



## **2021 SUBSCRIBER/NETWORK DATA ANNUAL REPORT**

*POLICY COMPETITION AND ECONOMIC ANALYSIS DEPARTMENT*

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## CHAPTER ONE

### Introduction and Executive Summary

The provision of up to date industry statistics is a responsibility imposed by the Nigerian Communications 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 2021 Year End Subscriber/ Network Report for the period January–December 2021 provides the following highlights.

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

*i. Mobile (GSM)*

*ii. Fixed Telephony Operators (Fixed/ Fixed Wireless)*

*iii. Internet Service Providers (ISPS)*

*iv. Value Added Service (VAS)*

*v. Collocation and Infrastructure Sharing and*

*vi. Other Operators (Operators Other than the License categories stated in i – v above)*

## Industry Performance Report

1. **Telecoms Industry Network/Subscriber Statistics** – Subscriber number decreased from **204,601,313** subscribers in 2020 to **195,463,898** active voice subscriptions as at December 2021 with a loss of 9,137,415 **subscriptions**. This represents about **4.46%** decline in total subscription within the period under consideration.

The decrease in Operators' subscriber base was attributed majorly to the effect of the directive from NCC in December 2020 to all GSM Operators to suspend the sale and registration of new SIMs, SIM swaps and all porting activities. The objective of the audit exercise was to verify and ensure compliance by Mobile Network Operators with the set quality standards and requirements of SIM Card Registration as issued by the Federal Ministry of Communications and Digital Economy and the Commission.

2. **Teledensity** –Nigeria`s teledensity **decreased** from 107.18% as at December 2020 to 102.40% by December 31<sup>st</sup> 2021.
3. The number of **Internet Subscribers** decreased from 154,301,195 subscription as at December 2020 to 141,971,560 Subscriptions as at December 2021 representing a decline of 8%.
4. **Broadband Penetration** – decreased from 45.02% as at December 2020 to 40.88% as at December, 2021. Similarly, Broadband Subscriptions decreased from 85,941,222 subscriptions in December 2020 to 78,041,883 subscriptions as at December 2021.
5. **Internet Usage** – There was an increase in the volume of data consumed in the year end December 2021 when compared with the year ended December 2020. The total volume of data consumed by subscribers increased to 353,118.89TB as at December 2021 from 209,917.40TB as at December 2020. This represents an increase of 68.2% in data consumption within the period.
6. **Contribution to the (GDP)** – Telecoms industry contribution to the Nigerian Gross Domestic Products increased from 12.45% in the Fourth Quarter, 2020 to **12.61%** in the fourth quarter of 2021.
7. **Finance** – This collation was based on the submissions received from service providers; **Revenue:** Table 1 below indicates that the total revenue in the sector recorded was ₦3,247,595,808,883.87

8. **Operating cost:** reported was ₦1, 720,547,371,856.01 as at December, 2021 while **CAPEX (domestic investment)** was stood at **1,128,557,869,498.36** as at Year end 2021 based on submissions from responsive Licensees.

2021 YEAR END TELECOM PROVIDER'S FINANCIAL DATA				
	CATEGORY	CAPEX	OPERATING COST	REVENUE
1.	GSM	1,124,116,990,000.00	1,658,235,220,000.00	2,774,128,600,000.00
2.	FIXED WIRED	60,919,000.00	534,159,402.00	375,038,363,760.00
3.	INTERNET SERVICE PROVIDER	3,606,353,757.18	48,426,365,194.12	59,993,181,018.69
4.	VALUE ADDED SERVICE	335,871,200.00	10,122,690,514.79	32,918,867,894.77
5.	COLLOCATION & INFRASTRUCTURE SHARING	266,263,305.67	2,329,068,819.71	3,072,264,433.32
6.	OTHER TELECOM OPERATORS	171,472,235.51	899,867,925.39	2,444,531,777.09
	<b>TOTAL</b>	<b>1,128,557,869,498.36</b>	<b>1,720,547,371,856.01</b>	<b>3,247,595,808,883.87</b>

*Table 1. Telecom Provider's CAPEX (Domestic Investment), Operating Cost and Revenue - 2021*

9. **Capital Inflow (Foreign Direct Investment)** into the Nigerian Telecoms Industry in Year 2021 was approximately (**USD 753,044,446.35**) Seven Hundred and Fifty Three Million, Forty Four Thousand and Four Hundred and Forty Six Million US Dollars Thirty Five cents against **USD 417,481,615.30** (Four Hundred and Seventeen Million, Four Hundred and Eighty One Thousand Six Hundred and Fifteen US Dollars Thirty Cents as at Year 2020. (Source CBN)
10. **Infrastructural Development** - A substantial telecom infrastructure deployment was recorded in 2021 by Telecoms providers, as indicated below:
- i. A total of **49, 579** Towers were recorded from Mobile & Fixed Operators as well as Collocation and Infrastructure Companies. The operators also reported a total number of **38,288** Base Stations.
  - ii. **Microwave** coverage recorded in Year 2021 stood at **290,940.69km**. This covers the Mobile and Fixed Operators.
  - iii. The Mobile, Fixed and Other Operators recorded a total number of **99 Gateways** in use in the Industry as at December 2021.
  - iv. Fiber Optics Deployment stood at **86,057km** (terrestrial fiber & submarine cable) as at December 2021.

## 11. Staff Head Count - 2021

<b>GSM</b>	<b>FIXED</b>	<b>ISP</b>	<b>VAS</b>	<b>C&amp;I</b>	<b>OTHERS</b>	<b>TOTAL</b>
7,226	471	3,274	1,920	751	1,426	14,828

*Table 2: Staff Head Profile as at Year End 2021*

The Total number of staff from responsive licensees as at Year end 2021 stands at 15,068. A breakdown of the staff categories is disaggregated in the report of each category.

## 12. 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.

<b>States</b>	<b>LAGOS</b>	<b>OGUN</b>	<b>RIVERS</b>	<b>FCT</b>	<b>OYO</b>	<b>EDO</b>
<b>Number of Towers</b>	5,851	2,418	2,049	1,944	1,713	1,556

*Table 3a: States with the Highest Number of Towers (December 2021)*

<b>States</b>	<b>KEBBI</b>	<b>BAYELSA</b>	<b>EBONYI</b>	<b>GOMBE</b>	<b>YOBE</b>	<b>ZAMFARA</b>
<b>Number of Towers</b>	415	367	363	356	316	283

*Table 3b: States with the Lowest Number of Towers (December 2021)*

## CHAPTER TWO

### ANALYSIS OF 2021 YEAR END SUBSCRIBER / NETWORK DATA– MOBILE

#### NETWORK DATA

1. **Base Stations for Mobile:** As at December, 2021 the total Base Stations owned by Mobile telecoms operating companies increased to 38,123 from 36,998 in December, 2020 across all states of the Federation representing an increase of 3.04% from the previous year.

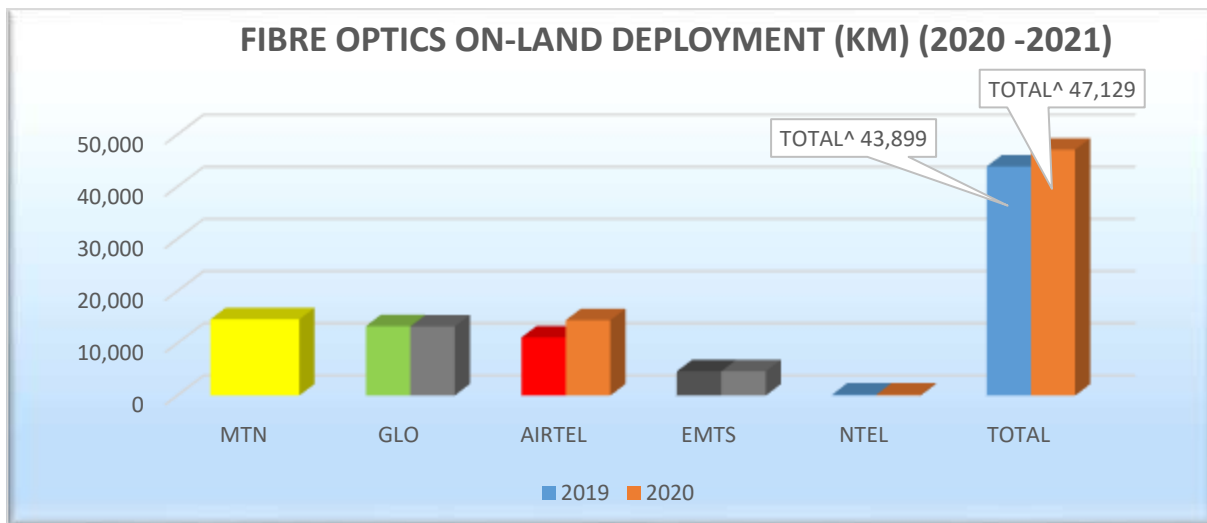
2. **Infrastructure Deployment in the Mobile Segment;** There are several telecom infrastructures deployed by Operators as seen below.

#### 2a. **Fibre Optics Deployment (KM):**

i. As at December, 2021 the total on land fiber deployment was **47,128.7km** as against 43,898.8km in Year 2020. The on land fiber deployment was reported as follows;- MTN – 14,612km; GLO - 13,233km; AIRTEL – 14,454km; EMTS - 4,650km and NTEL - 180km.

OPERATOR	2020 (KM)	2021 (KM)
MTN	14,612	14,612
GLO	13,306	13,233
AIRTEL	11,151	14,454
EMTS	4,650	4,650
NTEL	180	180
<b>TOTAL</b>	<b>43,898.8</b>	<b>47,128.7</b>

*Table 1: Fibre outlay by Operators in Year 2020-2021*



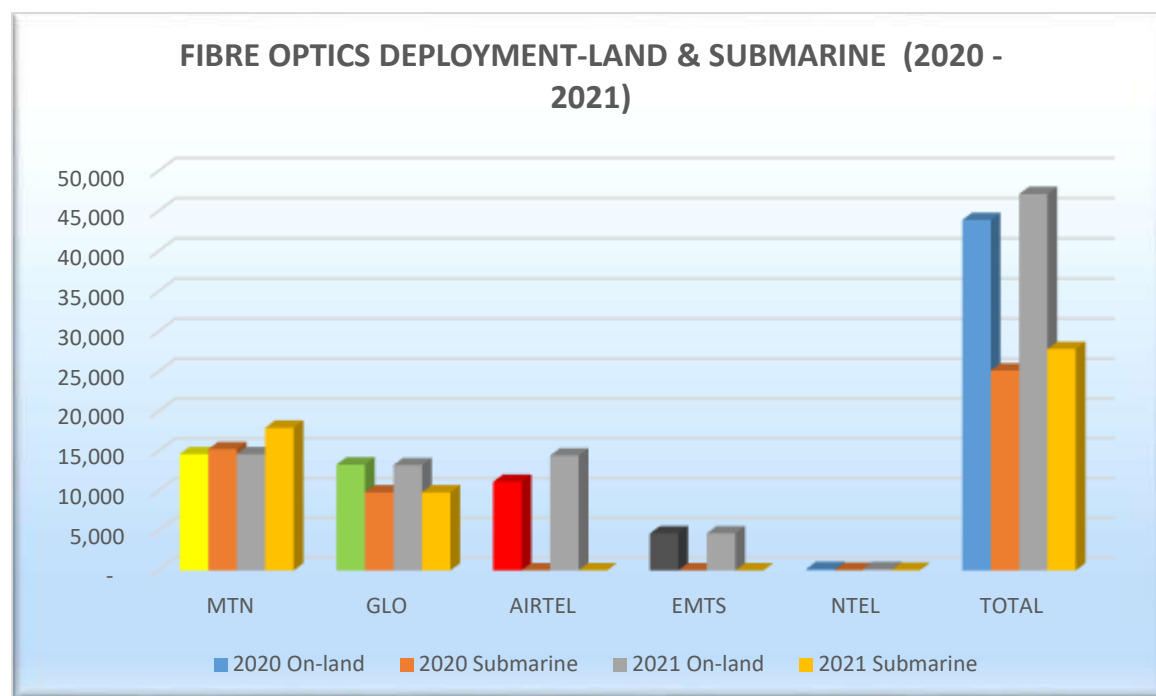
*Figure 1. Fibre Optics On-Land Deployment in KM (2020- 2021)*

- ii. As at December, 2021 the total submarine fiber deployment in kilometer was **27,818.3km** as against **25,128.3km** in year 2020. This is an increase of 10.7% within the year under consideration. The fiber deployment by four Mobile Operators are as follows: - MTN -17,934km; GLO - 9,800km; AIRTEL -14km and NTEL - 70km.

SUBMARINE (KM)	2020 (KM)	2021 (KM)
MTN	15,244	17,934
GLO	9,800	9,800
AIRTEL	14	14
NTEL	70	70
<b>TOTAL</b>	<b>25,128.3</b>	<b>27,818.3</b>

*Table 2: Fibre outlay by Operators in Year 2020-2021 (Submarine)*

- iii. A further analysis of the **fibre Optics** deployed illustrates that of the total **74,947KM** of fibre (On-land and Submarine) deployed as at December, 2021; 47,128.7km was On-land while 27,818.3km was Submarine. MTN had the largest on-land and submarine deployment of 14,612KM and 17,934KM respectively as at December, 2021.



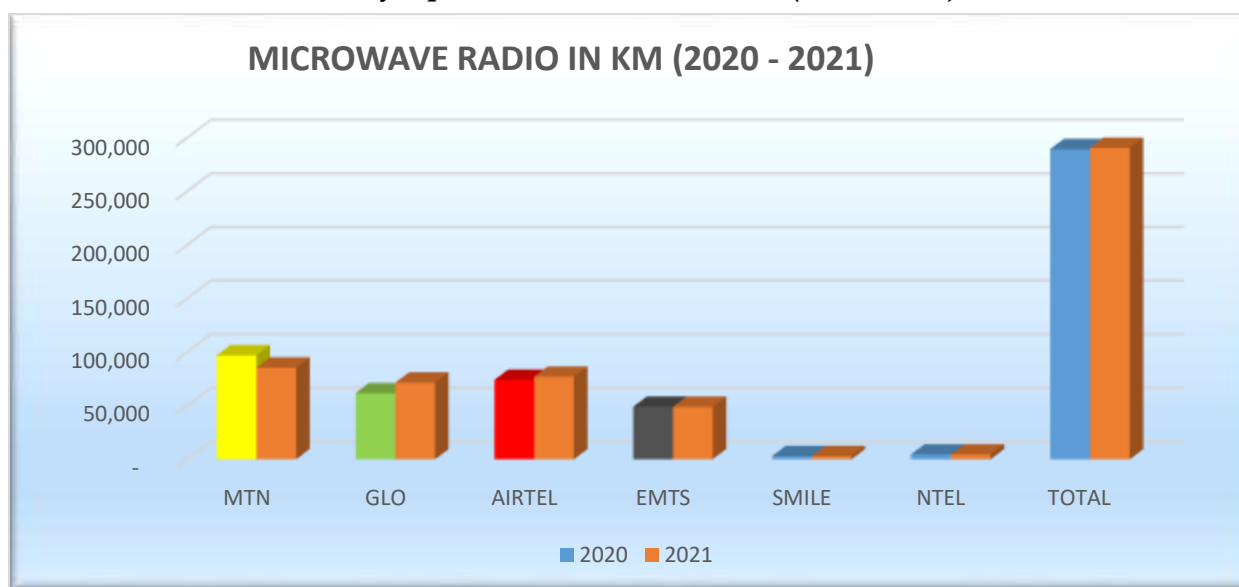
*Figure 2. Fibre Optic On-Land and Submarine Deployment in KM (2020 – 2021)*



2b. **Microwave Radio in (KM):** As at December, 2021 the Mobile Operators had deployed a total of **290,626 KM** of Microwave Radio Links as against the **289,424.99 KM** of Microwave Radio Links reported for 2020. This is an increment of 0.41%.

	MICROWAVE RADIO (KM)	2020	2021
1.	MTN	96,994	85,551
2.	GLO	61,731	71,540
3.	AIRTEL	74,241	77,095
4.	EMTS	48,958	48,958
5.	SMILE	2,948	2,948
6.	NTEL	4,554	4,534
	<b>TOTAL</b>	<b>289,425.30</b>	<b>290,625.69</b>

*Table 3: Microwave Radio by Operators in Year 2020-2021 (Microwave)*



*Figure 3. Microwave Radio in KM (2020 – 2021)*

2c. **Trunks in Use:** MTN, AIRTEL, GLO and EMTS have a total number of 59,048 Trunks (E1) in use as at December, 2021 indicating a decline from 114,702 Trunks (E1) reported as at December 2020. Most Operators have implemented and evolved IP Capacities to carry volumes of data traffic hence the perceived reduction in E1 which was experienced in the previous year. Thus, the reduction was due to changes in technology.

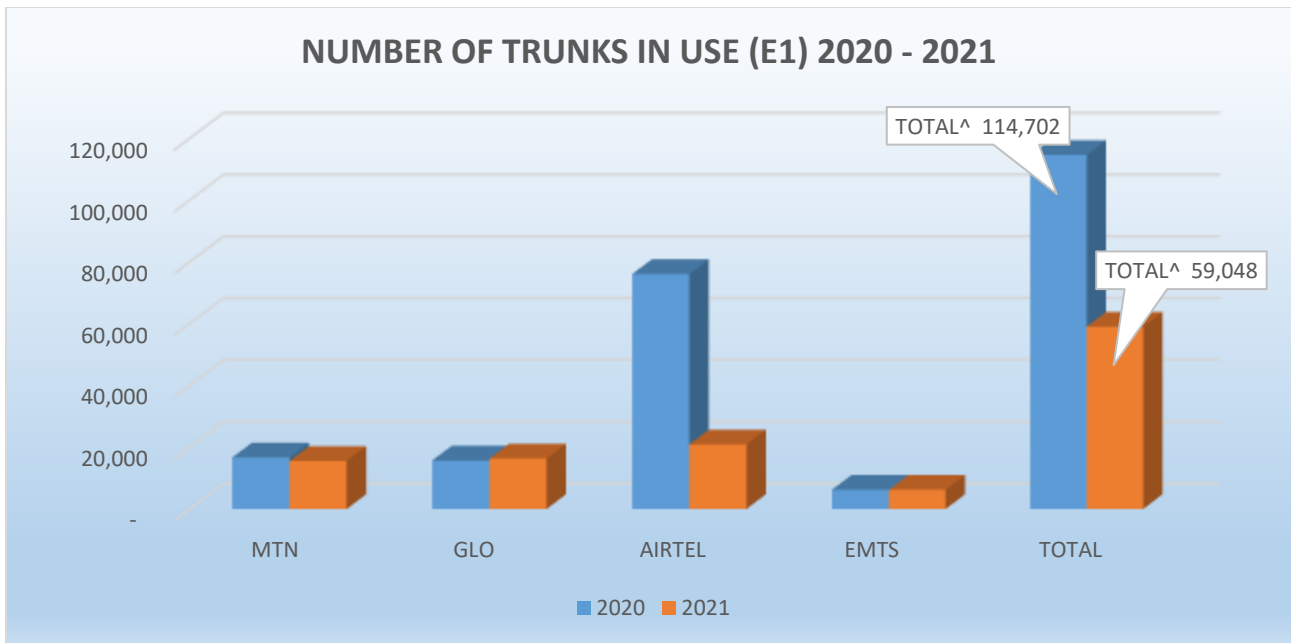


Figure 4. Number of Trunks (E1) in use (2020– 2021)

2d. **Gateways in Use:** MTN, GLO, AIRTEL, SMILE and NTEL have a total number of 62 Gateways in use as at December, 2021. A summary shows, MTN had 1; GLO -3; AIRTEL - 16, EMTS – 39, SMILE -2 and NTEL -1.

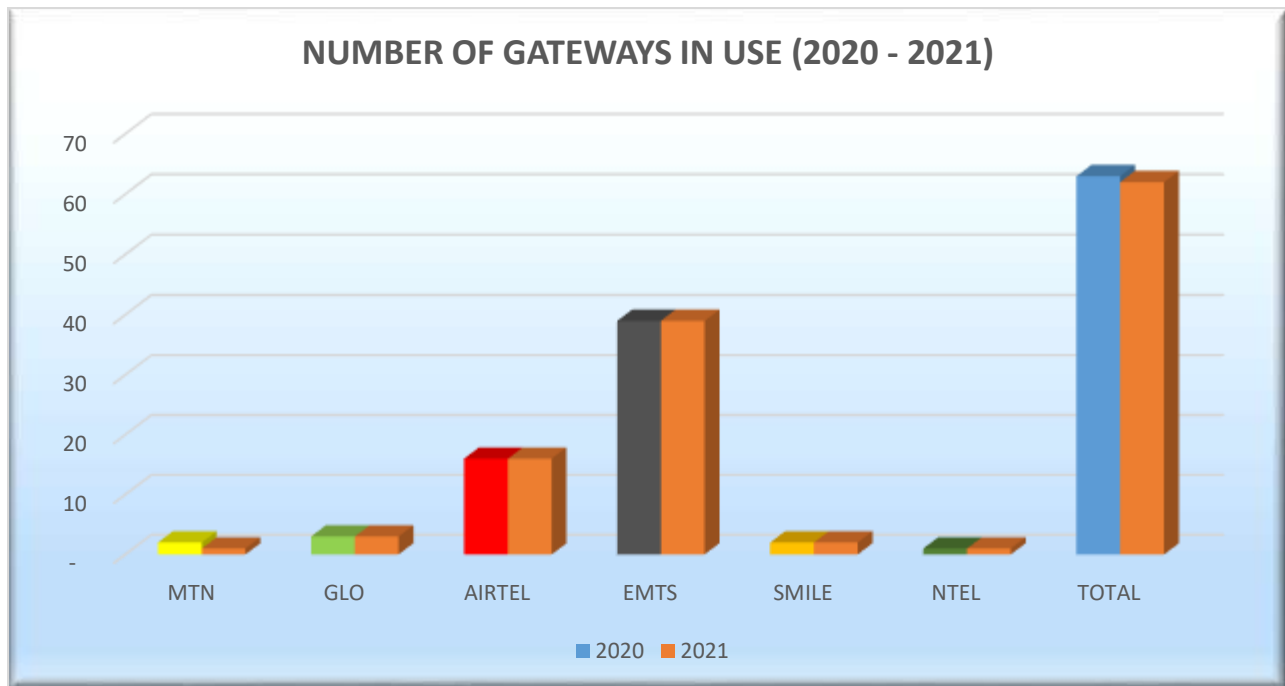


Figure 5. Number of Gateways in use (2020– 2021)

## SUBSCRIBER & SERVICE DATA – VOICE SUBSCRIPTIONS

1a. **Subscriber Voice Data & Teledensity (All Segments):** As at December, 2021 total active voice subscriptions for the entire market segments was **195,463,898** as against **204,601,313** recorded as at December, 2020. This indicates a decrease of -4.5% in 2021. The Teledensity was 102.40% in 2021 as against 107.18% recorded in 2020, which indicates a decrease of -4.78% in Teledensity as at December 2021.

The decline in Operators' subscriber base was attributed majorly to the effect of the directive from NCC in December 2020 to all GSM Operators to suspend the sale and registration of new SIMs, SIM swaps and all porting activities following from the Commissions audit of Subscriber Registration Database in the Country.

The objective of the audit exercise was to verify and ensure compliance by Mobile Network Operators with the set quality standards and requirements of SIM Card Registration as issued by the Federal Ministry of Communications and Digital Economy and the Commission.

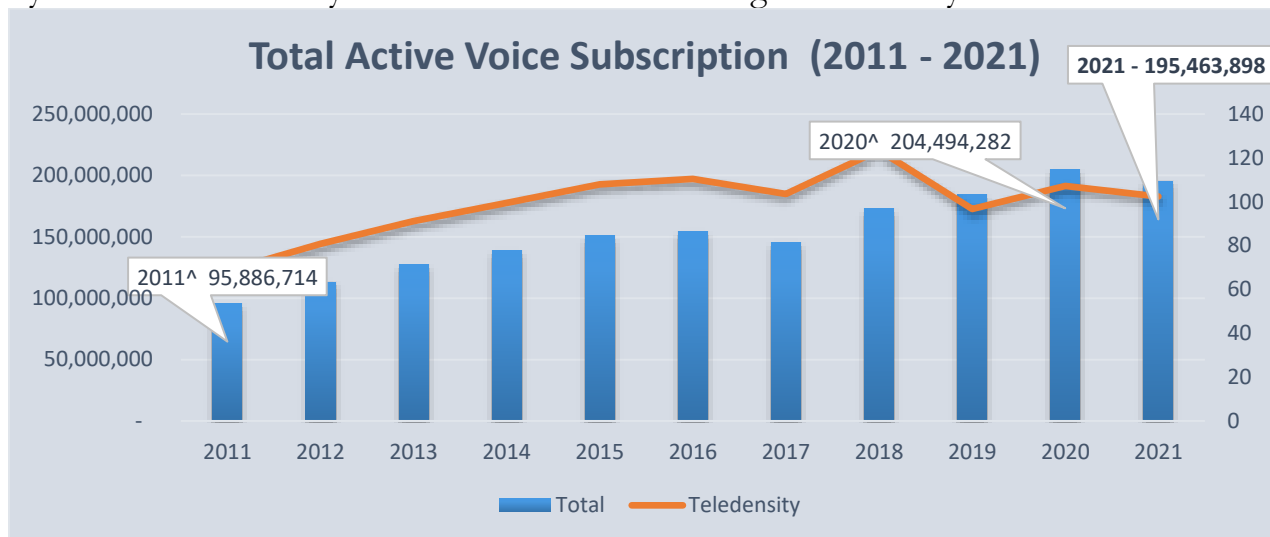


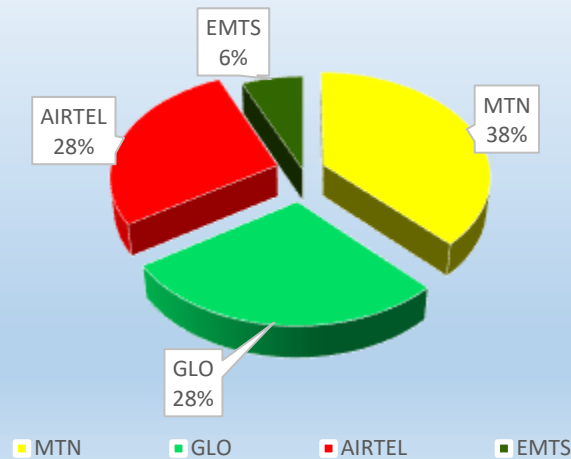
Figure 6. Subscriber Data- Active Voice Subscriptions & Teledensity (2011 - 2021)

1b. **Subscriber Voice, Data & Teledensity (Mobile GSM- 2021):** In analyzing the annual Active Voice Subscription for Mobile (GSM) Segment, total active voice subscriptions decreased from **204,228,678** subscriptions as at December 2020 to **195,128,265** subscriptions as at December 2021. This indicates a 4.5% loss in GSM Active Voice Subscriptions year on year.

