,537.52TB to 196,163.42TB within the same period. Broadband penetration continued to increase within the year 2020 reaching a peak of 45.93%.

The Nigerian Telecom Industry witnessed significant growth that impacted positively in spite of the recession brought about by the COVID-19. The sector lifted the economy out of recession in the fourth quarter of 2020, contributing 12.45% to the country's Gross Domestic Product (GDP).

.Mobile Network Operators (MNOs) also embraced massive investments in 4G rollout of services, which culminated in improved growth as indicated as follows;

- **Total Active Voice Subscriptions (December 2019- December 2020)**

Total Active Subscriptions increased from **184,699,409** as at December 2019 to **204,228,678** as December 2020. Teledensity also increased from 96.76% to 107.14%.

- The **Total Active Voice Subscription** in the Mobile Voice market segment increased from **184,426,187** subscriptions recorded in December 2019 to **204,228,678** subscriptions as at December 2020 indicating an increase of about 10.73%.

MTN recorded the highest increase Year on Year of 17.45% while EMTS recorded a decline of 4.8% Year on Year.

- The Voice over Internet Protocol (VoIP) market segment also increased to 265,604 subscriptions from 166,068 subscriptions. This is about 60% year on Year increase.

- The Fixed Wired/Wireless segment experienced a decline as subscriptions decreased from 107,154 as at December, 2019 to 107,031 subscriptions as at December 2020. This is a decline of 0.11% Year on Year.

An illustration of the Active Voice Subscription in the period under review is illustrated below in table 1:

<i>Service Category</i>	<i>Active Subscriptions (December'19)</i>	<i>Active Subscriptions (December'20)</i>	<i>Difference between (December'20 and December'19)</i>	<i>Percentage Change (%)</i>
<i>Mobile Voice</i>	<i>184,426,187</i>	<i>204,228,678</i>	<i>19,802,491</i>	<i>10.76</i>
<i>Fixed Wired</i>	<i>107,154</i>	<i>107,031</i>	<i>(123)</i>	<i>(0.11)</i>
<i>Voice over Internet Protocol (VoIP)</i>	<i>166,068</i>	<i>265,604</i>	<i>99,536</i>	<i>60</i>
<i>Total</i>	<i>184,699,409</i>	<i>204,601,313</i>	<i>19,901,904</i>	<i>10.77</i>
<i>Teledensity(190m)</i>	<i>96.76</i>	<i>107.18</i>	<i>10.42</i>	<i>10.77</i>

Table 3: Active Voice segment (December, 2019 – December, 2020)

By technology, the Mobile (GSM) segment has 99.8, Fixed Wired 0.1% and VoIP 0.1%.

<i>MOBILE (GSM)</i>	<i>FIXED WIRED</i>	<i>VOICE OVER INTERNET PROTOCOL (VoIP)</i>
<i>99.8%</i>	<i>0.1%</i>	<i>0.1%</i>

Table 4: Active Voice Segment by Technology (as at December, 2020)

Percentage of Market Share of Service Deployment by Technology as at December 2020

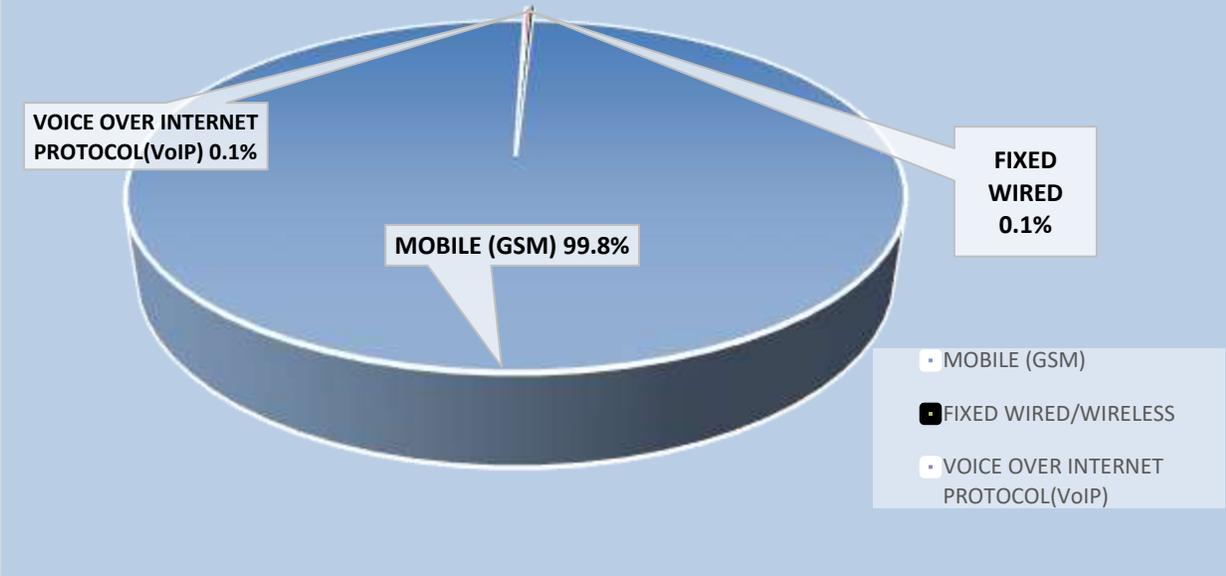


Figure 1: Percentage of Market Share of Service Deployment by Technology as at December, 2020



Figure 2: Total Active Voice Subscriptions (December 2019- December 2020)

Trend of Teledensity (December, 2019 – December, 2020)

Teledensity increased from to 96.76% % in December 2019 to 107.18% as December 2020. Teledensity had remained on the increase from Year 2010 but witnessed a sharp drop in 2019 due to the adoption of an upward revised population figure from 140 Million to 190 Million as at 2019.

Teledensity from December, 2019 - December, 2020

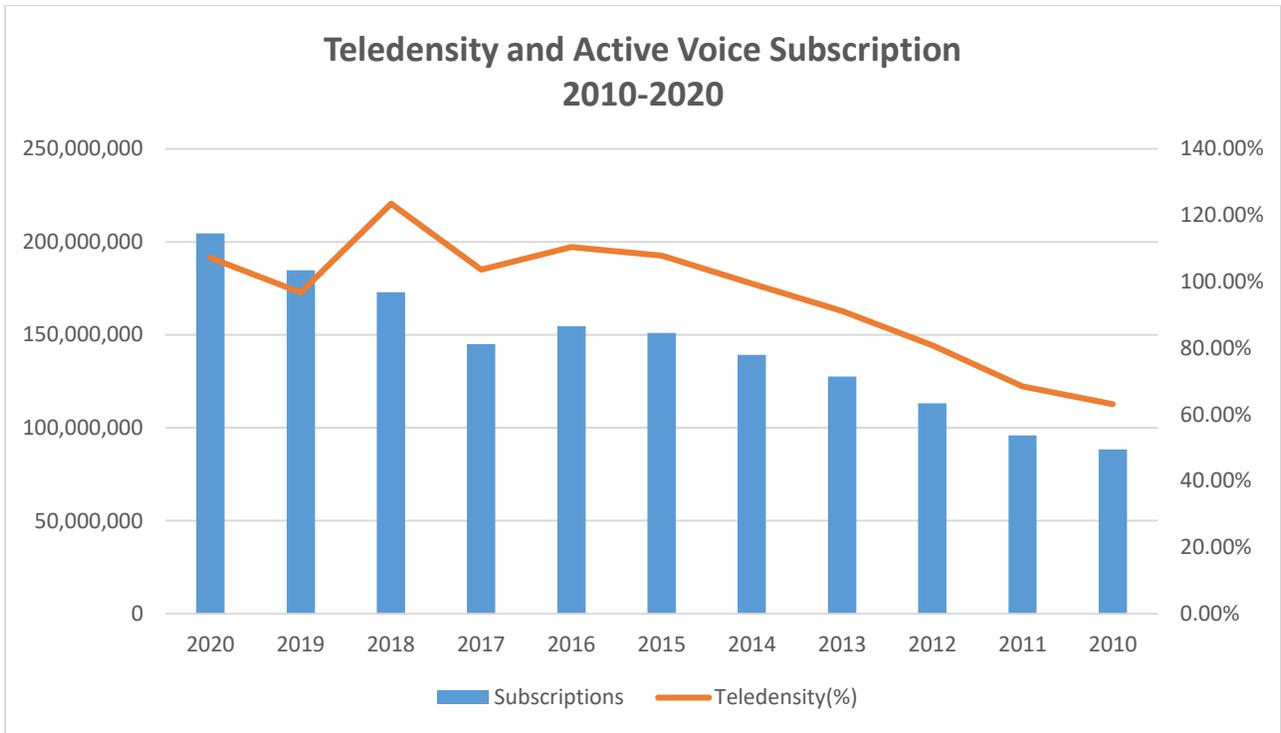


Figure 4: Teledensity (December, 2019- December, 2020)

CHAPTER 3

ANALYSIS OF 2020 YEAR END SUBSCRIBER / NETWORK DATA- MOBILE

A. NETWORK DATA

1. **Base Stations for Mobile:** As at December, 2020 the total Base Stations owned by Mobile telecoms operating companies increased to 36,998 Base Stations from 34,033 in December, 2019 across all states of the Federation representing an increase of 8.7% from the previous year.

2. **Infrastructure Deployment in the Mobile Segment;** Includes all authorized operating telecommunications network designed, deployed to provide and operate telecoms network infrastructure as contained in their respective license document within the country. There are several telecom infrastructures deployed by Operators as seen below.

2a. **Fiber Optics Deployment (km):**

i. As at December, 2020 the total on land fiber deployment was **43,898.8km** as against 43,898.10 km in Year 2019. The on land fiber deployment was reported as follows;- MTN – 14,612km; GLO - 13,306km; AIRTEL – 11,151km; EMTS - 4,650km and NTEL - 180km. With the Commission`s engagement of the Nigeria Governors Forum (NGF) led by the Hon Minister of Communications and Digital Economy, Dr. Isa Pantami and the EVC of the Commission, Professor Umaru Danbatta, most Governors have signed harmonized ROW charges of N145.00 per linear meter into law hence, the fibre outlay in Nigeria is expected to increase by the end of Year 2021.

	2019 (KM)	2020 (KM)
MTN	14,612	14,612
GLO	13,255	13,306
AIRTEL	11,201	11,151
EMTS	4,650	4,650
NTEL	180	180
TOTAL	43,898.1	43,898.8

Table 1: Fibre outlay by Operators in Year 2019-2020

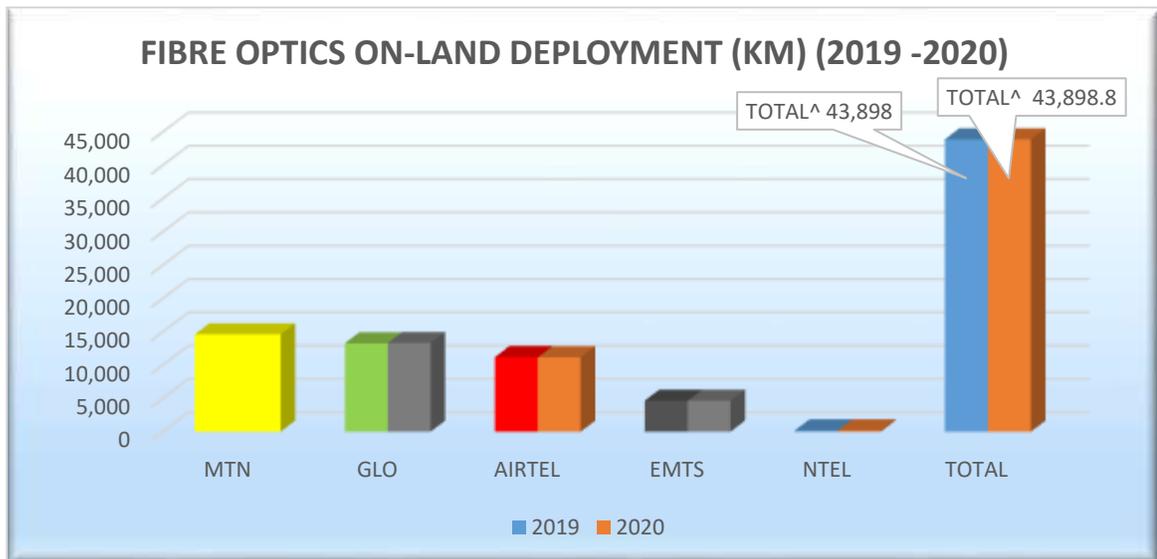


Figure 1. Fibre Optics On-Land Deployment in km (2019- 2020)

- ii. As at December, 2020 the total submarine fiber deployment in kilometer was **25,128.3km** as against **24,729.3km** in year 2019. This is an increase of 1.36% within the year under consideration .The fiber deployment by four Mobile operators are as follows: - MTN-15,244km; GLO- 9,800km; AIRTEL – 14km and NTEL - 70km.

SUBMARINE	2019 (KM)	2020 (KM)
MTN	14,908	15,244
GLO	9,800	9,800
AIRTEL	14	14
NTEL	70	70
TOTAL	24,792.3	25,128.3

Table 2: Fibre outlay by Operators in Year 2019-2020 (Submarine)

- iii. A further analysis of the **fibre Optics** deployed illustrates that of the total **69,027.1km** of fibre (On-land and Submarine) deployed as at December, 2020; 43,898.8km was On-land while 25,128.3km was Submarine. MTN had the largest on-land and submarine deployment of 14,612km and 15,244km respectively as at December, 2020.

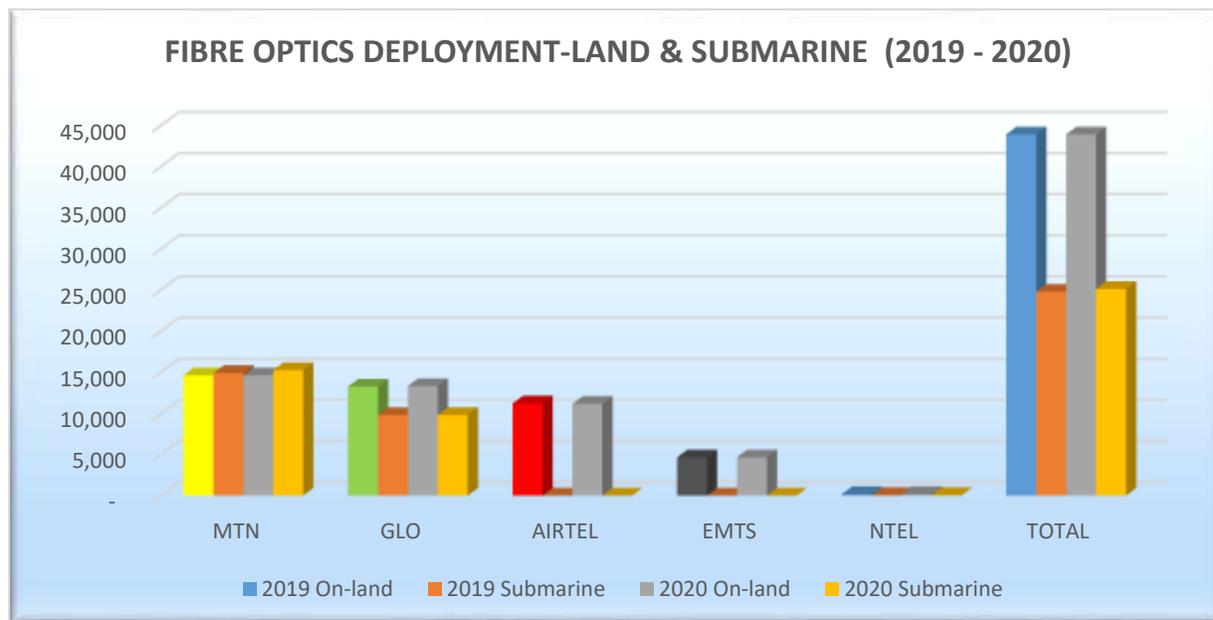


Figure 2. Fibre Optic On-Land and Submarine Deployment in Km (2019 – 2020)

2b. **Microwave Radio in (km):** As at December, 2020 the Mobile operators had deployed a total of **289,424.99km** of microwave radio links as against the 301,740km of microwave radio reported for 2019.

A further analysis of the microwave radio indicates that; MTN-96,996km; GLO had 61,731km; AIRTEL - 74,241km; EMTS - 48,958km; NTEL - 4,554km and SMILE – 2,948km.

MTN & GLO recorded a decrease in the microwave coverage due to the decommissioning of backbone microwave links to accommodate increased and higher volumes of traffic.

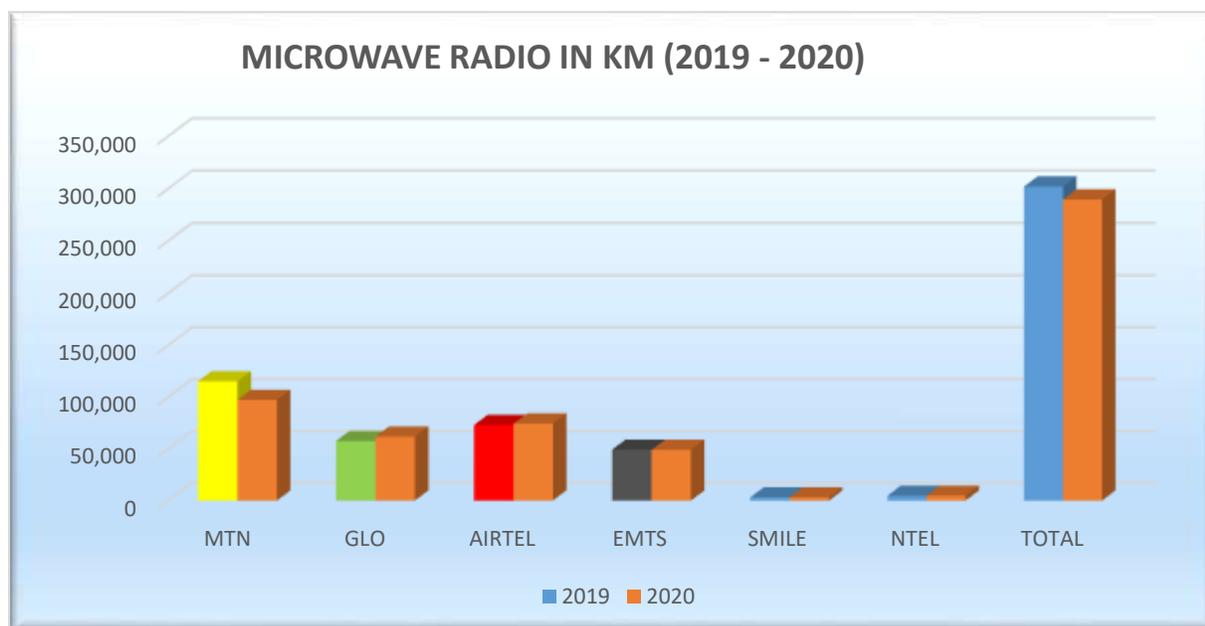


Figure 3. Microwave Radio in km (2019 – 2020)

2c. **Trunks in Use:** MTN, AIRTEL, GLO and EMTS had a total number of 114,702 Trunks (E1) in use as at December, 2020 indicating a decline from 119,867 Trunks (E1) reported as at December 2019. Most Operators have implemented and evolved IP Capacities to carry volumes of data traffic hence the perceived reduction in E1.

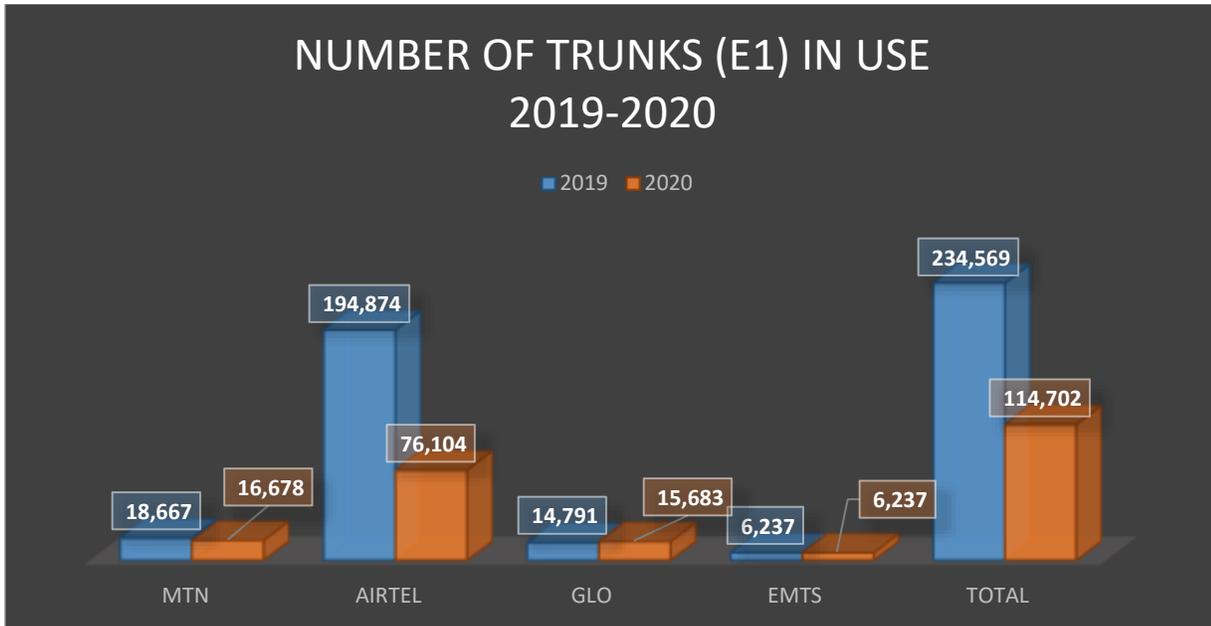


Figure 4. Number of Trunks (E1) in use (2019– 2020)

2d. **Leased Lines in Use:** EMTS and SMILE had a total number of 29 Leased lines in use as at December, 2020. In summary, EMTS and SMILE had 16 and 13 Leased lines respectively.

