



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 telecom's 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 31st, 2021.
3. The number of **Internet Subscribers** decreased from 154,301,195 subscriptions 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;
7a. Revenue: Table 1 below indicates that the total revenue in the sector recorded was ₦3, 247,595,808,883.87

7b. **Operating cost:** reported was **₦1,720,547,371,856.01** as at December 2021 while **CAPEX (domestic investment)** 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 |
| | TOTAL | 1,128,557,869,498.36 | 1,720,547,371,856.01 | 3,247,595,808,883.87 |

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

7c. **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 Dollars Thirty cents as at Year 2020. (Source CBN).

8. **Infrastructural Development** - A substantial telecom infrastructure deployment was recorded in 2021 by Telecoms providers, as indicated below:
 - i. A total of **35,136 Towers** were recorded from Collocation and Infrastructure Companies.
 - ii. The Mobile and Fixed Operators also reported a total number of **114,412 Base Transceiver Stations (BTS)**.
 - iii. **Microwave** coverage recorded in Year 2021 stood at **290,941km**. This covers the Mobile and Fixed Operators.
 - iv. The Mobile, Fixed and Other Operators recorded a total number of **99 Gateways** in use in the industry as at December 2021.
 - v. Fiber Optics Deployment stood at **86,057km** (terrestrial fiber & submarine cable) as at December 2021.

9. Staff Head Count - 2021

| GSM | FIXED | ISP | VAS | C&I | OTHERS | TOTAL |
|------------|--------------|------------|------------|----------------|---------------|--------------|
| 7,226 | 471 | 3,274 | 1,920 | 751 | 1,426 | 15,068 |

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 for each category.

10. Analysis of Towers across the States

The top five states with the highest number of towers are Lagos, Ogun, Oyo Rivers and FCT while the states with the least number of towers are: Jigawa, Ebonyi, Gombe, Yobe and Zamfara.

| States | LAGOS | OGUN | RIVERS | FCT | OYO | EDO |
|-------------------------|--------------|-------------|---------------|------------|------------|------------|
| Number of Towers | 5,851 | 2,418 | 2,049 | 1,944 | 1,713 | 1,556 |

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

| States | KEBBI | BAYELSA | EBONYI | GOMBE | YOBE | ZAMFARA |
|-------------------------|--------------|----------------|---------------|--------------|-------------|----------------|
| Number of Towers | 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 OPERATORS (MNOs)**

NETWORK DATA

1. **Base Transceiver Stations for MNOs:** As at December, 2021 the total Base Stations owned by Mobile telecoms operating companies across all states of the Federation was 114,247.

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 |
| TOTAL | 43,898.8 | 47,128.7 |

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

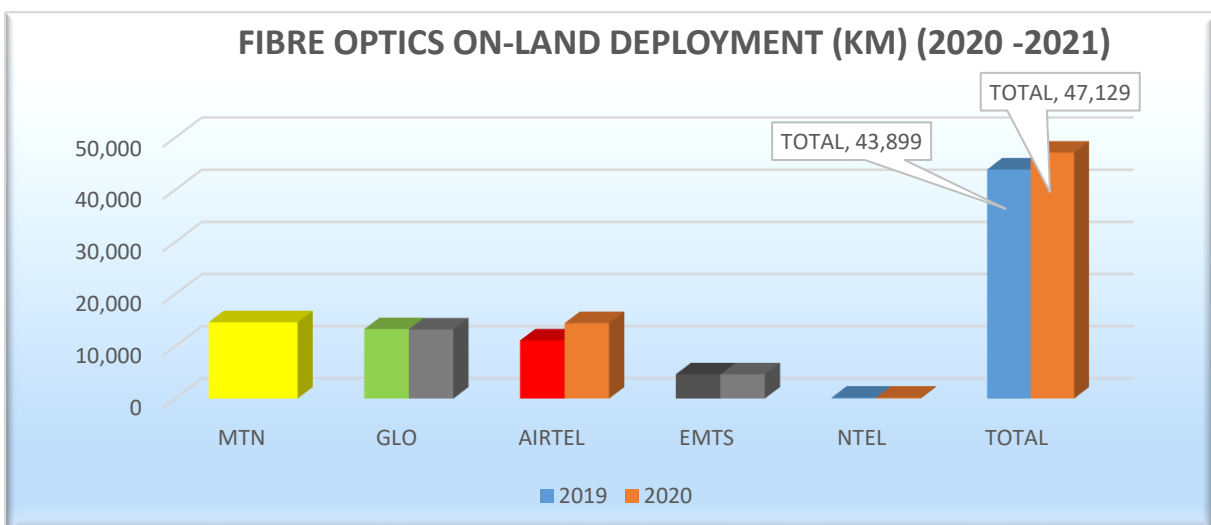


Figure 1. Fibre Optics On-Land Deployment in KM (2020- 2021)

- 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 |
| TOTAL | 25,128.3 | 27,818.3 |

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.