### 1c. **Active Voice Subscriptions of Mobile GSM Segment (2021):**

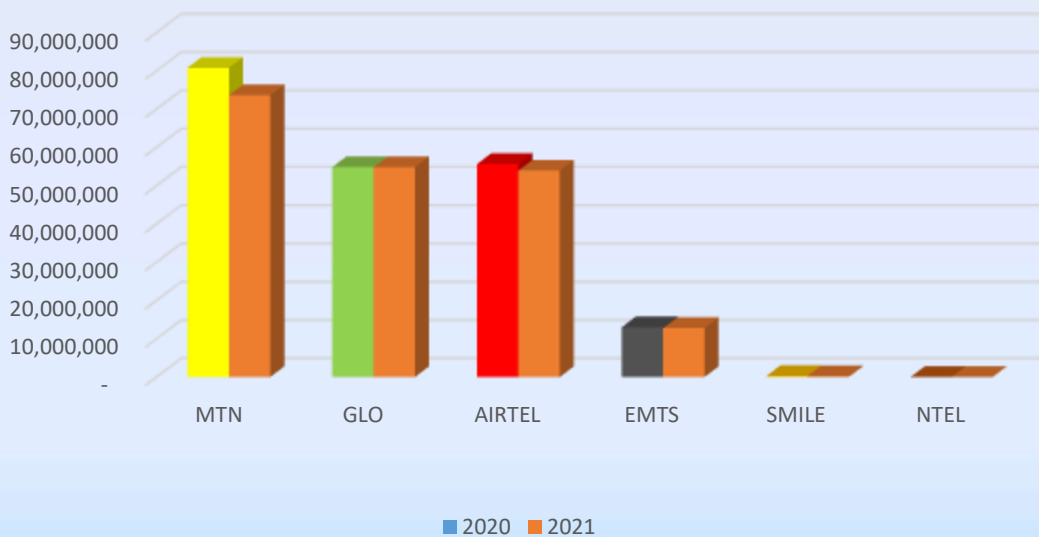
Market Share of Mobile Operators were analyzed through the breakdown of each Operator's subscription; **MTN; GLO; AIRTEL and EMTS** each recorded **73,594,682; 54,817,353; 53,926,886 and 12,789,344** Subscribers respectively. In that order **MTN; GLO; AIRTEL and EMTS** had **37.7%; 28.1%; 27.6% and 6.6%** share of the Mobile GSM market respectively of the Mobile GSM Market Segment.

## Market Share of GSM Operators as at December' 2021



*Figure 7. Market Share of Mobile GSM Operators – December 2021*

## ACTIVE VOICE SUBSCRIPTIONS MOBILE (2020 - 2021)

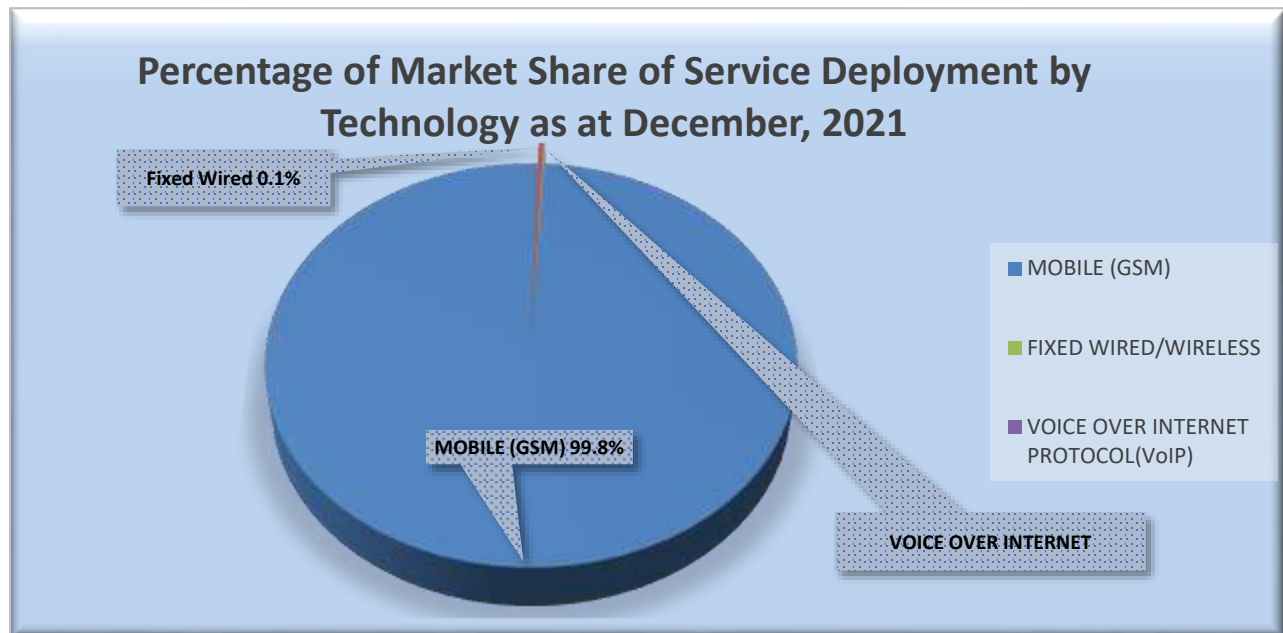


*Figure 8. Active Voice Subscriptions of Mobile Segment, 2020 – 2021*

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 which 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 4 and figure 9 below;

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

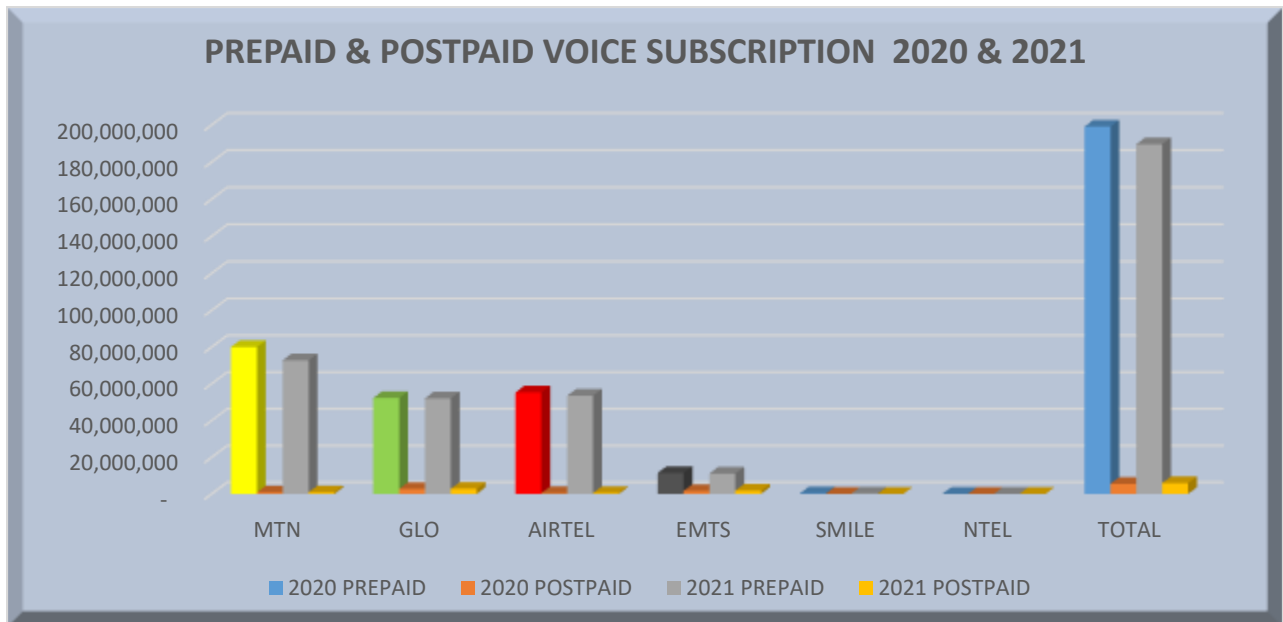
*Table 4: Percentage of Market Share of Service Deployment by Technology as at December, 2021*



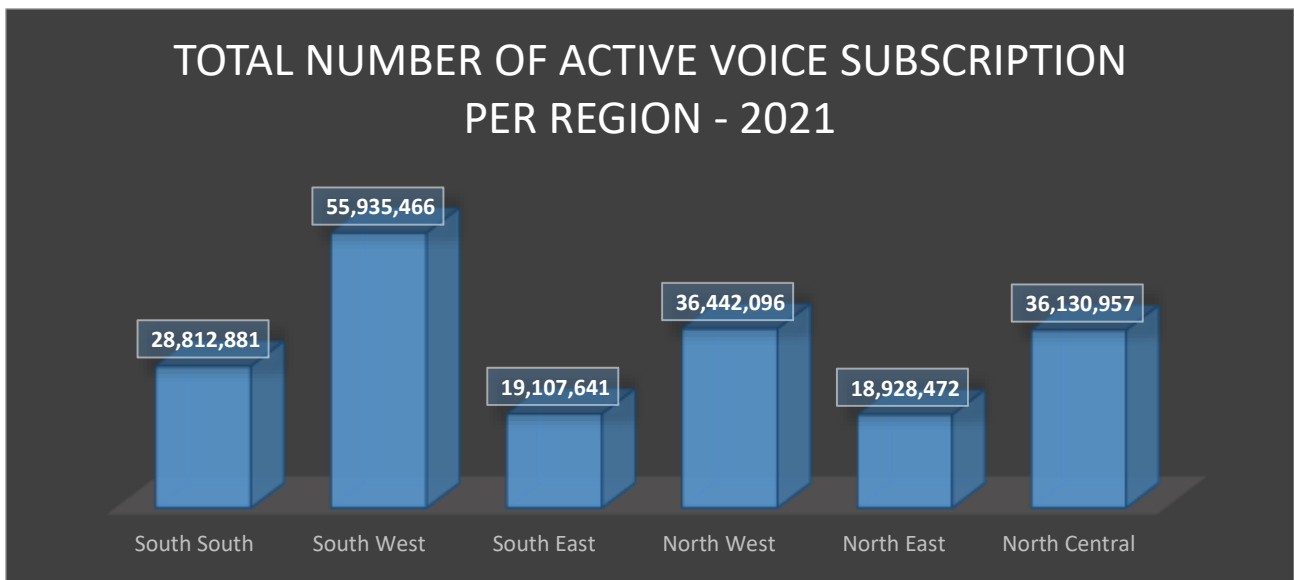
*Figure 9: Percentage of Market Share of Service Deployment by Technology as at December, 2021*

**1e. Prepaid & Postpaid Mobile Voice Subscriptions 2021:**

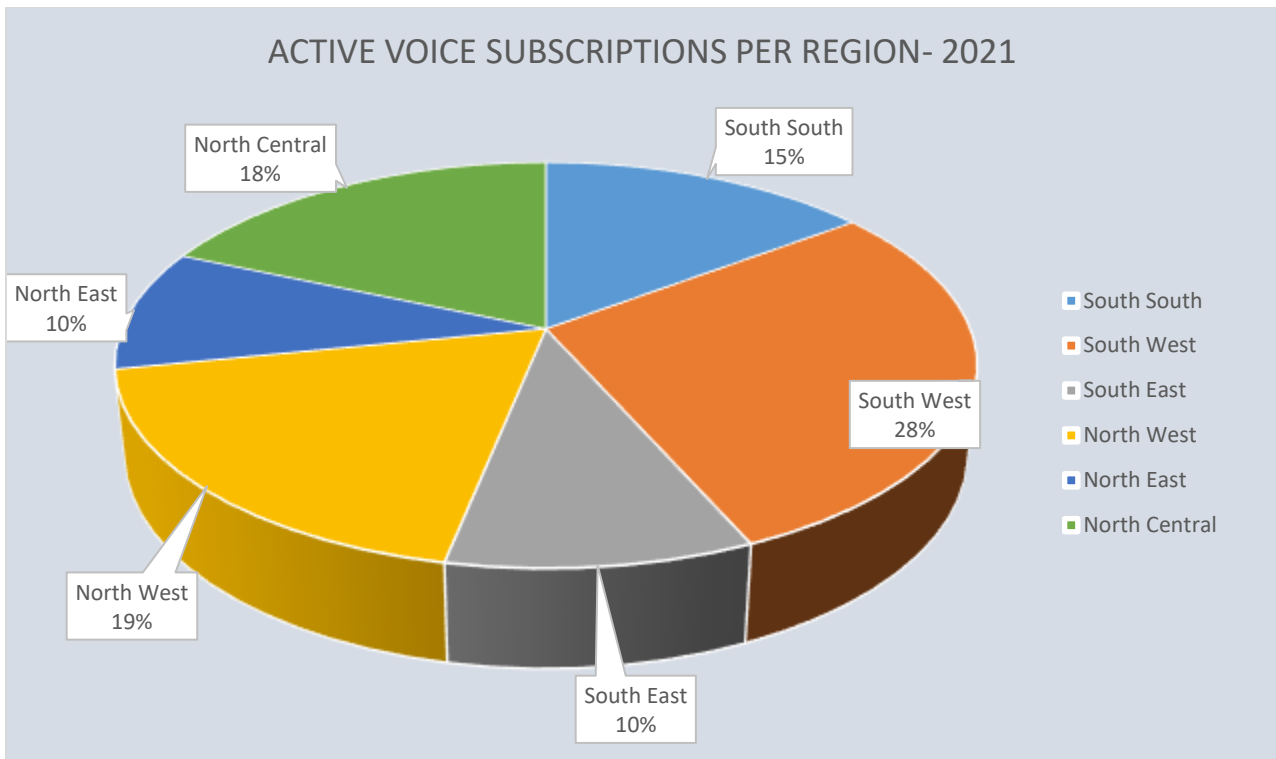
- i. Total prepaid Mobile Voice subscriptions decreased from 199,043,508 in December, 2020 to **189,509,350** in December, 2021 indicating a decline of 9.02% in prepaid Mobile Voice Subscriptions.
- ii. Postpaid Mobile Voice Subscriptions increased from 5,450,774 in December, 2020 to **5,848,163** as at December, 2021 indicating an increase of 7.3% growth in postpaid Mobile Voice Subscriptions as at year end 2021.
- iii. In summary, the above analysis indicates that about 97% of Mobile subscribers are prepaid subscribers while only about 3% are postpaid. See representation in figure 10 below for each of the Operators.
- iv. In Fig 11 below, the Southwest (SW) and Northwest (NW) zones recorded the highest number of subscriptions while the North East (NE) zone recorded the least number of subscriptions due to the continuous insecurity situation experienced in the zone.
- v. 28% of the active subscription is in the Southwest (SW) zone, while the Northeast has the least percentage of Active Voice subscription of 10%.



*Figure 10: Prepaid & Postpaid Voice Subscriptions- Mobile 2020 – 2021*

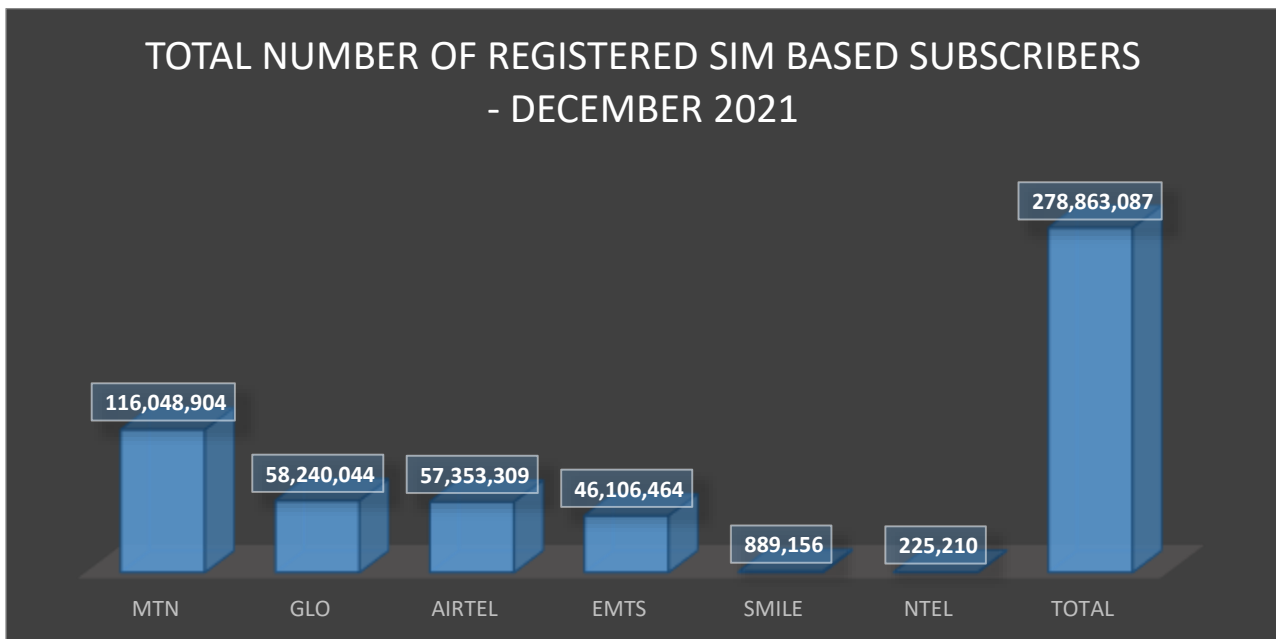


*Figure 11a: Number of Active Voice Subscriptions per Region (2021)*



*Figure 11b: Number of Active Voice Subscriptions per Region (2021)*

**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, 2021 had registered a total of **278,863,087** 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 success of the SIM registration exercise.



*Figure 12: Total Number of Registered SIM- Based Subscribers (2021)*

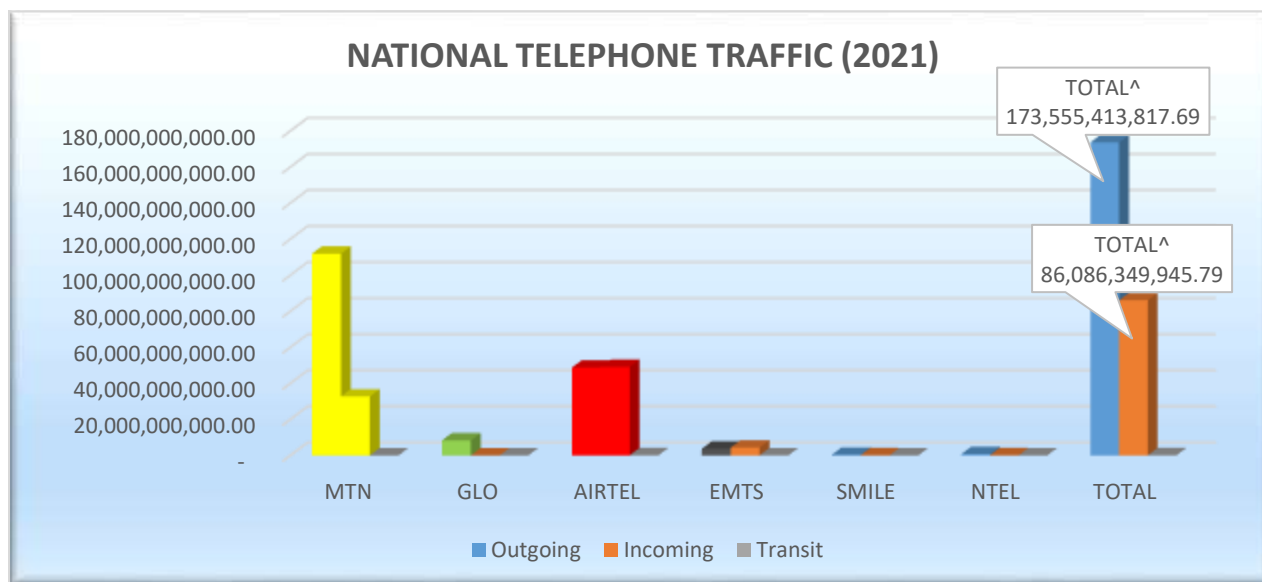
**1h. Mobile Voice Traffic Trend (2021):**

The call traffic activities contained in the year 2021 as reported by Mobile operators in the county.

- i. **Local and National Telephone Traffic in 2021:** As at December, 2021 total outgoing Local and National Traffic was **173,555,413,817.69** minutes while Total incoming Local and National Traffic was **86,086,349,945.79** minutes. MTN had the highest total outgoing and incoming Traffic of 111,848,722,904 and 32,623,560,652 minutes respectively in 2021.

NATIONAL TELEPHONE TRAFFIC 2021		
	Outgoing	Incoming
MTN	111,848,722,904.00	32,623,560,652.00
GLO	8,291,888,970.97	980,315.37
AIRTEL	48,717,539,335.00	49,029,740,559
EMTS	3,658,595,568.72	4,325,571,430.42
SMILE	308,839,655	42,784,307
NTEL	729,827,384.00	63,712,682.00
<b>TOTAL</b>	<b>173,555,413,817.69</b>	<b>86,086,349,945.79</b>

**Table 5: Local and National Traffic in 2021**



**Figure 13: Local and National Telephone traffic – 2021**

- ii. **Outgoing and Incoming Mobile to (and) from International Traffic in 2021:** As at December, 2021 Total Outgoing Mobile International Traffic was **440,948,229.67** minutes while Total Incoming International Traffic to Mobile was **1,153,834,485,182.74**. MTN also reported the highest Outgoing Traffic of 276,424,658 and the highest Incoming Traffic of 1,153,341,095,114 for the period under review.



OUTGOING/ORIGINATING & INCOMING MOBILE TO/FROM INTERNATIONAL TRAFFIC- 2021			
	Outgoing	Incoming	Total
MTN	276,424,658.00	1,153,341,095,114.00	1,153,617,519,772.00
GLO	49,876,893.00	112,165,659.00	162,042,552.00
AIRTEL	81,553,624.53	277,758,711	359,312,335.53
EMTS	32,808,040.00	103,297,403.73	136,105,443.73
SMILE	198,839.00	85.00	198,924.00
NTEL	86,175.14	168,210.01	254,385.15
<b>TOTAL</b>	440,948,229.67	1,153,834,485,182.74	1,154,275,433,412.41

Table 6: Outgoing and Incoming Mobile to/ from International Traffic in December 2021

iii. **Mobile to Mobile Voice Call Traffic in 2021:-** As at December, 2021 total outgoing traffic Mobile to Mobile minutes was **146,680,976,558.28** while total incoming Mobile to Mobile minutes was **110,163,167,642.06** MTN reported the highest Outgoing Traffic of 112,125,189,189 and the highest incoming Traffic of 82,220,909,221.00 for the period under review.

MOBILE TO MOBILE TRAFFIC 2021			
	Outgoing	Incoming	Total
MTN	112,125,189,189.00	82,220,909,221.00	194,346,098,410.00
GLO	6,811,288,579.22	781,528.58	6,812,070,107.80
AIRTEL	23,579,535,970	24,016,055,637	47,595,591,607.00
EMTS	3,065,233,809.06	3,819,557,951.48	6,884,791,760.54
SMILE	308,839,655	42,784,307	351,623,962.00
NTEL	790,889,356.00	63,078,997.00	853,968,353.00
<b>TOTAL</b>	<b>146,680,976,558.28</b>	<b>110,163,167,642.06</b>	<b>256,844,144,200.34</b>

Table 7: Mobile to Mobile Voice Traffic December 2021

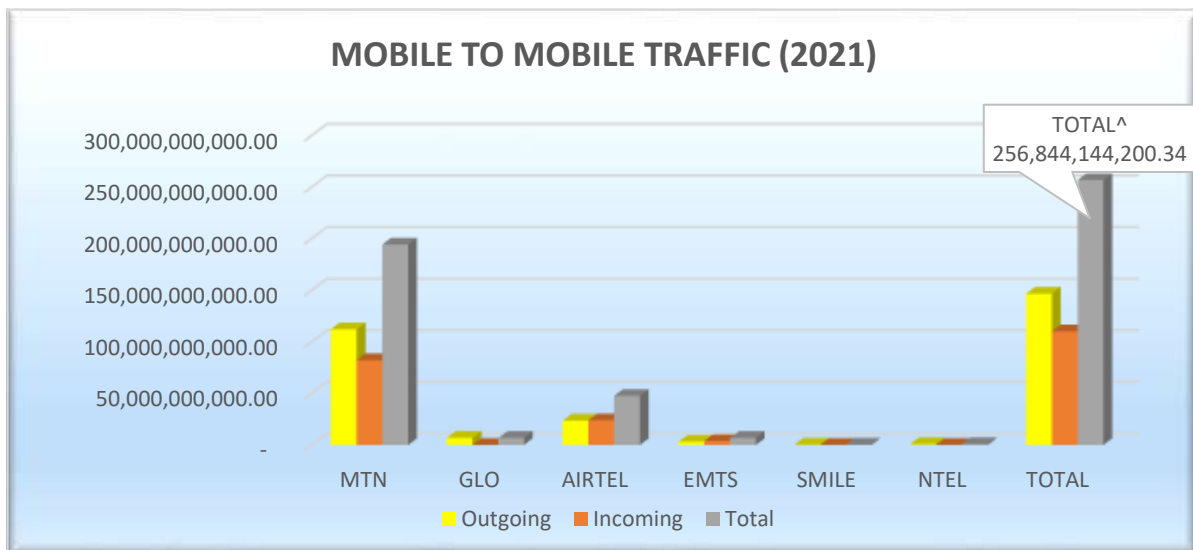


Figure 14: Mobile to Mobile traffic – December 2021

- iv. **Mobile to Fixed Voice Call Traffic in 2021:-** As at December, 2021 Total Outgoing Mobile to Fixed minutes was **6,618,964,693.84** while Total incoming Mobile to Mobile minutes was **5,766,273,807.48**. MTN reported the highest Outgoing Traffic of 6,549,938,682.00 and the highest Incoming Traffic of 5,660,122,722.00 for the period under review.