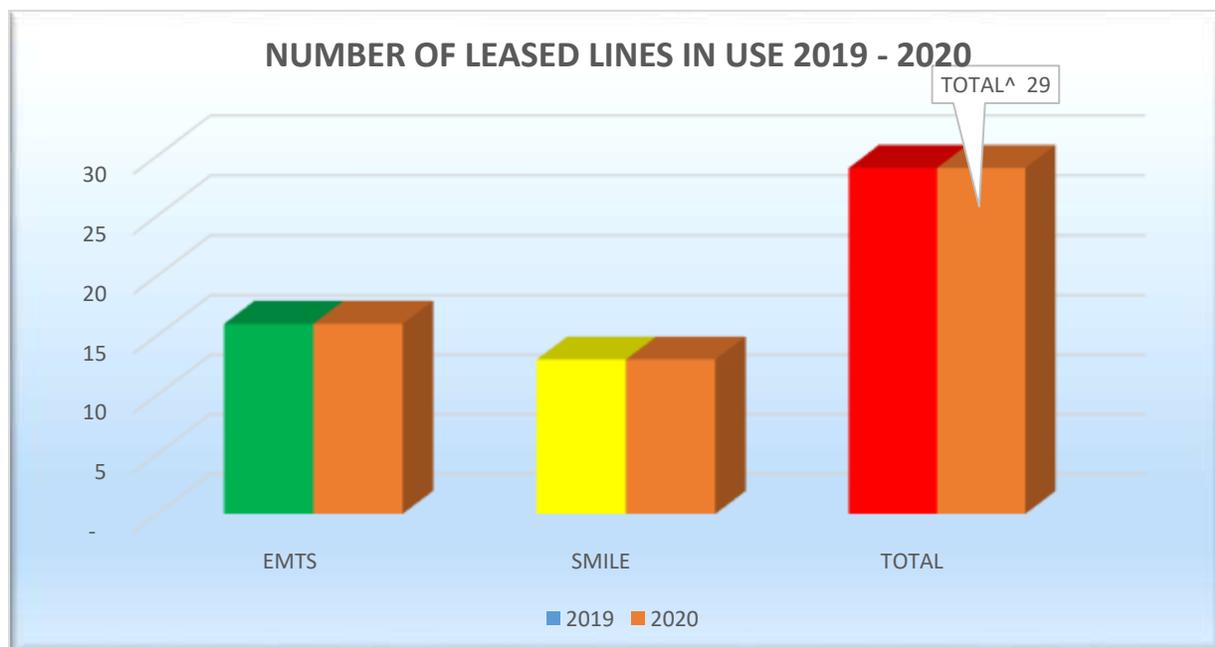


Figure 5. Number of Gateways in use (2019 – 2020)

2e. **Gateways in Use:** MTN, GLO, AIRTEL, SMILE and NTEL had a total number of 63 Gateways in use as at December, 2020. A summary shows, MTN had 2; GLO -3; AIRTEL -16, EMTS – 39, SMILE -2 and NTEL -1 Gateways.

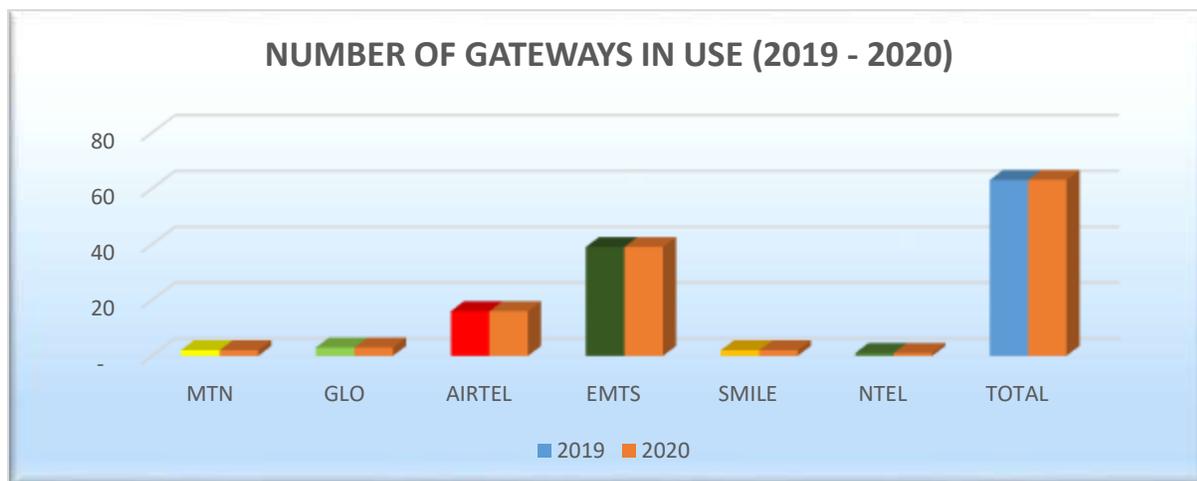


Figure 6. Number of Gateways in use (2019– 2020)

B. SUBSCRIBER & SERVICE DATA – VOICE SUBSCRIPTIONS

1a. **Subscriber Voice Data & Teledensity (All Segments):** As at December, 2020 total active voice subscriptions for the entire market segment was **204,601,313** while Teledensity was 107.18%. The active voice subscription increased from 184,699,409 subscriptions reported in December 2019 to **204,601,313** subscriptions as at December 2020. The growth in Operators’ subscriber base was attributed majorly to GSM Operators for vigorous campaigns carried out to connect new customers to their network, sustained marketing activities and improved network performance.



Figure 7. Subscriber Data- Active Voice Subscriptions & Teledensity (2010 - 2020)

1b. **Subscriber Voice Data & Teledensity (Mobile GSM- 2020):** In analyzing the annual Active Voice Subscription for Mobile (GSM) Segment, total active voice subscriptions increased from 184,426,187 subscriptions as at December 2019 to

204,228,678 subscriptions as at December 2020. This indicates that there was a 10% increase year on year on the GSM Active Voice Subscriptions.

1c. **Active Voice Subscriptions of Mobile GSM Segment (2020):**

Market Share of Mobile Operators were analyzed through the breakdown of each operator`s subscription; **MTN; GLO; AIRTEL & EMTS** each recorded **80,764,128; 54,840,192; 55,642,209 & 12,982,149** subscriptions indicating that MTN; GLO; AIRTEL, & EMTS had market shares of 39.55%; 26.85%; 27.25% & 6.36% respectively of the Mobile GSM Market Segment.



Figure 8. Market Share of Mobile GSM Operators – December 2020

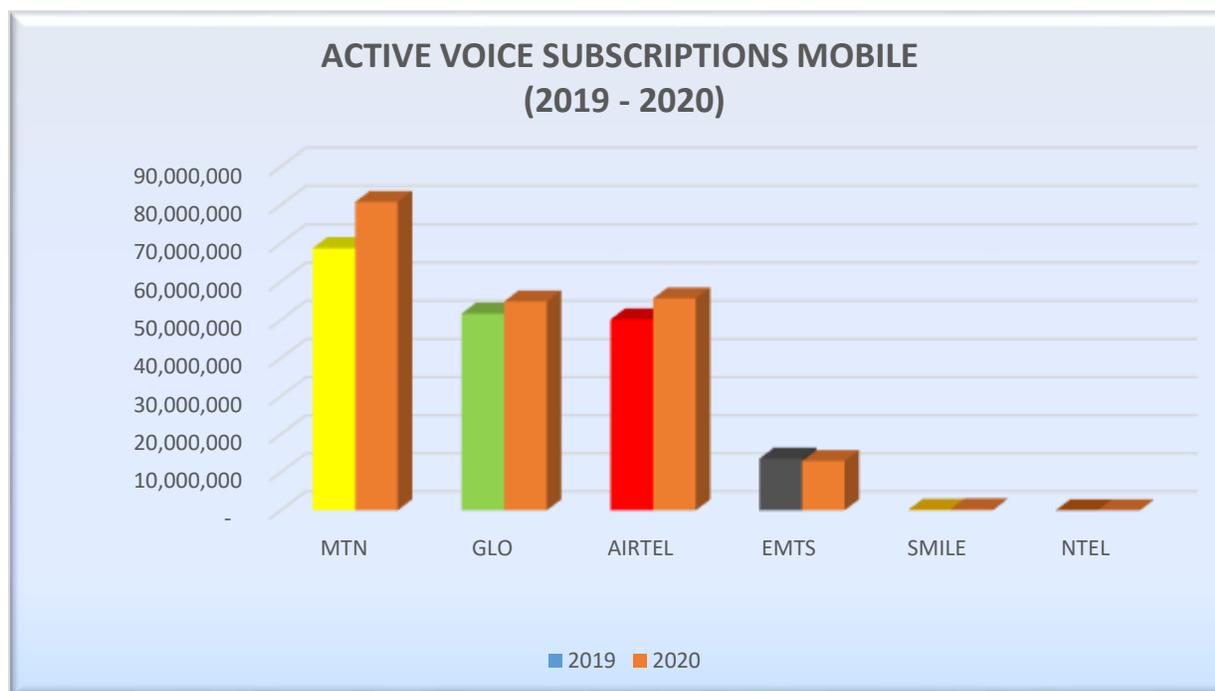


Figure 9. Active Voice Subscriptions of Mobile Segment, 2019 – 2020

1d. In analysing the annual trend of the *Active Voice Subscription services in the country, for all market segments*;- the growth in voice subscription was ultimately driven by the mobile (GSM) market segment as this segment accounted for 99.8%, while, Fixed Wired/Wireless and VOIP market segments each accounted for 0.1% each of the entire market share in terms of technology deployment as illustrated in:-Table 1 and figure 13 below;

Table 3: Percentage of Market Share of Service Deployment by Technology as at December, 2020

MOBILE (GSM)	FIXED WIRED/WIRELESS	VOICE OVER INTERNET PROTOCOL (VoIP)
99.8%	0.1%	0.1%

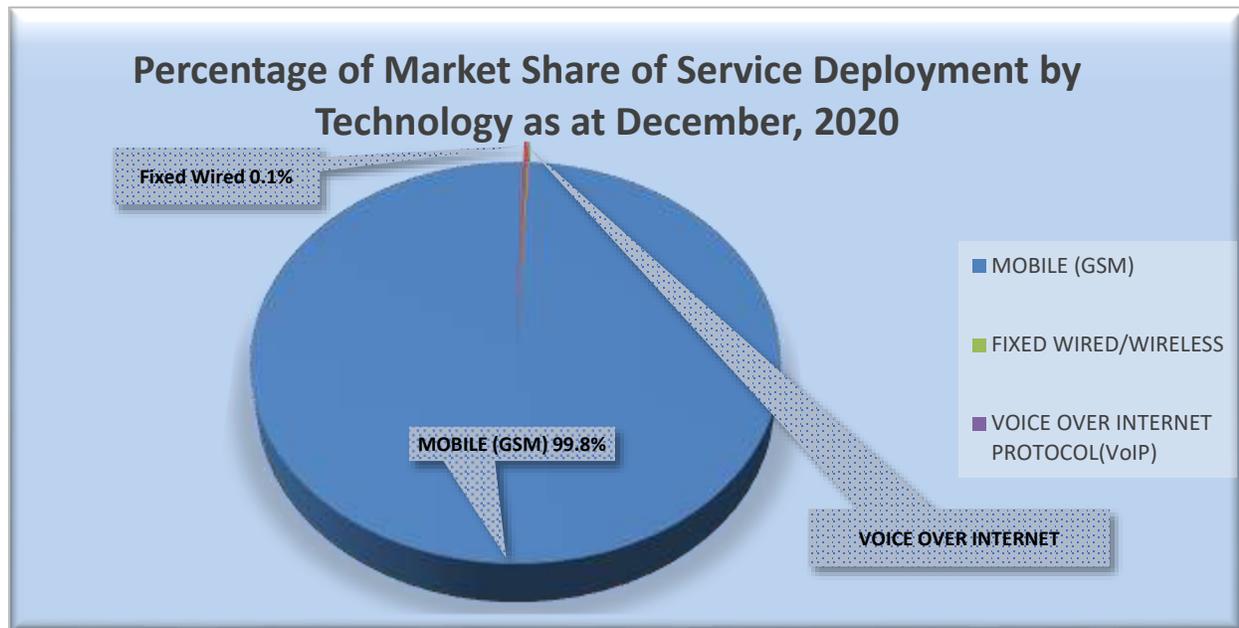


Figure 10: Percentage of Market Share of Service Deployment by Technology as at December, 2020

1e. Prepaid & Postpaid Mobile Voice Subscriptions – 2020:

- i. Total prepaid Mobile Voice subscriptions increased from 179,249,965 in December, 2019 to **199,043,508** in December, 2020 indicating an increase of 11.04% growth in prepaid Mobile Voice Subscriptions in the Year 2020.
- ii. Similarly Postpaid Mobile Voice Subscriptions increased from 5,208,832 in December, 2019 to **5,450,774** as at December, 2020 indicating an increase of 4.64% growth in postpaid Mobile Voice Subscriptions as at year end 2020.
- iii. In summary, the above analysis indicates that about 97.1% of Mobile subscribers are prepaid subscriber while only about 2.8% are postpaid subscribers. See representation in figure 13 below for each of the Operators.
- iv. In Fig 14 below, the Northwest (NW) and Southwest (SW) Zones recorded the highest number of subscriptions in the zones while the North East (NE) zone recorded the least number of subscriptions due to the insecurity situation of the zone that hampered investment.
- v. 29% of the active subscription is in the southwest zone, while the Northwest has 19% of the Active Voice subscription, the Northeast has the least percentage of Active Voice subscription of 10%.

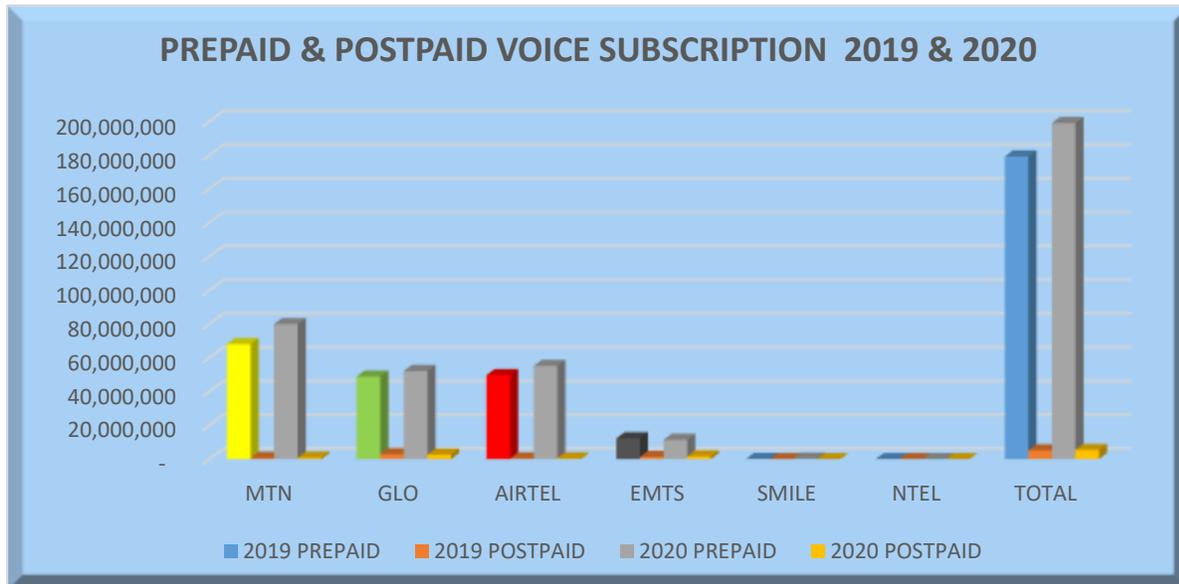


Figure 11: Prepaid & Postpaid Voice Subscriptions- Mobile 2019 – 2020

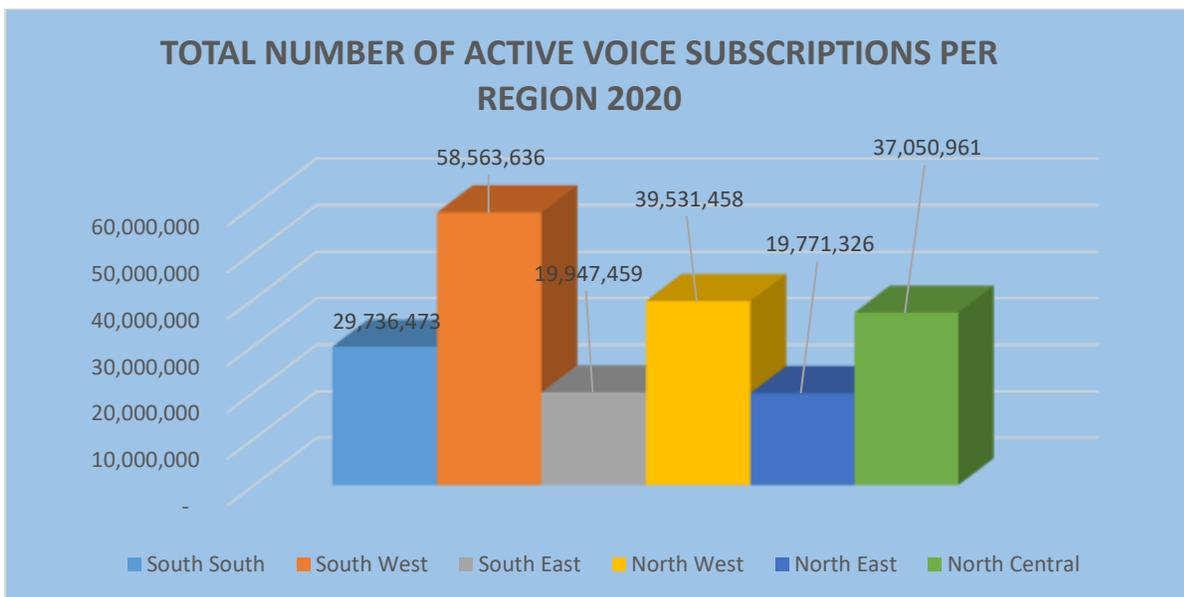


Figure 12a: Number of Active Voice Subscriptions per Region (2020)

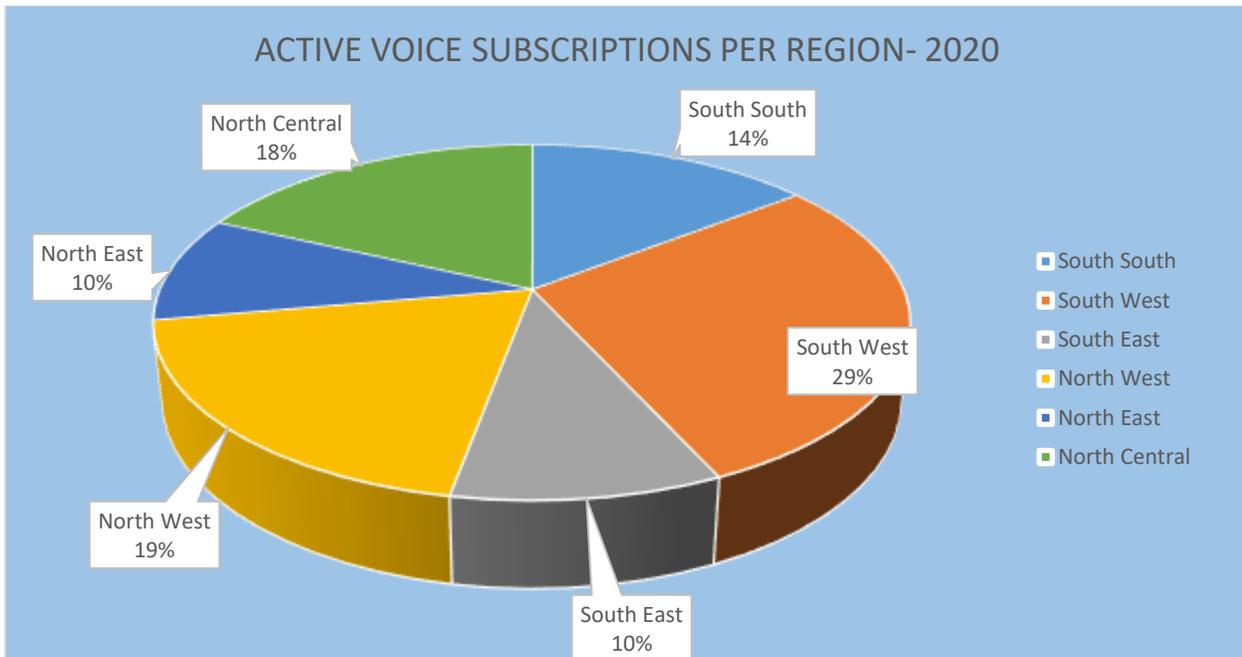


Figure 12b: Number of Active Voice Subscriptions per Region (2020)

1f. Total Number of Registered Mobile SIM-Based Subscribers: In line with the SIM Card registration exercise mandated by the Commission, Mobile Operators as at December, 2020 had registered a total of **289,615,670** subscribers in the country. However, the Federal Government of Nigeria, on December 09, 2020 directed the cessation of Sales and Registration of SIM cards in order to evaluate the successes of the SIM registration exercise.