MOBILE TO FIXED TRAFFIC 2021			
	Outgoing	Incoming	Total
MTN	6,549,938,682.00	5,660,122,722.00	12,210,061,404.00
GLO	14,952,763.52	48,197.58	15,000,961.10
AIRTEL	39,585,215	102,874,432.00	142,459,647.00
EMTS	14,488,033.32	3,228,455.90	17,716,489.22
<b>TOTAL</b>	<b>6,618,964,693.84</b>	<b>5,766,273,807.48</b>	<b>12,385,238,501.32</b>

Table 8: Table of Mobile to Fixed Traffic in 2021

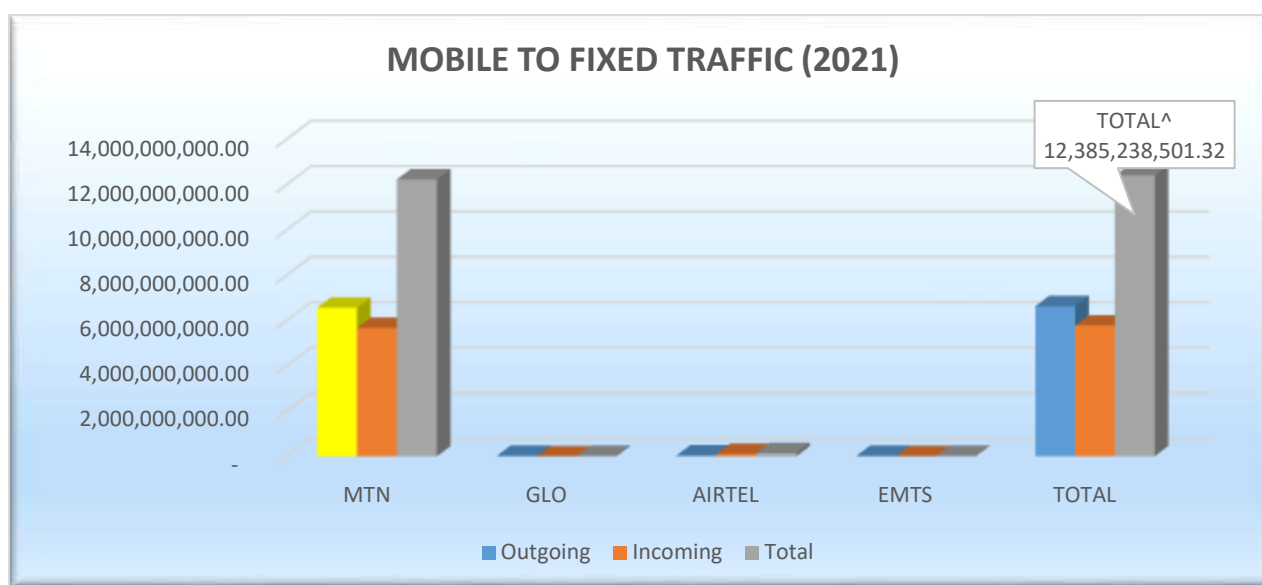
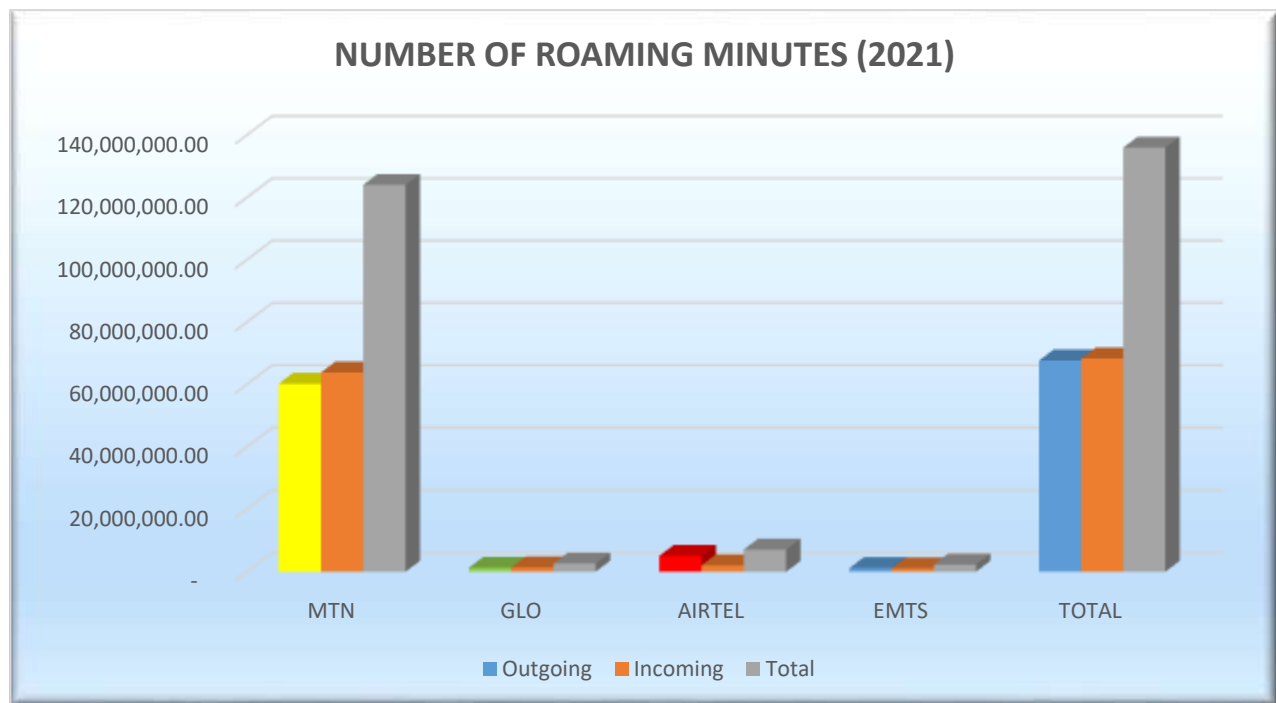


Figure 15: Mobile to Fixed traffic – December 2021

- v. **Number of Roaming Minutes in 2021:** The Total Number of Mobile Roaming Minutes Outgoing and Incoming as at December 2021 for the Mobile Operators was **67,671,581.45** and **68,304,922.73** minutes respectively. MTN posted the highest incoming and outgoing minutes of 60,194,802.33 and 63,807,889.17 respectively. See Table 9 & Figure 16 below;

NUMBER OF ROAMING MINUTES 2021			
	Outgoing	Incoming	Total
MTN	60,194,802.33	63,807,889.17	124,002,691.50
GLO	1,240,426.00	1,382,202.00	2,622,628.00
AIRTEL	5,063,083	2,012,386	7,075,469.00
EMTS	1,173,270.12	1,102,445.56	2,275,715.68
<b>TOTAL</b>	<b>67,671,581.45</b>	<b>68,304,922.73</b>	<b>135,976,504.18</b>

**Table 9: Number of Roaming Minutes (2021)**



**Figure 16: Number of Roaming Minutes-December 2021**

- vi. **National SMS in 2021:** The Total Number of national SMS both sent and received as at December 2020 was 19,818,602,804.33. This is an increase of 14.13% from that of the total SMS sent and received in year 2020 that stood at **17,364,524,490.02** SMS.

There was a 15.1% increase in the number of SMS sent out in year 2021 compared to year 2020. Conversely, the Year 2021 count of Incoming SMS also increased by 16.63% higher than that of Year 2020

In Year 2021, MTN recorded the highest count of SMS received and sent which stood at 8,234,925,441 and 7,882,538,193 respectively, this is as indicated in table 10 and in figure 17 below;

SMS MESSAGES NATIONAL 2021			
	SMS Sent	SMS Received	Total
<b>MTN</b>	7,882,538,193	8,234,925,441	16,117,463,634.00
<b>GLO</b>	3,340.00	61,709,380.00	61,712,720.00
<b>AIRTEL</b>	1,272,460,703	2,056,406,293	3,328,866,996.00
<b>EMTS</b>	305,077,330.33	304,611,422.20	305,077,330.33
<b>SMILE</b>	265,176	1,023,489	1,288,665.00
<b>NTEL</b>	2,089,649.00	2,103,810.00	4,193,459.00
<b>TOTAL</b>	<b>9,462,434,391.33</b>	<b>10,660,779,835.20</b>	<b>19,818,602,804.33</b>

**Table 17: Total number of Outgoing/Incoming Local/National SMS trend (2021)**

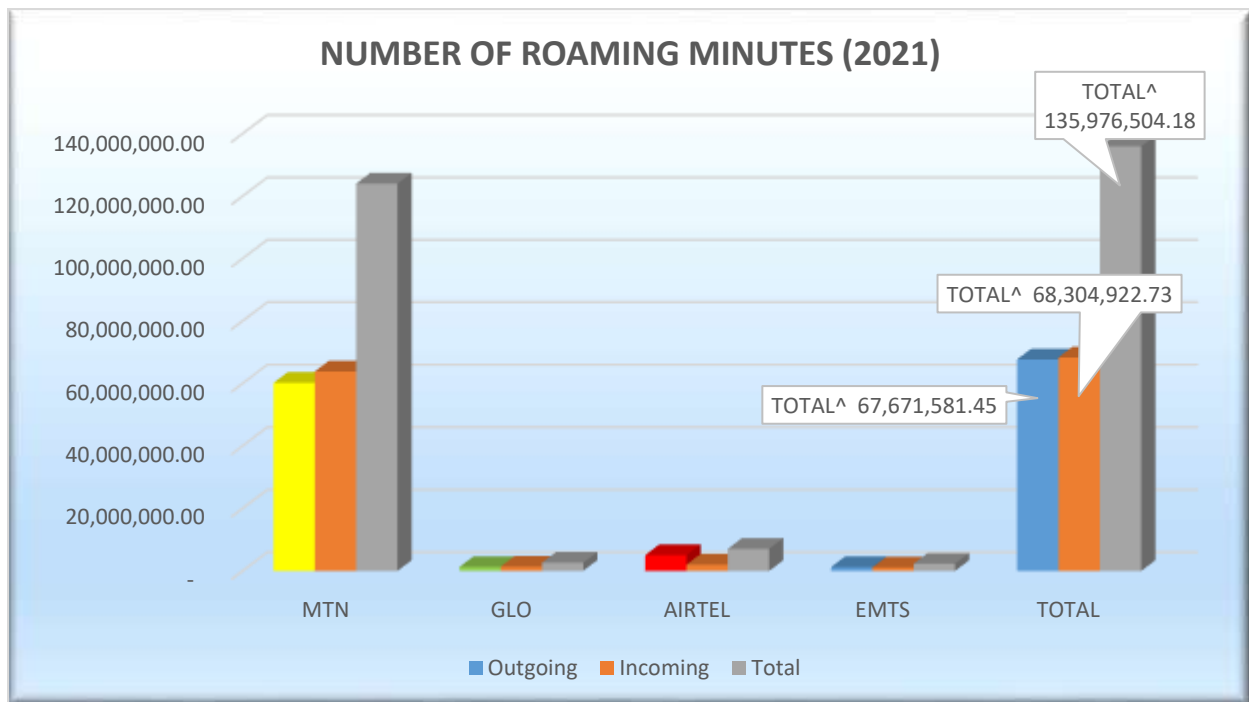


Figure 17: Total Outgoing/ Incoming SMS, Mobile December 2021

vii. **International SMS in 2021:** The Total Number of International SMS sent as at December 2021 was **63,009,474** while total number of SMS received was **340,655,884**. See Table 11 & Figure 18 below;

SMS MESSAGES INTERNATIONAL 2021			
	SMS Sent	SMS Received	Total
<b>MTN</b>	42,444,130	17,796,174	60,240,304
<b>GLO</b>	171,002	1,482,316	1,653,318
<b>AIRTEL</b>	18,560,081	276,829,710	295,389,791
<b>EMTS</b>	1,831,546	44,433,452	46,264,998
<b>SMILE</b>	2,715	114,232	116,947
<b>TOTAL</b>	<b>63,009,474</b>	<b>340,655,884</b>	<b>403,665,358</b>

Table 11: Total number of Outgoing/Incoming International SMS trend 2021

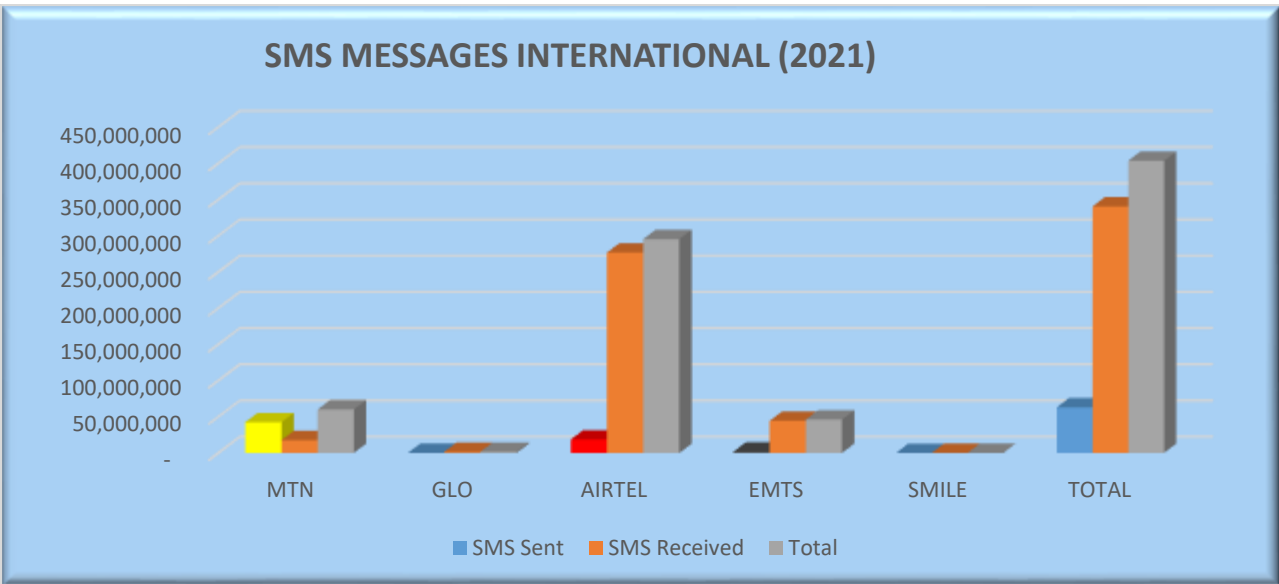


Figure 18: Total Outgoing/ Incoming SMS International, 2021

- Total Number of International SMS sent increased from 57,566,961 in year 2020 to 63,009,474 as at Year 2021; this indicates a 9.45% increase in SMS international received in year 2021. Similarly, the Number of international SMS received in year 2020 increased from 229,173,132 SMS to 229,173,132 SMS as at December 2021. This translated to 48.7% increase.
- Airtel recorded the highest count of incoming SMS (276,829,710) while MTN recorded the highest count of SMS sent (42,444,130) in year 2021. This is as shown in Table 11 above.

**SUBSCRIBER & SERVICE DATA – INTERNET SUBSCRIPTIONS**

**1a. Mobile Subscriber Internet Data- 2021:** As at December, 2021 the total active internet subscriptions decreased from 154,289,727 subscriptions as at December 2020 to 141,959,496 subscriptions. This indicates a (8%) decline in Total Active Internet Subscriptions Year on Year.

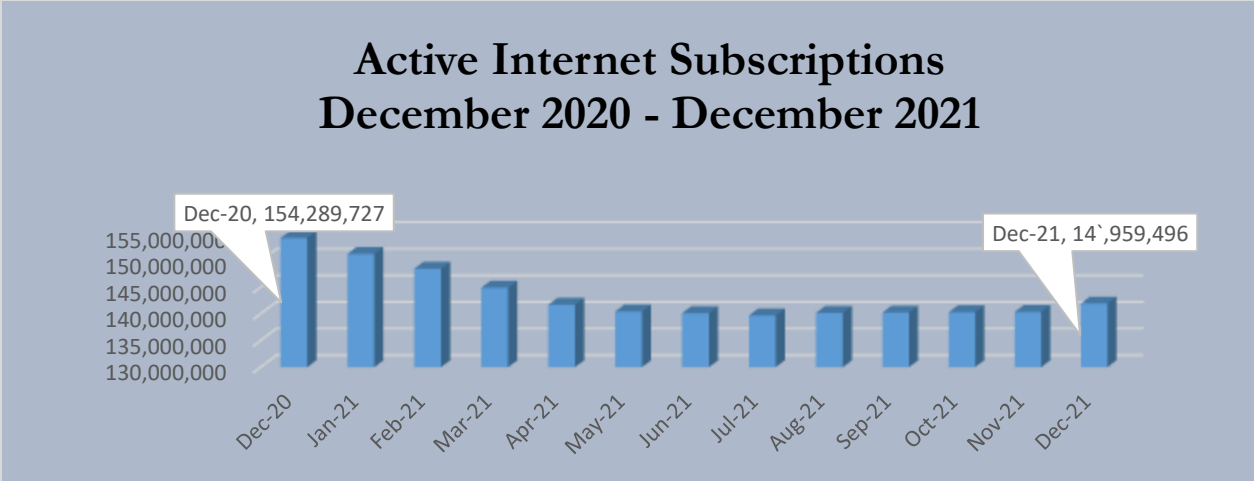


Figure 19: Active Internet Subscriptions: December, 2020 to December, 2021

For the Mobile GSM Operators the Active Internet as at December 2021 is as shown below:

Operators (GSM)	Active Internet Subscriptions December'20(GSM)	Active Internet Subscriptions December'21 (GSM)	Difference	% Change
MTN	65,359,306	58,812,428	(6,546,878)	(10.0)
GLO	40,106,659	39,525,269	(581,390)	(1.4)
AIRTEL	41,287,733	37,526,624	(3,761,109)	(9.1)
EMTS	7,120,088	5,752,702	(1,367,386)	(19.2)
SMILE	378,635	314,674	(63,961)	(16.9)
NTEL	37,306	27,799	(9,507)	(25.5)
<b>TOTAL</b>	<b>154,289,727</b>	<b>141,959,496</b>	<b>(12,330,231)</b>	<b>(8.0)</b>

Table 12: Active Internet Subscription (GSM) Operators 2020-2021

- In view of the Figure 19 and Table 12 above, all the service providers in the mobile GSM and VoIP technology segment experienced loss in subscriptions during the period reviewed.
- NTEL recorded the highest percentage increase of Active Internet Subscription of 25.5%.
- The Operators attributed the decline majorly to the FG's directive to suspend the Sale, Registration and Activation of new SIMs.

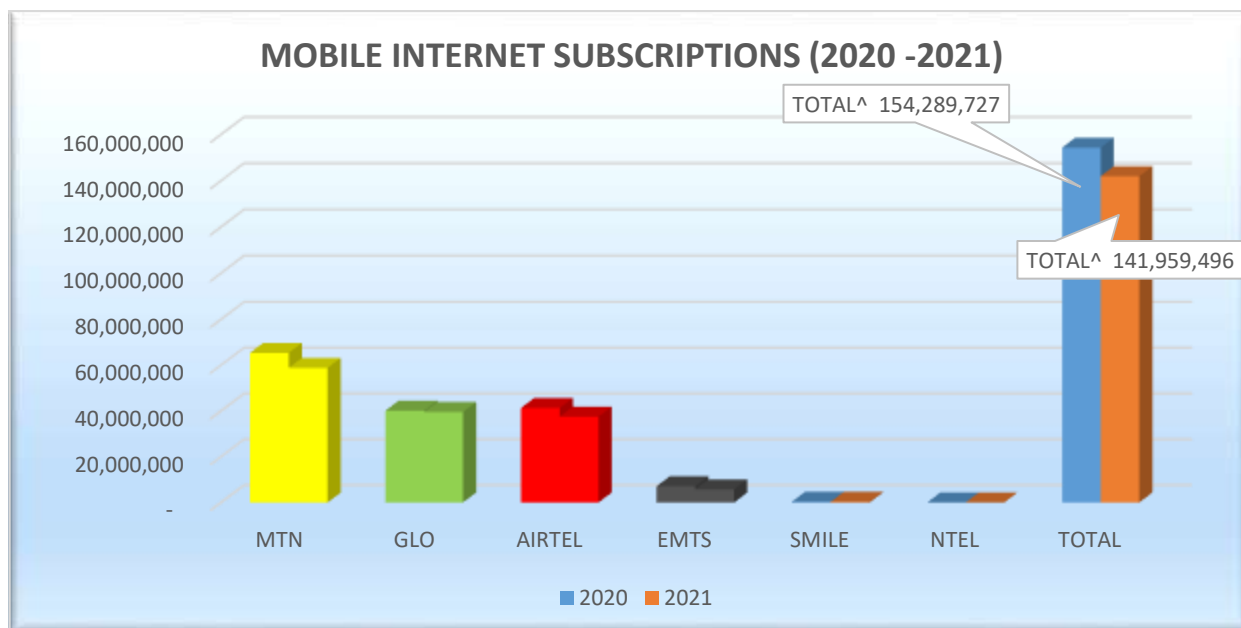


Figure 20: Total Number of Active Mobile Subscriptions – (2020- 2021)

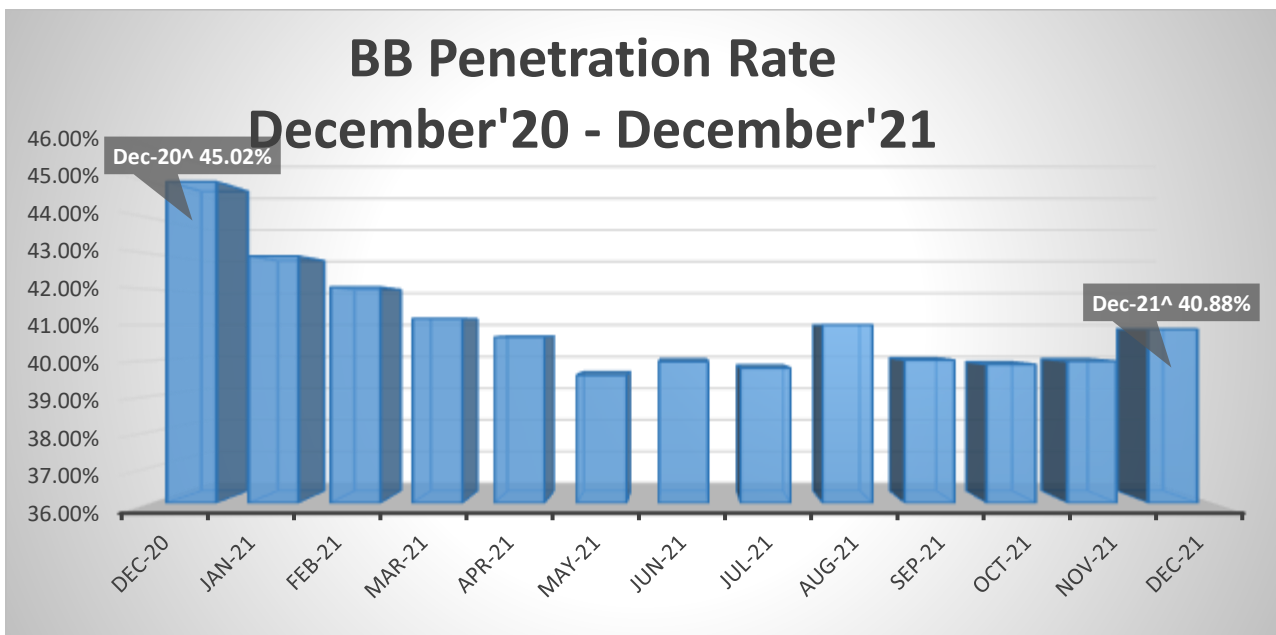
## MOBILE BROADBAND PENETRATION STATISTICS – DECEMBER 2021

**1b. Active Subscriptions to Mobile Broadband (Broadband Penetration 2021):** As at December, 2021 Active Mobile Broadband Subscriptions was 78,041,883 as reported by **MTN, GLO, AIRTEL, EMTS, SMILE & NTEL**. The subscriptions indicate that Broadband penetration stood at **40.88%** as at December 2021. 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 new strategies to meet the new target of 70% Broadband penetration by year 2025 as contained in the new Broadband Plan

BROADBAND PENETRATION RATE DECEMBER 2020 – DECEMBER 2021				
	3G Subscriptions	4G Subscriptions	Total 3G & 4G	BB % Penetration
<b>Dec-20</b>	49,402,994	36,538,228	85,941,222	45.02
<b>Jan-21</b>	46,189,611	35,760,372	81,949,983	42.93
<b>Feb-21</b>	44,779,588	35,500,561	80,280,149	42.06
<b>Mar-21</b>	42,877,861	35,735,828	78,613,689	41.18
<b>Apr-21</b>	41,987,169	35,618,331	77,605,500	40.66
<b>May-21</b>	40,179,564	35,389,878	75,569,442	39.59
<b>Jun-21</b>	40,147,136	36,141,927	76,289,063	39.97

Jul-21	39,661,135	36,291,271	75,952,406	39.79
Aug-21	40,839,996	37,415,254	78,255,250	41.00
Sep-21	37,673,905	38,691,253	76,365,158	40.01
Oct-21	37,146,408	38,999,748	76,146,156	39.89
Nov-21	36,807,332	39,506,851	76,314,183	39.98
Dec-21	34,531,541	43,510,342	78,041,883	40.88

*Table 13. Total Active 3G & 4G Internet Subscriptions December 2020- December 2021*



*Figure 21: Active Broadband Subscriptions (2021)*

**1c. Data Usage/Consumption Statistics – December 2021:-** The total volume of data consumed by subscribers increased from **205,880.4TB** in December, 2020 to **350,165.39TB** as at December 2021 indicating a percentage increase of 70.8% year on Year.



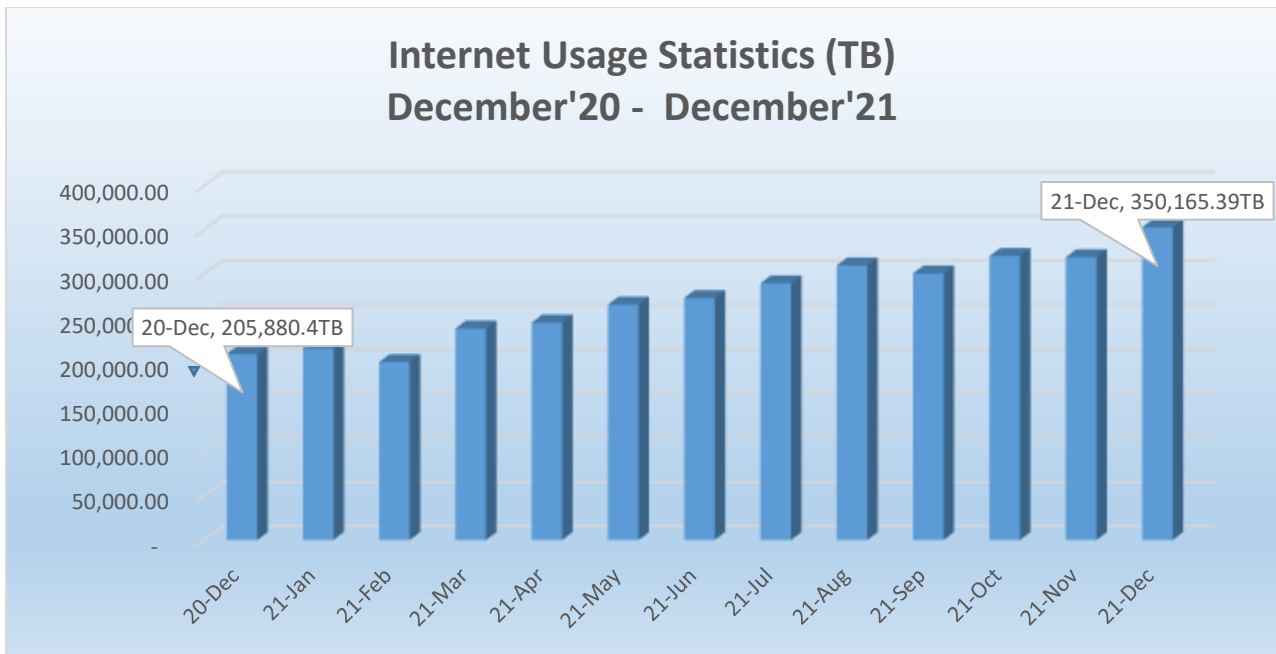


Figure 22: Internet Usage Statistics December, 2020 – December, 2021

**1d. Machine to Machine (2021):** 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, 2021 the number of Mobile-Cellular machine-machine subscriptions as reported by **MTN, GLO, AIRTEL and EMTS** was 1,958,465.