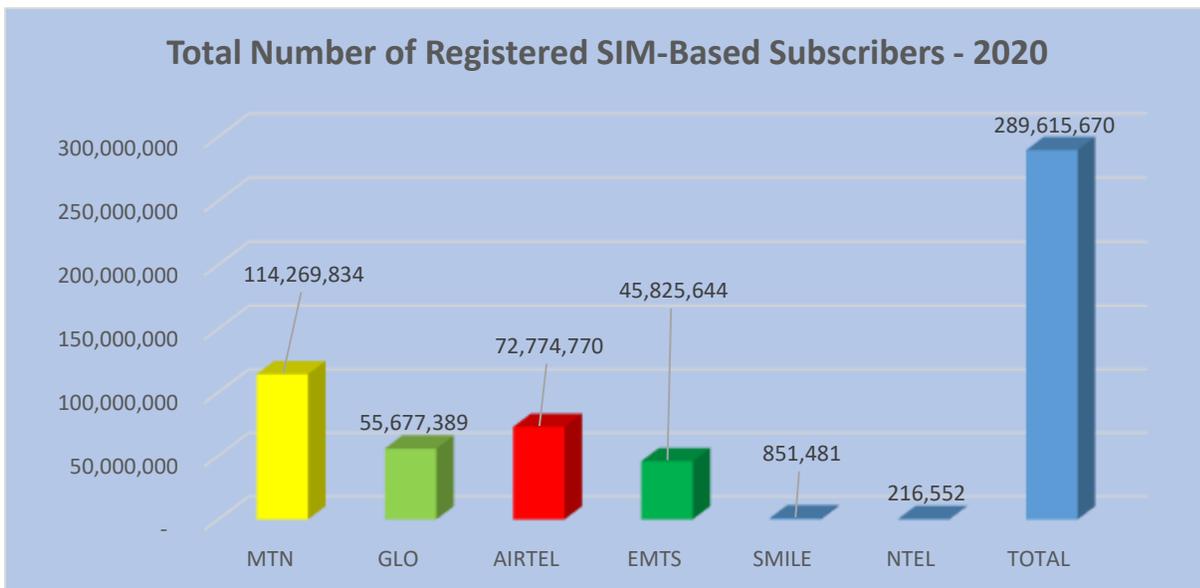


Figure 13: Total Number of Registered SIM- Based Subscribers (2020)

1g. Number of Data and Voice Mobile-Broadband Subscriptions – Smartphones

(2020): These are the subscriptions to mobile-broadband services that allow access to the open internet via hypertext transfer protocol (HTTP) and in which data services are contracted together with voice services (mobile voice and data plans) or as an add-on package to a voice plan. The number of Data and Voice Mobile-Broadband subscriptions increased from 65,223,080 recorded in December, 2019 to 78,844,980 as at December, 2020. MTN, AIRTEL, GLO, EMTS and NTEL each reported 35,111,000; 23,660,290; 12,972,426; 7,101,264 and 216,552 subscriptions as at December, 2020.

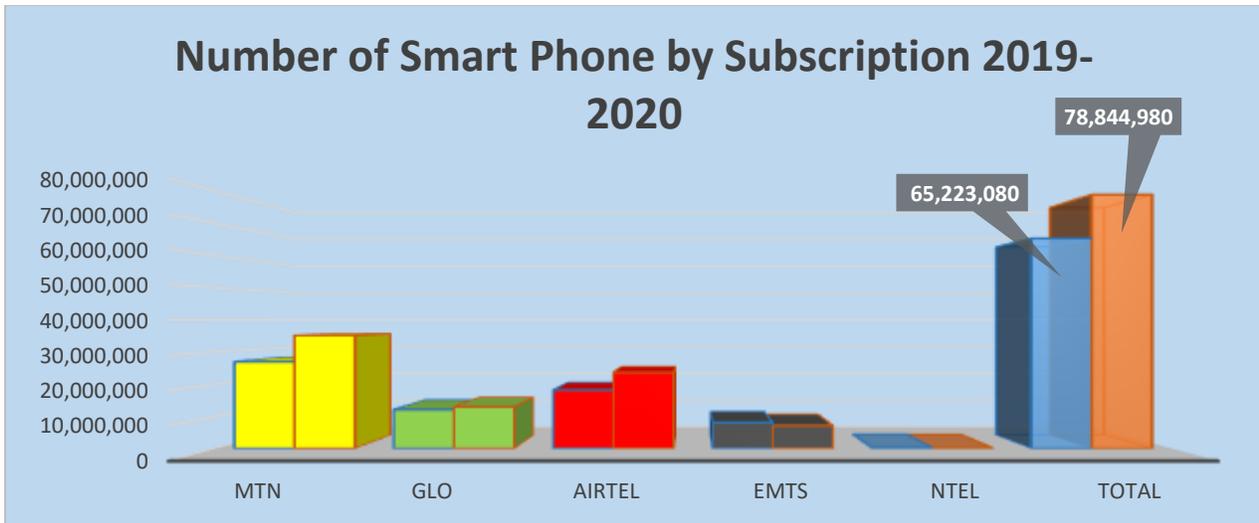


Figure 14: Number of Smartphones by Subscriptions (2019 - 2020)

1h. Mobile Voice Traffic Trend (2020): The table below represent the call traffic activities contained in the year 2020 as reported by Mobile operators in the county.

- i. **Local and National Telephone Traffic in 2020:** As at December, 2020 total outgoing Local and National Traffic was **150,825,830,687.40** minutes while Total incoming Local and National Traffic was **151,871,687,402.67** minutes. MTN had the highest total outgoing and incoming Traffic of 103,531,547,686 and 105,473,566,557 minutes respectively in 2020.

NATIONAL TELEPHONE TRAFFIC 2020			
	Outgoing	Incoming	Transit
MTN	103,531,547,686.00	105,473,566,557.00	-
GLO	758,717,879.40	128,255.78	163,896.13
AIRTEL	41,888,554,009.00	41,869,399,065.00	112,554,009.00
EMTS	3,522,412,570.00	4,415,048,371.89	38,457,117.34
SMILE	328,751,159.00	48,532,478.00	-
NTEL	795,847,384.00	65,012,675.00	-
TOTAL	150,825,830,687.40	151,871,687,402.67	151,175,022.47

Table 4: Local and National Traffic in 2020

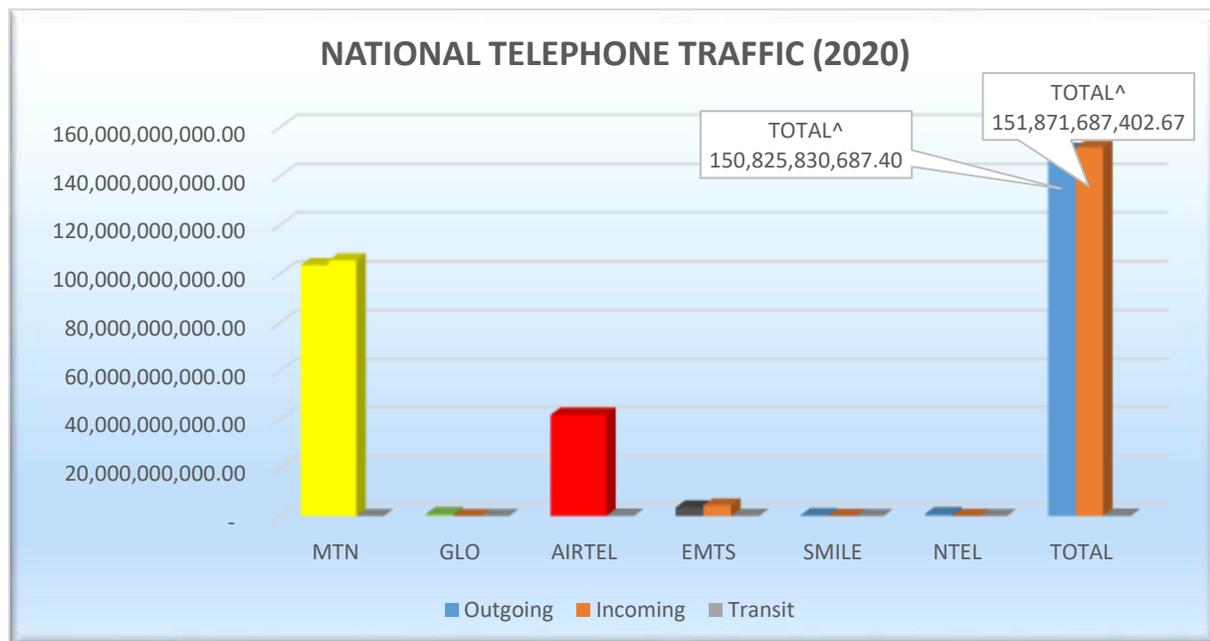


Figure 15: Local and National Telephone traffic – 2020

- ii. **Outgoing and Incoming Mobile to (and) from International Traffic in 2020:** As at December, 2020 Total Outgoing Mobile International Traffic was **453,202,089.27** minutes while Total Incoming International Traffic to Mobile was **717,166,679.72**. MTN also reported the highest Outgoing Traffic of **270,177,167** and the highest Incoming Traffic of **264,977,868.6** for the period under review.

OUTGOING/ORIGINATING & INCOMING MOBILE TO/FROM INTERNATIONAL TRAFFIC- 2019			
	Outgoing	Incoming	Total
MTN	270,177,167	264,977,868.60	535,155,035.60
GLO	68,572,271	124,462,560	193,034,831
AIRTEL	81,362,012.05	224,263,714	305,625,726.05
EMTS	32,808,040	103,297,403.73	136,105,443.73
SMILE	198,839	85.00	198,924
NTEL	83,760.22	165,048.39	248,808.61
TOTAL	453,202,089.27	717,166,679.72	1,170,368,768.99

Table 5: Outgoing and Incoming Mobile to/ from International Traffic in December 2020

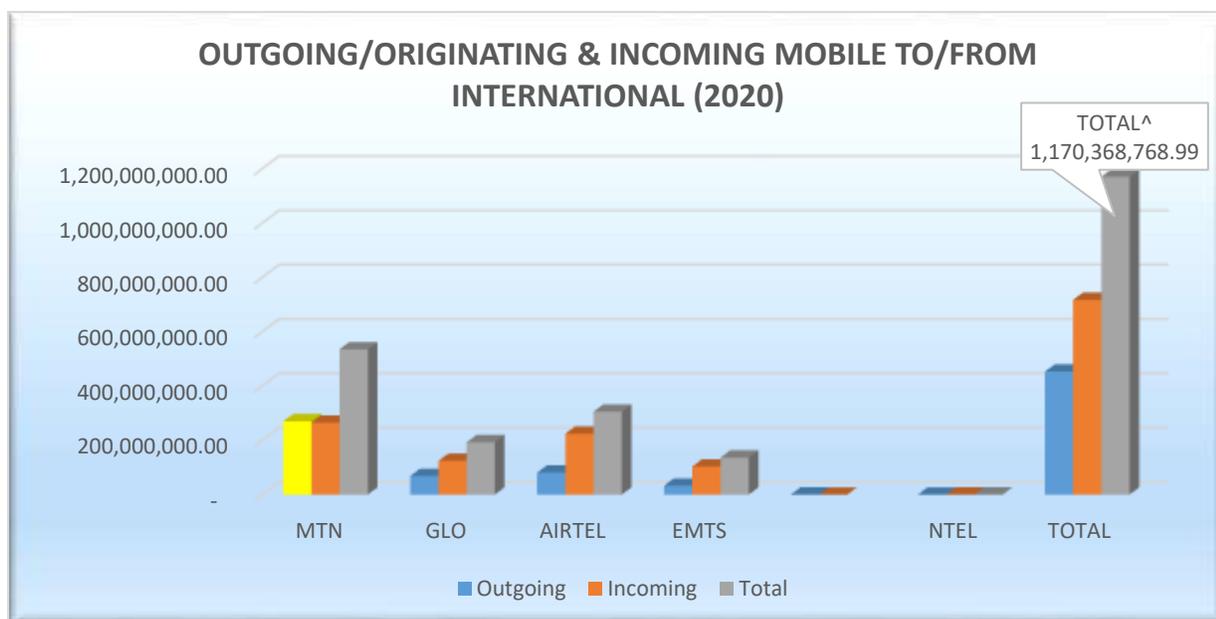


Figure 16. Outgoing and Incoming mobile to/from International traffic- December 2020

- iii. **Mobile to Mobile Voice Call Traffic in 2020:-** As at December, 2020 total outgoing traffic Mobile to Mobile minutes was **127,444,186,857.03** while total incoming Mobile to Mobile minutes was **92,428,476,944.85** MTN reported the highest Outgoing Traffic of 103,868,407,047 and the highest incoming Traffic of 69,344,162,981 for the period under review.

MOBILE TO MOBILE TRAFFIC -2020			
	Outgoing	Incoming	Total
MTN	103,868,407,047.00	69,344,162,981.00	173,212,570,028.00
GLO	569,563,541.55	116,612.75	569,680,154.30
AIRTEL	18,930,480,357.00	19,072,084,486.00	38,002,564,843.00
EMTS	2,951,137,368.48	3,898,567,712.10	6,849,705,080.58
SMILE	328,751,159.00	48,532,478.00	377,283,637.00
NTEL	795,847,384.00	65,012,675.00	860,860,059.00
TOTAL	127,444,186,857.03	92,428,476,944.85	219,872,663,801.88

Table 6: Mobile to Mobile Voice Traffic December 2020

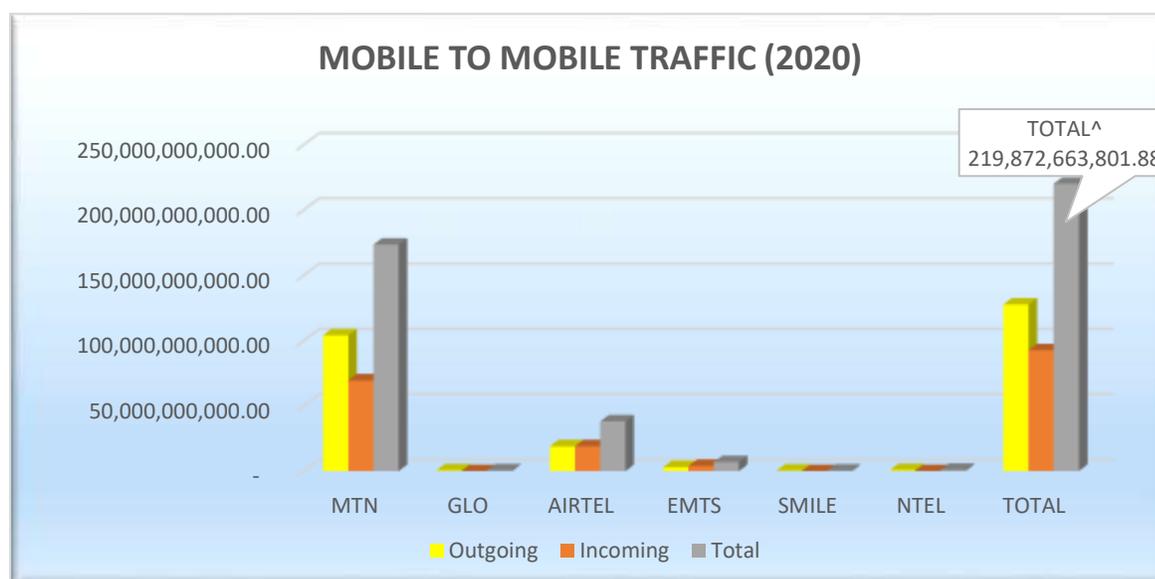


Figure 17: Mobile to Mobile traffic – December 2020

- iv. **Mobile to Fixed Voice Call Traffic in 2020:-** As at December, 2020 Total Outgoing Mobile to Fixed minutes was **4,510,212,885.76** while Total incoming Mobile to Mobile minutes was **4,982,052,614.01**. MTN reported the highest Outgoing Traffic of 4,457,199,507 and the highest Incoming Traffic of 4,897,531,963 for the period under review.

MOBILE TO FIXED TRAFFIC 2020			
	Outgoing	Incoming	Total
MTN	4,457,199,507.00	4,897,531,963.00	9,354,731,470.00
GLO	537,860.92	6,708.64	544,569.56
AIRTEL	38,526,769.00	81,218,704.00	119,745,473.00
EMTS	13,948,748.84	3,295,238.37	17,243,987.21
TOTAL	4,510,212,885.76	4,982,052,614.01	9,492,265,499.77

Table 7: Table of Mobile to Fixed Traffic in 2020

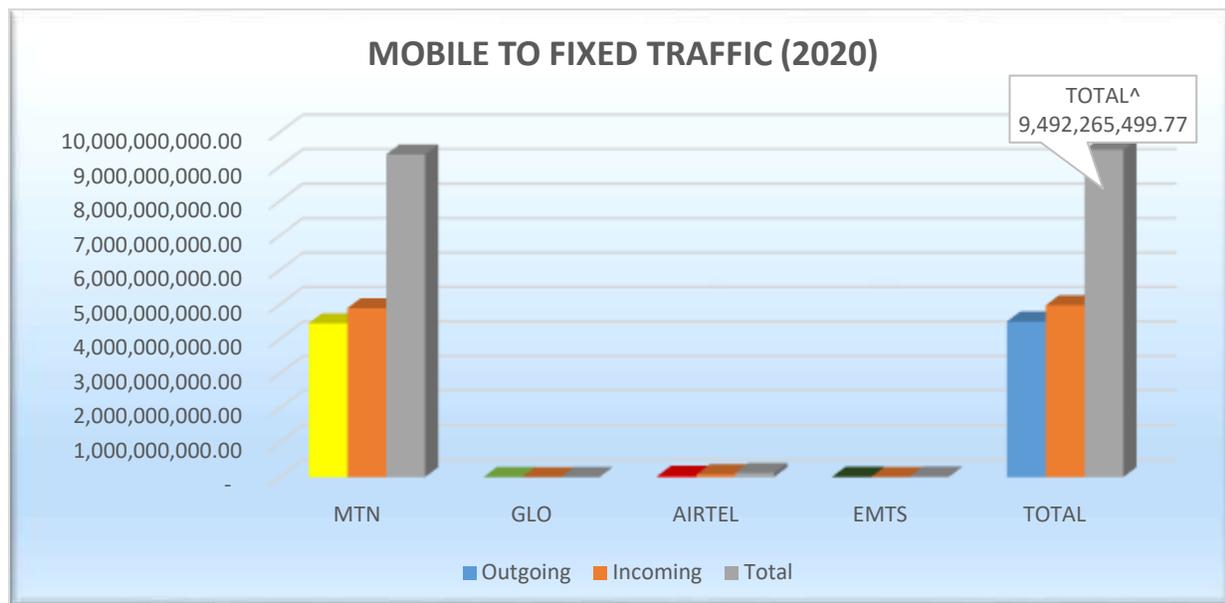


Figure 18: Mobile to Fixed traffic – December 2020

- v. **Number of Roaming Minutes in 2020:** The Total Number of Mobile Roaming Minutes Outgoing and Incoming as at December 2020 for the Mobile Operators was **48,963,365.66** and **37,011,423.99** minutes respectively. MTN posted the highest incoming and outgoing minutes of 45,571,521.51 and 33,780,080.62 respectively. See Table 6 & Figure 23 below;

NUMBER OF ROAMING MINUTES 2020			
	Outgoing	Incoming	Total
MTN	45,571,521.51	33,780,080.62	79,351,602.13
GLO	727,011.00	590,738.00	1,317,749.00
AIRTEL	92,995.00	923,511.00	1,016,506.00
EMTS	2,571,838.15	1,717,094.37	4,288,932.52
TOTAL	48,963,365.66	37,011,423.99	85,974,789.65

Table 8: Number of Roaming Minutes (2020)

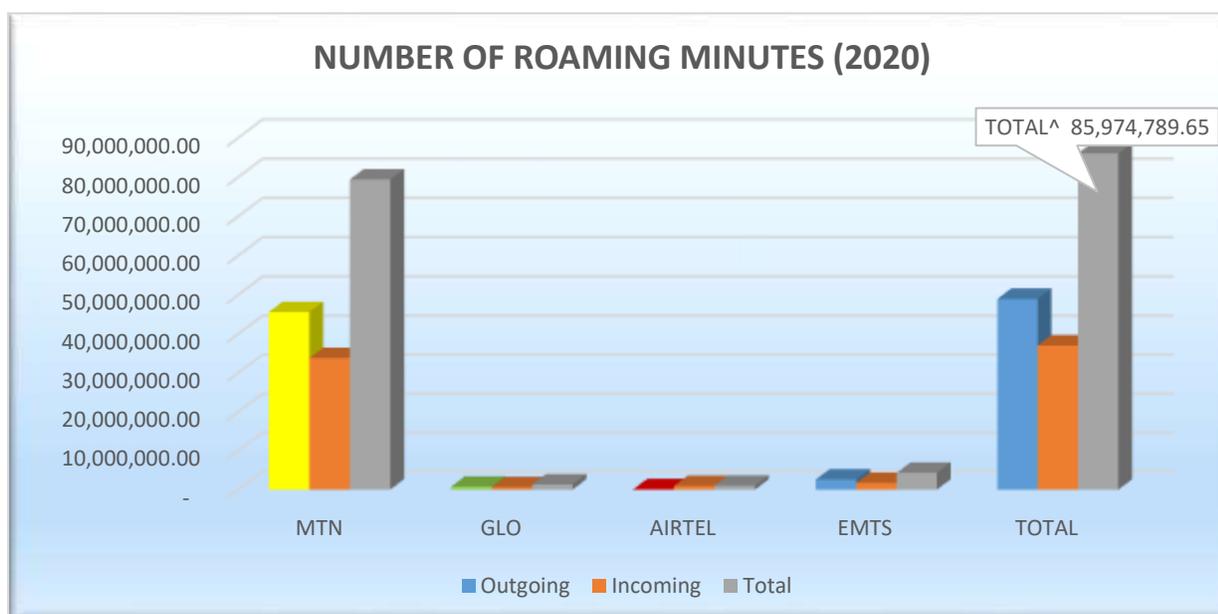


Figure 19: Number of Roaming Minutes-December 2020

- vi. **National SMS in 2020:** The Total Number of National SMS both sent and received as at December 2020 was **17,364,524,490.02**. This is a decline of (43.6%) from that of the total SMS sent and received in year 2019 that stood at **30,769,238,164.56** SMS. There was a 29.4% increase in the number of SMS sent out in year 2020 compared to year 2019. Conversely, the Year 2020 count of Incoming SMS declined by (62.6)% higher than that of Year 2019

MTN recorded the highest count of SMS received (6,290,889,268) in Year 2020 the highest count of SMS sent (6,100,543,865) within the period under review. This is as indicated in table 7 and in figure 24 below;

SMS MESSAGES NATIONAL 2020			
	SMS Sent	SMS Received	Total
MTN	6,100,543,865.00	6,290,889,268.00	12,391,433,133.00
GLO	4,937,703.00	67,252,373.00	72,190,076.00
AIRTEL	1,812,221,611.00	2,434,041,027.00	4,246,262,638.00
EMTS	288,867,077.02	343,997,390.00	632,864,467.02
SMILE	15,225,166.00	2,259,646.00	17,484,812.00
NTEL	2,138,553.00	2,150,811.00	4,289,364.00
TOTAL	8,223,933,975.02	9,140,590,515.00	17,364,524,490.02

Table 9: Total number of Outgoing/Incoming Local/National SMS trend (2020)

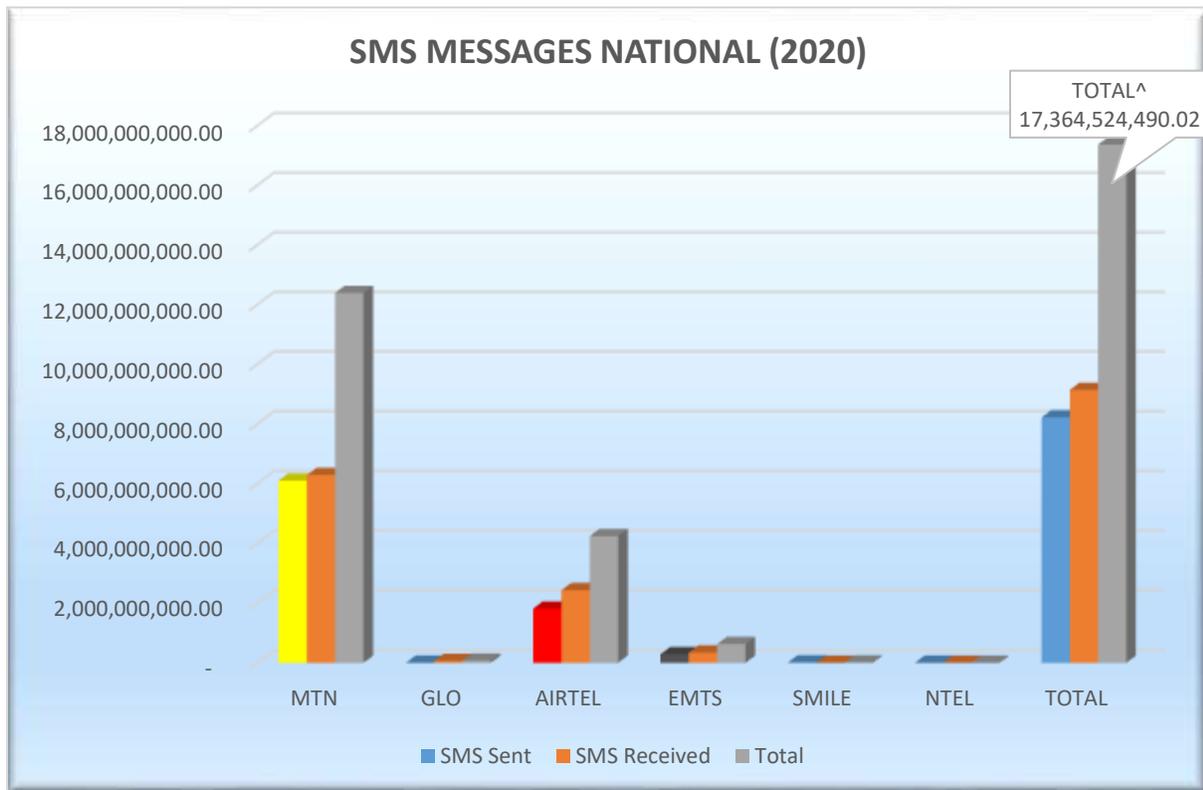


Figure 20: Total Outgoing/ Incoming SMS, Mobile December 2020

vii. **International SMS in 2020:** The Total Number of International SMS sent as at December 2020 was **57,566,961** while total number of SMS received was **229,173,132**. See Table 8 & Figure 25 below;

NUMBER OF SMS MESSAGES INTERNATIONAL				
	2019		2020	
	SMS Sent	SMS Received	SMS Sent	SMS Received
MTN	31,763,227	8,014,285	42,444,130	17,796,174.00
GLO	6,527,919	3,285,046	111,511	988,766.00
AIRTEL	15,349,064	135,442,243	13,144,346.00	173,756,541.00
EMTS	2,386,805	36,536,376	1,862,814.00	36,498,692.00
SMILE	23,800	85,968	4,160.00	132,959.00
NTEL	154,484	154,554		
TOTAL	56,205,299	183,518,472	57,566,961.00	229,173,132.00

Table 10: Total number of Outgoing/Incoming International SMS trend 2020



Figure 21: Total Outgoing/ Incoming SMS International, 2020

- Total Number of International SMS sent increased from 56,205,299 in year 2019 to 57,566,961 as at Year 2020; this indicates a 2.4% increase in SMS international received in year 2020. Similarly, the Number of international SMS received in year 2019 increased from 183,518,472 SMS to 229,173,132 SMS. This translated to 24.9% increase.
- Airtel recorded the highest count of incoming SMS (173,756,541) while MTN recorded the highest count of SMS sent (42,444,130) in year 2020. This is as shown in table 8 above.

C. SUBSCRIBER & SERVICE DATA – INTERNET SUBSCRIPTIONS

1a. Mobile Subscriber Internet Data- 2020: As at December, 2020 the total active internet subscriptions increased from 125,979,155 Subscriptions as at December 2019 to 154,289,727subscriptions in December 2020. This indicates a 22.5% increase in Total Active Internet Subscriptions Year on Year.

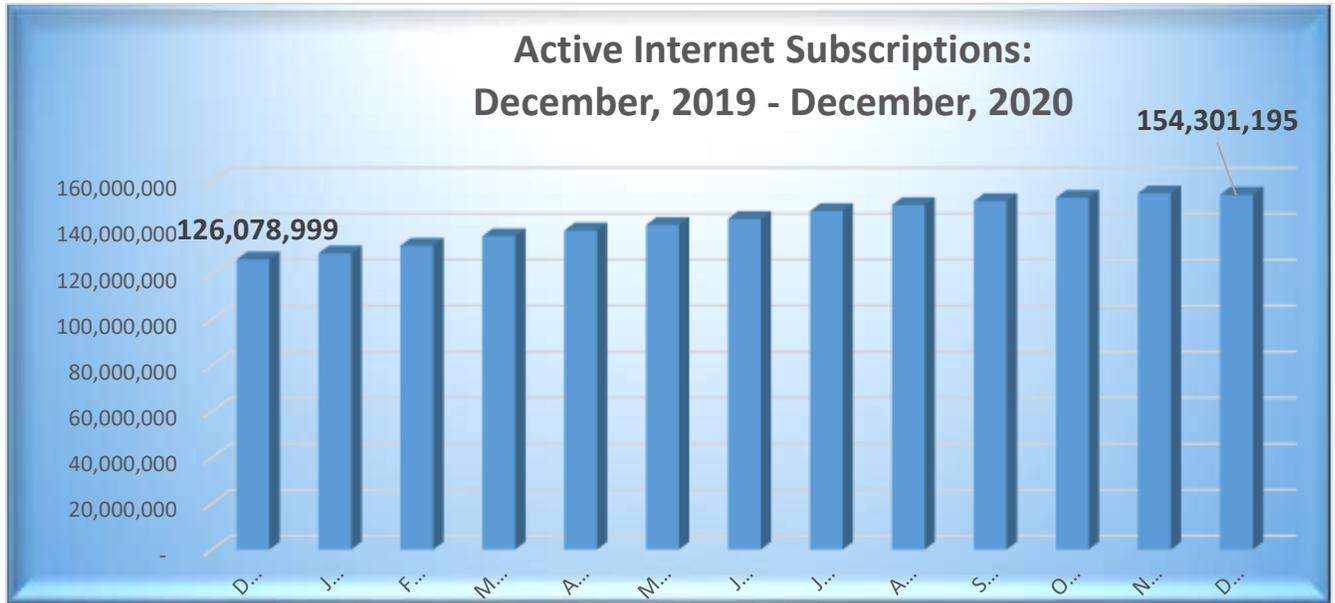


Fig 22: Active Internet Subscriptions: December, 2019 to December, 2020

For the Mobile GSM Operators the Active Internet as at December 2020 is as shown below:

Operators (GSM)	Active Internet Subscriptions December'19 (GSM)	Active Internet Subscriptions December'20 (GSM)	Difference	% Change
MTN	54,113,148	65,359,306	11,246,158	20.8
GLO	28,934,439	40,106,659	11,172,220	38.6
AIRTEL	34,522,392	41,287,733	6,765,341	19.6
EMTS	8,068,175	7,120,088	(948,087)	(11.8)
SMILE	288,647	378,635	89,988	31.2
NTEL	52,354	37,306	(15,048)	(28.7)
TOTAL	125,979,155	154,289,727	28,310,572	22.5

Table 11: Active Internet Subscription (GSM) Operators 2019-2020

- In view of the figure 28 and table 9 above, the mobile GSM Operators accounted for 99.7% of the Active Internet Subscription in the Industry.

- MTN recorded the highest percentage increase of Active Internet Subscription of 20.8%.
- EMTS and Ntel recorded a decline of 11.8% and 28.7% decline in Active Internet Subscription subscriptions at the end of Year 2020 respectively. The Operators attributed the decline majorly to the FG’s directive to suspend the Sale, Registration and Activation of new SIMs.

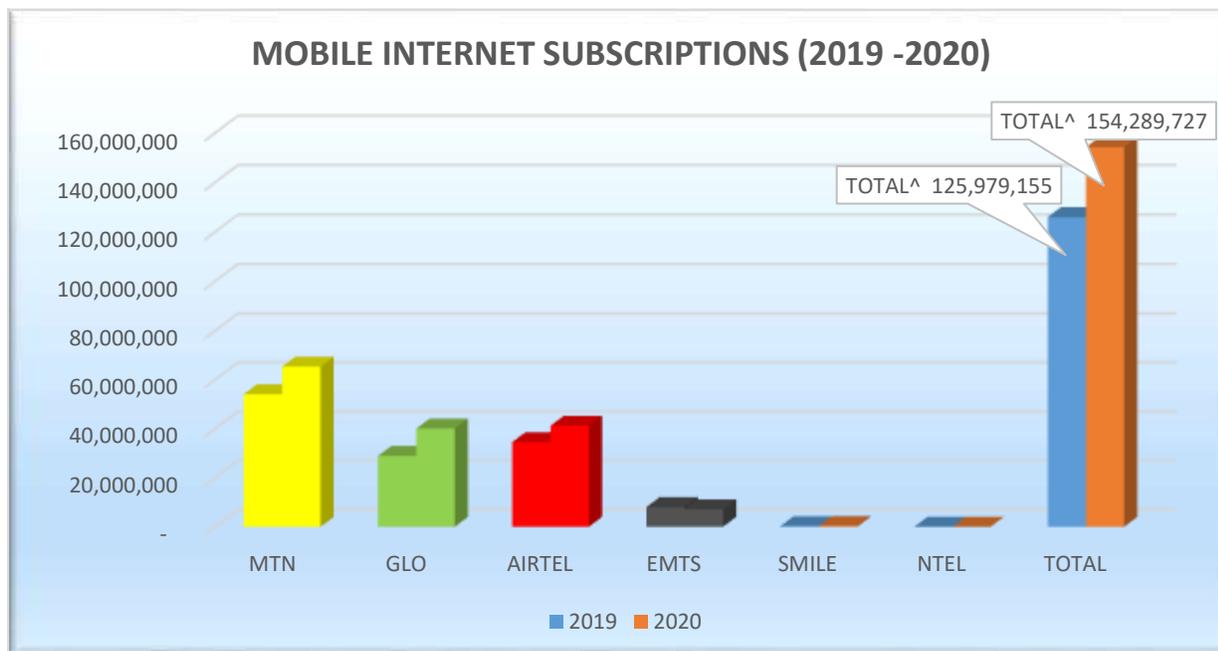


Figure 23: Total Number of Active Mobile Subscriptions – (2019 - 2020)

BROADBAND PENETRATION STATISTICS – DECEMBER 2020

1b. Active Subscriptions to Broadband/Broadband Penetration (2020): As at December, 2020 Active Mobile Broadband Subscriptions was 85,941,222 as reported by **MTN, GLO, AIRTEL, EMTS, SMILE & NTEL**. The subscriptions indicate that Broadband penetration stood at **45.02%** as at December 2020. The graph below represents Broadband Penetration within the period under review. The Commission has long exceeded the target of 30% penetration as at December 2018 and has begun implementing all milestones to meet the new target of 70% Broadband penetration by year 2025 as contained in the new Broadband Plan.

BROADBAND PENETRATION RATE DECEMBER 2019 – DECEMBER 2020				
	3G Subscriptions	4G Subscriptions	Total 3G & 4G	BB % Penetration
Dec-19	50,441,608	21,712,216	72,153,824	37.80
Jan-20	50,262,833	23,203,260	73,466,093	38.49
Feb-20	50,799,743	24,755,861	75,555,604	39.58
Mar-20	50,221,532	25,942,142	76,163,674	39.90
Apr-20	49,300,266	26,257,897	75,558,163	39.58
May-20	49,350,646	27,268,346	76,618,992	40.14
Jun-20	50,040,829	28,743,397	78,784,226	41.27
Jul-20	50,140,881	30,074,733	80,215,614	42.02
Aug-20	50,653,555	31,999,692	82,653,247	43.30
Sep-20	53,180,212	33,534,766	86,714,978	45.43
Oct-20	53,315,550	34,360,361	87,675,911	45.93
Nov-20	50,468,079	35,563,083	86,031,162	45.07
Dec-20	49,402,994	36,538,228	85,941,222	45.02

Table 12. Total Active 3G & 4G Internet Subscriptions December 2019- December 2020

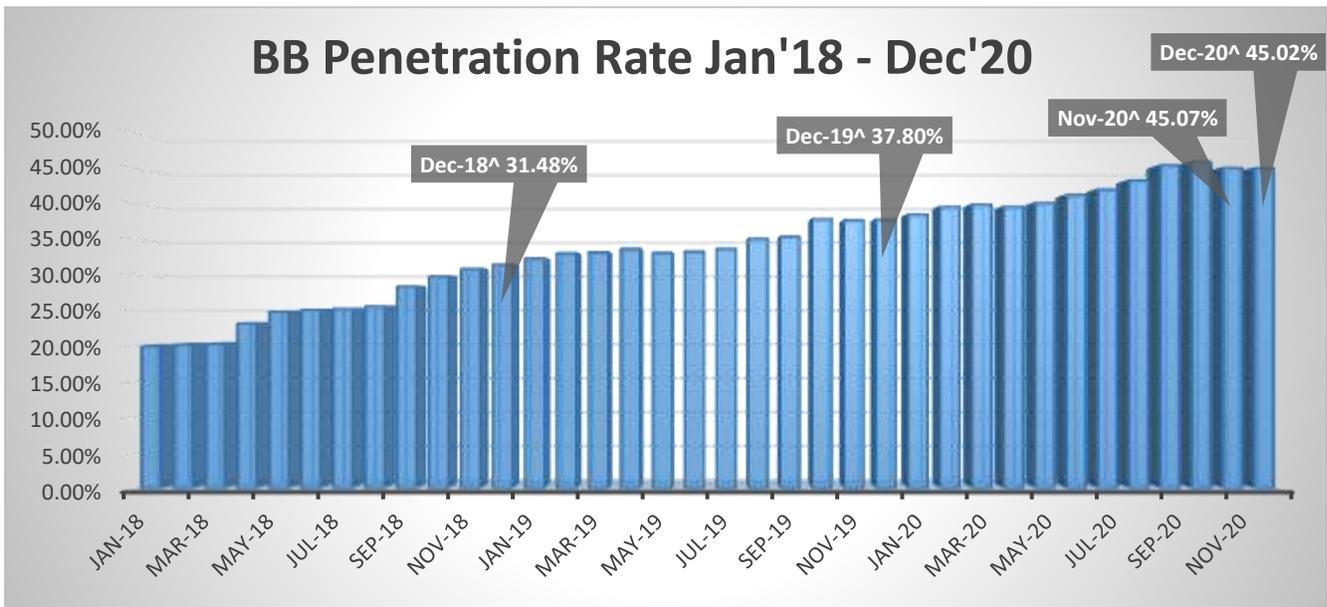


Figure 24: Active Broadband Subscriptions (2020)

1c. Data Usage/Consumption Statistics – December 2020:- The total volume of data consumed by subscribers increased from 123,648TB in December, 2019 to 205,880.4TB as at December 2020 indicating a percentage increase of 66.5% year on Year.

The increase in data usage is directly linked to the outbreak of the COVID-19 pandemic disrupted normal activities and most functions had to be held virtually including schools, Corporate Meetings etc.

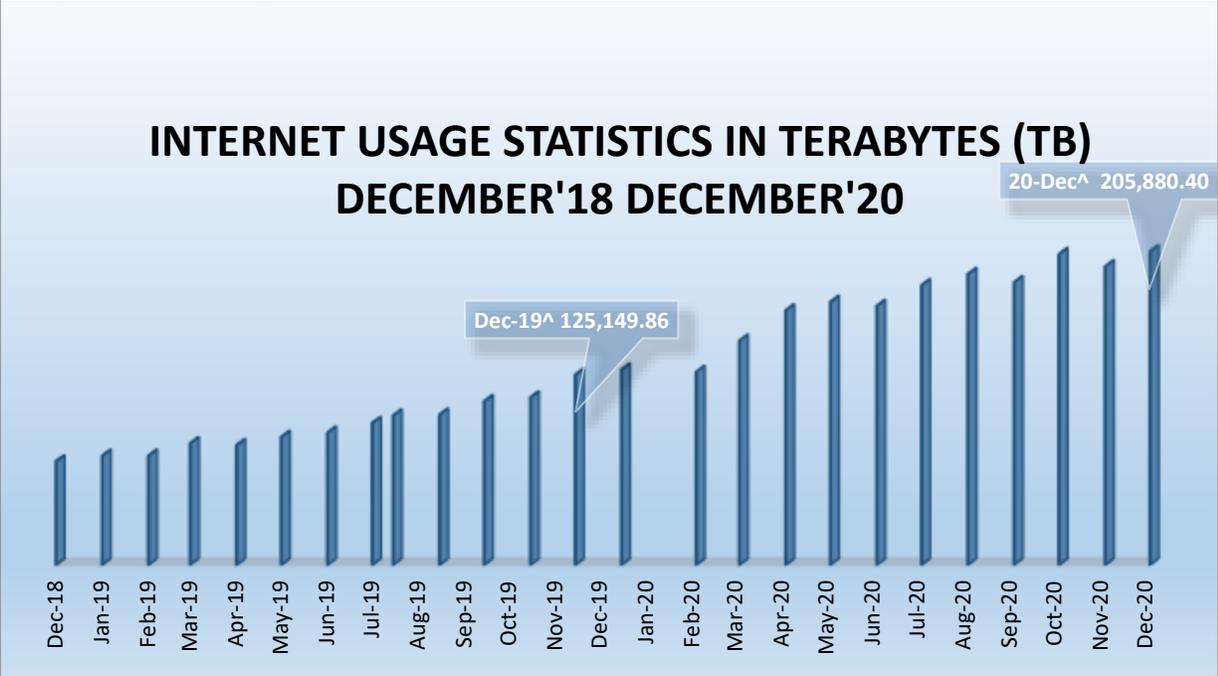


Figure 25: Internet Usage Statistics December, 2018 – December, 2020

1d. Machine to Machine (2020): This refers to the number of Mobile-Cellular machine to machine subscriptions that are assigned for use in machines and devices for the exchange of data between networked devices, and are not part of a consumer subscription. As at December, 2020 the number of Mobile-Cellular machine-machine subscriptions as reported by **MTN, GLO, AIRTEL and EMTS** was 1,217,584. EMTS had the highest number of machine to machine subscriptions with 454,001, GLO had 414,081 while Airtel recoded 349,502 M2M subscriptions as shown in Figure 18 below;

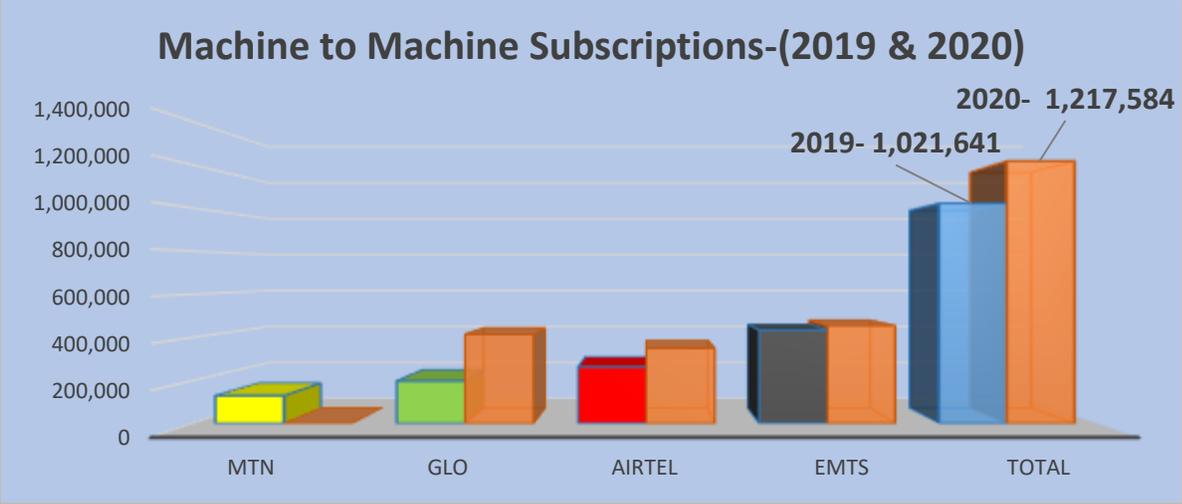


Figure 26: Machine to Machine Subscriptions (2020)

1e. Number of Data-Only Mobile-Broadband Subscriptions – Dongles (2020): This refers to subscriptions to mobile broadband services that allow access to the open Internet via hypertext transfer protocol (*HTTP*) and do not include voices services, i.e. Subscriptions that offer mobile broadband as a standalone service such as mobile-broadband subscriptions for data-cards, USB modem/dongle and tablets. MTN, GLO, AIRTEL and EMTS had a total number of **513,346** Data-Only Mobile-Broadband Subscriptions (Dongles) as at December, 2020.