GLO had the highest number of machine to machine subscriptions with 1,129,067, EMTS had 495,658 while Airtel recoded 332,783 M2M subscriptions with MTN reporting the least with 957 subscriptions as shown in Figure 23 below;

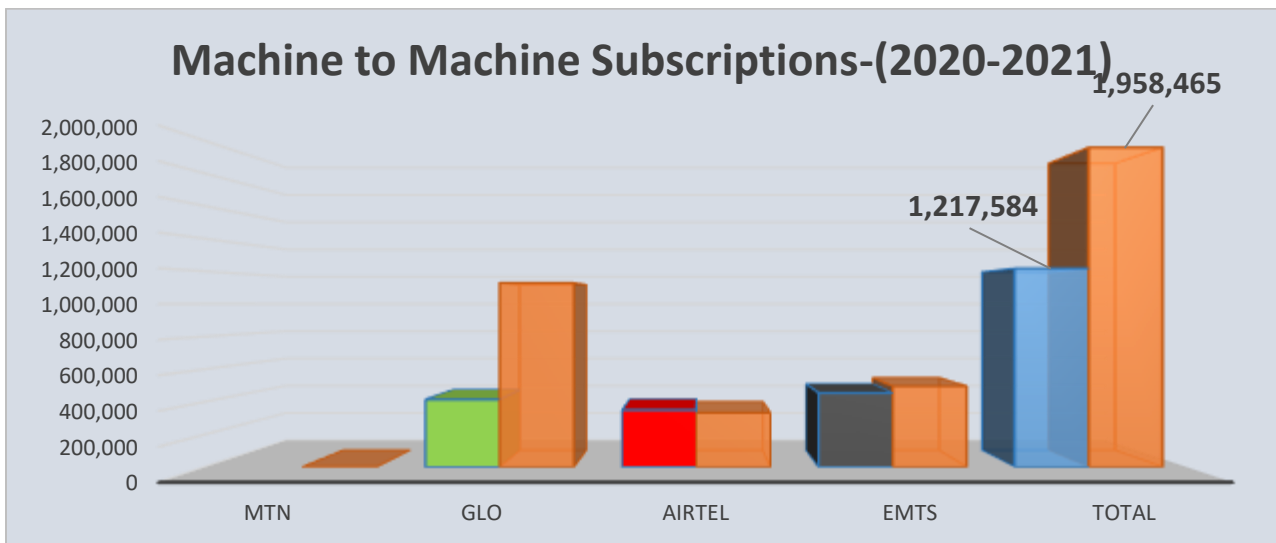
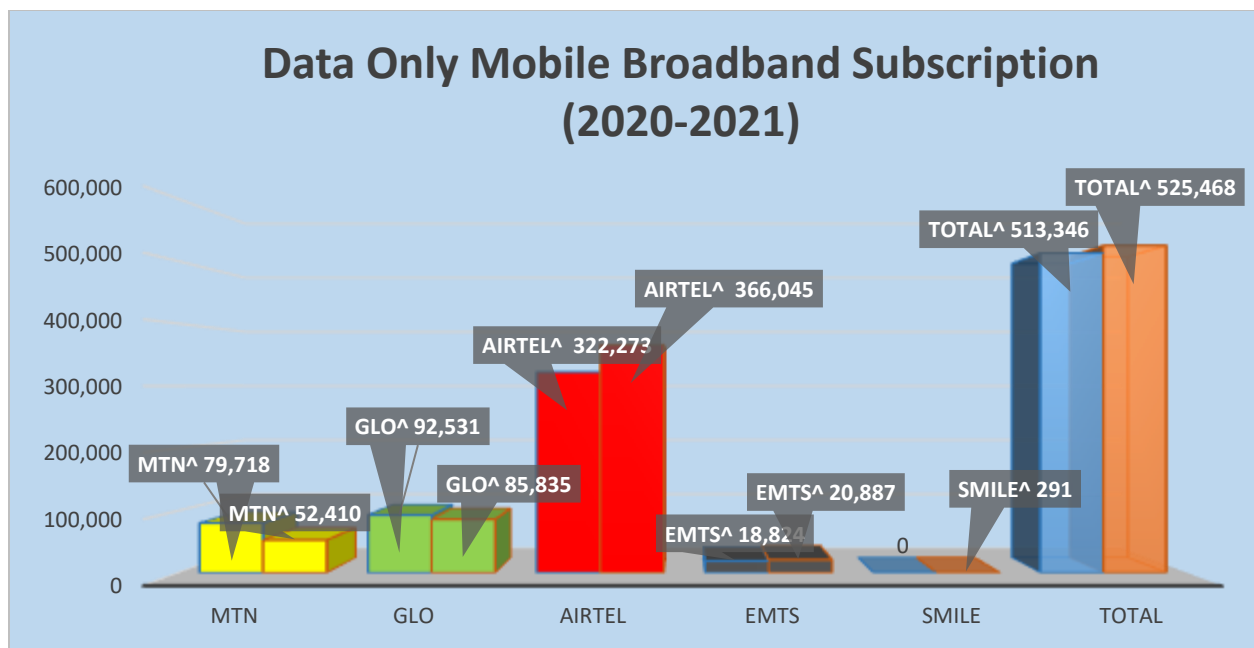


Figure 23: Machine to Machine Subscriptions (2020-2021)

**1e. Number of Data-Only Mobile-Broadband Subscriptions – Dongles (2021):** 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 **525,468** Data-Only Mobile-Broadband Subscriptions (Dongles) as at December, 2021.

In summary, AIRTEL, GLO, MTN, EMTS and SMILE each recorded **366,045; 85,835; 52,410; 20,887** and **291** Data-Only Mobile-Broadband Subscriptions (Dongles) respectively as at December, 2021.



**Figure 24: Data-Only Broadband Subscriptions December (2020 - 2021)**

## SUBSCRIBER & SERVICE DATA – PORTING TREND IN NIGERIA AS AT DECEMBER, 2021

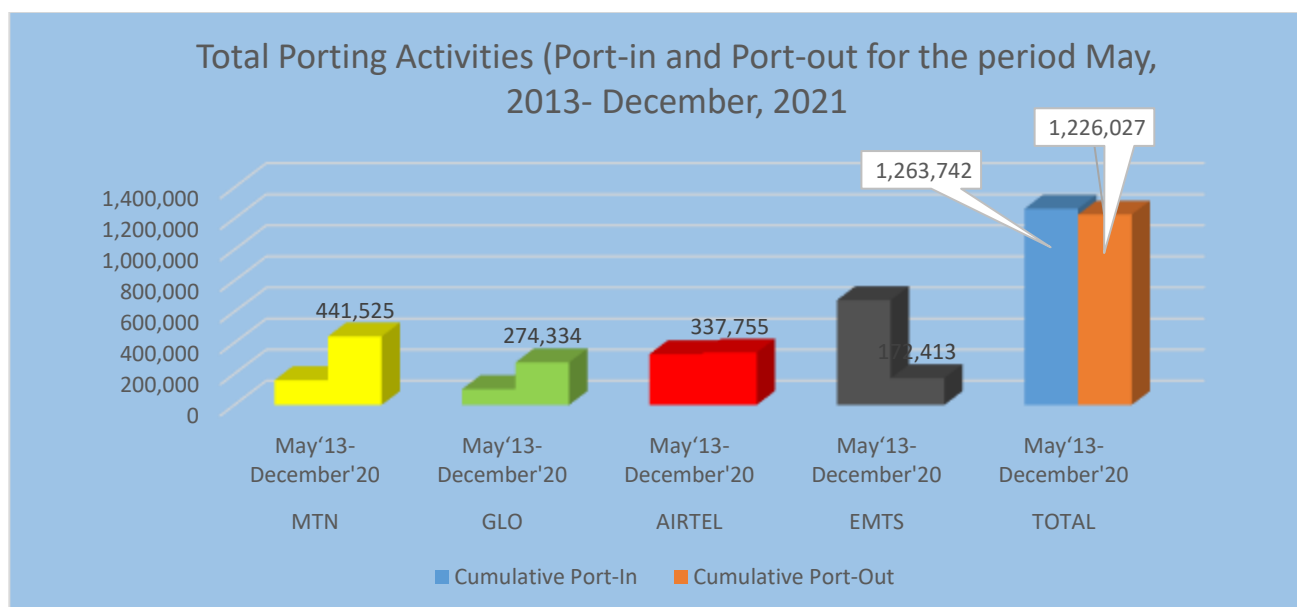
**1a. The Mobile (GSM) Number Porting Activities:** - this segment highlights porting activities across the various Mobile GSM networks (*MTN, GLO, AIRTEL & EMTS*) in the country and analysis of these activities is as shown below:

- i. Table 14 below shows the trend of Nigeria’s porting activities from inception (May, 2013 to December, 2021) for the four (4) major GSM Operators. The analysis illustrates that EMTS had the highest count of Port-in subscribers [674,967] while AIRTEL, MTN and GLO respectively recorded the following counts of Port-in as follows [326,697]; [160,016] & [102,062].
- ii. Similarly, our analysis from May, 2013 to December, 2021 reveals that MTN had the highest number of subscribers that ported-out [441,525] to other networks while

AIRTEL, GLO & EMTS are as follows [337,755]; [274,334] & [172,413] respectively.

	<i>MTN</i>	<i>GLO</i>	<i>AIRTEL</i>	<i>EMTS</i>	<i>TOTAL</i>
	<i>May'13 - December'21</i>	<i>May'13 - December'21</i>	<i>May'13 - December'21</i>	<i>May'13 - December'21</i>	<i>May'13 - December'21</i>
<i>Cumulative Port-In</i>	<i>160,016</i>	<i>102,062</i>	<i>326,697</i>	<i>674,967</i>	<i>1,263,742</i>
<i>Cumulative Port-Out</i>	<i>441,525</i>	<i>274,334</i>	<i>337,755</i>	<i>172,413</i>	<i>1,226,027</i>
<i>Total Porting Activities (Port-in and Port-out) for the period May 2013 – 2021</i>					<i>2,489,769</i>

**Table 14: Cumulative Mobile Number Portability (May, 2013 – December, 2021)**



**Figure 25: Cumulative Mobile Number Portability (May, 2013 – December, 2021)**

**1b. Port- In activities from December, 2020 – December, 2021:-**

The count of Port-In activities decreased from 182,958 in year 2020 to 17,467 as at the end of year 2021. This indicates a decrease of 90% in the total port-in between 2020 and 2021 year on year.

The decline noted in Port-In activities was attributed majorly to the effect of the directive from NCC in December 2020 to all GSM Operators to suspend the sale and registration of new SIMs, SIM swaps and all porting activities following from the Commissions audit of Subscriber Registration Database in the Country.

Table 15 and figure 26 below, illustrates the Port-In performance in the telecommunications sector between 2020 and 2021;

OPERATOR	Port-In Activities Jan-Dec 2020	Port-In Activities Jan-Dec 2021	% Increase /Decrease
MTN	37,027	8,361	(77)
GLO	3,870	1,832	(53)
AIRTEL	67,927	5,932	(91)
EMTS	74,134	1,342	(98)
<b>TOTAL</b>	<b>182,958</b>	<b>17,467</b>	<b>(90)</b>

Table 15: Port-In Activities 2020 - 2021

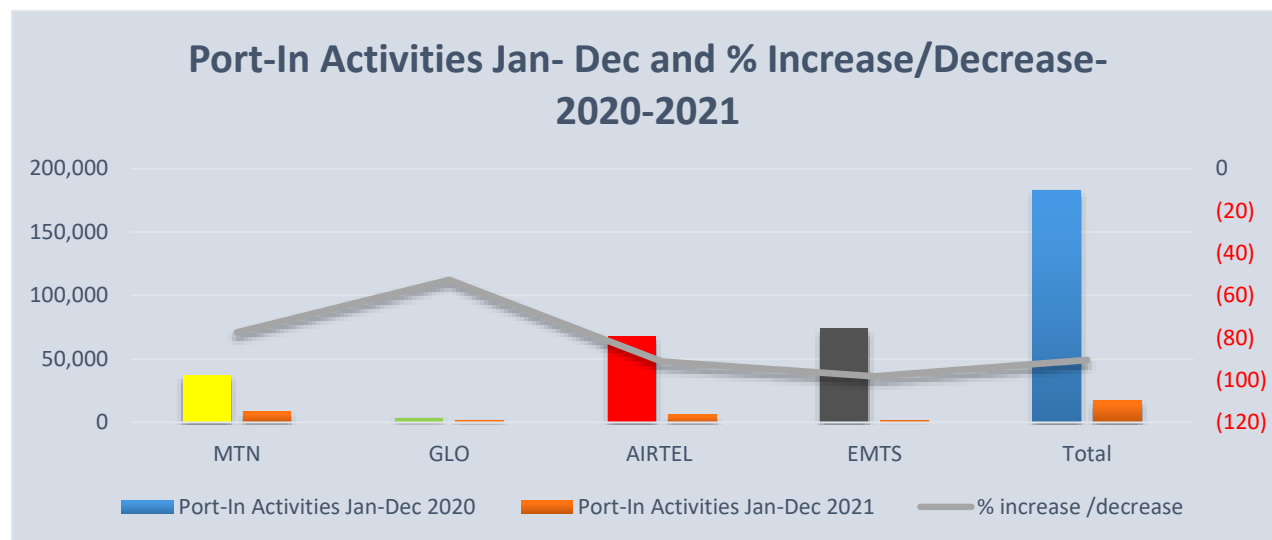


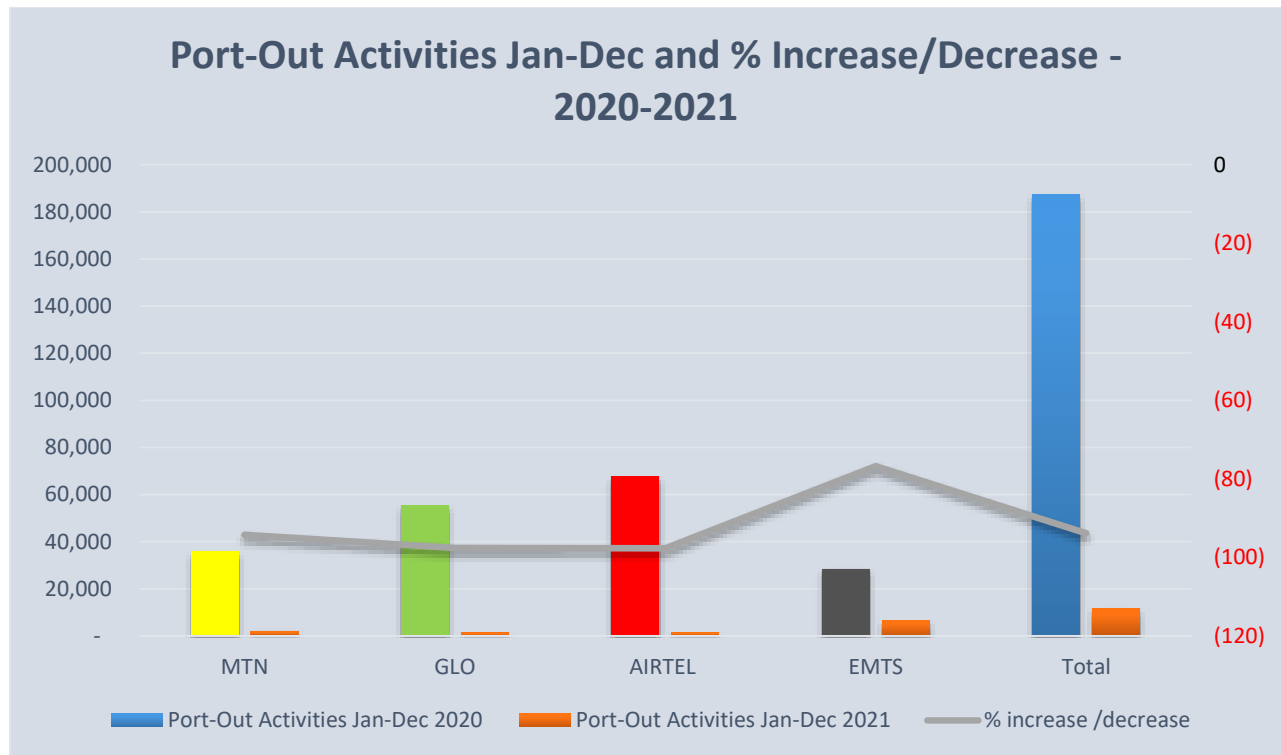
Figure 26: Port-In Activities Jan-Dec and Percentage Increase/Decrease of Port-In (2020 – 2021)

**1c. Port-Out activities from December, 2020 – December, 2021:-** The Count of Port-out decreased from 187,171 in Year 2020 to **11,514** in Year 2021 indicating a decline of 94% year on year performance analysis.

Table 16 and figure 27 below illustrates the Port-Out performance in the telecommunications sector between 2020 and 2021;

	Port-Out Activities Jan-Dec 2020	Port-Out Activities Jan-Dec 2021	% Increase /Decrease
MTN	35,881	2,048	(94)
GLO	55,322	1,318	(98)
AIRTEL	67,596	1,564	(98)
EMTS	28,372	6,584	(77)
<b>TOTAL</b>	<b>187,171</b>	<b>11,514</b>	<b>(94)</b>

Table 16: Count of Port-Out Activities-December 2020-2021



**Figure 27: Port-Out Activities and Percentage Increase/Decrease of Port-Out Activities December 2020-2021**

FINANCIAL DATA – MOBILE (December 2021)

**1a. Revenue:** The Mobile operators as at December 2021 recorded an approximate total revenue of **N2,774,128,000,000** as against **N2,268,000,000,000** recorded in Year 2020. This reflects an increase of 22.29% of total revenue from the Mobile Network Operators.

**1b. Operating Cost:** Total Operating Cost for the Mobile Network Operators increased from **N1,395,000,000,000** in Year 2020 to **N1,658,235,000,000** at the end of Year 2021. This illustrates an increase of 18.74% from the figure reported in 2020.

**1c. Assets:** The total value of Assets reported by the Mobile Network Operators increased from approximately **N3, 444,000,000,000** in year 2020 to **N3, 955,893,000,000** as at end of Year 2021. This represents an increase of 14.86% in the value of assets reported in Year 2020.

**1d. CAPEX- Local Investments in the Industry (2020-2021):** As the end of Year 2021 the following Mobile Network Operators reported Capital Expenditures (CAPEX) within Years 2020 and 2021.

The Mobile Network Operators reported a total CAPEX of **N1,124,117,000,000** as against **the N831,976,000,000 (Please note that N404, 819,000,000 is reflected in the 2020 Annual Report which was the operators management account used for 2020 Year-end report)** invested in Year 2020.

**A. STAFF PROFILE – MOBILE (2021)**

The total number of Staff reported by the Mobile operators (MTN, GLO, Airtel, EMTS, Smile and Ntel) as at December, 2021 was a total of 7,226 composed of (7,042 Nigerians and 184 expatriates). Further breakdown of this category reveals that 4,541 of the Nigerian Staff are Male while 2,501 are female. Similarly, 181 are male expatriates and 3 are female expatriates.

## CHAPTER THREE

### ANALYSIS OF 2021 YEAR END SUBSCRIBER/ NETWORK DATA- FIXED TELEPHONY (Fixed Wired/Fixed Wireless) OPERATORS

The Fixed Telephony Operators' Year-End Performance report depicts the analysis of the fixed market segment as at December, 2021. In addition to the Four Companies which were reported in 2020, in 2021 four more companies were added namely, Inq. Digital (formerly Vodacom), Swift Telephone Network, Spectranet and Big Picture; making it a total of Eight Companies which are presented in the report below:

#### A. NETWORK DATA

1. **Base Stations:** As at December, 2021 a total of **165 base stations** were recorded indicating an increase of 57% from 2020 where 105 base Stations were recorded.

#### B. INFRASTRUCTURE DEPLOYMENT

1. **Fiber Optics:** As at December, 2021 21<sup>st</sup> Century deployed **9,000km** on land and **33km** submarine while ipNX deployed **2,076km** on land. In total a sum of **11,077km** was deployed for on land fibre optics and **33km** submarine fibre optics.

2. **Microwave Radio:** 21<sup>st</sup> Century and IpNX, jointly reported **315km** in Microwave Radio deployment for 2021.

3. **Trunks in Use:** 21<sup>st</sup> Century reported 720, IPNX 2 and Swift Telephone 1. This aggregates **723km** Trunks (E1) in use as at December, 2021.

4. **Gateways in Use:** 21<sup>st</sup> Century, ipNX and Swift Telephone Network jointly reported a total of **10 Gateways** in use as at December 2021. 21<sup>st</sup> Century 3 and ipNX used 6 gateways and Swift had 1.

#### C. SUBSCRIBER AND SERVICES DATA

1. **Total Active Voice Subscriptions:** During the year under review; 21<sup>st</sup> Century reported a decline of 1.4% in its active subscriptions. All other Service Providers recorded increases in the active voice subscriptions; **MTN had 7,387; GLO 2,721; IpNX 1,237, Inq Digital 9,973; Swift Network 9,304** and **Big picture had 2,116** total active subscriptions as at December, 2021.

**GLO** recorded the highest percentage increase of **21.3%** as at December, 2021. The total Active Subscription in the fixed segment increased by **8.83%**.

TOTAL ACTIVE VOICE SUBSCRIPTIONS (2020 – 2021)			
SERVICE PROVIDERS	2020	2021	Difference
MTN	7,192	7,387	2.71
GLOBACOM	2,244	2,721	21.26
21ST CENT	96,365	95,040	-1.37
IPNX	1,230	1,237	0.57
INQ. DIGITAL NIG. LTD	8,769	9,973	13.73
SWIFT TELEPHONE NETWORK LIMITED	532	9,304	1648.87
BIG PICTURE	1,082	2,116	95.56
<b>TOTAL</b>	<b>117,414</b>	<b>127,778</b>	<b>8.83</b>

Table 1: Total Active Voice Subscriptions 2020 – 2021

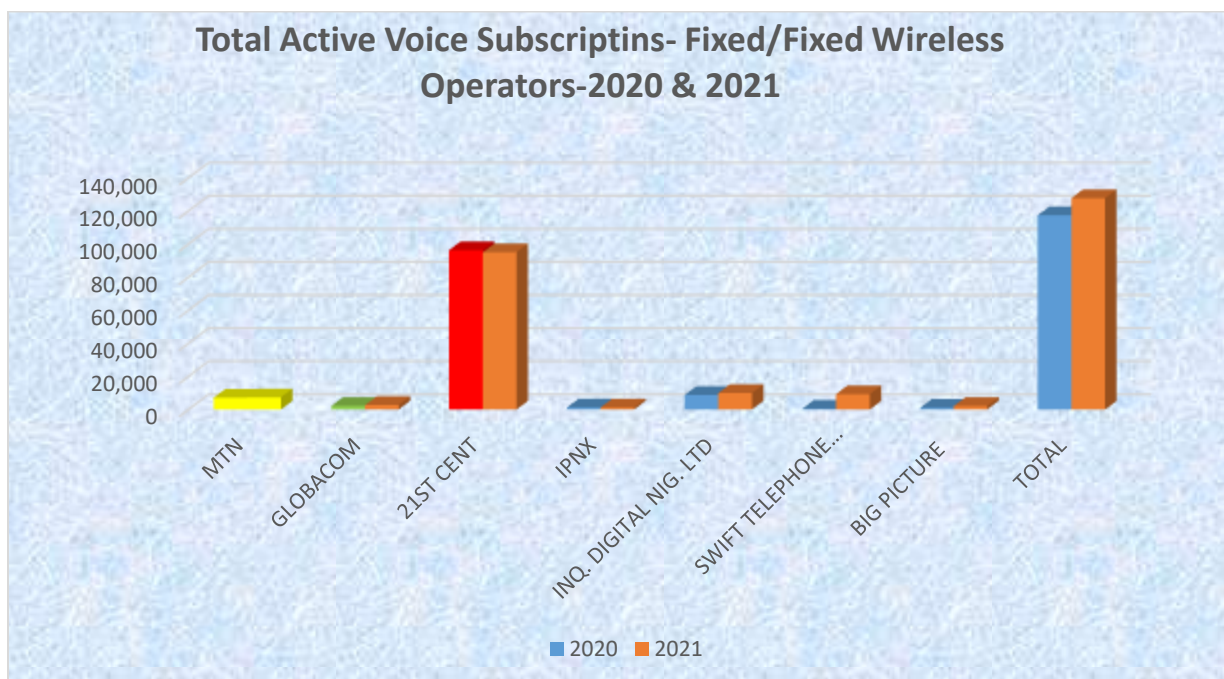


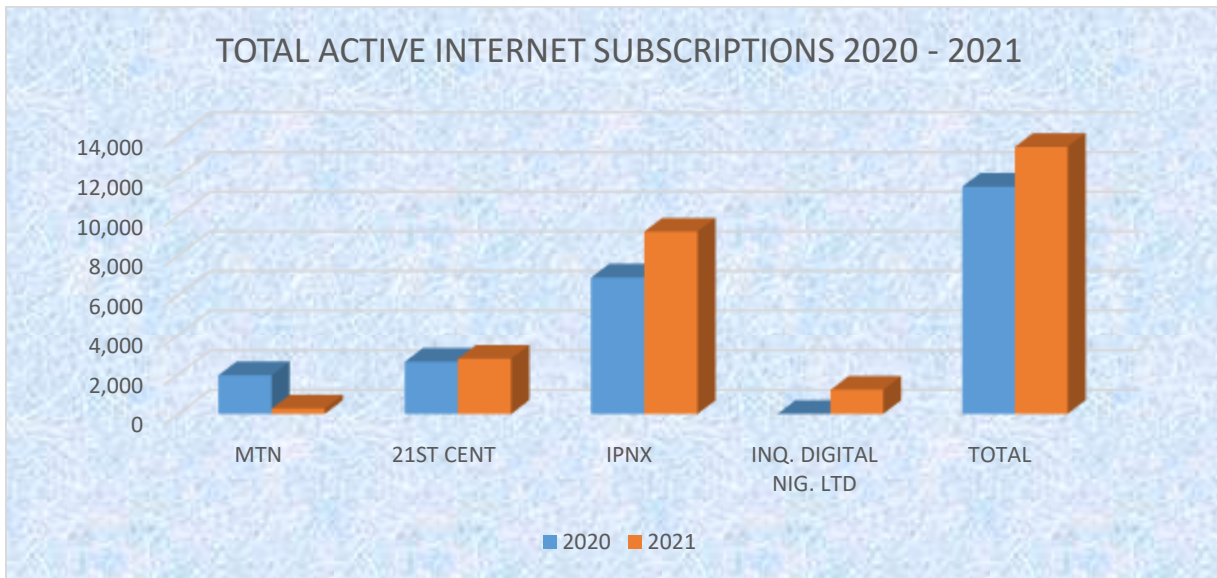
Figure 1: Total Active Voice Subscriptions (2020 - 2021)

2. **Total Active Internet Subscriptions:** As at December 2021 the Active Internet subscriptions for MTN, 21<sup>st</sup> Century, ipNX, and Inq. Digital was **13,477** subscription. This indicated an increase from 2020 which was **11,468** subscriptions. The Operators each recorded the following: ipNX with the highest subscription of **9,201**, 21<sup>st</sup> Century **2,785**, Inq. Digital **1,218** and MTN with the lowest **273** subscriptions. Our analysis show that the internet for the fixed wired and wireless network majorly increased by **17.52%**



<b>TOTAL ACTIVE INTERNET SUBSCRIPTIONS (2020 – 2021)</b>			
<b>SERVICE PROVIDER</b>	<b>2020</b>	<b>2021</b>	<b>Difference</b>
<b>MTN</b>	<b>1,951</b>	<b>273</b>	<b>-86.01</b>
<b>21ST CENT</b>	<b>2,635</b>	<b>2,785</b>	<b>5.69</b>
<b>IPNX</b>	<b>6,882</b>	<b>9,201</b>	<b>33.70</b>
<b>INQ. DIGITAL NIG. LTD</b>	<b>N/A</b>	<b>1,218</b>	<b>0.00</b>
<b>TOTAL</b>	<b>11,468</b>	<b>13,477</b>	<b>17.52</b>

*Table 2: Total Active Internet Subscriptions 2020 - 2021*



*Figure 2: Total Active Internet Subscriptions 2020 - 2021*

**3. Fibre to the Home/ Building Subscriptions:** As at December 2021 ipNX, MTN, and 21<sup>st</sup> Century respectively installed 15,689KM, 2,997KM, and 303KM of Fibre to the Home/Building. This is a total of 18,989KM of fibre deployed by these operators within the reporting period.