In summary, AIRTEL, GLO, MTN, and EMTS each recorded **322,273; 92,531; 79,718;** and **18,824** Data-Only Mobile-Broadband Subscriptions (Dongles) respectively as at December, 2020.

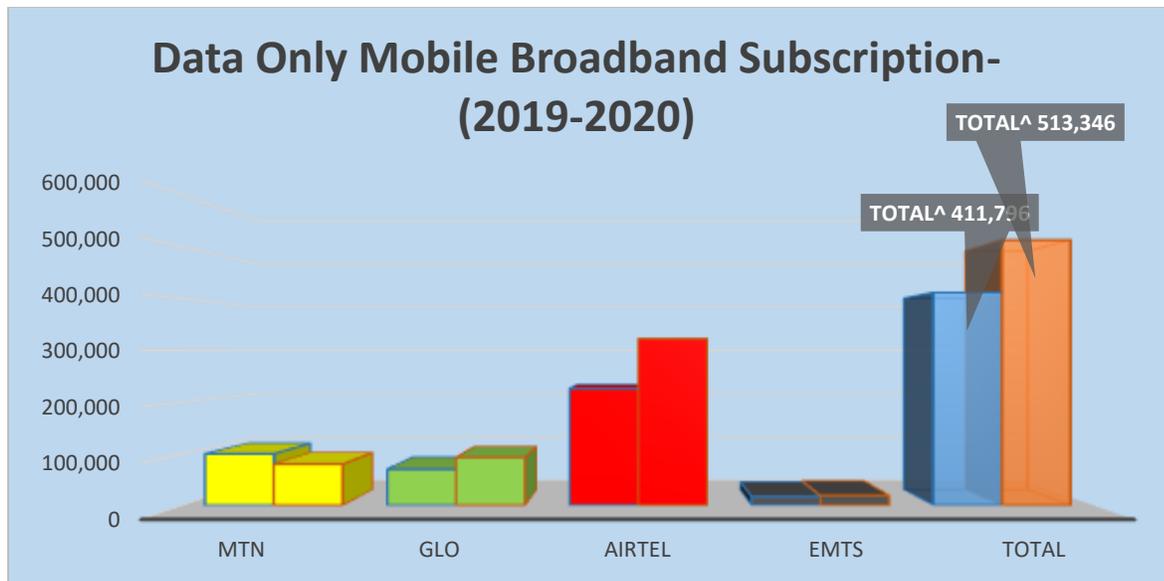


Figure 27: Data-Only Broadband Subscriptions December (2019 - 2020)

D. SUBSCRIBER & SERVICE DATA – PORTING TREND IN NIGERIA AS AT DECEMBER, 2020

1a. The Mobile (GSM) Number Porting Activities: - this segment reports porting activities across the various Mobile GSM networks (*MTN, GLO, AIRTEL & EMTS*) in the country and analysis of these activities is as shown below:

- i. Table 11 below shows the trend of Nigeria’s porting activities from inception (May, 2013 to December, 2020) for the four (4) major GSM Operators. The analysis above illustrates that EMTS had the highest count of Port-in subscribers [673,625] while AIRTEL, MTN and GLO respectively recorded the following counts of Port-in as follows [320,765]; [151,655] & [100,230].
- ii. Similarly, our analysis from May, 2013 to December, 2020 reveals that MTN had the highest number of subscribers that ported-out [439,477] to other networks while AIRTEL, GLO & EMTS are as follows [336,191]; [273,016] & [165,829] respectively.
- iii. Porting activities slowed down towards the end of the year due to the Federal Government’s directive of December 09, 2020 that suspended the Sales and Registration of SIM cards.

	<i>MTN</i>	<i>GLO</i>	<i>AIRTEL</i>	<i>EMTS</i>	<i>TOTAL</i>
	<i>May'13-December'20</i>	<i>May'13-December'20</i>	<i>May'13-December'20</i>	<i>May'13-December'20</i>	<i>May'13-December'20</i>
<i>Cumulative Port-In</i>	151,655	100,230	320,765	673,625	1,246,275
<i>Cumulative Port-Out</i>	439,477	273,016	336,191	165,829	1,214,513
<i>Total Porting Activities (Port-in and Port-out for the period May, 2013- December, 2020</i>					<i>2,460,788</i>

Table 13: Cumulative Mobile Number Portability (May, 2013 – December, 2020)

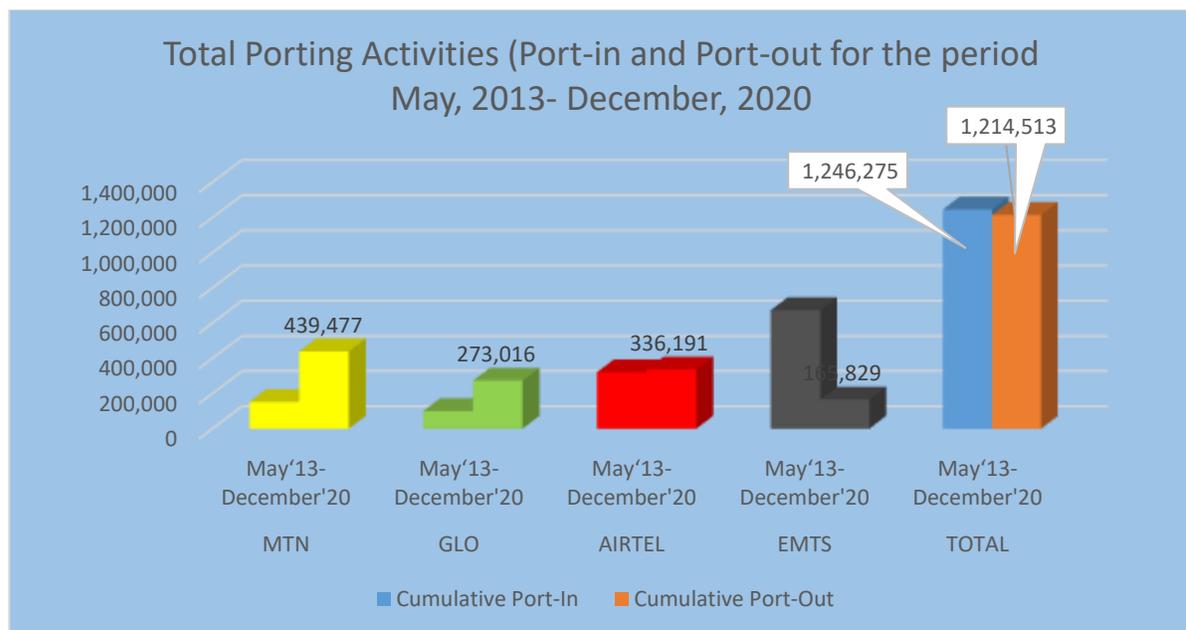


Figure 28: Cumulative Mobile Number Portability (May, 2013 – December, 2020)

1b. Port- In activities from December, 2019 – December, 2020:- The count of Port-In activities increased from 139,022 in year 2019 to 182,958 as at the end of year 2020. This indicates an increase of 32% in the total port-in between 2019 and 2020 year on year.

EMTS recorded the highest count of **Port-In** at 77,492 in Year 2019 as at Year end 2020 it decreased to 74,134 (still been the highest port-in count) indicating a percentage decline of (4)% year on year.

GLO recorded the lowest percent decrease of the number of **Port-in** in 2019 and year on year; 7,653 port-in in Year 2019 and year 2020 recorded 3,870 port-in counts. This is as indicated in table 12 and figure 31 below;

	Port-In Activities Jan-Dec 2019	Port-In Activities Jan-Dec 2020	% Increase /Decrease
MTN	23,851	37,027	55
GLO	7,653	3,870	(49)
AIRTEL	30,026	67,927	126
EMTS	77,492	74,134	(4)
TOTAL	139,022	182,958	32

Table 14: Port-In Activities-2019 - 2020

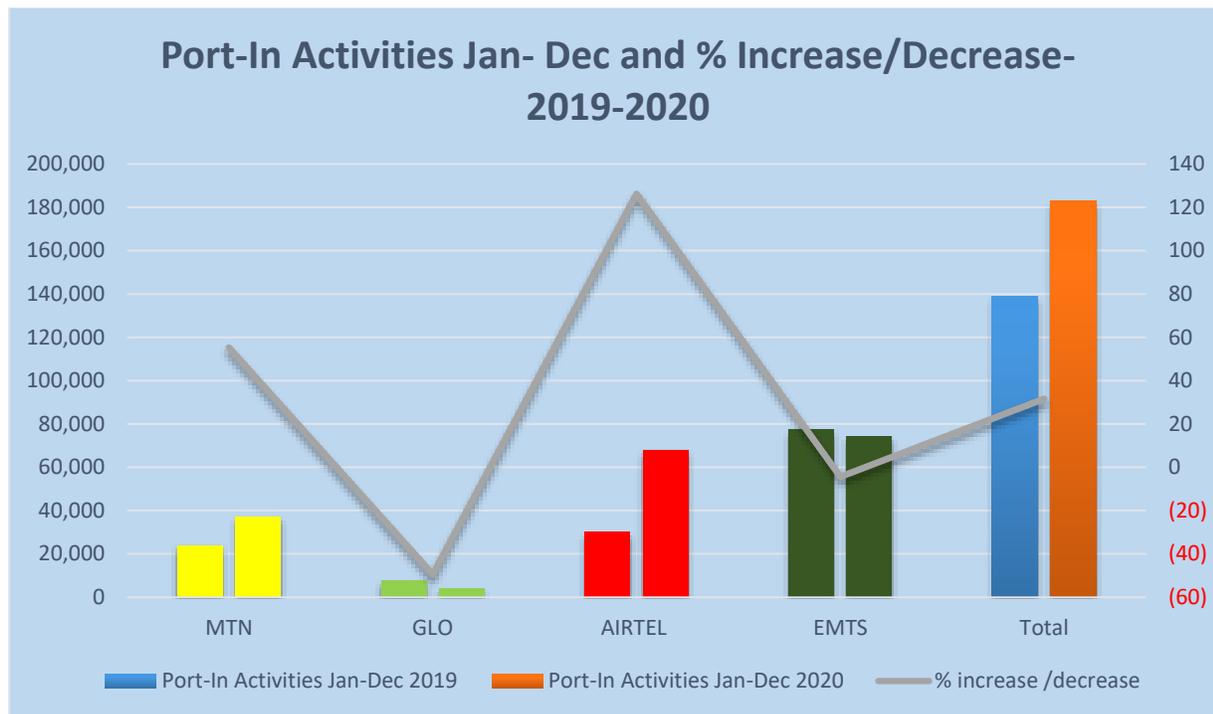


Figure 29: Port-In Activities Jan-Dec and Percentage Increase/Decrease of Port-In-2019 2020

1c. Port-Out activities from December, 2019 – December, 2020:- The Count of Port-out increased from 121,154 in Year 2019 to **187,171** in Year 2020 indicating an increase of 54% year on Year.

Airtel recorded the highest port-out of 67,596 and a percentage increase of port-out when compared with the preceding year at 36%. Glo recorded a 71% increase in the number of port out in year 2020 when compared to year 2019. This is indicated in the table 13 and figure 32 below;

	Port-Out Activities Jan-Dec 2019	Port-Out Activities Jan-Dec 2020	% Increase /Decrease
MTN	19,535	35,881	84
GLO	32,327	55,322	71
AIRTEL	49,867	67,596	36
EMTS	19,425	28,372	46
TOTAL	121,154	187,171	54

Table 15: Count of Port-Out Activities-December 2019-2020

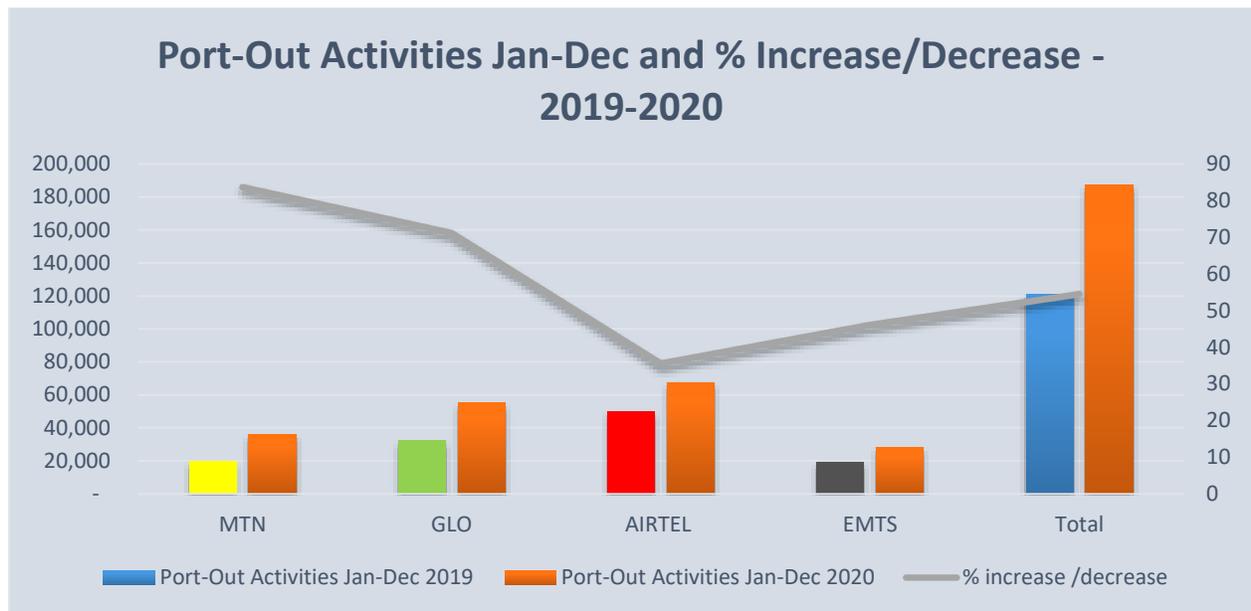


Figure 30: Port-Out Activities and Percentage Increase/Decrease of Port-Out Activities December 2019-2020

FINANCIAL DATA – MOBILE (December 2020)

1a. Revenue: The Mobile operators as at December 2020 recorded an approximate total revenue of **N2, 268,000,000,000** as against **N2, 019,000,000,000** recorded in Year 2019. This reflects an increase of 12.33% of total revenue from the Mobile Network Operators.

1b. Operating Cost: Total Operating Cost for the Mobile Network Operators declined from **N1,415,000,000,000** in Year 2019 to **N1,395,000,000,000** at the end of Year 2020. This illustrates a slight decline (reduction in operational cost) of (1.46) % from the figures reported in 2019. The reduction in operating cost may have been as result of investment in CAPEX that are more efficient.

1c. Assets: The total value of Assets reported by the Mobile Network Operators increased from approx. **N2, 923,000,000,000** in year 2019 to **N3, 444,000,000,000** as at end of Year 2020. This represents an increase of 18.81% increase in the value of assets reported in Year 2019.

1d. CAPEX-Local Investments in the Industry (2019-2020): As the end of Year 2020 the following Mobile Network Operators reported Capital Expenditures (CAPEX) within Years 2019 and 2020. The Mobile Network Operators reported a total CAPEX of **N404, 819,000,000** as against **the N339, 77,000,000** invested in Year 2019.

E. STAFF PROFILE – MOBILE (2020)

The total number of Staff reported by the Mobile operators (MTN, GLO, Airtel, EMTS, Smile and Ntel) as at December, 2020 was a total of 7,576; 195 expatriates and 7,381 Nigerians. Further breakdown of this category reveals that 4,843 of the Nigerian Staff are Male while 2,538 are female. Similarly, 191 are male expatriates and 4 are female expatriates.

CHAPTER 4

ANALYSIS OF 2020 YEAR END SUBSCRIBER/ NETWORK DATA- FIXED TELEPHONY (Fixed Wired/Fixed Wireless) OPERATORS

The Fixed Year End Performance Report depicts the analysis of the market as at December, 2020 which is presented as follows:

A. NETWORK DATA

1. **Base Stations:** As at December, 2020 a total of **105 base stations** was recorded.

B. INFRASTRUCTURE DEPLOYMENT

1. **Fiber Optics:** As at December, 2020 21st Century deployed **8,050km** on land and **33km** submarine while ipNX deployed **1956km** on land fibre optics.

2. **Microwave Radio:** IpNX reported **296km** in Microwave Radio deployment for 2020.

3. **Trunks in Use:** 21st Century and IPNX under the fixed telephony segment reported a total of **722km** Trunks (E1) in use as at December, 2020.

4. **Gateways in Use:** 21st Century and ipNX reported a total of **6 Gateways** as at December 2020. Both operators used 3 gateways each.

C. SUBSCRIBER AND SERVICES DATA

1. **Total Active Voice Subscriptions:** During the year under review; Globacom and ipNX reported a decline of 21.3% and 42.1% respectively in their active subscriptions. While MTN had **7,192 total active subscriptions** as at December 2020, 21st century recorded the highest number of subscriptions of total active subscription of 96,365 as at December, 2020. Total Active Subscription in the fixed segment decreased slightly by about **(0.11) %**.

TOTAL ACTIVE VOICE SUBSCRIPTIONS (2019 & 2020)		
	2019	2020
MTN	5,955	7,192
GLOBACOM	2,852	2,244
21ST CENT	96,221	96,365
IPNX	2,126	1,230
TOTAL	107,154	107,031

Table 1: Total Active Voice Subscriptions 2019 - 2020

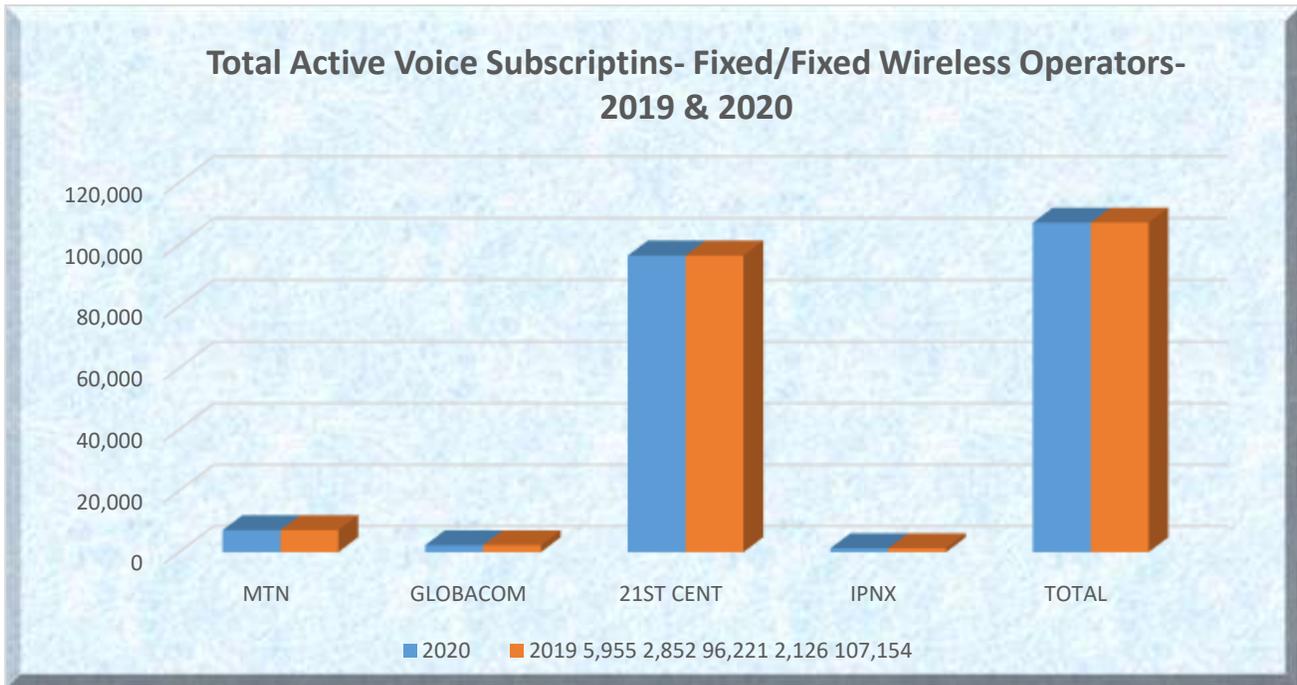


Figure 1: Total Active Voice Subscriptions (2019 & 2020)

2. **Total Active Internet Subscriptions:** As at December 2020 the Active Internet subscriptions for MTN, 21st Century and ipNX was totaled **17,778** subscription. This indicated a huge increase from 2019 which was **9,670** subscriptions. The Operators each recorded the following: ipNX with the highest subscription of **13,192**, MTN **2,635** and 21st Century with the lowest **1,951** subscriptions. Our analysis show that the internet usage for the fixed wired and wireless network majorly increased by **83.8%**

TOTAL ACTIVE INTERNET SUBSCRIPTIONS		
	2019	2020
MTN	2,096	1,951
21ST CENTURY	2,799	2,635
IPNX	4,775	13,192
TOTAL	9,670	17,778

Table 2: Total Active Internet Subscriptions (2019 & 2020)

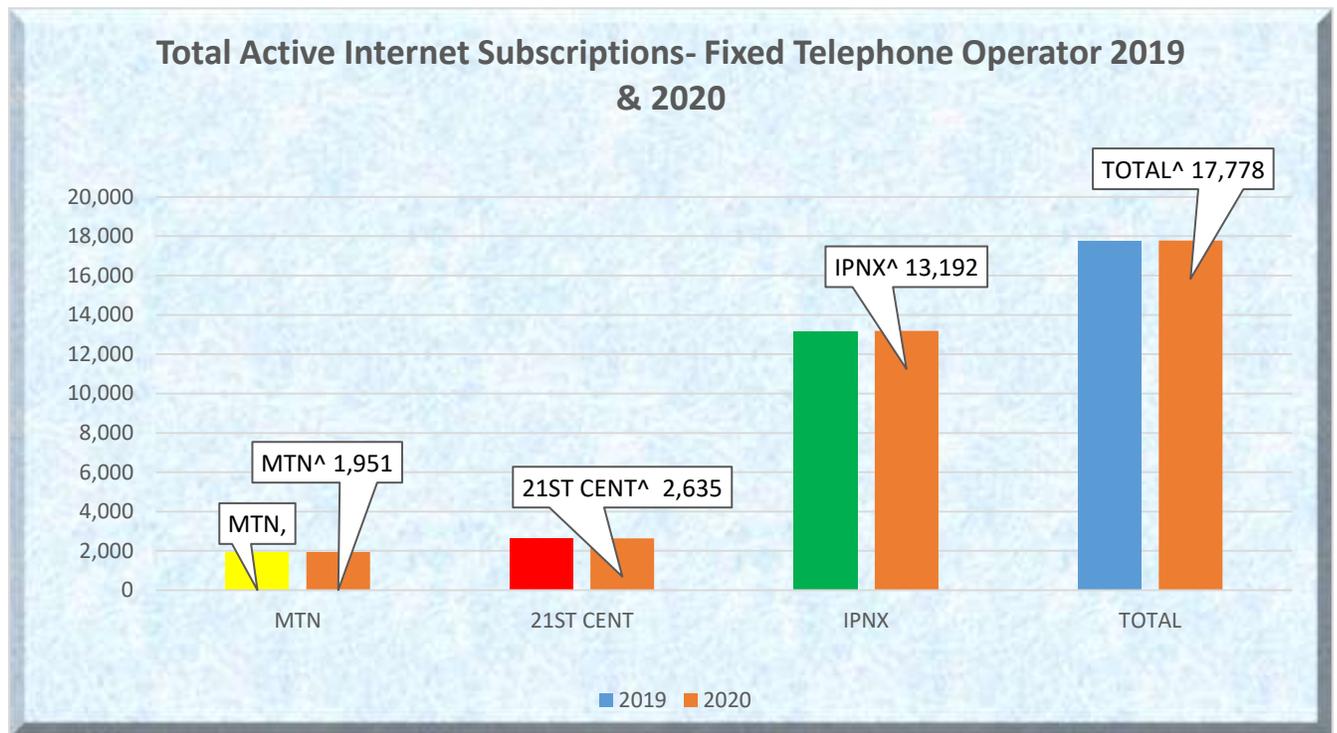


Figure 2: Total Active Internet Subscriptions (2019 - 2020)

3. **Fibre to the Home/ Building Subscriptions:** As at December 2020 ipNX, MTN and 21st Century respectively installed 12,719km, 3,551km and 640km of Fibre to Home / Building. This is a total of 16,910km of fibre deployed by these operators within the reporting period.