<b>FIBRE-TO-THE-HOME/BUILDING SUBSCRIPTIONS 2021</b>		
<b>SERVICE PROVIDER</b>	<b>2020</b>	<b>2021</b>
<b>MTN</b>	<b>3,551</b>	<b>2,997</b>
<b>21 CENT</b>	<b>640</b>	<b>303</b>
<b>IPNX</b>	<b>12,719</b>	<b>15,689</b>
<b>TOTAL</b>	<b>16,910</b>	<b>18,989</b>

*Table 3: Fibre to the Home/Building Subscriptions 2021*

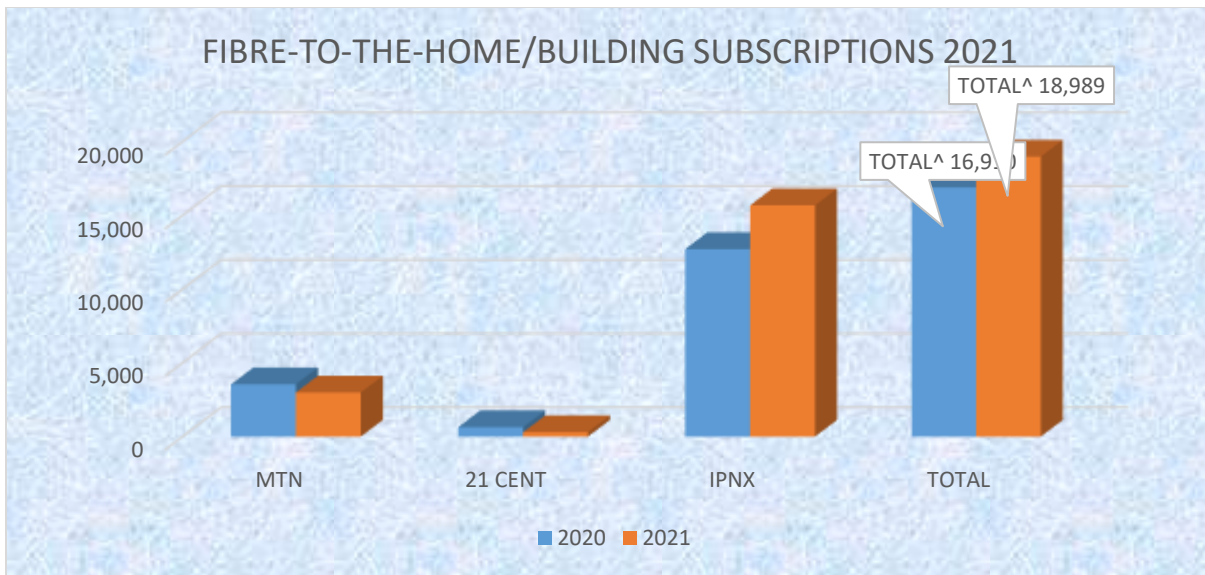


Figure 3: Fibre to the Home/Building Subscriptions 2020

4. **Number of subscriber by Internet Speed:** As at December 2021, 480 users subscribed to the 256kbs–1Mbps category; 2,371 users subscribed to speeds between 2Mbps-10Mbps; 17,145 users subscribed between 10Mbps–4G, category. There was no subscriptions in the 4G & above category as reported by ipNX, 21<sup>st</sup> Century and Inq. Digital, and fixed wired category.

NUMBER OF SUBSCRIBERS BY INTERNET SPEED 2021				
SERVICE PROVIDER	256kbs-1Mbps	2Mbps-10Mbps	10Mbps-4G	4G- above
21ST CENT	285	1,295	1,010	N/A
IPNX	122	648	15,721	N/A
INQ.DIGITAL NIGERIA LIMITED	73	428	414	N/A
<b>TOTAL</b>	<b>480</b>	<b>2,371</b>	<b>17,145</b>	<b>N/A</b>

Table 4: Fibre to the Home/Building Subscriptions 2021

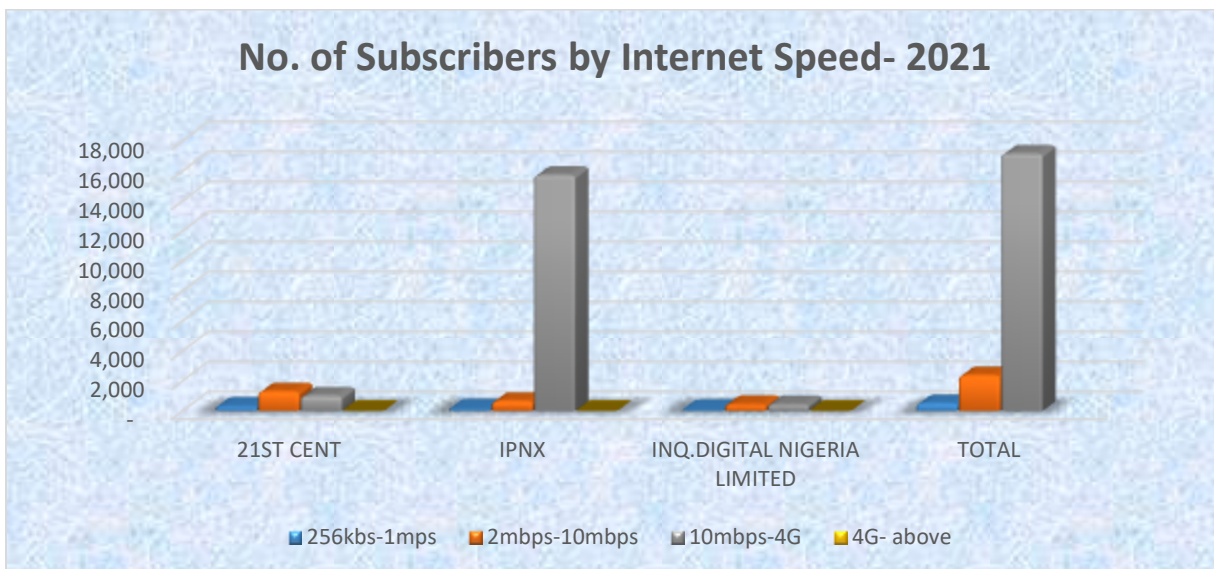


Figure 4: Number of Subscribers by Internet Speed 2021

### C. TRAFFIC DATA

1. **Local and National Traffic (Outgoing):** As at December, 2021, the total minutes generated for local and national **outgoing traffic** (paid minutes) by fixed telephone operators; MTN, GLO, 21<sup>st</sup> Century, IpNX, Inq. Digital, Swift Telephone, and Big Picture was **11,854,857, 7,582,426, 40,665,042, 2,539,904, 4,251,953, 32,563,180 and 11,407,919** respectively, making a total of **110,865,282** local and national Outgoing traffic.

2. **Local and National Traffic (Incoming):** As at December, 2021, the total minutes generated for local and national **incoming traffic** (paid minutes) by fixed telephone operator; MTN, GLO, 21<sup>st</sup> Century, ipNX, Inq. Digital, Spectranet, Swift and Big Picture was **411,908, 819,288, 134,737,556, 509,497,668, 2,334,001, 3,735,247 and 228,467** respectively, making a total of **651,764,135** local & national Incoming traffic.

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 by **21<sup>st</sup> Century** for both Incoming and Outgoing traffic during the year under review.

<b>LOCAL AND NATIONAL TELEPHONE TRAFFIC (IN MINUTES) 2021</b>		
<b>SERVICE PROVIDER</b>	<b>Outgoing</b>	<b>Incoming</b>
<i><b>MTN</b></i>	<b>11,854,857</b>	<b>411,908</b>
<i><b>GLOBACOM</b></i>	<b>7,582,426</b>	<b>819,288</b>
<i><b>21ST CENT</b></i>	<b>40,665,042</b>	<b>134,737,556</b>
<i><b>IPNX</b></i>	<b>2,539,904</b>	<b>509,497,668</b>
<i><b>INQ.DIGITAL NIGERIA LIMITED</b></i>	<b>4,251,953</b>	<b>2,334,001</b>
<i><b>SWIFT TELEPHONE NETWORK LIMITED</b></i>	<b>32,563,180</b>	<b>3,735,247</b>
<i><b>BIG PICTURE</b></i>	<b>11,407,919</b>	<b>228,467</b>
<b>TOTAL</b>	<b>110,865,282</b>	<b>651,764,135</b>

*Table 5: Total Number of Local & National Outgoing/ Incoming Calls - 2021*

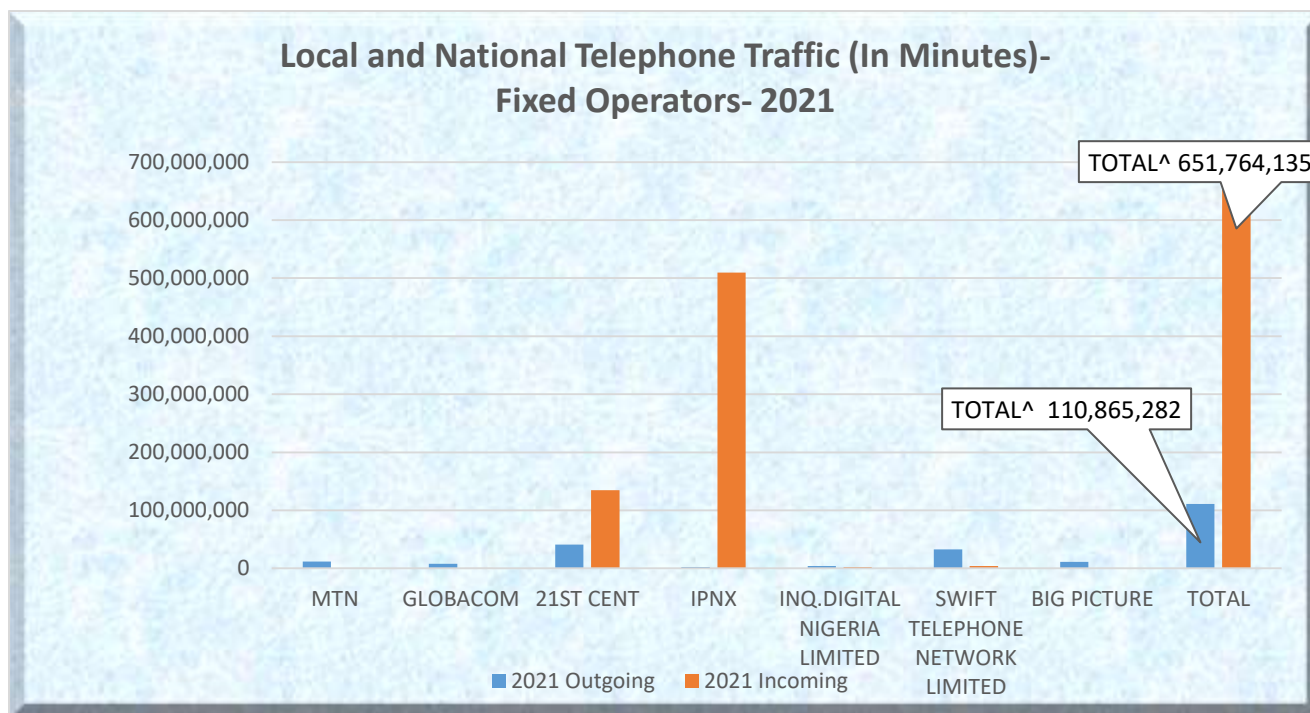


Figure 5: Total Number of Local & National Outgoing/ Incoming Calls – 2021

3. **Total number of Fixed to Mobile traffic:** Similarly as at December, 2021 the total number of Outgoing Fixed to Mobile traffic was **160,066,968**. Also the total number of Incoming Fixed to Mobile traffic as at December 2021 was **191,621,470**.

Analysis of the Fixed to Mobile traffic for the fixed market segment shows that a considerable percentage of this traffic was generated on the MTN Network for Outgoing traffic and 21st Century Network for Incoming traffic.

FIXED TO MOBILE TRAFFIC 2021			
SERVICE PROVIDER	Outgoing	Incoming	Total
MTN	72,716,189	20,222,925	92,939,114
GLOBACOM	28,040	7,554,386	819,288
21ST CENT	40,588,731	134,486,309	175,075,040
IPNX	2,353,047	1,812,536	4,165,583
INQ.DIGITAL NIGERIA LIMITED	11,817,781	23,810,066	35,625,848
SWIFT TELEPHONE NETWORK LIMITED	32,563,180	3,735,247	36,298,427
<b>TOTAL</b>	<b>160,066,968</b>	<b>191,621,470</b>	<b>344,923,300</b>

Table 6: Total number of Fixed to Mobile Traffic - 2021

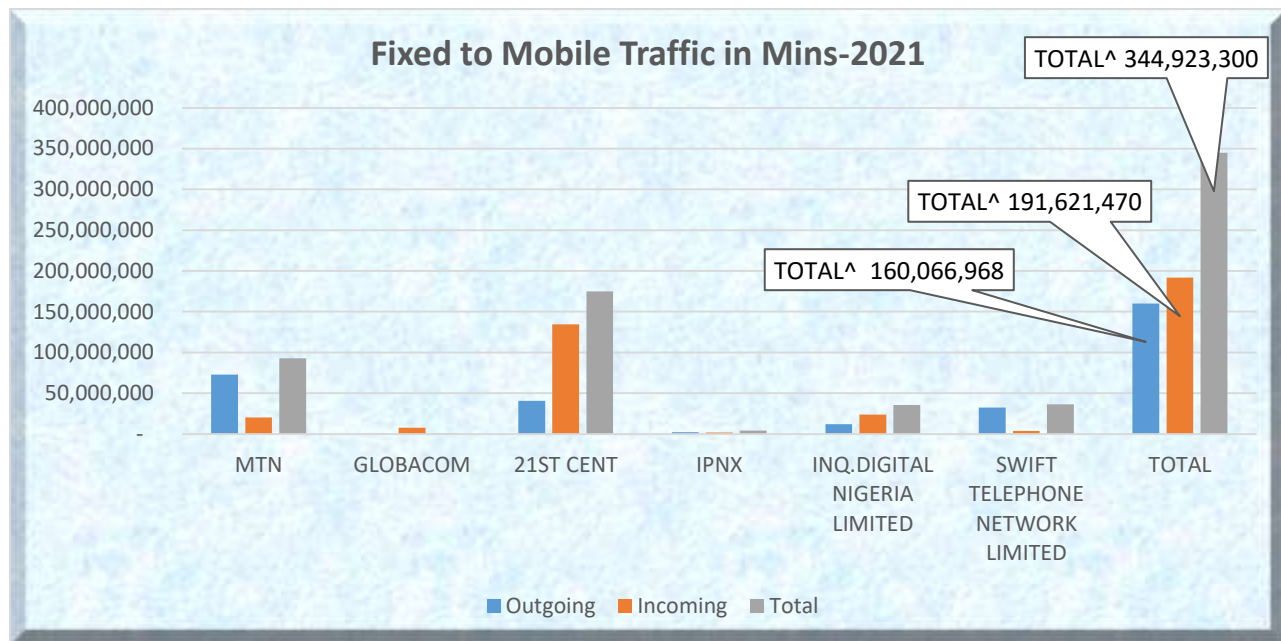


Figure 6: Total number of Fixed to Mobile Traffic (2021)

**4. Total number of Outgoing/ Incoming Fixed Minutes International Traffic:**

As at December, 2021 the total number of **Outgoing Fixed International** traffic (minutes) for MTN, 21st Century, ipNX, and Inq. Digital, were **81,648,938; 1,213,940; 1,690,642** and **1,121,456** minutes respectively, while **Incoming Fixed International** traffic for MTN, 21st Century and Inq. Digital were **239,381; 4,199,245; & 1,085,046** respectively.

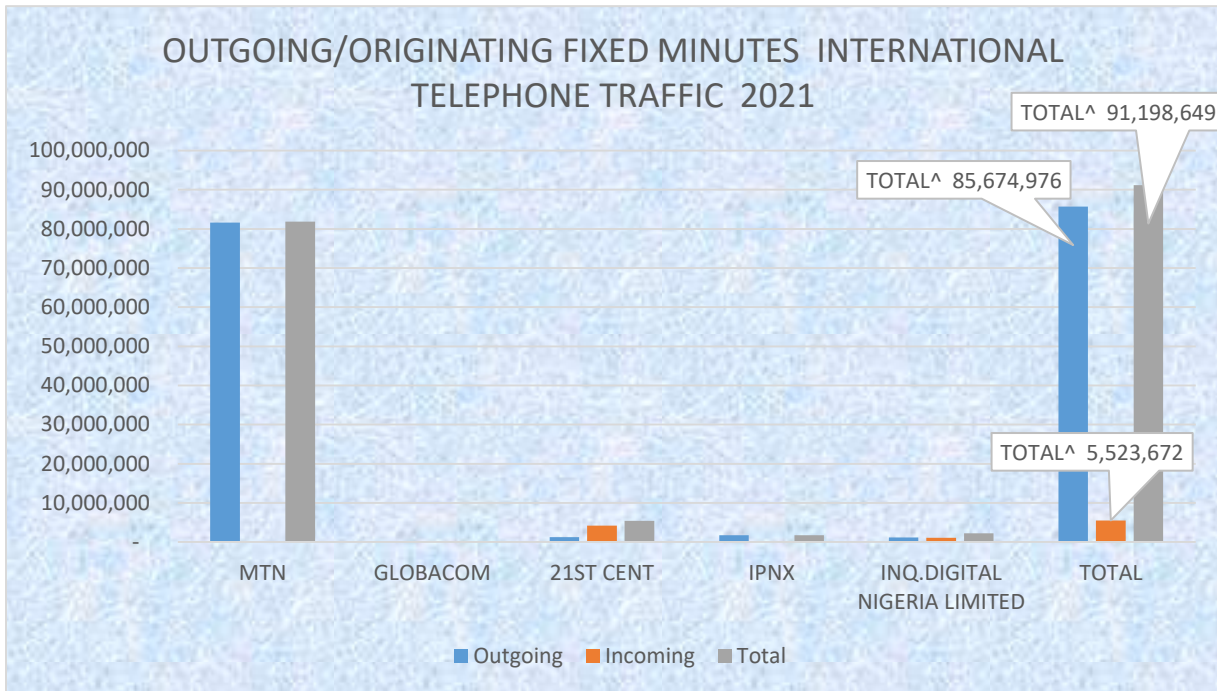
Over all the total number of **Outgoing Fixed International** traffic reported was **85,674,976**, while **Incoming Fixed International** traffic was **5,523,672**.

Analysis of the **Outgoing/Originating Fixed minutes International Telephone traffic** for the fixed market segment shows that a considerable percentage of this traffic was generated on the **MTN network** for **Outgoing** traffic and **21st Century network** for **Incoming** traffic for year 2021.

<b>OUTGOING/ORIGINATING FIXED MINUTES INTERNATIONAL TELEPHONE TRAFFIC 2021</b>			
<b>SERVICE PROVIDERS</b>	<b>Outgoing</b>	<b>Incoming</b>	<b>Total</b>
<i>MTN</i>	81,648,938	239,381	81,888,319
<i>21ST CENT</i>	1,213,940	4,199,245	5,413,185
<i>IPNX</i>	1,690,642	N/A	1,690,642
<i>INQ.DIGITAL NIGERIA LIMITED</i>	1,121,456	1,085,046	2,206,503

<b>TOTAL</b>	<b>85,674,976</b>	<b>5,523,672</b>	<b>91,198,649</b>
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*Table 7: Local and National Telephone Traffic 2021*



*Figure 7: Total number of Outgoing/ Incoming Fixed Minutes International Traffic - 2021*

#### **D. FINANCIAL DATA**

- Revenue:** The total Revenue as at December 2021 for the fixed telephone operators was **₦375, 038,364** for IpNX, Swift Telephone Network and Big Picture.
- Operating Cost:** Similarly, the total Operating cost as at December 2021 for the fixed telephone market segment was **₦534, 159,402** for IpNX, Swift Telephone Network and Big Picture.
- Investment:** Capex expenditure was recorded at **₦60,919,000** as at December 2021 for IpNX, Inq. Digital, Spectranet and Swift Telephone Network.

#### **E. STAFF PROFILE**

The total number of Staff reported by the fixed telephone operators (21<sup>st</sup> Century, ipNX, Inq. Digital, Swift Telephone Network and Big Picture) as at December, 2021 was 471 comprising of 358 Male and 113 Female, as well as 1 male and 1 female Expatriate staff.

## CHAPTER FOUR

### ANALYSIS OF 2021 YEAR END PERFORMANCE REPORT FOR INTERNET SERVICE PROVIDERS (ISPs)

#### **A. INTRODUCTION:**

In line with the Commission's procedures for the Year-End data collection from the Internet Service Providers (ISPs) through administration of questionnaires, a total number of 127 (One Hundred and Twenty Seven) Internet Service Providers with valid licenses were requested to make submissions for the year end 2021. Out of the 127 ISPs, 80 submitted statistical data, while 47 were non-responsive.

#### **B. NETWORK DATA:**

##### **a. *Points of Presence (PoP):***

	Number of Points of Presence	
1	21st Century Technologies Ltd	55
2	5M Telecom Ltd	4
3	8ight Unique Global Telecommunication Ltd	1
4	Access and Content Ltd	5
5	Access Solutions Ltd	6
6	Arif Investment Nig Ltd	1
7	Astramix Ltd	3
8	Bat Computer Technologies Ltd	6
9	Brainshare Technologies & Services Nig Ltd	24
10	BridgeOne Telecoms Ltd	5
11	CBC Emea Ltd	1
12	CITCC Nigeria Ltd	1
13	Ciudad Infrastructure Ltd	6
14	Clear Sky Broadband Ventures Ltd	2
15	Cobranet Ltd	84
16	Cobweb Communications Ltd	5
17	Comternet World Ltd	4
18	ConnectFocus Technologies Ltd	1
19	Content Oasis Ltd	-
20	Coquina Software Ltd	12
21	Coscharis Technologies Ltd	1
22	Coz Internet Ltd	1
23	Cyberspace Ltd	136
24	Dimension Data Ltd	9
25	Dotmac Technologies Ltd	15
26	Ejalet Technologies Ltd	22

27	Ekovolt Telco Ltd	4
28	Electronic Connections Ltd	1
29	Estream Ltd	21
30	Fibrehub Internetworking Services Ltd	37
31	Futurecom Ltd	1
32	Galaxy Backbone Ltd	2
33	Galaxy Information Technology and Telecommunications Ltd	37
34	Gutti Global Solutions Ltd	2
35	IDS Africa Ltd	3
36	Information connectivity solutions (ICSL) Ltd	30
37	Inq. Digital Nigeria Ltd (formerly Vodacom)	92
38	Internet Solutions Nigeria Ltd	28
39	Internetsional Technologies Ltd	3
40	Interweb Satcom Ltd	3
41	IP Express Ltd	25
42	IPNX Nigeria Ltd	51
43	ITX Telecoms Ltd	4
44	I-World Networks Ltd	2
45	Juniper solutions Ltd	6
46	Khal Communications Ltd	4
47	Layer3 Ltd	2
48	Main One Ltd	47
49	Megamore Wireless Broadband Ltd	6
50	Mobitel Ltd	2
51	Multi Dimensions Technology Nig Ltd	1
52	Nanocom International Ltd	15
53	Netaccess Ltd	1
54	Nkponani Ltd	1
55	Odua Telecoms Ltd	2
56	One Network Integrated Links Ltd	1
57	Orange Business Ltd	2
58	Passage Telecommunications Nig Ltd	6
59	Platinum Index Data Ltd	7
60	Priority Communications Ltd	1
61	Radical Technology Network Ltd	6
62	Sea Net Technologies Ltd	1
63	Skymax Ltd	12
64	Smart City Technology Company Ltd	6
65	Spectranet Ltd	629
66	Swifttalk Ltd	96
67	Syscodes Communications Ltd	20
68	Tehilah Base Digital Ltd	1
69	Telequip & Digital Ltd	-
70	Teleweb Services Ltd	1
71	Telservice Networks Ltd	5

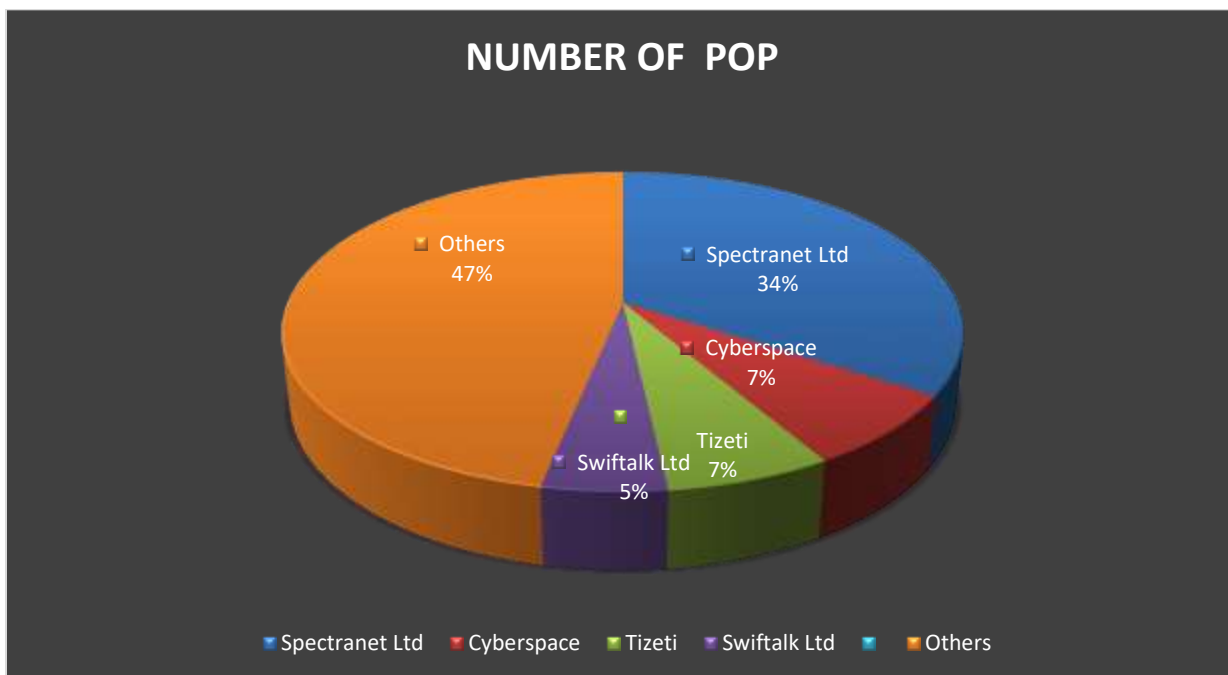


72	Tizeti Ltd	123
73	Trakatel Ltd	5
74	Trefoil Networks Ltd	3
75	VDT Communications Ltd	59
76	Winrock Nigria Ltd	15
77	Zeta-web Nigeria Ltd	1
	<b>Total</b>	<b>1843</b>

*Table 1: Points of Presence in 2021 (PoPs)*

A Point-of-Presence (POP) is the access point provided by an ISP and used to measure each ISP's size or growth rate. A total number of 77 ISPs responded to the questionnaires in this category and had a combined total of 1843 PoPs as at December, 2021. Table 1 above, shows that Spectranet had the highest number of PoPs with **629, indicating 34% of the PoPs**, followed by Cyberspace Ltd, Tizeti Ltd, Swifttalk Ltd, Inq. Digital Ltd and Cobranet Ltd with **136, 123, 96, 92 and 84 PoPs**, indicating **7%, 6.7%, 5.2%, 5% and 4.9%** respectively.

The other ISPs had a combined total of **681 PoPs** representing **37%** of the Point of Presence - CBC Emea Ltd, Arif Investment Ltd and **16** other ISPs were among service providers with (1) point of presence.



*Figure 1: Point-of-Presence (POP) 2021*

Figure 1 above indicates the four (4) ISPs with highest percentage of PoP. Spectranet recorded the highest percentage with **34%** of PoP, followed by Cyberspace Ltd with **7%**, Tizeti Ltd with **7%** and Swifttalk Ltd **5%** respectively, while others had a combined points of presence of 47%.

***b. Location of Service Provider:***

S/N	Operator	Location
1	21st Century Technologies Ltd	Lagos, Abuja, Rivers
2	5M Telecom Ltd	Enugu, Abuja, Anambra, Abia
3	8ight Unique Global Telecommunication Ltd	Abuja
4	Access and Content Ltd	Abuja
5	Access Solutions Ltd	Abuja
6	Arif Investment Nig Ltd	Abuja
7	Astramix Ltd	Lagos
8	Bat Computer Technologies Ltd	Lagos
9	Brainshare Technologies & Services Nig Ltd	Lagos
10	BridgeOne Telecoms Ltd	Lagos, Ogun
11	CBC EMEA Ltd	Lagos
12	CITCC Nigeria Ltd	Abuja
13	Ciudad Infrastructure Ltd	Lagos
14	Clear Sky Broadband Ventures Ltd	Abuja
15	Cobranet Ltd	Lagos, Abuja
16	Cobweb Communications Ltd	Lagos, Bayelsa
17	Comternet World Ltd	Akwa Ibom
18	ConnectFocus Technologies Ltd	Lagos
19	Content Oasis Ltd	Abuja
20	Coquina Software Company Ltd	Lagos, Akwa Ibom
21	Coscharis Technologies Ltd	Lagos
22	Coz Internet Ltd	Lagos, Delta
23	Cyberspace Ltd	Lagos, Abuja
24	Dimension Data Ltd	Lagos
25	Dotmac Technologies Ltd	Abuja
26	Ejalet Tech ltd	Lagos
27	Ekovolt Telco Ltd	Lagos
28	Electronic Connection Ltd	Abuja, Kano
29	Estream Ltd	Lagos
30	Fibrehub Internetworking Services Ltd	Lagos
31	Futurecom Ltd	Lagos
32	Galaxy Backbone Ltd	FCT
33	Galaxy Information Technology and Telecommunications Ltd	Lagos, Jigawa
34	Gutti Global Solutions Ltd	Borno
35	IDS Africa Ltd	Lagos
36	Information connectivity solutions (ICSL) Ltd	Lagos
37	Inq. Digital Nigeria Ltd (formerly Vodacom)	Lagos, Abuja, Rivers, Kano, Oyo
38	Internet Solutions Nigeria Ltd	Lagos, Rivers, Abuja, Kano, Delta
39	Internetsional Technologies Ltd	Oyo

40	Interweb Satcom Ltd	Abuja, Lagos, Plateau
41	IP Express Ltd	Lagos, Oyo
42	IPNX Nigeria Ltd	Lagos, Rivers, Abuja, Kano, Oyo
43	ITX Telecoms Ltd	Abuja
44	I-World Networks Ltd	Lagos, Oyo, Ogun
45	Juniper solutions Ltd	Lagos
46	Khal Communications Ltd	Lagos, Rivers, Anambra
47	Layer3 Ltd	Abuja, Lagos
48	MainOne Ltd	Lagos
49	Megamore Wireless Broadband Ltd	Kano
50	Mobitel Ltd	Lagos
51	Multi Dimensions Technology Nig Ltd	Lagos
52	Nanocom International Ltd	Abuja
53	Netaccess Ltd	Plateau
54	Nkponani Ltd	Lagos
55	Odua Telecoms Ltd	Oyo, Osun
56	One Network Integrated Links Ltd	Abuja
57	Orange Business Ltd	Lagos
58	Passage Telecommunications Nig Ltd	Lagos
59	Platinum Index Data Ltd	Lagos
60	Priority Communications Ltd	Lagos
61	Radical Technology Network Ltd	Lagos, Rivers, Kano, Abuja
62	Sea-Net Technologies Ltd	Lagos
63	Skymax Integrated Networks Ltd	Lagos, Borno, Adamawa
64	Smart City Technology Company Ltd	Oyo
65	Spectranet Nigeria Ltd	Lagos, Oyo, Abuja, Rivers
66	Swifttalk Ltd	Lagos, Delta, Rivers, Abuja
67	Syscodes Communications Ltd	Lagos
68	Tehilah Base Digital Ltd	Lagos
69	Telequip & Digital Ltd	Abuja
70	Teleweb Services Ltd	Lagos
71	Telservice Networks Ltd	Lagos, Abuja
72	Tizeti Ltd	Lagos, Rivers, Ogun, Edo
73	Trakatel Ltd	Lagos, Enugu, Abuja
74	Trefoil Ltd	Abuja
75	VDT communications Ltd	Lagos
76	Winrock Ltd	Abuja
77	Zeta-web Nigeria Ltd	Lagos

**Table 2: Location of Internet Service Providers (ISPs)**

In Nigeria, the larger percentage of the service providers are located in Lagos and Abuja; this is because the population in those places are high. With corresponding high demand for broadband services. 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 penetration.

### **C. INSTALLED SUBSCRIBER CAPACITY**

<b>S/N</b>	<b>Operators</b>	<b>Installed Subscriber Capacity</b>
1	21st Century Technologies Ltd	10Gbps
2	5M Telecom Ltd	299Mbps
3	8ight Unique Global Telecommunication Ltd	200Mbps
4	Access and Content Ltd	230Mbps
5	Access Solutions Ltd	100Mbps
6	Arif Investment Nig Ltd	200Gbps
7	Astramix Ltd	100Mbps
8	Bat Computer Technologies Ltd	250Mbps
9	Brainshare Technologies & Services Nig Ltd	Unlimited
10	BridgeOne Telecoms Ltd	155Mbps
11	CBC Emea Ltd	494Mbps
12	CITCC Nigeria Ltd	1Mbps
13	Ciudad Infrastructure Ltd	90Mbps
14	Clear Sky Broadband Ventures Ltd	-
15	Cobranet Ltd	7Gbps
16	Cobweb Communications Ltd	155Mbps
17	Comternet World Ltd	600Mbps
18	ConnectFocus Technologies Ltd	1000Mbps
19	Content Oasis Ltd	-
20	Coquina Software Ltd	1105Mbps
21	Coscharis Technologies Ltd	155Mbps
22	Coz Internet Ltd	180Mbps
23	Cyberspace Ltd	200Mbps
24	Dimension Data Ltd	679 links
25	Dotmac Technologies Ltd	3Gbps
26	Ejalet Tech Ltd	0.214Gbps
27	Ekovolt Telco Ltd	50Mbps
28	Electronic Connections Ltd	105Mbps
29	Estream Ltd	870Mbps
30	Fibrehub Internetworking Services Ltd	450Mbps
31	Futurecom Ltd	77Mbps
32	Galaxy Information Technology and Telecommunications Ltd	52Mbps
33	Gutti Global Solutions Ltd	105Mbps

34	IDS Africa Ltd	0.16gbps
35	Information connectivity solutions (ICSL) Ltd	1.62Gbits
36	Inq. Digital Nigeria Ltd (formerly Vodacom	12,944,796Mbps
37	Internet Solutions Nigeria Ltd	1.240Gbps
38	Internetsional Technologies Ltd	150Mbps
39	Interweb Satcom Ltd	200Mbps
40	IP Express Ltd	4-5Mbps
41	IPNX Nigeria Ltd	25Gbps
42	ITX Telecoms Ltd	335Mbps
43	I-World Networks Ltd	1350Mbps
44	Juniper solutions Ltd	STM4
45	Khal Communications Ltd	3000Mbps
46	Layer3 Ltd	3483.7Mbps
47	MainOne Ltd	238.6Gbps
48	Megamore Wireless Broadband Ltd	350Mbps
49	Mobitel Ltd	20000Mbps
50	Multi Dimensions Technology Nig Ltd	12Mbps
51	Nanocom International Ltd	58Mbps
52	Netaccess Ltd	65Mbps
53	Nkponani Ltd	20Mbps
54	Odua Telecoms Ltd	10Gbps
55	One Network Integrated Links Ltd	200Mbps
56	Orange Business Communications Services Nigeria Ltd	3.75Gbps
57	Passage Telecommunications Nig Ltd	50Mbps
58	Platinum Index Data Ltd	250Mbps
59	Priority Communications Ltd	2Mbps
60	Radical Technology Network Ltd	2Gbps
61	Sea Net Technologies Nigeria Ltd	36.7Mbps
62	Skymax Ltd	433Mbps
63	Smart City Technology Company Ltd	560Mbps
64	Spectranet Nigeria Ltd	HSS: 520,000; LTE Users: 192,474
65	Swifttalk Ltd	7X STM1 Leased / 700Mbps
66	Syscodes Communications Ltd	700Mbps
67	Tehilah Base Digital Ltd	420Mbps
68	Telequip & Digital Ltd	-

69	Teleweb Services Ltd	250Mbps
70	Telserve Networks Ltd	200Mbps
71	Tizeti Ltd	20189Mbps
72	Trakatel Ltd	10Mbps/100Mbps
73	Trefoil Ltd	up -154Mbps/ down -154Mbps
74	VDT Communications Ltd	Enterprise=10,000Mbps, retail=25,000Mbps
75	Winrock Nigeria Ltd	1128Mbps
76	Zeta-web Nigeria Ltd	-

**Table 3: Installed Subscriber Capacity**

In this category, Inq. Digital Ltd had the largest Installed capacity of 12,944,796Mbps, followed by Spectranet Ltd, Mainone Ltd and Arif Investment Nigeria Ltd with 520,000Mbps, 238,600Mbps and 200,000 Mbps respectively. IP Express Ltd, Priority Communications Ltd and CITCC had the lowest installed capacity with 4-5Mbps, 2Mbps and 1Mbps respectively.

#### **D. OPERATOR BANDWIDTH CAPACITY**

<b>S/N</b>	<b>Operators</b>	<b>Bandwidth Capacity</b>
1	21st Century Technologies Ltd	10Gbps
2	5M Telecom Ltd	0.385Gbps
3	8ight Unique Global Telecommunication Ltd	250Mbps
4	Access and Content Ltd	500Mbps
5	Access Solutions Ltd	155Mbps
6	Arif Investment Nig Ltd	200Gbps
7	Astramix Ltd	100Mbps
8	Bat Computer Technologies Ltd	2STM
9	Brainshare Technologies & Services Nig Ltd	Unlimited
10	BridgeOne Telecoms Ltd	155Mbps
11	CBC Emea	494Mbps
12	CITCC Nigeria Ltd	30Mbps
13	Ciudad Infrastructure Ltd	800Mbps
14	Clear Sky Broadband Ventures Ltd	36MegaHertz
15	Cobranet Ltd	6Gbps
16	Cobweb Communications Ltd	155Mbps
17	Comternet world ltd	50Mbps
18	ConnectFocus Technologies Ltd	1Gbps
19	Content Oasis Ltd	-
20	Coquina Software Co	1105Mbps
21	Coscharis Technologies LTD	215Mbps

22	Coz Internet Ltd	155Mbps
23	Cyberspace Ltd	-
24	Dimension Data Ltd	10240Mbps
25	Dotmac Technologies Ltd	2Gbps
26	Ejalet Tech ltd	0.214Gbps
27	Ekovolt Telco Ltd	125Mbps
28	Electronic Connections Ltd	310 Mbps
29	EStream Networks Ltd	1.465Gbps
30	Fibrehub Internetworking Services Ltd	450Mbps
31	Futurecom Ltd	100Mbps
32	Galaxy Backbone Ltd	7.3Gbps
33	Galaxy Information Technology and Telecommunications Ltd	155Mbps
34	Gutti Global Solutions Ltd	155Mbps
35	IDS Africa Ltd	0.16Gbps
36	Information connectivity solutions Ltd (ICSL)	0.920Gbps
37	Inq. Digital Nigeria Ltd (formerly Vodacom	15,728,640Mbps
38	Internet Solutions Nigeria Ltd	1.240Gbps
39	Internetsional Technologies Ltd	150Mbps
40	Interweb Satcom Ltd	250Mbps
41	IP Express Ltd	1Gbps
42	IPNX Nigeria Ltd	4.7Tbps
43	ITX Telecoms Ltd	335Mbps
44	I-World Networks Ltd	2000Mbps
45	Juniper solutions Ltd	STM4
46	KHAL Ltd	500Mbps
47	Layer3 Ltd	4130Mbps
48	Main One Ltd	1.92T to 4.96Tbps
49	Megamore Wireless Broadband Ltd	155Mbps
50	Mobitel Ltd	45Mbps
51	Multi Dimensions Technology Nig Ltd	300Mbps
52	Nanocom International Ltd	160Mbps
53	Netaccess Ltd	100Mbps
54	Nkponani Ltd	20Mbps
55	Odua Telecoms Ltd	620Mbps
56	One Network Integrated Links Ltd	20Mbps
57	Orange Ltd	0

58	Passage Telecommunications Nig Ltd	50Mbps
59	Platinum Index Data Ltd	310Mbps
60	Priority Communications Ltd	2Mbps
61	Radical Technology Network Ltd	2.5Gbps
62	Sea Net Technologies Nigeria Ltd	50Mbps
63	Skymax Ltd	476Mbps
64	Smart City Technology Company Ltd	560Mbps
65	Spectranet Nigeria Ltd	16.2Gbps/S; 10Gbps ; 31.6Gbps
66	Swifttalk Ltd	10X STM1 Leased / 1Gbps
67	Syscodes Communications Ltd	1000Mbps
68	Tehilah Base Digital Ltd	420Mbps
69	Telequip & Digital Ltd	-
70	Teleweb Services Ltd	250Mbps
71	Telsolve Networks Ltd	70Mbps
72	Tizeti Ltd	4Gbps
73	Trakatel Ltd	210Mbps
74	Trefoil Ltd	up -154Mbps/ down - 154Mbps
75	VDT Communications Ltd	15443.033Mbps
76	Winrock Nigeria Ltd	6155Mbps
77	Zeta-web Ltd	250Mbps

**Table 4: Distribution of Operators with Corresponding Bandwidth Capacity.**

Operator bandwidth is the amount of bandwidth available to an operator for subscribers' use.

Inq. Global Ltd had the largest bandwidth capacity with 15,728,640Mbps (equivalent to 15.7Tbps/15,700Gbps), followed by MainOne Ltd and IPNX Nigeria Ltd with up to 4.9Tbps (4900Gbps) and 4.7Tbps (4700Gbps) respectively as at December 2021.

**e. Access Speed being offered:**

S/N	Operators	Access Speed(s) Being Offered
1	21st Century Technologies Ltd	10Gbps
2	5M Telecom Ltd	0.5Mbps-5Mbps
3	8ight Unique Global Telecommunication Ltd	1Mbps-10Mbps
4	Access and Content Ltd	-
5	Access Solutions Ltd	155Mbps



6	Arif Investment Nig Ltd	-
7	Astramix Ltd	100Mbps
8	Bat Computer Technologies Ltd	3Mbps
9	Brainshare Technologies & Services Nig Ltd	Up to 2000Mbps
10	BridgeOne Telecoms Ltd	-
11	CBC Emea Ltd	494Mbps
12	CITCC Nigeria Ltd	20Mbps
13	Ciudad Infrastructure Ltd	6-100Mbps
14	Clear Sky Broadband Ventures Ltd	10Gbps
15	Cobranet Ltd	1-220Mbps
16	Cobweb Communications Ltd	5Mbps
17	Comternet World Ltd	2Mbps-5Mbps
18	ConnectFocus Technologies Ltd	1000Mbps
19	Content Oasis Ltd	-
20	Coquina Software Ltd	1105Mbps
21	Coscharis Technologies Ltd	215Mbps
22	Coz Internet Ltd	384Kbps, 448Kbps, 512Kbps
23	Cyberspace Ltd	-
24	Dimension Data Ltd	256KBPS-2440Mbps
25	Dotmac Technologies Ltd	1Mbps-155Mbps
26	Ejalet Tech Ltd	1-100Mbps
27	Ekovolt Telco Ltd	2Mbps to 25Mbps
28	Electronic Connections Ltd	5Mbps to 10Mbps
29	EStream Networks Ltd	1Gbps
30	Fibrehub Internetworking Services Ltd	450Mbps
31	Futurecom Ltd	,5Mbps - 10Mbps
32	Galaxy Information Technology and Telecommunications Ltd	256Kbps-5Mbps
33	Gutti Global Solutions Ltd	105Mbps
34	IDS Africa Ltd	25Mbps
35	Information connectivity solutions (ICSL) Ltd	1Mbps-40Mbps
36	Inq. Digital Nigeria Ltd (formerly Vodacom	>1Mbps
37	Internet Solutions Nig Ltd	1.240Gbps
38	Internetsional Technologies Ltd	150Mbps
39	Interweb Satcom Ltd	-
40	IP Express Ltd	1Gbps

41	IPNX Nigeria Ltd	10-150Mbps; 200Mbps; 400Mbps; 1000Mbps
42	ITX Telecoms Ltd	-
43	I-World Networks Ltd	6Mbps
44	Juniper solutions Ltd	5Mbps-150Mbps
45	Khal Communications Ltd	1000Kbps
46	Layer3 Ltd	22.28Mbps
47	MainOne Ltd	339.1Gbps
48	Megamore Wireless Broadband Ltd	2-65Mbps
49	Mobitel Ltd	1Mbps- 5Mbps
50	Multi Dimensions Technology Nig Ltd	180Mbps
51	Nanocom International Ltd	4Mbps
52	Netaccess Ltd	1Mbps
53	Nkponani Ltd	-
54	Odua Telecoms Ltd	510Mbps
55	One Network Integrated Links Ltd	2Mbps
56	Orange Business Ltd	-
57	Passage Telecommunications Nig Ltd	-
58	Platinum Index Data Ltd	Upto 200Mbps
59	Priority Communications Ltd	2Mbps
60	Radical Technology Network Ltd	2Mbps-155Mbps
61	Sea Net Technologies Nigeria Ltd	256/1Mbps
62	Skymax Ltd	2-155Mbps
63	Smart City Technology Company Ltd	10Mbps, 15Mbps, 20Mbps, 35Mbps
64	Spectranet Nigeria Ltd	>10Mbps
65	Swifttalk Ltd	512Kbps-100Mbps
66	Syscodes Communications Ltd	2Mbps and above
67	Tehilah Base Digital Ltd	2Mbps, 4Mbps, 10Mbps
68	Telequip & Digital Ltd	2.04Mbps/10Mbps
69	Teleweb Services Ltd	10-40Mbps
70	Telserve Networks Ltd	5Mbps, 10Mbps, 20Mbps
71	Tizeti Ltd	2 - 5Mbps
72	Trakatel Ltd	1Mbps, 2Mbps, 5Mbps, 10Mbps
73	Trefoil Ltd	up -154Mbps/ down - 154Mbps
74	VDT Communications Ltd	512Kbps - 155Mbps
75	Winrock Ltd	1,2,3,4Mbps

**Table 5: Access Speed(s) Being Offered**

As at December 2021, the downlink speed offered by various operators varied depending on their mode of deployment, the operators' business model 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, Cobweb Ltd, Mobitel Ltd, Tizeti Ltd, Comternet Ltd, Galaxy Information Ltd and 5M Ltd recorded the highest speeds with up to 5Mbps. Coz Internet Limited recorded the lowest speed with up to 512Kbps followed by SeaNet Nig Ltd, NetAccess Ltd and Khal Communications Ltd with 1Mbps.
- ii. **The medium access** speed categories were 10Mbps – 25Mbps. Ekovolt Ltd recorded the highest speed with up to 25Mbps followed by Layer3 Ltd, Telsolve Ltd, CITCC Ltd and Zeta-web Ltd with 22.28Mbps, 20Mbps, 20Mbps and 16Mbps respectively. Electronic Connections Ltd, Futurecom Ltd, Tehilah base Ltd, 8ight Global Telecommunications Ltd amongst others recorded the lowest in this category with up to 10Mbps.
- iii. **The high access** speed categories were 50Mbps – 350Gbps. Mainone Ltd offered the highest speed with 339.1Gbps, followed by Clear Sky Ltd, Dimension Data Ltd and Brainshare Nig Ltd with 10Gbps, 2440Mbps(2.4Gbps) and 2,000Mbps(2Gbps) respectively.

## C. SUBSCRIBER & SERVICES DATA:

### a. Total Wired Internet Subscriptions

S/N	Number of Users Per Fixed [Wired] Internet Subscriptions	2020	2021
1.	21st Century Technologies Ltd	0	2590
2.	5M Telecom Ltd	0	299
3.	8ight Unique Global Telecommunication Ltd	22	31
4.	Access and Content Ltd	0	23
5.	Access Solutions Ltd	0	0
6.	Arif Investment Nig Ltd	100	80
7.	Astramix Ltd	0	0
8.	Bat Computer Technologies Ltd	0	8
9.	Brainshare Technologies & Services Nig Ltd	0	700
10.	BridgeOne Telecoms Ltd	0	0
11.	CBC Emea Ltd	0	1

12.	CITCC Nigeria Ltd	0	1
13.	Ciudad Ltd	0	0
14.	Clear Sky Broadband Ventures Ltd	0	0
15.	Cobranet Ltd	0	0
16.	Cobweb Communications Ltd	16	0
17.	Comternet World Ltd	0	0
18.	ConnectFocus Technologies Ltd	0	0
19.	Content Oasis Ltd	0	0
20.	Coquina Software Company Ltd	0	0
21.	Coscharis Technologies Ltd	0	0
22.	Coz Ltd	0	0
23.	Cyberspace Ltd	0	11
24.	Dimension data Ltd	0	0
25.	Dotmac Technologies Ltd	50	32
26.	Ejalet Tech Ltd	1	0
27.	Ekovolt Telco Ltd	0	0
28.	Electronic Connections Ltd	0	0
29.	Estream Ltd	0	0
30.	Fibrehub Internetworking Services Ltd	0	290
31.	Futurecom Ltd	0	0
32.	Galaxy Information Technology and Telecommunications Ltd	0	0
33.	Gutti Global Solutions Ltd	0	0
34.	IDS Africa Ltd	0	0
35.	Information Connectivity Solutions (ICSL) Ltd	0	0
36.	Inq. Digital Nigeria Ltd (formerly Vodacom)	150	127
37.	Internet Solutions Nig Ltd	0	0
38.	Internetsional Technologies Ltd	0	33
39.	Interweb Satcom Ltd	350	320
40.	IP Express Ltd	0	707
41.	IPNX Nigeria Ltd	0	0
42.	ITX Telecoms Ltd	0	26
43.	I-World Networks Ltd	0	0
44.	Juniper solutions Ltd	6	6
45.	Khal Communications Ltd	15	25
46.	Layer3 Ltd	82	106
47.	MainOne Cable Co Nigeria Ltd	0	0

48.	Megamore Ltd	0	0
49.	Mobitel Ltd	0	0
50.	Multi Dimensions Technology Nig Ltd	0	0
51.	Nanocom International Ltd	4	4
52.	Netaccess Communications Nigeria Ltd	25	17
53.	Nkponani Ltd	0	0
54.	Odua Telecoms Ltd	0	0
55.	One Network Integrated Links Ltd	0	0
56.	Orange Business Ltd	0	0
57.	Passage Telecommunications Nig Ltd	0	20
58.	Platinum Index Data Ltd	50	200
59.	Priority Communications Ltd	0	0
60.	Radical Technology Network Ltd	0	20
61.	Sea Net Technologies Nigeria Ltd	0	0
62.	Skymax Ltd	0	0
63.	Smart City Technology Company Ltd	0	300
64.	Spectranet Ltd	0	0
65.	Swifttalk Ltd	0	0
66.	Syscodes Communications Ltd	0	50
67.	Tehilah Base Digital Ltd	0	0
68.	Telequip & Digital Ltd	0	0
69.	Teleweb Services Ltd	0	0
70.	Telsolve Networks Ltd	0	1
71.	Tizeti Network Ltd	15,571	16,621
72.	Trakatel Ltd	0	0
73.	Trefoil Ltd	0	0
74.	VDT Communications Ltd	886	0
75.	Winrock Nigeria Ltd	85	76
76.	Zeta-web Nigeria Ltd	0	0
77.	Briclinks Africa PLC Ltd	5	0
78.	Hyperia Ltd	10	0
79.	Phonetime Telecoms Ltd	60	0
80.	Fast feet Ltd	112	0
81.	Excelsimo Networks Ltd	120	0
82.	Hotspot Network Ltd	10	0
	<b>Total</b>	<b>17,730</b>	<b>22,725</b>

*Table 6: Number of users per fixed [Wired] Subscriptions*

A comparative analysis of the submissions made in this category showed an increase from 17,730 subscriptions recorded in December, 2020 to 22,725 subscriptions in December, 2021 indicating an increase of 28%. Tizeti Networks Limited recorded the highest figure with 16,621 which accounted for 73% of this segment in 2021, while 21st Century Technologies Ltd, IP Express Ltd and Brainshare Technologies & Services Nig Ltd had 2,590, 707 and 700 subscriptions respectively, indicating a percentage of 11.4%, 3.11% and 3.08 % respectively.