FIBRE-TO-THE-HOME/BUILDING SUBSCRIPTIONS		
	2019	2020
MTN	3,748	3,551
21ST CENT	635	640
IPNX	9,509	12,719
TOTAL	13,892	16,910

Table 3: Fibre to the Home/Building Subscriptions 2020

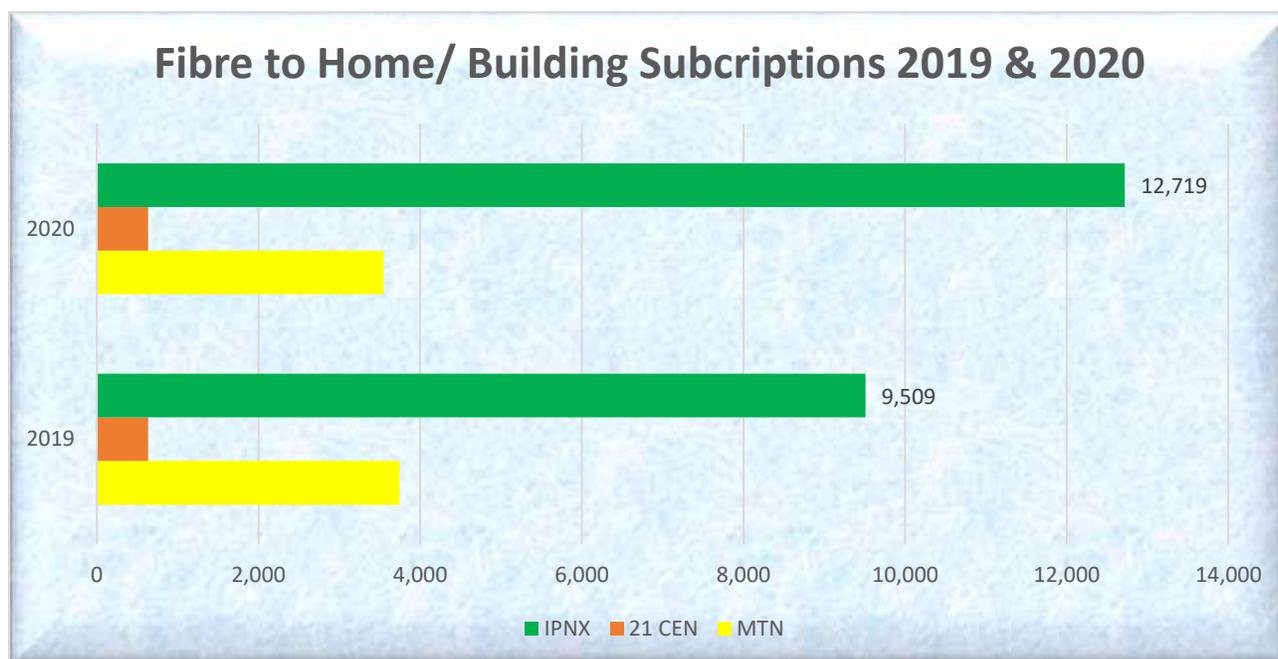


Figure 3: Fibre to the Home/Building Subscriptions 2020

4. **Number of subscriber by Internet Speed:** As at December 2020, **389 users** fell in the **256kbs– 1Mbps Mbps** category; **3,276** users subscribed to speeds between **2mbps-10mbps**; **10,677** users between **10Mbps – 4G**, category. There was no subscriptions in the **4G & above** category as reported by ipNX and 21st Century.

NUMBER OF SUBSCRIBERS BY INTERNET SPEED 2020				
	256kbs-1mps	2mbps-10mbps	10mbps-4G	4G- above
<i>21ST CENT</i>	142	863	145	N/A
<i>IPNX</i>	247	2,413	10,532	N/A
Total	389	3,276	10,677	N/A

Table 4: Fibre to the Home/Building Subscriptions 2020

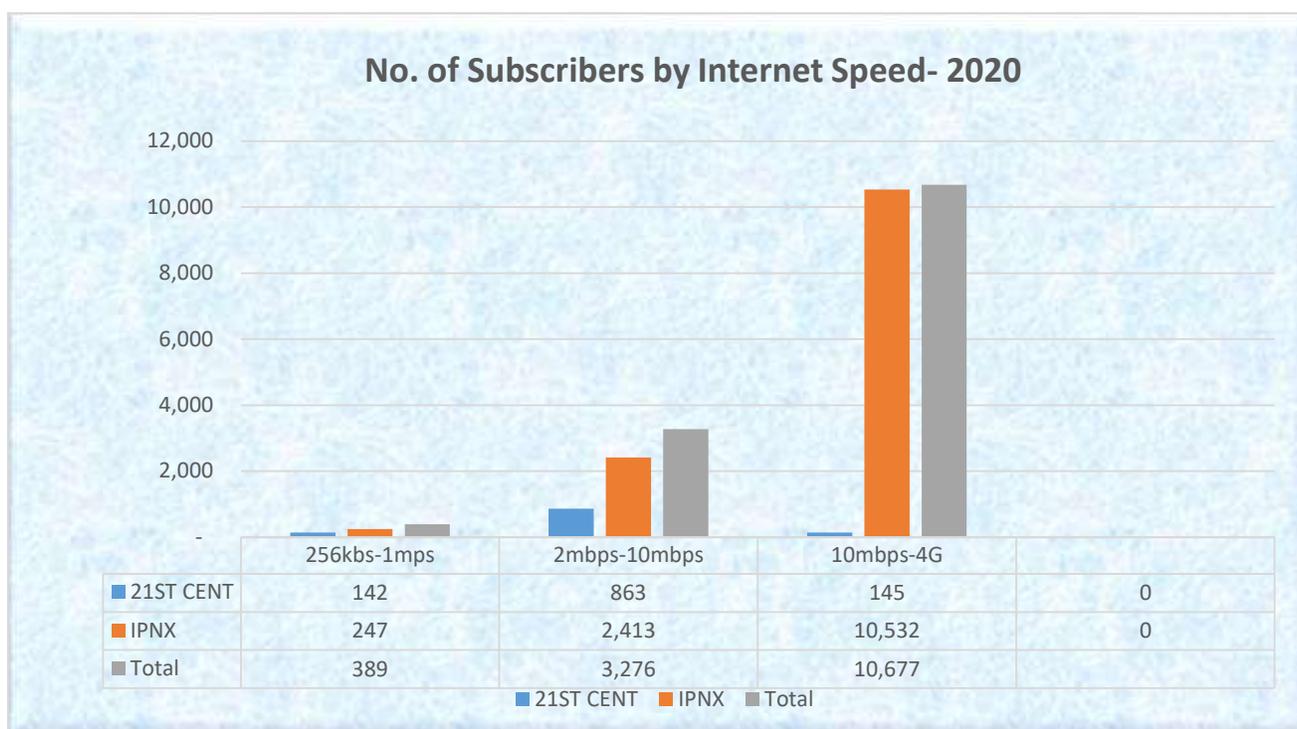


Figure 4: No of Subscribers by Internet Speed 2020

C. TRAFFIC DATA

1. **Local and National Traffic (Outgoing):** As at December, 2020, the total minutes generated for local and national **outgoing traffic** (paid minutes) by fixed telephone operators; MTN, GLO, 21st Century and ipNX was **11,874,884, 8,246,281, 26,413,377** and **105,761** respectively, making a total of **46,640,303** local & national **Outgoing** traffic. This signifies an increase of about **4,374,569** paid minutes from 2019 that recorded **42,265,734** minutes.

2. **Local and National Traffic (Incoming):** As at December, 2020, the total minutes generated for local and national **incoming traffic** (paid minutes) by fixed telephone operator; MTN, GLO, 21st Century and ipNX was **504,332, 986,135, 25,869,017** and **371,727** respectively, making a total of **27,731,211** local & National **Incoming** traffic. This signifies an increase of about **1,347,904** paid minutes from 2019 that recorded **26,383,307** minutes.

Analysis of the **Total Outgoing and Incoming** Local National Telephone Traffic data for this market segment shows that a substantial portion of this traffic was generated on **21st Century network**.

LOCAL AND NATIONAL TELEPHONE TRAFFIC (IN MINUTES)		
	2020	
	Outgoing	Incoming
MTN	11,874,884	504,332
GLOBACOM	8,246,281	986,135
21ST CENT	26,413,377	25,869,017
IPNX	105,761	371,727
TOTAL	46,640,303	27,731,211

Table 5: Total Number of Local & National Outgoing/ Incoming Calls (2020)

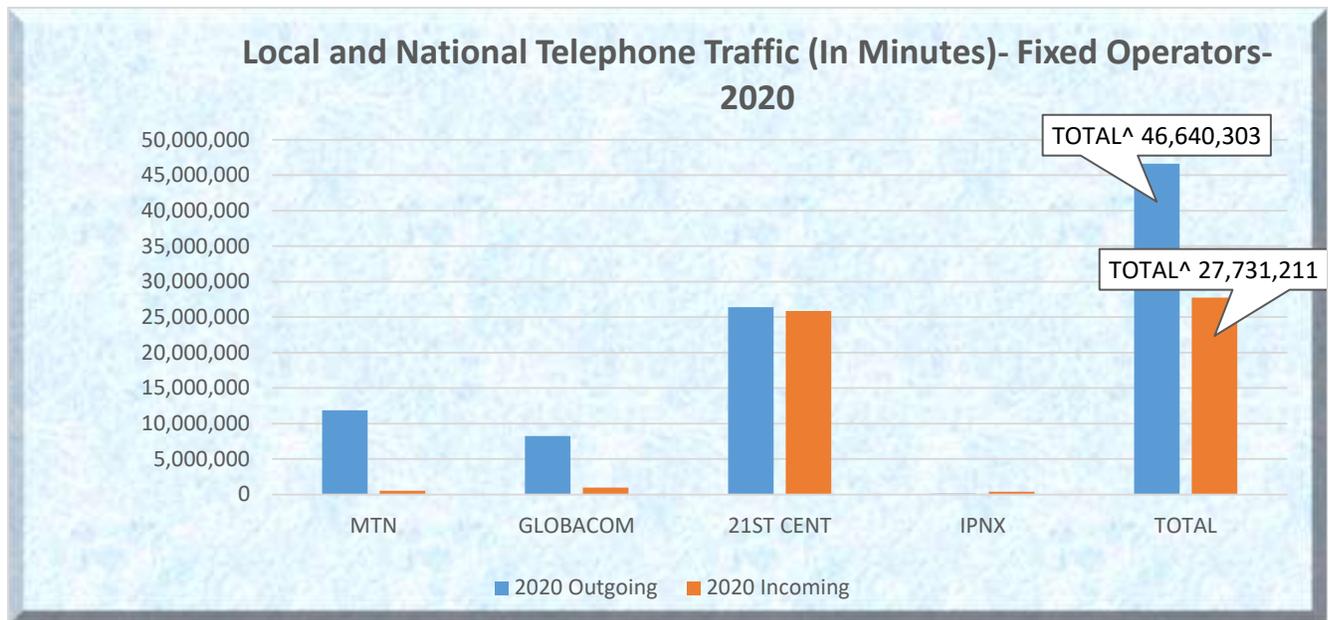


Figure 5: Total Number of Local & National Outgoing/ Incoming Calls (2020)

3. **Total number of Fixed to Mobile traffic:** Similarly as at December, 2020 the total number of **Outgoing** Fixed to Mobile traffic decreased from **3,372,375,845** minutes in 2019 to **154,019,315** minutes in 2020 indicating a **95.4%** drastic decline in the **fixed to Mobile** traffic in the year 2020.

Also the total number of **Incoming Fixed to Mobile** traffic as at December 2020 was **138,255,036** minutes compared to **111,653,253** minutes reported in 2019 thereby indicating a further decline of **23.8%**.

Analysis of the **Fixed to the Mobile** traffic for the fixed market segment shows that a considerable percentage of this traffic was generated on the **21st Century network**.

FIXED TO MOBILE TRAFFIC 2020			
	Outgoing	Incoming	Total
MTN	60,626,040	24,760,600	85,386,640
GLOBACOM	8,246,281	986,135	9,232,416
21ST CENT	83,612,014	108,119,185	191,731,199
IPNX	1,534,980	4,389,116	5,924,096
TOTAL	154,019,315	138,255,036	292,274,351

Table 6: Total number of Fixed to Mobile Traffic (2020)

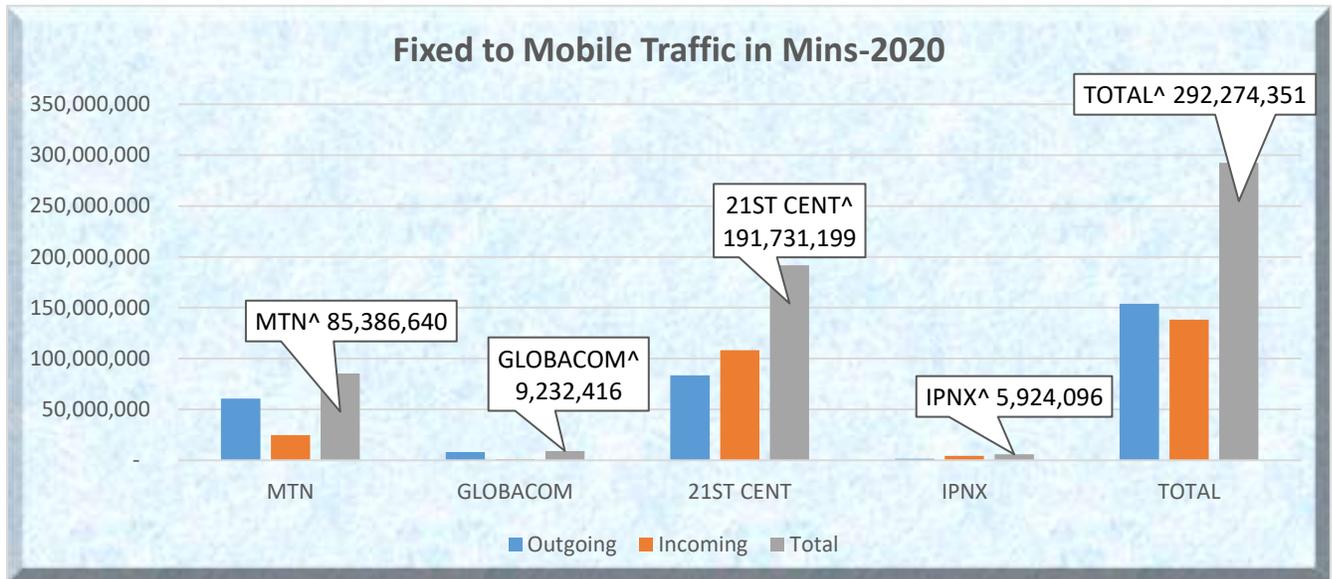


Figure 6: Total number of Fixed to Mobile Traffic (2020)

4. Total number of Outgoing/ incoming Fixed Minutes International traffic:

As at December, 2020 the total number of **Outgoing Fixed International** traffic (**minutes**) for MTN, 21st Century and ipNX were **88,280,105**; **4,832,149** & **16,171,000** minutes respectively. While **Incoming Fixed International** traffic for MTN, and 21st Century were **293,094** & **6,160,751** respectively.

Over all the total number of **Outgoing Fixed International** traffic reported for MTN, 21st Century and ipNX for 2020 was recorded at **109,283,254**.

While the total for **Incoming fixed international** traffic was totaled at **115,737,099** for MTN and 21st century for year 2020.

LOCAL AND NATIONAL TELEPHONE TRAFFIC (IN MINUTES)			
2020			
	Outgoing	Incoming	Total
MTN	88,280,105	293,094	88,573,199
21ST CENT	4,832,149	6,160,751	10,992,900
IPNX	16,171,000	-	16,171,000
TOTAL	109,283,254	6,453,845	115,737,099

Table 7: Local and National Telephone Traffic (In Minutes)

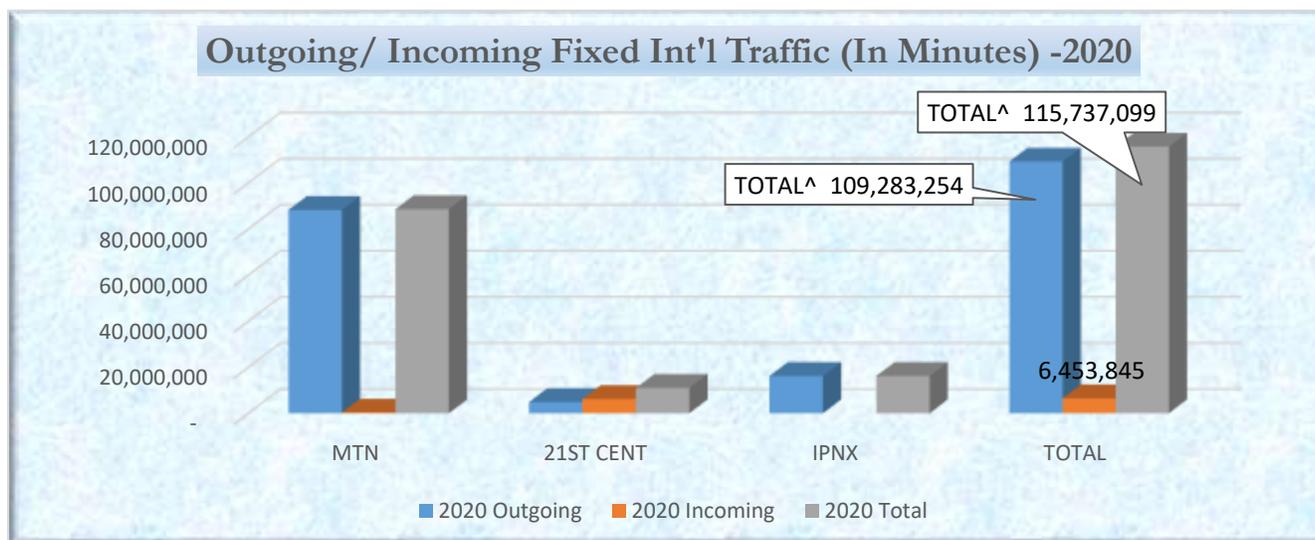


Figure 7: Total number of Outgoing/ Incoming Fixed Minutes International traffic (2020)

D. FINANCIAL DATA

- Revenue:** The total revenue as at December 2020 for the fixed telephone operators was **₦8,432 million**.
- Operating Cost:** Similarly, the total operating cost as at December 2020 for the fixed telephone market segment was **₦7,651 million**.
- Investment:** Capex expenditure was recorded at N599 Million as at December 2020.

D. STAFF PROFILE

The total number of Staff reported by the fixed telephone operators (21st Century and ipNX) as at December, 2020 was 221 and 1 expatriate staff.

CHAPTER 5

ANALYSIS OF 2020 YEAR END PERFORMANCE REPORT FOR INTERNET SERVICE PROVIDERS (ISPs)

A. INTRODUCTION:

The 2020 Year-End Subscriber network report involved a total of 61 (Sixty One) Internet Service Providers with valid licenses across the six geopolitical zones.