CBC Emea Ltd, Telserve Networks Ltd and CITCC Nigeria Ltd recorded the lowest number of wired internet subscriptions with only 1 subscription each.

**b. Average Number of Users per Fixed Internet Subscriptions (Broadband)**

S/N	Average Number of Users Per Fixed Internet Subscriptions [Broadband]	2020	2021
1.	21st Century Technologies Ltd	0	0
2.	5M Telecom Ltd	0	0
3.	8ight Unique Global Telecommunication Ltd	22	31
4.	Access and Content Ltd	0	0
5.	Access Solutions Ltd	0	54
6.	Arif Investment Nig Ltd	100	80
7.	Astramix Ltd	0	0
8.	Bat Computer Technologies Ltd	0	50
9.	Brainshare Technologies & Services Nig Ltd	0	2
10.	BridgeOne Telecoms Ltd	0	0
11.	CBC Emea Ltd	450	20
12.	CITCC Nigeria Ltd	0	0
13.	Ciudad Ltd	0	0
14.	Clear Sky Broadband Ventures Ltd	0	0
15.	Cobranet Ltd	0	0
16.	Cobweb Communications Ltd	0	22
17.	Comternet world Ltd	0	0
18.	ConnectFocus Technologies Ltd	0	0
19.	Content Oasis Ltd	0	0
20.	Coquina Software Ltd	0	0
21.	Coscharis Technologies Ltd	0	0
22.	Coz Ltd	0	0
23.	Cyberspace Ltd	0	152
24.	Dimension Data Ltd	0	0
25.	Dotmac Technologies Ltd	25	223

26.	Ejalet Tech Ltd	1	0
27.	Ekovolt Telco Ltd	0	0
28.	Electronic Connections Ltd	0	0
29.	Estream Ltd	0	0
30.	Fibrehub Internetworking Services Ltd	0	215
31.	Futurecom Ltd	0	0
32.	Galaxy Information Technology and Telecommunications Ltd	0	0
33.	Gutti Global Solutions Ltd	0	0
34.	IDS Africa Ltd	0	0
35.	Information Connectivity Solutions Ltd (ICSL)	48	0
36.	Inq Ltd	0	0
37.	Internet Solutions Nig Ltd	0	0
38.	Internetsional Technologies Ltd	0	15
39.	Interweb Satcom Ltd	300	250
40.	IP Express Ltd	0	707
41.	IpNX Nigeria Ltd	0	0
42.	ITX Telecoms Ltd	0	1
43.	I-World Networks Ltd	502	850
44.	Juniper solutions Ltd	6	6
45.	Khal Communications Nigeria Ltd	70	90
46.	Layer3 Ltd	99	113
47.	MainOne Cable Co Nigeria Ltd	0	0
48.	Megamore Ltd	0	0
49.	Mobitel Ltd	0	0
50.	Multi Dimensions Technology Nig Ltd	0	0
51.	Nanocom International Ltd	38	52
52.	Netaccess Ltd	0	0
53.	Nkponani Ltd	0	0
54.	Odua Telecoms Ltd	0	0
55.	One Network Integrated Links Ltd	0	0
56.	Orange Business Ltd	0	0
57.	Passage Telecommunications Nig Ltd	0	20
58.	Platinum Index Data Ltd	30	170
59.	Priority Communications Ltd	0	0
60.	Radical Technology Network Ltd	30	30
61.	Sea Net Technologies Nigeria Ltd	0	0

62.	Skymax Integrated Network Ltd	5	7
63.	Smart City Technology Company Ltd	0	100
64.	Spectranet Ltd	247686	250,787
65.	Swifttalk Ltd	0	0
66.	Syscodes Communications Ltd	0	10
67.	Tehilah Base Digital Ltd	305	323
68.	Telequip & Digital Ltd	0	0
69.	Teleweb Services Ltd	0	0
70.	Telservice Networks Ltd	0	1
71.	Tizeti Network Ltd	5	5
72.	Trakatel Ltd	0	0
73.	Trefoil Ltd	0	0
74.	VDT Communications Ltd	0	0
75.	Winrock Ltd	85	76
76.	Zeta-web Nigeria Ltd	0	0
77.	Briclinks Africa PLC Ltd	7	0
78.	Excelsimo Networks Ltd	90	0
79.	Fast feet Ltd	80	0
80.	Hotspot Network Ltd	9	0
81.	Hyperia Ltd	10	0
82.	Phonetime Telecoms Ltd	46	0
83.	Wavetek Ltd	4	0
	<b>Total</b>	<b>250,053</b>	<b>254,462</b>

*Table 7: Average number of users per Fixed Broadband Internet subscriptions*

Fixed broadband Internet subscriptions in the ISPs market segment increased from **250,053** subscribers in December, 2020 to **254,462** subscribers in December 2021, indicating a slight increase of **1.8%**. In this category, submissions by ISPs increased from 26 in December, 2020 to 30 in December, 2021 indicating an increase of 4,409 in fixed broadband segment. Spectranet Ltd had the highest fixed broadband Internet subscriptions with 250,787 which accounted for 98.5%.

### **c. 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	2020	2021
1	21st Century Technologies Ltd	0	2590



2	8ight Unique Global Telecommunication Ltd	0	10
3	Arif Investment Nig Ltd	0	90
4	Cyberspace Ltd	0	10
5	Fibrehub Internetworking Services Ltd	0	290
6	Interweb Satcom Ltd	350	300
7	Teleweb Services Ltd	0	2
8	Phonetime Telecoms Ltd	61	0
	<b>Total</b>	<b>411</b>	<b>3,292</b>

**Table 8: DSL internet subscription for 2021**

Total number of users per cable modem Internet subscriptions increased from 411 subscriptions in December 2020 to 3,292 in December 2021, indicating an increase of 700% in the DSL subscriptions. In this category, 21st Century Technologies Ltd had the highest number of DSL with 2,590 subscriptions. Teleweb Services Ltd recorded the least number of DSL with 2 subscriptions.

**d. Fiber to Home/Building**

S/N	Fibre to the Home/Building	2020	2021
1	21st Century Technologies Ltd	0	0
2	5M Telecom Ltd	0	0
3	8ight Unique Global Telecommunication Ltd	4	4
4	Access and Content Ltd	0	23
5	Access Solutions Ltd	4	3
6	Arif Investment Nig Ltd	0	0
7	Astramix Ltd	0	0
8	Bat Computer Technologies Ltd	0	0
9	Brainshare Technologies & Services Nig Ltd	0	757
10	BridgeOne Telecoms Ltd	0	0
11	CBC Emea Ltd	0	1
12	CITCC Nigeria Ltd	0	1
13	Ciudad Infrastructure Ltd	19	92
14	Clear Sky Broadband Ventures Ltd	0	5
15	Cobranet Ltd	57	96
16	Cobweb Communications Ltd	0	0
17	Comternet World Ltd	0	0
18	ConnectFocus Technologies Ltd	0	0
19	Content Oasis Ltd	0	2
20	Coquina Software Company Ltd	0	0
21	Coscharis Technologies Ltd	0	0
22	Coz Ltd	0	0
23	Cyberspace Ltd	0	0
24	Dimension Data Ltd	0	0
25	Dotmac Technologies Ltd	390	0

26	Ejalet Tech Ltd	0	0
27	Ekovolt Telco Ltd	0	0
28	Electronic Connections Ltd	0	0
29	Estream Ltd	12	17
30	Fibrehub Internetworking Services Ltd	0	215
31	Futurecom Ltd	0	0
32	Galaxy Backbone Ltd	0	325
33	Gutti Global Solutions Ltd	1	1
34	IDS Africa Ltd	0	40
35	Information Connectivity Solutions (ICSL) Ltd	0	0
36	Inq. Digital Nigeria Ltd (formerly Vodacom)	0	0
37	Internet Solutions Nig Ltd	0	0
38	Internetsional Technologies Ltd	0	1
39	Interweb Satcom Ltd	0	0
40	IP Express Ltd	0	41
41	IPNX Nigeria Ltd	13,192	15,689
42	ITX Telecoms Ltd	0	0
43	I-World Networks Ltd	0	0
44	Juniper solutions Ltd	6	15
45	Khal Communications Nigeria Ltd	0	0
46	Layer3 Ltd	62	266
47	MainOne Cable Co Nigeria Ltd	0	0
48	Megamore Ltd	0	0
49	Mobitel Ltd	0	0
50	Multi Dimensions Technology Nig Ltd	0	0
51	Nanocom International Ltd	4	2
52	NetAccess Ltd	0	0
53	Nkponani Ltd	0	0
54	Odua telecoms Ltd	0	0
55	One Network Integrated Links Ltd	0	0
56	Orange Business Ltd	0	0
57	Passage Telecommunications Nig Ltd	0	0
58	Platinum Index Data Ltd	15	15
59	Priority Communications Ltd	0	0
60	Radical Technology Network Ltd	0	25
61	Sea Net Technologies Nigeria Ltd	0	0
62	Skymax Ltd	0	0
63	Smart City Technology Company Ltd	0	15
64	Spectranet Nigeria Ltd	187	539
65	Swifttalk Ltd	0	0
66	Syscodes Communications Ltd	0	0
67	Tehilah Base Digital Ltd	0	0
68	Telequip & Digital Ltd	0	0
69	Teleweb Services Ltd	0	133
70	Telserve Networks Ltd	0	1

71	Tizeti Network Ltd	0	0
72	Trakatel Ltd	0	0
73	Trefoil Ltd	0	0
74	VDT Communications Ltd	181	190
75	Winrock Ltd	61	76
76	Zeta-web Nigeria Ltd	0	0
77	Briclinks Africa PLC Ltd	35	0
78	Excelsimo Networks Ltd	130	0
79	Galaxy backbone Ltd	302	0
80	Phonetime Telecoms Ltd	40	0
81	Hotspot Network Ltd	4	0
	Total	14,706	18,590

**Table 9: Fibre to the Home/Building Subscriptions**

Fiber to Home subscriptions recorded **18,590** subscriptions in December 2021 from **14,706** subscriptions in December 2020 indicating an increase of **25%** in Fibre to the Home subscriptions during the period under review. IPNX Ltd recorded a total of **15,689** subscriptions out of **18,265** subscriptions, accounting for **86%** of the subscriptions made in this category.

**e. Total Number of Terrestrial Subscriptions [Fixed & Fixed Wireless]**

S/N	Total Number of Terrestrial Subscriptions (Fixed and Fixed Wireless)	2020	2021
1	21st Century Technologies Ltd	0	0
2	5M Telecom Ltd	0	299
3	8ight Unique Global Telecommunication Ltd	22	31
4	Access and Content Ltd	0	0
5	Access Solutions Ltd	0	54
6	Arif Investment Nig Ltd	100	90
7	Astramix Ltd	0	0
8	Bat Computer Technologies Ltd	41	66
9	Brainshare Technologies & Services Nig Ltd	0	0
10	BridgeOne Telecoms Ltd	19	39
11	CBC Emea Ltd	0	38
12	CITCC Nigeria Ltd	0	0
13	Ciudad Infrastructure Ltd	0	0
14	Clear Sky Broadband Ventures Ltd	0	0
15	Cobranet Ltd	3401	3397
16	Cobweb Communications Ltd	0	0
17	Comternet World Ltd	0	63
18	ConnectFocus Technologies Ltd	0	0

19	Content Oasis Ltd	0	0
20	Coquina Software Company Ltd	0	0
21	Coscharis Technologies Ltd	0	0
22	Coz Internet Ltd	150	180
23	Cyberspace Ltd	0	0
24	Dimension Data Ltd	605	679
25	Dotmac Technologies Ltd	475	0
26	Ejalet Tech Ltd	0	0
27	Ekovolt Ltd	0	50
28	Electronic Connections Ltd	0	0
29	Estream Ltd	119	149
30	Fibrehub Internetworking Services Ltd	0	0
31	Futurecom Ltd	28	26
32	Galaxy Information Technology and Telecommunications Ltd	0	37
	Galaxy Backbone Ltd	0	325
33	Gutti Global Solutions Ltd	0	0
34	IDS Africa Ltd	3	44
35	Information connectivity solutions (ICSL) Ltd	332	581
36	Inq. Digital Nigeria Ltd (formerly Vodacom)	970	923
37	Internet Solutions Nig Ltd	0	0
38	Internetsional Technologies Ltd	0	0
39	Interweb Satcom Ltd	300	180
40	IP Express Ltd	0	0
41	IPNX Nigeria Ltd	0	0
42	ITX Telecoms Ltd	0	16
43	I-World Networks Ltd	0	0
44	Juniper Solutions Ltd	99	105
45	Khal Communications Ltd	0	0
46	Layer3 Ltd	102	113
47	MainOne Cable Co Nigeria Ltd	0	0
48	Megamore Ltd	0	0
49	Mobitel Ltd	0	0
50	Multi Dimensions Technology Nig Ltd	0	0
51	Nanocom International Ltd	42	56
52	NetAccess Ltd	0	0
53	Nkponani Ltd	0	0

54	Odua telecoms Ltd	0	4
55	One Network Integrated Links Ltd	8	5
56	Orange Business Ltd	0	150
57	Passage Telecommunications Nig Ltd	0	20
58	Platinum Index Ltd	0	0
59	Priority Communications Ltd	0	0
60	Radical Technology Network Ltd	420	422
61	Sea Net Technologies Nigeria Ltd	0	0
62	Skymax Ltd	168	353
63	Smart City Technology Company Ltd	0	0
64	Spectranet Nigeria Ltd	0	0
65	Swifttalk Ltd	0	0
66	Syscodes Communications Ltd	0	229
67	Tehilah Base Digital Ltd	305	323
68	Telequip & Digital Ltd	0	0
69	Teleweb Services Ltd	0	0
70	Telserve Networks Ltd	0	20
71	Tizeti Network Ltd	152,386	152,386
72	Trakatel Ltd	0	105
73	Trefoil Ltd	0	0
74	VDT Communications Ltd	1,151	3,168
75	Winrock Ltd	0	0
76	Zeta-web Nigeria Ltd	0	48
77	Briclinks Africa PLC Ltd	103	0
78	Phonetime Telecoms Ltd	45	0
79	Excelsimo Networks Ltd	426	0
80	Galaxy backbone Ltd	302	0
	<b>TOTAL</b>	<b>162,122</b>	<b>164,774</b>

**Table 10: Total Number of Terrestrial Subscriptions (Fixed and Fixed Wireless) 2020 - 2021**

During the period under review, the total number of terrestrial subscriptions increased from **162,122** as at December, 2020 to **164,774** in December 2021. In this category, Tizeti with the highest number, **152,386** accounted for **92%** of the subscriptions. Odua Telecoms Ltd recorded the least figure with just Four (4) subscriptions. The submission of 152,386 subscriptions made by Tizeti in December, 2021, accounted for the huge increase recorded in the total terrestrial subscriptions.

***g. Total Number of Satellite Subscriptions***

<b>S/N</b>	<b>Total number of Satellite Internet Subscriptions</b>	<b>2020</b>	<b>2021</b>
1	21st Century Technologies Ltd	0	0
2	5M Telecom Ltd	0	0
3	8ight Unique Global Telecommunication Ltd	0	0
4	Access and Content Ltd	0	0
5	Access Solutions Ltd	0	0
6	Arif Investment Nig Ltd	100	0
7	Astramix Ltd	0	0
8	Bat Computer Technologies Ltd	0	0
9	Brainshare Technologies & Services Nig Ltd	0	0
10	BridgeOne Telecoms Ltd	0	0
11	CBC Emea Ltd	174	236
12	CITCC Nigeria Ltd	0	0
13	Ciudad Infrastructure Ltd	0	0
14	Clear Sky Broadband Ventures Ltd	0	11
15	Cobranet Ltd	0	0
16	Cobweb Communications Ltd	0	0
17	Comternet World Ltd	0	0
18	ConnectFocus Technologies Ltd	0	0
19	Content Oasis Ltd	0	0
20	Coquina Software Company Ltd	0	0
21	Coscharis Technologies Ltd	0	0
22	Coz Ltd	0	0
23	Cyberspace Ltd	0	47
24	Dimension Data Ltd	33	15
25	Dotmac Technologies Ltd	0	0
26	Ejalet Tech Ltd	0	0
27	Ekovolt Telco Ltd	0	0
28	Electronic Connections Ltd	0	0
29	Estream Ltd	9	3
30	Fibrehub Internetworking Services Ltd	0	0
31	Futurecom Ltd	0	0
32	Galaxy Backbone Ltd	0	356

33	Galaxy Information Technology and Telecommunications Ltd	0	0
34	Gutti Global Solutions Ltd	0	0
35	IDS Africa Ltd	0	0
36	Information Connectivity Solutions (ICSL) Ltd	12	12
37	Inq. Digital Nigeria Ltd (formerly Vodacom)	16	10
38	Internet Solutions Nig Ltd	0	0
39	Internetsional Technologies Ltd	0	27
40	Interweb Satcom Ltd	350	300
41	IP Express Ltd	0	700
42	IPNX Nigeria Ltd	0	0
43	ITX Telecoms Ltd	0	0
44	I-World Networks Ltd	0	0
45	Juniper Solutions Ltd	0	0
46	Khal Communications Nigeria Ltd	0	0
47	Layer3 Ltd	0	0
48	MainOne Ltd	5	3
49	Megamore Ltd	0	0
50	Mobitel Ltd	0	0
51	Multi Dimensions Technology Nig Ltd	0	0
52	Nanocom International Ltd	0	0
53	NetAccess Ltd	0	0
54	Nkponani Ltd	0	0
55	Odua Telecoms Ltd	0	0
56	One Network Integrated Links Ltd	0	0
57	Orange Business Communications Services Nig Ltd	0	0
58	Passage Telecommunications Nig Ltd	0	0
59	Platinum Index Ltd	0	0
60	Priority Communications Ltd	0	0
61	Radical Technology Network Ltd	895	1500
62	Sea Net Technologies Ltd	14	12
63	Skymax Ltd	11	8
64	Smart City Technology Company Ltd	0	0
65	Spectranet Ltd	0	0
66	Swifttalk Ltd	0	0
67	Syscodes Communications Ltd	0	0
68	Tehilah Base Digital Ltd	0	0

69	Telequip & Digital Ltd	0	0
70	Teleweb Services Ltd	0	0
71	Telsolve Networks Ltd	0	0
72	Tizeti Network Ltd	0	0
73	Trakatel Ltd	0	0
74	Trefoil Ltd	0	0
75	VDT Communications Ltd	0	0
76	Winrock Ltd	0	0
77	Zeta-web Nigeria Ltd	241	289
78	Galaxy backbone Ltd	148	0
79	Hyperia	1230	0
	<b>Total</b>	<b>3,238</b>	<b>3,529</b>

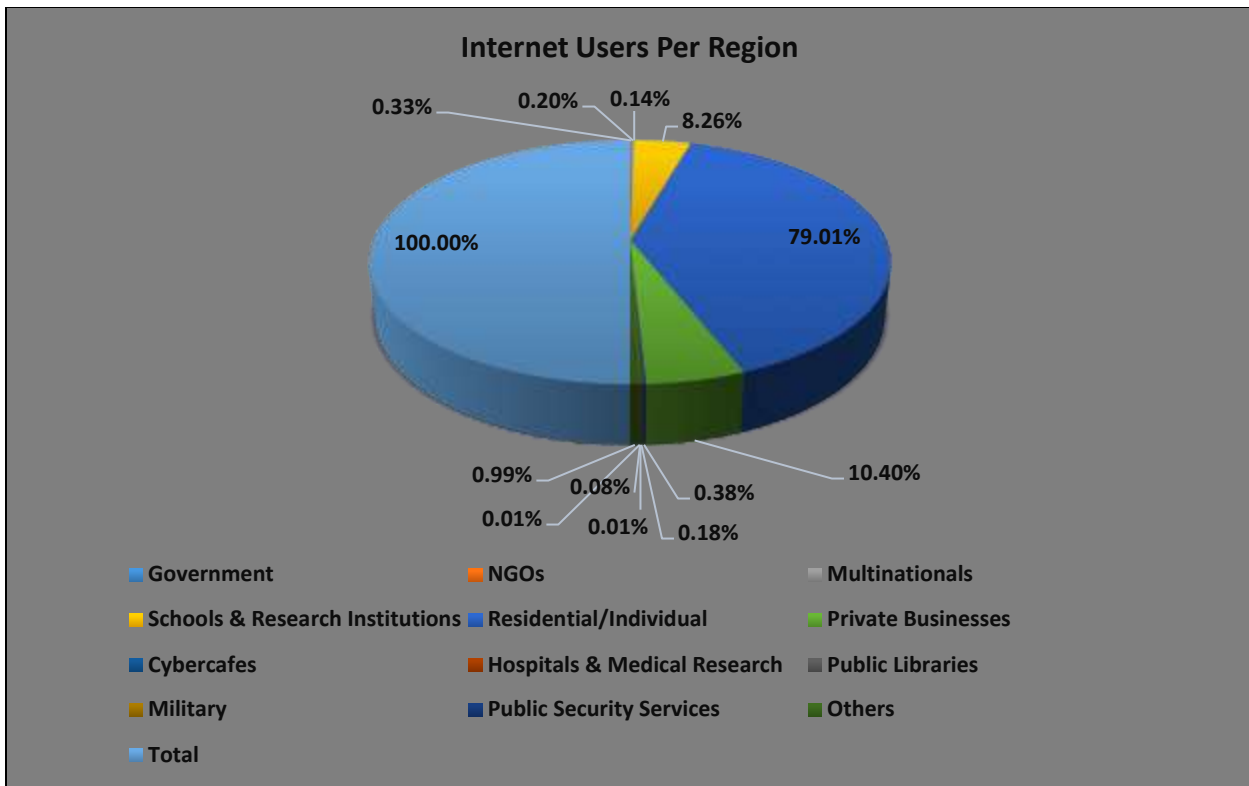
**Table 11: Number of Satellite subscriptions in 2020 - 2021**

Total number of Satellite subscriptions also increased over the period from **3,238** subscriptions in December, 2020 to **3,529** subscriptions in **2021**, indicating an increase of 291 subscriptions representing **9%** in the number of Satellite subscriptions.

<b>SUBSCRIBER MATRIX</b>	<b>TOTALS</b>	<b>PERCENTAGE</b>
Government	1,048	0.33%
NGOs	625	0.20%
Multinationals	445	0.14%
Schools & Research Institutions	25,860	8.26%
Residential/Individual	247,493	79.01%
Private Businesses	32,571	10.40%
Cybercafes	1,194	0.38%
Hospitals & Medical Research	566	0.18%
Public Libraries	25	0.01%
Military	254	0.08%
Public Security Services	42	0.01%
Others	3,103	0.99%
<b>Total</b>	<b>313,226</b>	<b>100.00%</b>

**Table 12: Number of Subscriber Matrix**





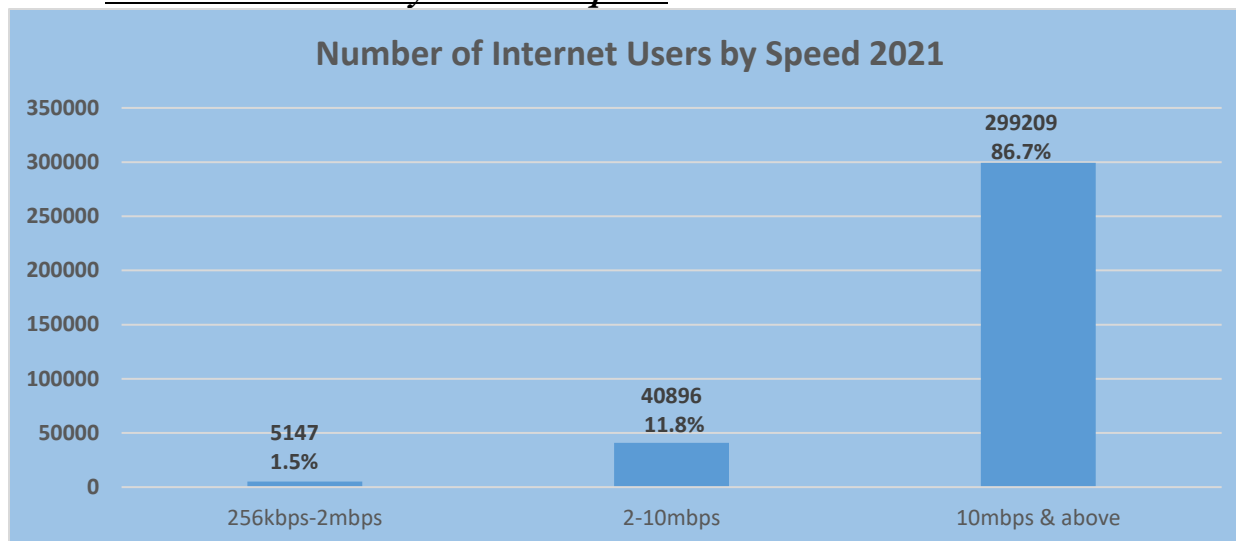
*Figure 2: Number of Internet Users per Region*

*h.* In December, 2021, the total number of Internet users that connected through ISPs, in the six geopolitical zones was **552,667** indicating an increase of **87.8%** from the **294,257** users recorded as at December, 2020. The analysis of the breakdown is as follows:

- a. **South West** had the highest number of Internet users in December 2021 with **442,252** users indicating **82%** of the total subscriptions
- b. **South South** had **10.1%** with **56,028** users;
- c. **North Central** had **9.5%** with **52,544** users;
- d. **North West** had **0.2%** with **967** users;
- e. **South East** had **0.1%** with **538** users;
- f. **North East** had **0.1%**, which was the least of all the regions with **338** users.

Out of the 79 ISPs that made submissions, 50 are based in Lagos representing 63%, 12 are in Abuja representing 15%, Ibadan has 6 representing 8%, while the remaining 11 which represents 14% are in other location of the country.

*i. Number of Users by Internet Speed*



*Figure 3: Speed of Internet as delivered to subscribers 2021*

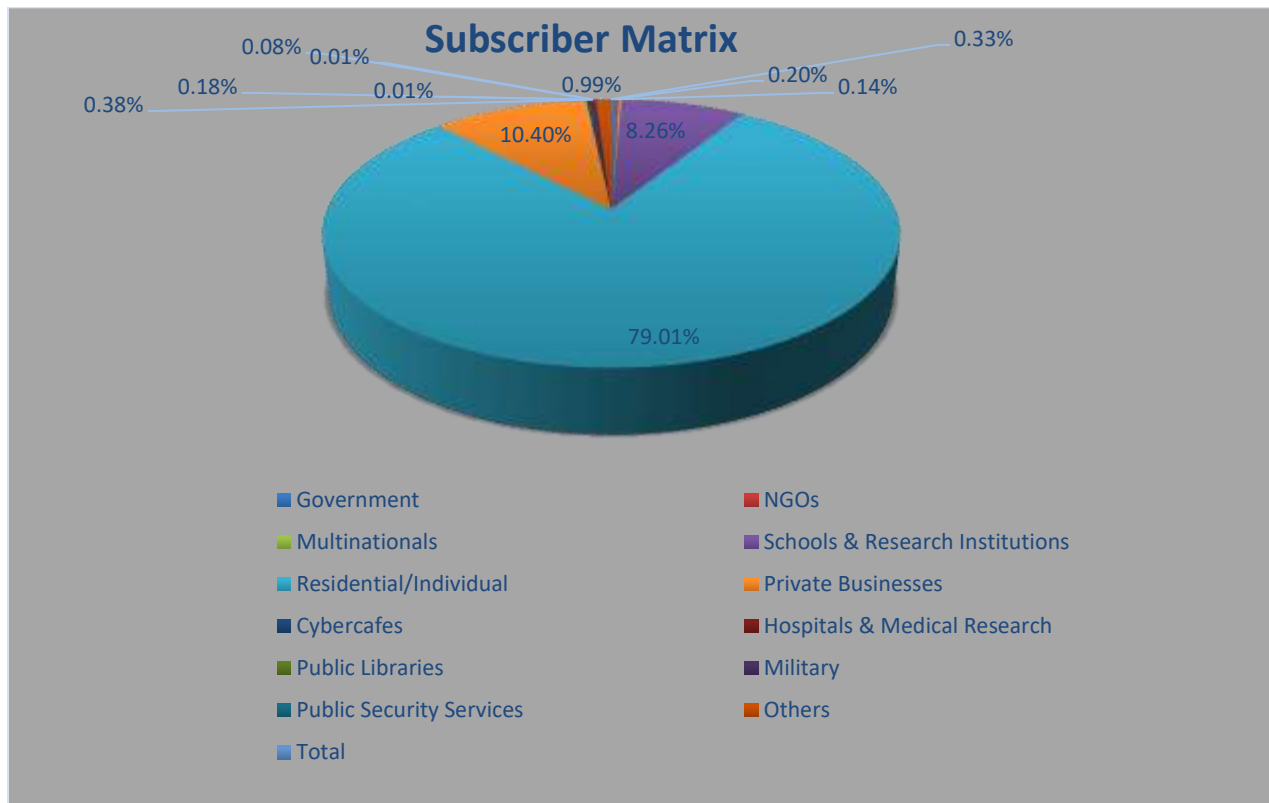
As at December 2021, out of a total of 345,252 users via ISPs, **5,147** users subscribed to speeds between **256Kbps-2Mbps**, representing **1.5%** of the total user base; **40,896** users between **2–10Mbps**, representing **11.8%** of the total user base; & **299,209** subscriptions in the **10mbps & above** category, which makes **86.7%** of the total.

**D. SUBSCRIBER MATRIX (INTERNET USE)**

As at December, 2021, the following was recorded for internet use: Government- **0.33%**; NGO- **0.20%**; Multinational- **0.14%**; Schools & Research Institutions- **8.26%**; Residential/Individual –**79.01%**; Private Business – **10.4%**; Cybercafés – **0.38%**; Hospitals & Medical Research – **0.18%**; Public Libraries – **0.01%**; Military – **0.08%**; Public Security- **0.01%**; Others – **0.99%**.

<b>SUBSCRIBER MATRIX</b>	<b>TOTALS</b>	<b>PERCENTAGE</b>
Government	1048	0.33%
NGOs	625	0.20%
Multinationals	445	0.14%
Schools & Research Institutions	25860	8.26%
Residential/Individual	247,493	79.01%
Private Businesses	32571	10.40%
Cybercafes	1194	0.38%
Hospitals & Medical Research	566	0.18%
Public Libraries	25	0.01%
Military	254	0.08%
Public Security Services	42	0.01%
Others	3103	0.99%
<b>Total</b>	<b>313,226</b>	<b>100.00%</b>

**Table 3: Subscribers Matrix of Internet Use 2021**



**Figure 3: Subscribers Matrix of Internet Use 2021**

**E. FINANCIAL DATA:**

**1. Revenue:**

As at December 2021, a total sum of **N59, 993,181,018.69** (Fifty Nine Billion, Nine Hundred and Ninety Three Million, One Hundred and Eighty One Thousand, and Eighteen Naira, Sixty-Nine Kobo) Only was generated by ISP licensees as revenue, representing a slight decrease from the **N68, 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 that was generated in 2020. This indicates a decrease of **13%** in the total revenue as at December 2021.

**2. Operating Cost:**

The Operating Costs for the ISPs decreased from **N53, 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 in **2020** to **N48, 426,365,194.12** (Forty Eight Billion, Four Hundred and Twenty Six Million, Three Hundred and Sixty Five Thousand, One Hundred and Ninety Four Naira, Twelve Kobo) Only in **2021**. This indicates a decline of **9.81%** in the total operating costs as at December 2021.

## **F. STAFF PROFILE:**

As at December 2021, the number of staff of ISP operators increased to **3,274** from **3,270** recorded in 2020. This indicates an increase of **0.12%** in the work force. There was a total of **2,515** male and **723** female staff. A further breakdown reveals that **3,238** of the staff are Nigerians, while expatriates were **36**.

## **G. SUMMARY OF ISP SEGMENT**

1. Total Connected Internet Subscriptions from ISPs in 2021, was **316,592** from **305,255** subscriptions recorded in December 2020, indicating a **4%** increase in the total active subscriptions. Spectranet Nigeria Ltd had the highest figure with **250,787** which accounted for the **79%** of the subscription, followed by Tizeti and IPNX Ltd with **16,621** and **16,491** respectively.
2. Total Active Internet Subscriptions from ISPs in 2021, was **179,668** from **173,290** subscriptions recorded in December 2020, indicating a **4%** increase in the total active subscriptions. Spectranet Nigeria Ltd had the highest figure with **113,410** which accounted for the **63%** of total subscription, followed by Tizeti and iPNX Ltd with **16,621** and **11,739** respectively.
3. Point of Presence (PoPs) increased to 1,843 as at December, 2021 from 1,409 PoPs recorded in December, 2020. Spectranet had the highest number of PoPs with **629**, indicating **34% of the PoPs**.
4. Total number of workforce increased to **3,274** in December 2021 against **3,270** recorded in December 2020, indicating **0.12%** increase in the workforce of the Internet Service Providers.
5. Fiber to Home subscriptions recorded **18,590** subscribers in December 2021 from **14,706** in December 2020. IPNX Ltd accounted for **15,689** which represents **86%** of the subscriptions in this category.
6. South West region reportedly had the highest number of Internet users in December 2021 with **442,252** users indicating **80%** of the total subscriptions, while other five (5) regions had a combined total of **110,415** users with **20%** as total subscriptions. Out of the 79 ISPs that made submissions in this category, 50 are based in Lagos representing 63%, 12 are in Abuja representing 15%, Ibadan has 6 representing 8%, while the remaining 11 which represents 14% are in other location of the country.

7. In December 2021, the number of users per **Fixed Wired Internet** subscription increased to **22,725** from **17,730** subscriptions recorded in 2020, indicating a percentage increase of **28%**. Tizeti Networks Ltd recorded the highest figure with **16,621** which accounted for **73%** of wired Internet Subscriptions in 2021.
8. The total number of terrestrial subscriptions increased substantially from **162,122** as at December, 2020 to **164,774** in December 2021. In this category, Tizeti with the highest number, **152,386** accounted for **92%** of the subscriptions. Odua Telecoms Ltd recorded the least figure with just Four (4) subscriptions. The submission of 152,386 subscriptions made by Tizeti in December, 2021, accounted for the huge increase recorded in the total terrestrial subscriptions.
9. There was an increase of **1.8 %** in the average number of users per fixed Internet subscriptions (Broadband) between 2019 and 2020. This can be seen in the increase from **250,053** in 2020 to **254,462** in 2021. Spectranet had the largest subscription in this category with **250,787** indicating 99% of the total subscriptions.
10. Total Satellite subscriptions increased from **3,238** in 2020 to **3,529** in 2021 indicating a percentage increase of 9%. Radical Tech Ltd had the highest Subscriptions with **1,500** which represents 42% of the Total Wireless Broadband Subscriptions.

## CHAPTER FIVE

### ANALYSIS OF 2021 YEAR END SUBSCRIBER / NETWORK DATA

#### **[Collocation and Infrastructure Sharing Licensees]**

##### **A. NETWORK DATA:**

The Commission received a total of Fifteen (15) submissions from Licensees of the Commission for the 2021 Year End Subscriber/Network Data for Operators which provided ancillary telecom services for the Collocation and Infrastructure Sharing segment other than Mobile.

These Operators provide telecommunications operations across the thirty-six (36) States and in at least each State of the geopolitical zones of the Country.

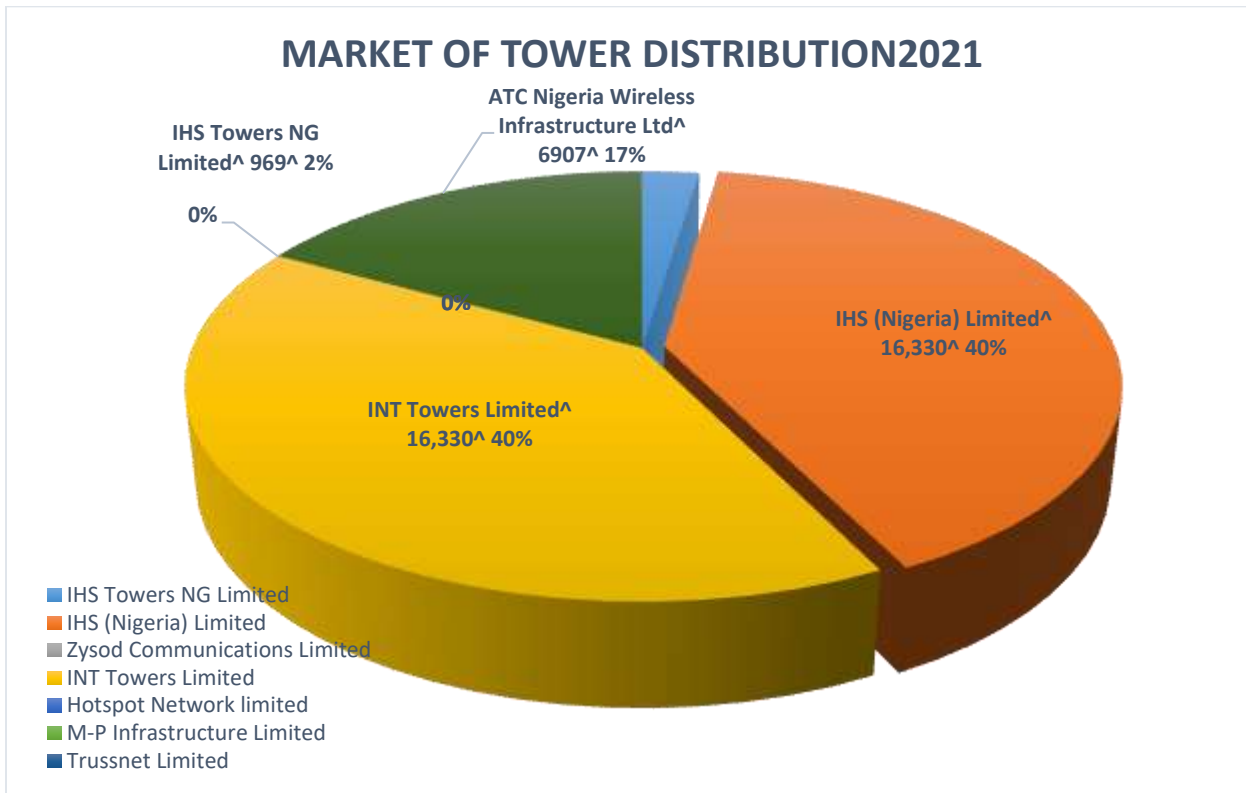
##### **B. INFRASTRUCTURE DEPLOYMENT (MAST AND TOWERS):**

1. **Number of Towers:** As at December, 2021 the total Towers owned by Collocation and Infrastructure Sharing Licensees was **40,541**. The breakdown of the towers according to each Operators are shown below:

	<b>SERVICE PROVIDER</b>	<b>Number of Towers (2021)</b>
1.	IHS Towers NG Limited	969
2.	IHS (Nigeria) Limited	16,330
3.	Zysod Communications Limited	0
4.	INT Towers Limited	16,330
5.	Hotspot Network limited	0
6.	M-P Infrastructure Limited	0
7.	Trussnet Limited	2
8.	SWAP Technologies	0
9.	Communication Towers	0
10.	Star Solution LTD	0
11.	Fahmaiyya Nigeria Limited	0
12.	ATC Nigeria Wireless Infrastructure Ltd	6907
13.	Connectivity Infrastructure services Limited	3
14.	Moytel Consultants Limited	0
15.	Applistructure Consulting Limited	0
	<b>TOTAL</b>	<b>40,541</b>

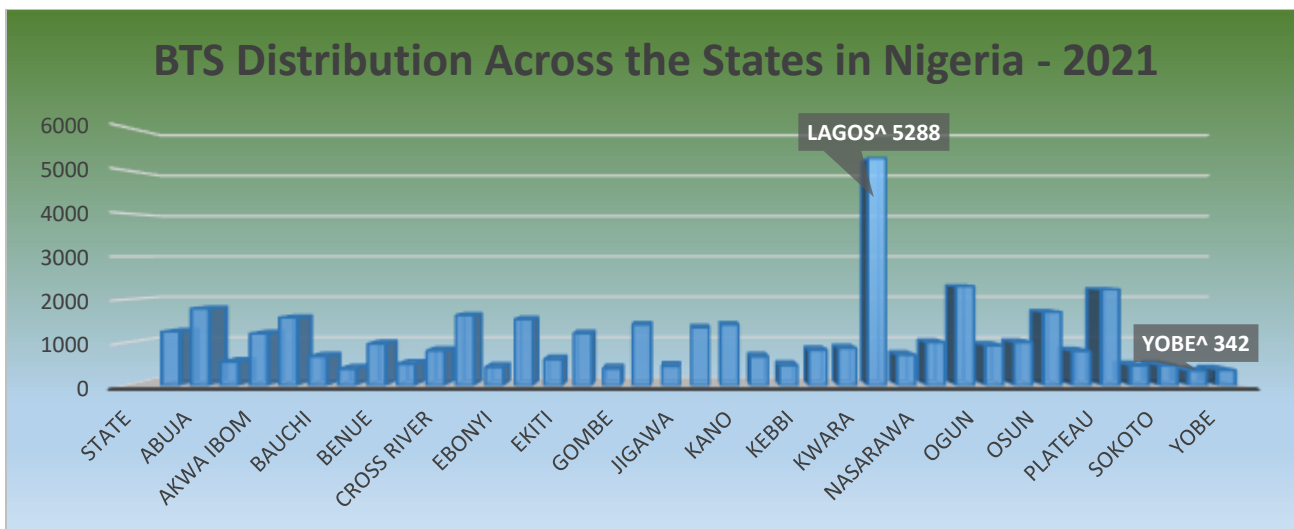
*Table 1: Breakdown of Towers per Operator 2021*

2. **Market Share of Collocation & Infrastructure Sharing Licensee:** As at December, 2021 the total Market share of Collocation and Infrastructure Sharing Licensees illustrates that the INT Towers Limited and IHSS Nigeria Limited both own approximately 40% of the Towers and appear to have an apparent joint dominance showing in this market segment compared to other licensees



*Figure 1: Market Share of Collocation & Infrastructure Sharing Licensee*

3. **BTS Distribution in Nigeria:** As at December, 2021 Lagos State recorded the highest concentration of BTS sites at 5,288 while Yobe State recorded the least number of BTS sites at 342. The situation in the North East is attributable to the activities of insurgency in that geopolitical area that destroyed some Towers.



### C. FINANCIAL DATA:

1. **Revenue:** The total Revenue as at December 2021 for the collocation and infrastructure sharing licensees was **₦3, 072,264,433.32**.
2. **Operating Cost:** Similarly, the total Operating cost as at December 2021 recorded based on submissions made by operators was **₦2, 329,068,819.71**.
3. **Investment:** CAPEX expenditure was recorded at **₦ 266,263,305.67** as at December 2021.

### D. STAFF PROFILE

As at December, 2021 the total staff strength of Collocation and Infrastructure Sharing Operator Category stood at 1,920 staff. In record, Nigerian staff were 1,511 Male and 360 Female while Expatriate staff base reported 48 Male and 1 Female.



## CHAPTER SIX

### ANALYSIS OF 2021 YEAR END SUBSCRIBER / NETWORK DATA FOR VALUE ADDED SERVICE (VAS) OPERATORS

#### A. INTRODUCTION

The Value Added Service licensees provide ancillary telecom services such as Content Services Using Short Code Numbers, Mobile Electricity Service, Unstructured Supplementary Service Data (USSD), SMS Service, Mobile Banking, Enterprise Bulk Messaging, Transactional Service, Electronic Airtime Distribution, Call Ring Back Tone/Entertainment, and Special numbering et al. These licensees also provide telecommunications services across the thirty-six (36) states, and in at least each state of the geopolitical zones of the country.

The following licensees were responsive to the 2021 Year End Network Data Questionnaires that was administered by the Commission;

1. Gistme Communications Limited
2. Vastitude Technologies Limited
3. TXT Light Power Solutions Limited
4. Payvantage Limited
5. Afro Interactive & Media Concept Limited
6. Content Connect International (Pty) Limited
7. Value Added Network Solutions Ltd
8. Infobip Nig Ltd
9. Information Secure Limited
10. Novaji Introserve Nig Ltd
11. Digital Pulse Technologies
12. Prohubb International Limited
13. Elrae Technologies Limited
14. 2TOC Solutions Ltd
15. Axon Technologies Ltd
16. CedarView Communications Limited
17. Cowrie Integrated Systems Limited
18. Airtime Network Limited
19. Lucav Global Resources Limited
20. Interra Networks Limited
21. Qrious VAS Limited
22. Telcovas Solutions & Services Limited
23. Cloud Interactive Associates Limited
24. Inq. Digital Nigeria (Vodacom Business Africa Limited)
25. IP Integrated Solution Limited
26. The Outsource Company limited

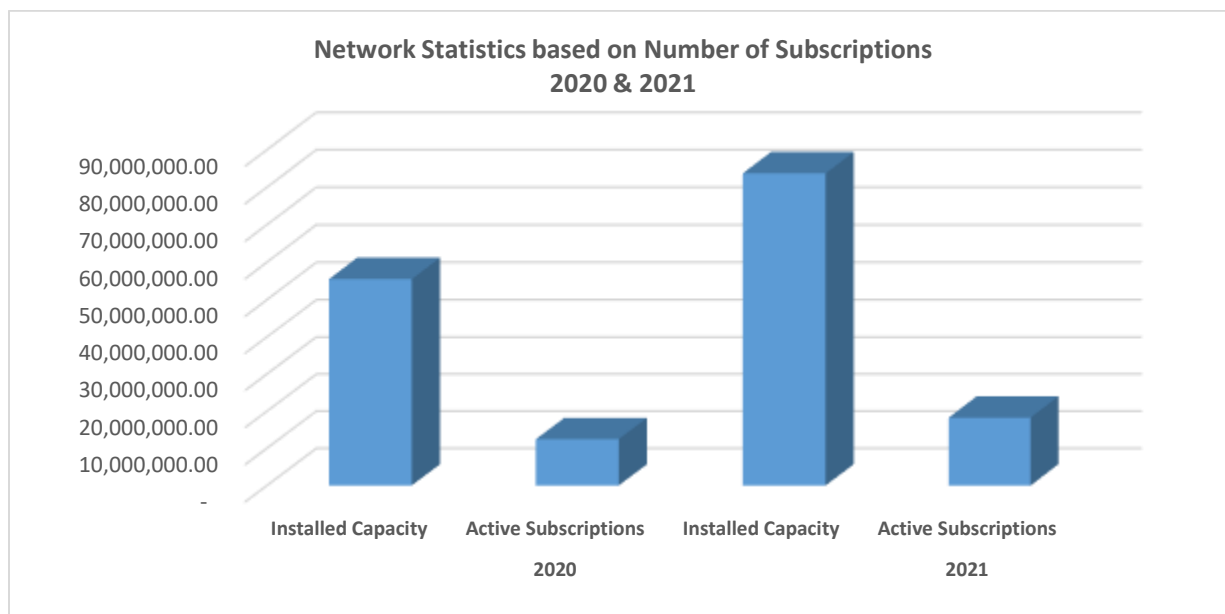
27. Alvoice Solutions Limited
28. Vas2Nets Technologies Limited
29. Caprivas Africa Limited
30. Top Up & Get Reward Limited
31. Ignitia Weather Services Limited
32. V & Q Concepts Limited
33. ITEX Integrated Services Limited
34. Yellowdot Africa Nig. Limited
35. AB UOBIS Limited
36. Tpay Telecom Services Limited

**A. NETWORK STATISTICS:**

Based on the available data, the total number of active subscription to the various value added services by the end of year 2021 stood at Eighteen Million, Two Hundred and Eighty Four Thousand, Five Hundred and Sixty Four subscribers (18,284,564), signifying a 46.8% increase from Twelve Million, Four Hundred and Four Nine Thousand, Eight Hundred and Twenty Eight (12,449,828) recorded in 2020.

2020		2021	
Installed Capacity	Active Subscriptions	Installed Capacity	Active Subscriptions
55,505,000.00	12,449,828.00	83,710,000.00	18,284,564.00

*Table 1: Total Number of Installed Capacity and Active Subscriptions 2020 - 2021*



*Figure 1: Installed Capacity and Active Subscriptions 2020 - 2021*

**B. FINANCIAL DATA:**

1. **Revenue:** The total revenue generated by VAS licensees in Year 2021 stood at ~~₦~~32,918,867,894.77
2. **Operating Cost:** The total **Operating cost** incurred by the Licensees as at the end of December, 2021 was ~~₦~~ 11,797,521,180.07 only.
3. **Investments:** The Domestic Investment (CAPEX) figure reported was ~~₦~~**335,871,200.00** as at end of Year 2021.

**C. STAFF PROFILE:**

As at December, 2021 the total staff strength of VAS market segment stood at 751 staff. In record, Nigerian staff were 734 comprising of 526 Male and 208 Female while the Expatriate staff base reported 12 Male and 5 Female.

### ANALYSIS OF 2021 YEAR END SUBSCRIBER / NETWORK DATA FOR OTHER OPERATORS

#### A. INTRODUCTION

These “Other Operators” referred to in the report provide ancillary telecom services such as Long Distance Service Operators, Automated Vehicle Tracking services Interconnect Exchange, Metropolitan Fiber License Operators, International Data Access, Sales & Installation. These licensees also provide telecommunications services across the thirty-six (36) states, and in at least each state of the geopolitical zones of the country.

#### B. INFRASTRUCTURE DEPLOYMENT

##### 1. Long Distance Cable Network (km);

As at December, 2021 the total Long Distance cable deployed by Operators in this category was 4712km. Interconnect Clearing House Limited recorded 3,526km; Telko Managed Services Limited recorded 1,185km and Telnia Limited recorded 1km in the Country.

##### 2. Fibre Optic Network (km);

As at December, 2021 the total Fibre Optic Network deployed (leased and owned) by Other Operators was 1,793.4km. IMBIL Telecoms Solutions Limited recorded 576km; Bitflux Communications Limited - 120km; Breeze Micro Limited - 55km, Interconnect Clearing House Limited - 28.5km; Nationwaves Telecom Nigeria Limited -20km and Analytiq Telecom Solutions Limited – 10.2km of Fibre Optic deployment.

##### 3. Number of Trunks in use (E1):

The total number of E1 in use by Operators as at the end of Year 2021 was 4,306.5 reported by operators.

##### 4. Number of Gateways:

The total Number of Gateways in use as at year 2021 was 27. Interconnect Clearing House Nigeria Limited reported 21; while Operators like Bitflux Communications Limited reported 3; Analytiq Telecom Solutions Limited - 2 and Telnia Limited -1 number of the Gateways based on Year 2021 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 VAS licensees in Year 2021 stood at **₦2,444,531,777.09**
2. **Operating Cost:** The total **Operating cost** incurred by the Licensees as at the end of December, 2021 was **₦899, 867,925.39**.
3. **Investments:** The Domestic Investment (CAPEX) figure reported was **₦171, 472,235.51** as at end of Year 2021.

#### D. STAFF PROFILE:

As at December, 2021 the total staff strength of Other Operator's market segment stood at 1,426 staff. In record, Nigerian staff were 1,418 comprising of 1,160 Male and 258 Female while the Expatriate staff base reported 10 Male and 1 Female.