B. NETWORK DATA:

1. Points of Presence (PoP):

S/N	NUMBER OF POINTS OF PRESENCE	
1	Spectranet Limited	629
2	Tizeti Ltd	117
3	Inq. Digital Nigeria Limited (Formerly Vodacom)	90
4	Estream Ltd	85
5	Cobranet Limited	83
6	VDT Communications Limited	58
7	IPNX Nigeria Limited	52
8	Main One Ltd	46
9	Information Connectivity Solutions Limited (Icsl)	29
10	Internet Solutions Nigeria Ltd	19
11	Winrock Nigria Limited	17
12	Nanocom International Ltd	15
13	Dotmac Technologies Ltd	12
14	Skymax Ltd	12
15	Platinum Index Data Limited	10
16	Dimension Data Ltd	9
17	Access Solutions Limited	8
18	Coquina Software Ltd	7
19	IDS Africa Ltd	7
20	Juniper Solutions Limited	6
21	Bridgeone Telecoms Limited	6
22	Briclinks Africa Plc	5
23	Trefoil Networks Ltd	5
24	Hyperia Ltd	5
25	BAT Ltd	5
26	I-World Networks Limited	5
27	Phonetime Ltd	5
28	Ekovolt Telco Limited	4
29	Comternet World Ltd	4

30	Excelsimo Networks	4
31	Megamore Wireless Broadband Ltd	4
32	Khal Ltd	4
33	Radical Technology Network Ltd	4
34	Interweb Satcom Ltd	3
35	Gutti Global Solutions Ltd	3
36	Hotspot Network Ltd	3
37	Layer3 Ltd	2
38	Mobitel Limited	2
39	Orange Business Ltd	2
40	Ciudad Infrastructure Ltd	2
41	Galaxy Backbone Ltd	2
42	Fast Feet Ltd	2
43	CBC Emea Ltd	1
44	Arif Investment Nig Ltd	1
45	Connectfocus Technologies Limited	1
46	Cobweb Communications Limited	1
47	Cloud Cover Distribution Limited	1
48	Electronic Connections Ltd	1
49	Futurecom Limited	1
50	One Network Integrated Links Ltd	1
51	Netaccess Ltd	1
53	Sea Net Technologies Limited	1
53	Ejalet Technologies Ltd	1
54	Tehilah Base Digital Ltd	1
55	COZ Internet Limited	1
56	8ight Unique Global Telecommunication Ltd	1
58	Zeta-Web Nigeria Limited	1
59	Coscharis Technologies Ltd	1
60	Wavetek Ltd	1
61	Bava Ltd	0
	Total	1409

Table 1: Points of Presence in 2020 (PoPs)

A Point-of-Presence (POP) is the access point provided by ISPs and used to measure each ISPs size or growth rate. 61 ISPs responded to the questionnaires and had a combined total of 1409 PoPs as at December, 2020. Table 1 above, shows that Spectranet had the highest number of PoPs with **629, indicating 44% of the PoPs**, followed by Tizeti, Inq. Digital Ltd and E-stream Networks with **117, 90 and 85** PoPs, indicating **8.3%, 6.4% and 6.3%** respectively.

Other ISPs - CBC Emea Ltd, Electronic Connection Ltd, Net Access Ltd, Arif Investment Ltd, Connect Focus Technologies, Cobweb Communications and Cloud Cover were among Service Providers with (1) point of presence each.

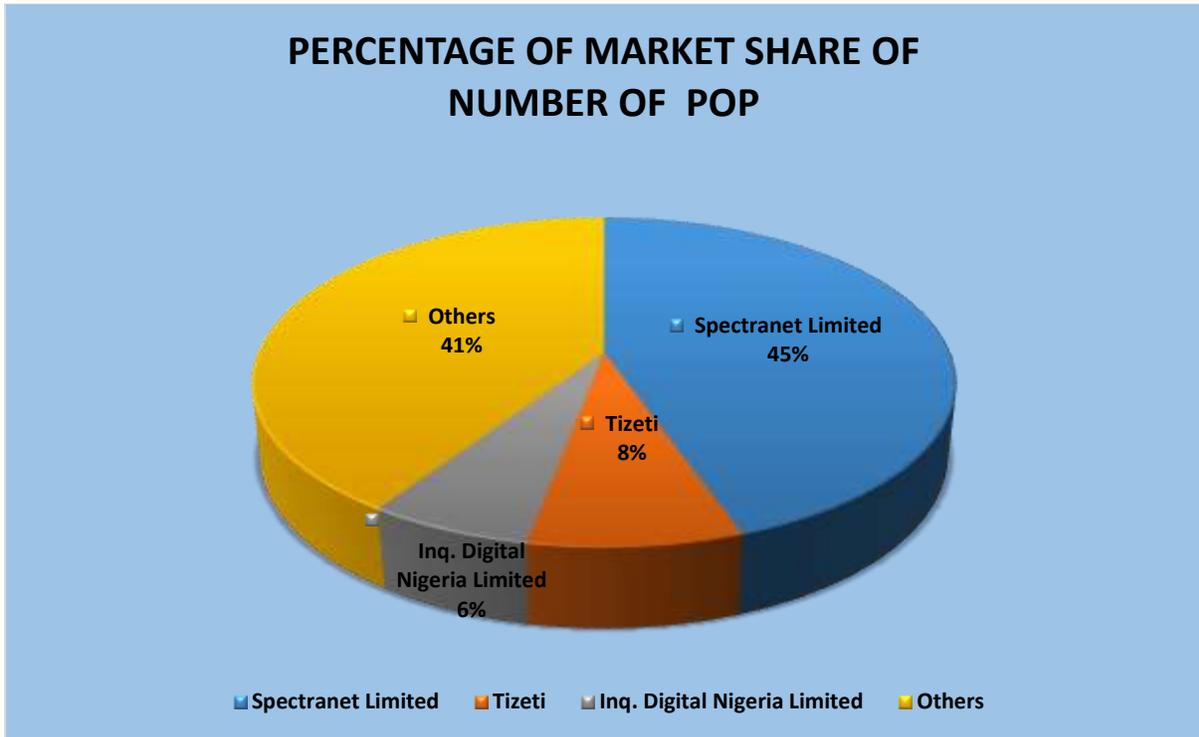


Figure 1. Analysis of Points of Presence (PoP)

The Chart above indicates the four (4) ISPs with highest percentage of PoP. Spectranet recorded the highest presence with 45% of PoPs, followed by Tizeti with 8% and Inq. Digital 6% respectively, while others had a combined 41% points of presence.

2. Location of Service Provider:

S/N	LOCATION OF SERVICE PROVIDER	STATE
1	8ight Unique Global Telecommunication Ltd	Abuja
2	Access Solutions Limited	Abuja
3	Arif Investment Nig Ltd	Abuja
4	BAT	Lagos
5	Bava Network and Technologies Ltd	Lagos
6	Briclinks Africa Plc	Lagos
7	Briclinks Africa Plc	Lagos
8	BridgeOne Telecoms Limited	Ogun
9	CBC EMEA Limited	Lagos
10	Ciudad Infrastructure Ltd	Lagos
11	Cloud Cover Distribution Limited	Lagos
12	Cobranet limited	Lagos
13	Cobweb Communications Limited	Bayelsa
14	Comternet World Ltd	Akwa Ibom
15	ConnectFocus Technologies Limited	Lagos
16	Coquina Software Company	Lagos

17	Coscharis Technologies Ltd	Lagos
18	Coz Internet Limited	Lagos
19	Dimension Data Ltd	Lagos
20	Dotmac Technologies Ltd	Abuja
21	Ejalet Tech Ltd	Lagos
22	Ekovolt Telco Limited	Lagos
23	Electronic Connection Limited	Abuja
24	Estream Limited	Lagos
25	Excelsimo Networks Limited	Lagos
26	Fast Feet Ltd	Lagos
27	Futurecom Limited	Lagos
28	Galaxy Backbone Ltd	Abuja/Lagos
29	Gutti Global Solutions Ltd	Borno
30	Hotspot Network Ltd	Abuja
31	Hyperia Ltd	Lagos
32	IDS Africa Ltd	Lagos
33	Information Connectivity Solutions Limited (ICSL)	Lagos
34	Inq. Digital Nigeria Limited (formerly Vodacom)	Lagos
35	Internet Solutions Nigeria Ltd	Lagos
36	Interweb Satcom Ltd	Abuja
37	IPNX Nigeria Ltd	Lagos
38	I-World Networks Limited	Ogun/Oyo
39	Juniper solutions limited	Lagos
40	KHAL Ltd	Lagos
41	Layer3 Ltd	Abuja
42	Main One Ltd	Lagos
43	Megamore Wireless Broadband Ltd	Kano
44	Mobitel Ltd	Lagos
45	Nanocom International Ltd	Abuja
46	Netaccess Ltd	Kaduna
47	One Network Integrated Links Ltd	Abuja
48	Orange Business Communications Ltd	Lagos
49	Phonetime Telecoms Ltd	Lagos
50	Platinum Index Data Ltd	Lagos
51	Radical Technology Network Ltd	Lagos
52	Sea-Net Technologies	Germany
53	Skymax Integrated Networks	Lagos
54	Spectranet Nigeria Limited	Lagos, Ogun, Nasarawa, Port Harcourt, Abuja & Oyo

55	Tehilah Base Digital Ltd	Lagos
56	Tizeti Ltd	Lagos
57	Trefoil Ltd	Abuja
58	VDT Communications Ltd	All 36 states
59	Wavetek Nigeria Limited	Lagos
60	Winrock Ltd	Abuja
61	Zeta-web Nigeria Limited	Lagos

Table 2: Location of Internet Service Providers (ISPs)

In Nigeria, the larger percentage of the service provisions are available in Lagos and Abuja. This is because the population in those places are high and the demand for broadband services is also high. There is need for the Commission to encourage licensees to spread their services to other locations in the country in order to boost the Federal Government initiative of a robust and pervasive broadband.

3. Average Speed being offered:

S/N	Operator	Access Speed (Downlink)
1.	8ight Unique Global Telecommunication Ltd	1Mbps-10Mbps
2.	Access Solutions Limited	155Mbps
3.	BAT Ltd	2Mbps
4.	Briclinks Africa PLC	5Mbps, 10Mbps
5.	CBC Emea Ltd	394Mbps
6.	Ciudad Infrastructure Ltd	10Mbps
7.	Cobranet limited	1Mbps -220Mbps
8.	Cobweb Communications Limited	155Mbps
9.	ConnectFocus Technologies Limited	155Mbps
10.	Coquina Software Co	590Mbps
11.	Coscharis Technologies LTD	155Mbps
12.	Coz Internet Limited	384kbps, 448 kbps, 512kbps
13.	Dimension Data Ltd	256Kbps -2440Mbps
14.	Dotmac Technologies Ltd	1Mbps-155Mbps
15.	Ekovolt Telco Limited	2Mbps to 25Mbps
16.	Electronic Connections Ltd	5 Mbps to 10Mbps
17.	EstreamNetworks Ltd	1 Gbps
18.	Futurecom Limited	1Mbps -10Mbps
19.	Gutti Global Solutions Ltd	80Mbps
20.	Hyperia Ltd	2Mbps - STM2
21.	IDS Africa Ltd	On request
22.	Information Connectivity Solutions Ltd (ICSL)	1Mbps-40Mbps

23.	Inq. Digital Nigeria Limited (formerly Vodacom)	1Mbps
24.	IPNX Nigeria Limited	8Mbps -200Mbps
25.	I-World Networks Limited	6Mbps
26.	Juniper Solutions Limited	2MB-50Mbps
27.	KHAL Ltd	1000kBPS
28.	Layer3 Ltd	2.03Gbps
29.	Main One Ltd	238.6Gbps
30.	Megamore Wireless Broadband Ltd	1-50Mbps
31.	Mobitel Ltd	1Mbps, 2Mbps, 3Mbps, 5Mbps
32.	Nanocom International Ltd	2Mbps
33.	Netaccess Ltd	1Mbps
34.	One Network Integrated Links Ltd	2Mbps
35.	Platinum Index Data	2Mbps -100mMbps
36.	Radical Technology Network Ltd	2Mbps-155Mbps
37.	Sea Net Technologies Nigeria Limited	1Gbps
38.	Skymax Ltd	2Mbps -155Mbps
39.	Spectranet Nigeria Limited	10Mbps
40.	Tehilah Base Digital Ltd	2Mbps -10Mbps
41.	Tizeti Ltd	Above 10Mbps
42.	Trefoil Ltd	176Mbps
43.	VDT Communications Limited	512Kbps, 1Mbps-155Mbps
44.	Wavetek Ltd	72Mbps
45.	Winrock Ltd	1Mbps- 4 Mbps
46.	Zeta-web Nigeria Limited	500Kbps-16Mbps

Table 3: Average Speed(s) Being Offered

As at December 2020, the downlink speed offered by various operators varied depending on their mode of deployment, the company's business models and the infrastructure used for deployment. There were low, medium and high access speed deployments as illustrated below.

- i. **The low access** speed categories ranged from 256kbps-5Mbps. In this categories, Mobitel Ltd and Winrock Ltd recorded the highest speed with 1Mbps-5Mbps and 1Mbps-4Mbps respectively. Netaccess Ltd and Coz Internet Limited recorded the lowest speed with 1Mbps and 384Kbps-512Kbps respectively.
- ii. **The medium access** speed categories were 10Mbps – 25Mbps. Ekovolt Ltd and Zeta-Web Ltd recorded the highest speed with 2Mbps-25Mbps and 500Kbps-16Mbps respectively, in this categories.

- iii. **The high access** speed categories were 50Mbps – 250Gbps. Mainone Ltd offered the highest speed with 238.6Gbps, followed by Dimension Data Ltd and Layer 3 Ltd with 2.03Gbps and 2,440Mbps(2.44Gbps) respectively.

B. SUBSCRIBER & SERVICES DATA:

1. Total Number of Users per Fixed Internet Subscriptions (Broadband):

Fixed broadband subscriptions in the ISP market segment increased from **250,023** subscribers in December, 2019 to **250,053** subscribers in December 2020, indicating a slight increase of **0.01%**. This increase was due to the fact that more ISPs submitted data as at December, 2020.

2. DSL Internet Subscriptions:

DSL (Digital Subscriber Line) is a modem technology that uses existing telephone lines to transport high-bandwidth data, such as multimedia and video, to service subscribers.

S/N	AVERAGE NUMBER OF USERS PER CABLE MODEM INTERNET SUBSCRIPTIONS	2019	2020
1	8ight Unique Global Telecommunication Ltd	0	10
2	Arif Investment Nig Ltd	0	80
3	Interweb Satcom Ltd	1100	350
4	Phonetime Telecoms Ltd	0	61
	Total	1100	411

Table 4: DSL internet subscription for 2020

Total number of users per cable modem Internet subscriptions decreased from **1100** subscriptions in December 2019 to **411** in December 2020. In this category, Interweb Satcom Ltd had the highest number of DSL with 350 subscriptions.

3. Fiber to Home/Building:

S/N	FIBRE TO THE HOME/BUILDING	2019	2020
1.			
2.	8ight Unique Global Telecommunication Ltd	-	4
3.	Access Solutions Limited	0	4
4.	Briclinks Africa Plc	-	35
5.	BridgeOne Telecoms Limited	0	0
6.	CBC Emea Ltd	0	0
7.	Ciudad Infrastructure Ltd	-	19
8.	Cobranet Limited	88	57
9.	Cobweb Communications Limited	0	0
10.	Content Oasis Ltd	7	-
11.	Coquina Software Company Ltd	0	0
12.	Dotmac Technologies Ltd	0	390
13.	Electronic Connections Ltd	0	0

14.	Estream Ltd	14	12
15.	Excelsimo Networks	250	130
16.	Galaxy backbone Ltd	-	302
17.	Gutti Global Solutions Ltd	0	1
18.	Hotspot Network Ltd	-	4
19.	Hyperia Limited	0	0
20.	IPNX Nigeria Limited	0	13,192
21.	Juniper solutions limited	10	6
22.	Layer3 Limited	-	62
23.	Nanocom International Ltd	10	4
24.	Odua Telecoms Limited	1	-
25.	Phonetime Telecoms Ltd	-	40
26.	Platinum Index Data Ltd	13	15
27.	Spectranet Nigeria Limited	61	187
28.	VDT Communications Limited	184	181
29.	Wavetek Ltd	0	0
30.	Winrock Ltd	53	61
	Total	691	14,706

Table 5: Fibre to the Home/Building Subscriptions.

Fiber to Home subscriptions recorded a huge increase of **14,706** subscriptions in December 2020 from **691** subscriptions in December 2019. IPNX Ltd recorded a total of **13,192** subscriptions out of **14,706** subscriptions, accounting for 90% of the subscriptions made in this category.

4. Total Wireless Broadband Subscriptions:

S/N	TOTAL WIRELESS BROADBAND SUBSCRIPTIONS		
	2019	2020	
1.	Content Oasis Ltd	60	-
2.	Electronic Connections Ltd	105	-
3.	Hyperia Ltd	1,227	-
4.	ICSL Ltd	48	-
5.	Juniper Solutions Ltd	84	-
6.	Khal Ltd	50	-
7.	Netfocus Ltd	50	-
8.	Phonetime Telecoms Ltd	-	40
9.	Spectranet Nig Ltd	246,308	247,686
10.	Tehilah Base Digital Ltd	-	305
11.	Tizeti Ltd	9,289	-
	Total	257,326	248,031

Table 6: Wireless Broadband Subscriptions

Total Wireless broadband subscriptions decreased from **257,326** connections in December, 2019 to **248,031** in December 2020 indicating a 0.3%. Submissions were made

by only 3 service providers with the total of **248,031** subscriptions in December, 2020, compared with 9 submissions recorded with the total of **257,326** subscriptions in December, 2019, accounting for the decrease noted in the Total Wireless Broadband Subscriptions in December, 2020.

5. Total Number of Terrestrial Subscriptions [Fixed & Fixed Wireless]:

S/N	TOTAL NUMBER OF TERRESTRIAL SUBSCRIPTIONS (FIXED AND FIXED WIRELESS)		
		2019	2020
1.	8ight Unique Global Telecommunication Ltd	-	22
2.	Arif Investment Nig Ltd	0	100
3.	BAT Ltd	20	41
4.	Briclinks Africa Plc	-	103
5.	BridgeOne Telecoms Limited	0	19
6.	Cobranet Ltd	1944	3401
7.	Cobweb Communications Limited	0	0
8.	Coquina Software Company Ltd	0	0
9.	Coz Internet Limited	-	150
10.	Dimension Data Ltd	-	605
11.	Dotmac Technologies Ltd	-	475
12.	Ekovolt Ltd	53	-
13.	Electronic Connections Ltd	0	0
14.	Estream Ltd	106	119
15.	Excelsimo Networks Ltd	0	426
16.	Futurecom Ltd	-	28
17.	Galaxy backbone Ltd	-	302
18.	Hyperia Limited Ltd	0	0
19.	IDS Africa Ltd		3
20.	Information Connectivity Solutions limited (ICSL)		332
21.	Inq. Digital Nigeria Limited (formerly Vodacom)	1424	970
22.	Interweb Satcom Ltd	-	300
23.	IS Internet Solutions Limited	427	0
24.	Juniper Solutions Limited	84	99
25.	Layer3 Limited	-	102
26.	Nanocom International Ltd	-	42
27.	Odua Telecoms limited	7	0
28.	One Network Integrated Links Ltd	0	8
29.	Phonetime Telecoms Ltd	-	45
30.	Radical Technology Network Ltd		420
31.	Skymax Ltd	358	168
32.	Spectranet Nigeria Limited	96	0
33.	Tehilah Base Digital Ltd		305
34.	Trefoil Ltd	1	0

35.	VDT Communications Limited	-	1151
36.	Wavetek Ltd	0	0
	Total	4520	9,736

Table 7: Total Number of Terrestrial Subscriptions (Fixed and Fixed Wireless)

During the period under review, the total number of terrestrial subscriptions increased substantially from **4,520** as at December, 2019 to **9,736** in December 2020.

6. Total Number of Satellite Subscriptions:

S/N	TOTAL NUMBER OF SATELLITE INTERNET SUBSCRIPTIONS		
	2019	2020	
1.			
2.	8ight Unique Global Telecommunication Ltd	0	0
3.	Arif Investment Nig Ltd	0	100
4.	BridgeOne Telecoms Limited	0	0
5.	CBC Emea Ltd	0	174
6.	Clear Sky ltd	22	-
7.	Cobweb Communications Limited	0	0
8.	Content Oasis Ltd	3	-
9.	Coquina Software Company Ltd	0	0
10.	Dimension Data Ltd	-	33
11.	Electronic Connections Ltd	-	0
12.	E-Stream Ltd	15	9
13.	Galaxy backbone Ltd	-	148
14.	Gutti Global Solutions Ltd	0	0
15.	Hyperia Ltd	1227	1230
16.	ICSL	9	-
17.	Information connectivity solutions limited (icsl)	9	12
18.	Inq. Digital Nigeria Limited (formerly Vodacom)	40	16
19.	Interweb Satcom Ltd	1200	350
20.	IS Internet Solutions Limited	33	-
21.	Juniper Solutions Limited	2	0
22.	Main One	5	5
23.	Nanocom International ltd	43	-
24.	One Network Integrated Links Ltd	0	0
25.	Radical Technology Network Ltd	-	895
26.	Sea Net Technologies Limited	-	14
27.	Skymax	48	11
28.	Trefoil Ltd	1	-
29.	Wavetek	0	0
30.	Zeta-web Nigeria Limited	0	241
	Total	2,657	3,238

Table 8: Number of Satellite subscriptions in 2020

Total number of Satellite subscriptions also increased over the period from **2,657** subscriptions in December, 2019 to **3,238** subscriptions in 2020, indicating an increase of 21% in the number of Satellite subscriptions. More submissions were made by service providers in December, 2020, resulting in the increase noted in this category.

7. Number of Internet Users per Region:

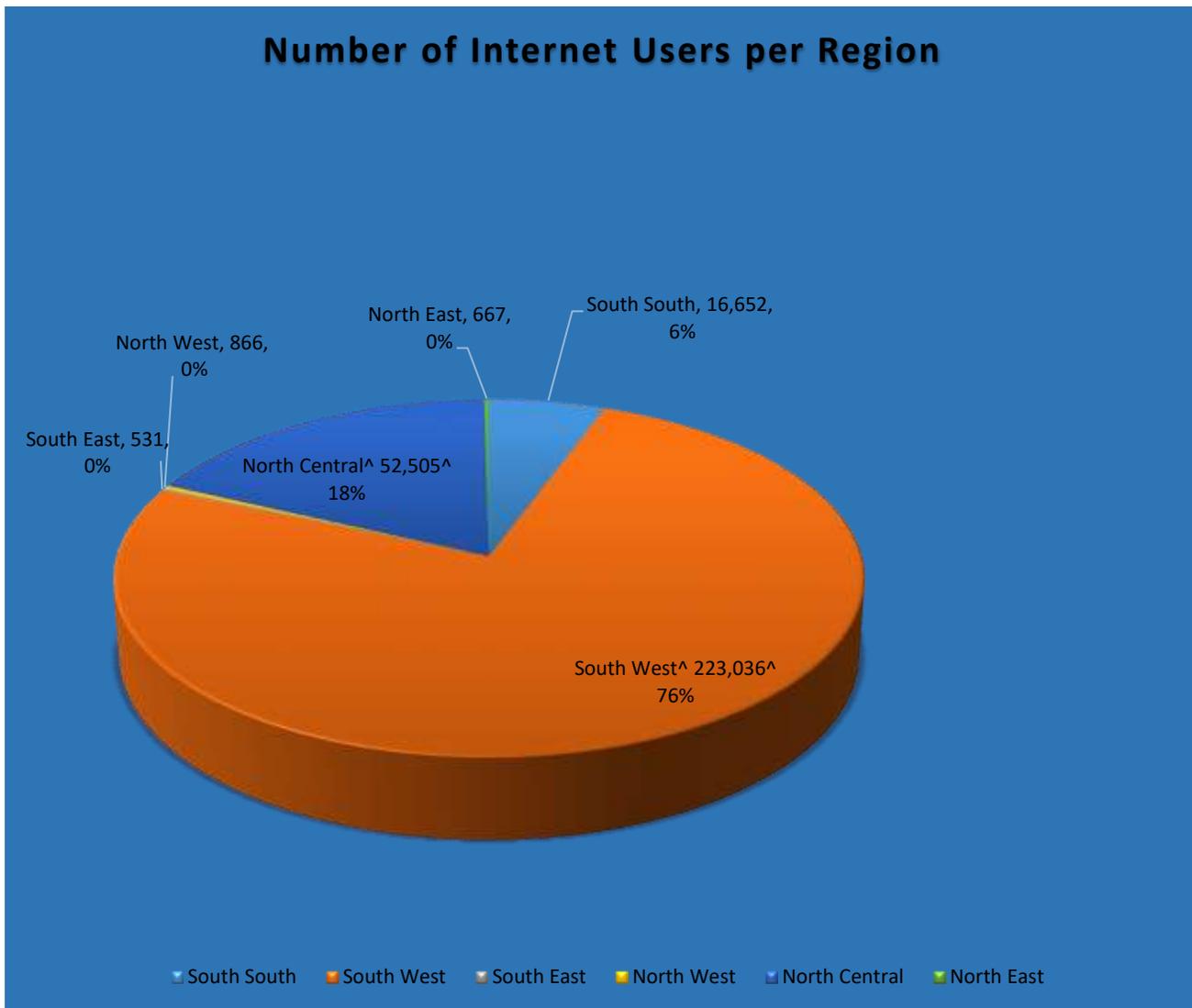


Figure 2: Number of Internet Users per Region

In December, 2020, the total number of Internet users that connected through ISPs, in the six geopolitical zones was **294,257**, a **14.5% increase from the 257,085** recorded as at December, 2019. The analysis of the breakdown is as follows:

- a. **South West** had the highest number of Internet users in December 2020 with **223,036 users indicating 76%** of the total subscriptions
- b. **North Central** had **18%** with **52,505** users;
- c. **South South** had **6%** with **16,652** users;
- d. **North West** had **0.3%** with **866** users;
- e. **North-East** had **0.22%** with **667** users;

f. **South East** had **0.05%**, which was the least of all the regions with **166** users.

8. Number of Users by Internet Speed:

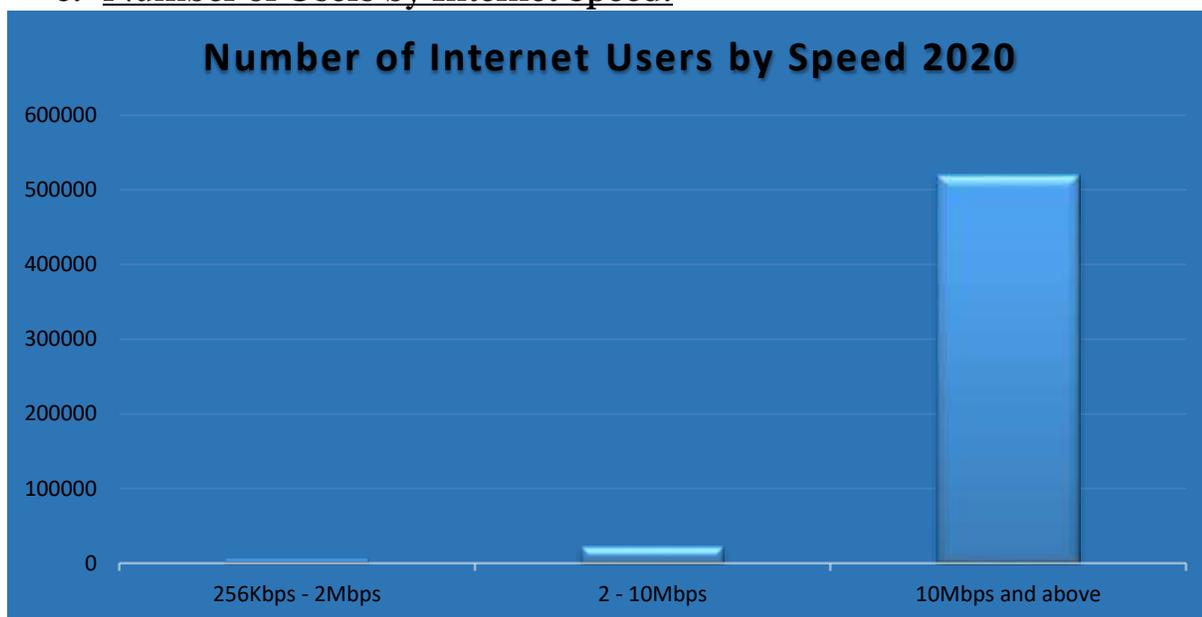


Figure 3: Speed of Internet as delivered to subscribers 2020

As at December 2020, out of a total of 546,023 users via ISPs, **4,032** users subscribed to speeds between **256Kbps-2Mbps**, representing **0.7%** of the total user base; **21,985** users between **2-10Mbps**, representing **4%** of the total user base; & **520,006** subscriptions in the **10mbps & above** category, which makes **95%** of the total.

9. Subscriber Matrix (Internet Use):

As at December, 2020, the following was recorded for internet use: Government- **0.5%**; NGO- **0.19%**; Multinational- **0.14%**; Schools & Research Institutions- **0.2%**; Residential/Individual –**91%**; Private Business – **7%**; Cybercafés – **0.2%**; Hospitals & Medical Research – **0.25%**; Public Libraries – **0.014%**; Military – **0.03%**; Public Security- **0.02%**; Others – **0.8%**.

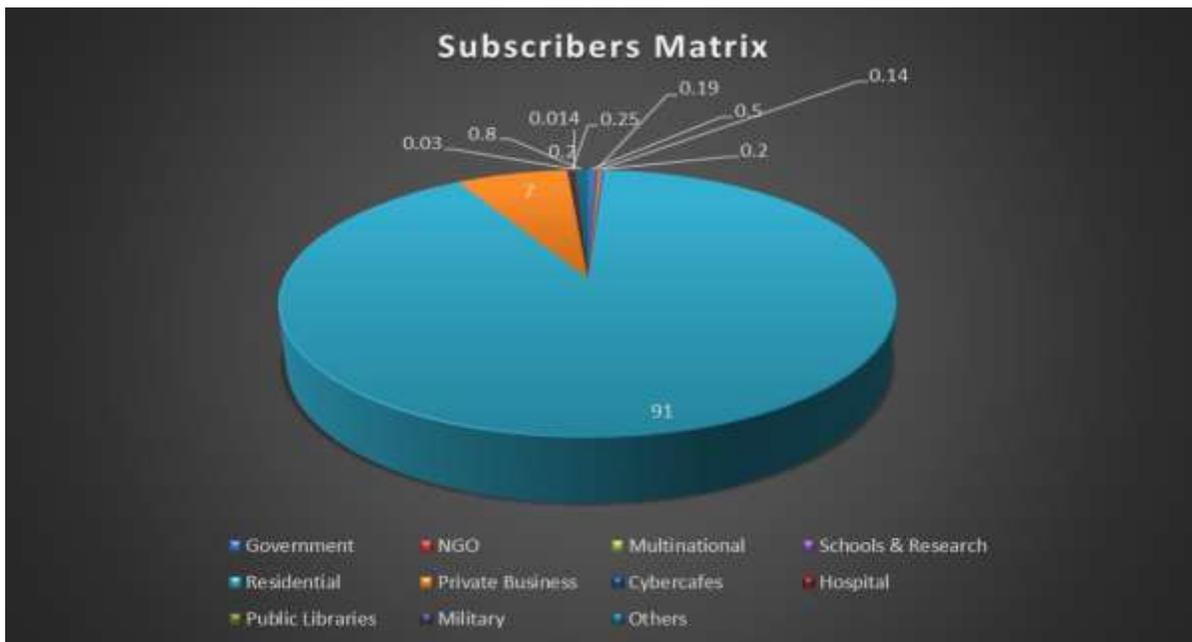


Figure 4: Subscriber Matrix (Internet usage in 2020.)

C. FINANCIAL DATA:

1. Revenue:

As at December 2020, a total revenue of =N=68,962,667,309.31 (Sixty Eight Billion, Nine Hundred and Sixty Two Million, Six Hundred and Sixty-Seven Thousand, Three Hundred and Nine Naira, Thirty-One Kobo Only) was generated by ISP licensees, representing a major increase from the N53, 745,324,069.20 (Fifty-Three Billion, Seven Hundred and Forty-Five Million, Three-Hundred and Twenty-Four Thousand, Sixty-Nine Naira, Twenty Kobo Only) that was generated in 2019.

2. Operating Cost:

The Operating Costs for the ISPs increased from =N=41,106,763,063.46 (Forty One Billion, One Hundred and Six Million, Seven Hundred and Sixty Three Thousand, Sixty Three Naira Forty Six Kobo Only) in 2019 to =N=53,693,342,714.31 (Fifty Three Billion, Six Hundred and Ninety Three Million, Three Hundred and Forty Two Thousand, Seven Hundred and Fourteen Naira, Thirty One Kobo Only). This indicates an increase of 31%.

D. STAFF PROFILE:

As at December 2020, the number of staff of ISP operators increased to 3,270 from 2,877 recorded in 2019. This indicates an increase of 14% in the work force. There was a total of 2,462 male and 808 female staff. A further breakdown reveals that 3,190 of the staff are Nigerians, while expatriates were 80.

CHAPTER 6

ANALYSIS OF 2020 YEAR END SUBSCRIBER / NETWORK DATA– [OTHER OPERATORS]

A. NETWORK DATA:

The Commission received a total of Seventy Four (74) submissions from Licensees of the Commission for the 2020 Year End Subscriber/Network Data for Operators Other than Mobile, Fixed Telephony and Internet Service Providers (ISP). These “Other Operators” provided ancillary telecom services such as Value Added Services (VAS), Collocation and Infrastructure Service providers, Long Distance Service Operators, Automated Vehicle Tracking services Interconnect Exchange and Metropolitan Fiber License Operators.

A breakdown of the responses in terms of service categories indicate that the Value Added Service (VAS) license category, Collocation and Infrastructure service categories top the list of responsive licensees received in this Category.

VAS licensees accounted for 42% of the responses while colocation & Infrastructure licensees accounted for 9% and other licensees accounted for 49% of submissions. This distribution is shown in the pie chart below:

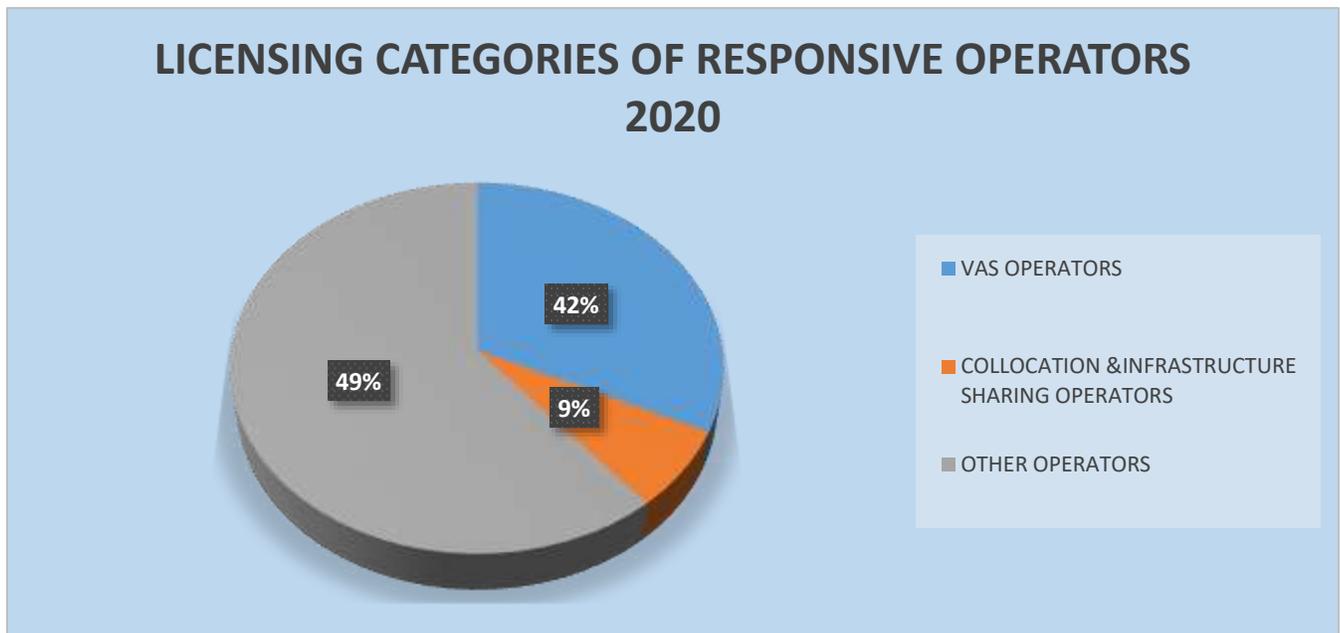


Figure: 1: Distribution of Licensing Categories of Responsive Operators 2020

These Operators provide telecommunications operations across the thirty-six (36) states and in at least each state of the geopolitical zones of the country.

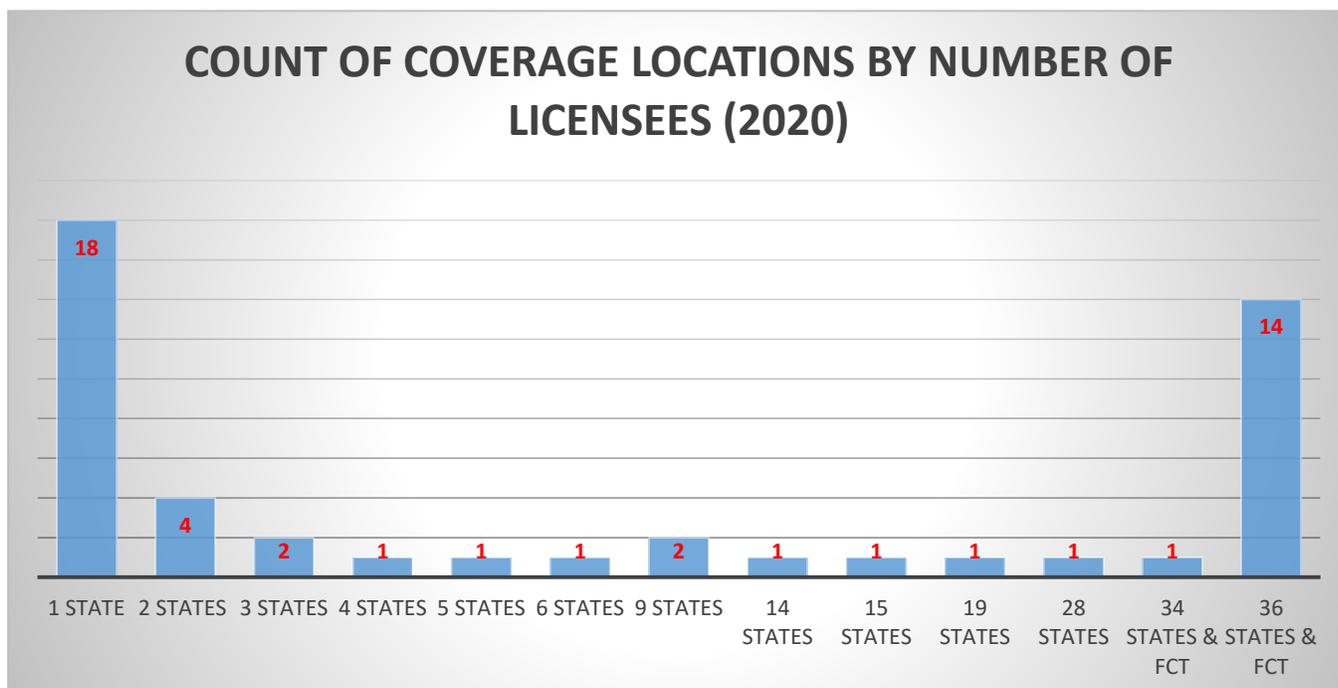


Figure: 2: Count of Coverage Locations by Number of Licensees.

B. INFRASTRUCTURE DEPLOYMENT

1. Long Distance Cable Network (km);

As at December, 2020 the total Long Distance cable deployed by Operators in this category was 4,772.40km. Interconnect Clearing House Limited recorded 3,526km; Layers3 Limited recorded 697.3 and Backbone Connectivity Network Nigeria Limited recorded 549.1km in the Country.

2. Fibre Optic Network (km);

As at December, 2020 the total Fibre Optic Network deployed (leased and owned) by Other Operators was Fourteen thousand Six Hundred and Sixty One Thirty Two Kilometers (14,661.32km) while in Year 2019 the same set of Operators deployed Twenty-Nine Thousand and Fifty-Three point Twenty-Two Kilometers (29,053.22km) of Fibre.

3. Number of Trunks in use (E1);

The total number of E1 in use by Operators as at the end of Year 2020 Two thousand Eight Hundred and Sixty E1 trunks in use (2,860) as against Two Thousand and Forty Five (2,045) E1 trunks in use in Year 2019.

4. Number of Gateways:

The total Number of Gateways in use as at year 2020 was One Hundred and Twenty Five (125). Cedarview Communications Limited accounted for the significant number of the Gateways based on Year 2020 Submissions reporting Seventy (70) Gateways; Kirusa Nigeria Limited reported Twenty (20); Interconnect Clearing House Nigeria Limited (19) while Operators like Mpedigree Network Nigeria Limited; Upstream Mobile Services Limited; Medallion Communications Limited; Solid Interconnectivity Services Limited; Txtlight Power Solutions limited, Text Nigeria Limited, Avyra Systems Limited and Intercellular Nigeria Limited has the least significant number of the Gateway based on Year 2020 Submission.

5. Subscriber Data:

The Subscriber Data for Operators in this market segment indicate varying Subscriber Matrix due to the different Service offerings and licenses held by each of the Operator. Hence, the basis of analysis is unique for each licensed Operator.

C. FINANCIAL DATA:

1. Revenue:

The total revenue generated by Operators other than GSM, Fixed or ISP Operators in Year 2020 was Five Hundred and Forty Six Billion, One Hundred and Sixty Three Million, One Hundred and Twelve Thousand Five Hundred and Ninety Two Naira. Ninety Four Kobo (#546,163,112,592.94) as against Four Hundred and Forty-Nine Billion One Hundred and Thirty Eight Million Four Hundred and Sixty Five Thousand Five Hundred and Thirty Naira, Eleven Kobo (#449,138,465,530.11) recorded in the Year 2019 from Operators that were responsive to the Commission`s questionnaire.

2. Operating Cost:

The total **operating cost** incurred by the Operators as at the end of December, 2020 was Three Hundred and Twenty Seven Billion, Fifty Nine Million Five Hundred and Twenty Four Thousand, Four Hundred and Ten Naira Twenty Four Kobo (#327,059,524,410.24) **only** as against Three Hundred and Nineteen Billion Nine hundred and Twenty Seven Million Three hundred and sixteen Thousand Three Hundred and Eighty One Naira Fourteen Kobo (#319,927,316,381.14) **only**. This indicates an increase of 2.2% in the Operating cost of licensees recorded between Years 2019 and 2020.

This increase in Operating Cost may be a consequence of the exchange rate effects in the industry.

3. Domestic Investments (CAPEX) for Year 2020:

The Investment (Capex) figure of Operators decreased from One Hundred and Sixty-One Billion Seven Hundred and Sixty-Nine Million One Hundred and Forty Thousand Two Hundred and Fifty Two Naira Seventy Seven Kobo (#161,769,147,252.77) in Year 2019 to Two Billion Seven Hundred and Thirty Three Million Six Hundred and Twenty Seven Thousand One Hundred and Fifty Eight Naira Sixty Two Kobo (#2,733,627,158.62) as at end of Year 2020.

D. STAFF PROFILE:

As at December, 2020 the total staff strength of Others` Operator Category stood at Four Thousand Seven Hundred and Ninety Seven (4,797) staff.