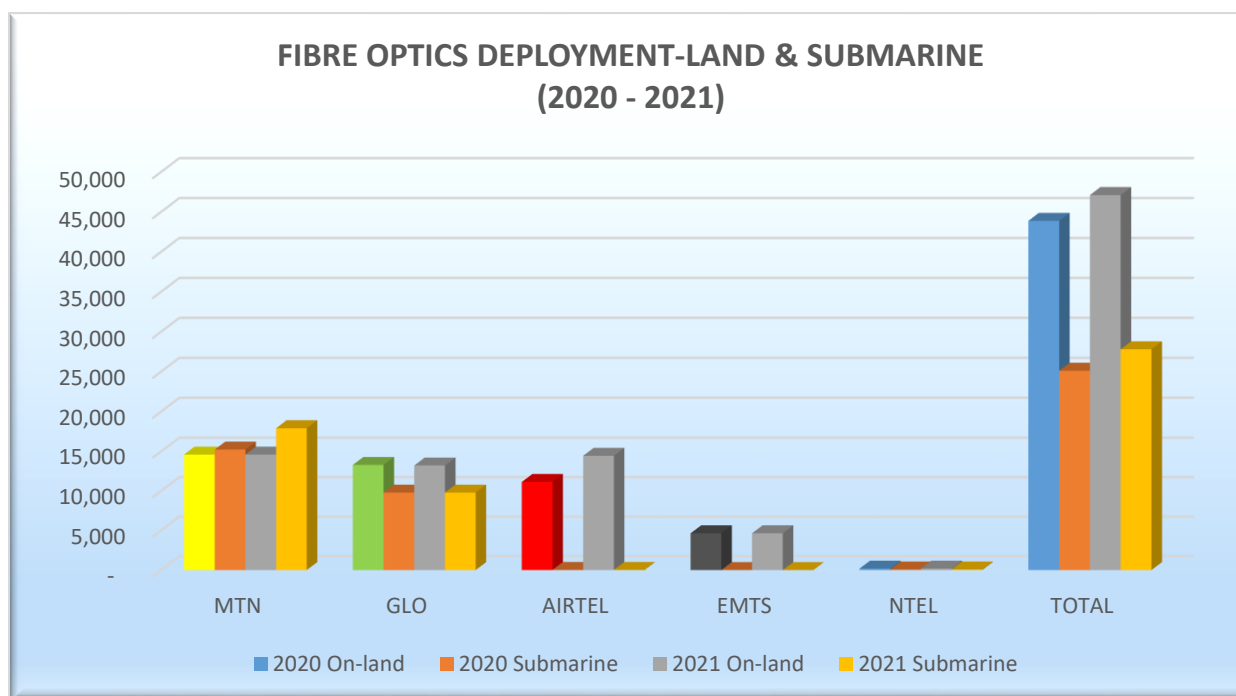


Figure 2. Fibre Optic On-Land and Submarine Deployment in KM (2020 – 2021)

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 **289,425 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 |
| | TOTAL | 289,425 | 290,626 |

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

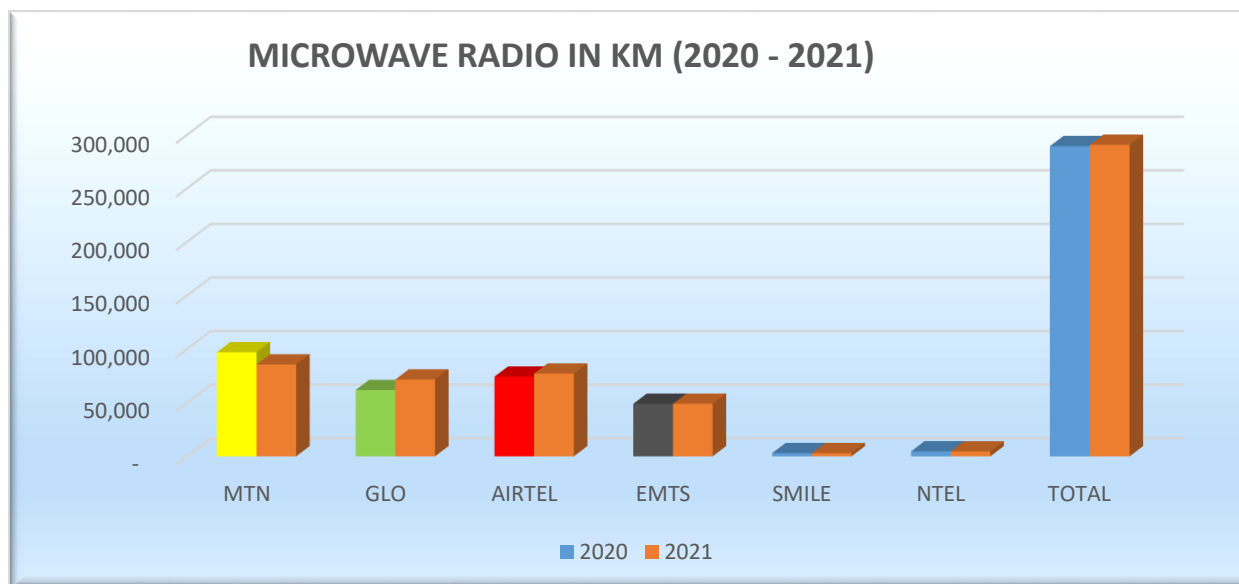


Figure 3. Microwave Radio in KM (2020 – 2021)

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.

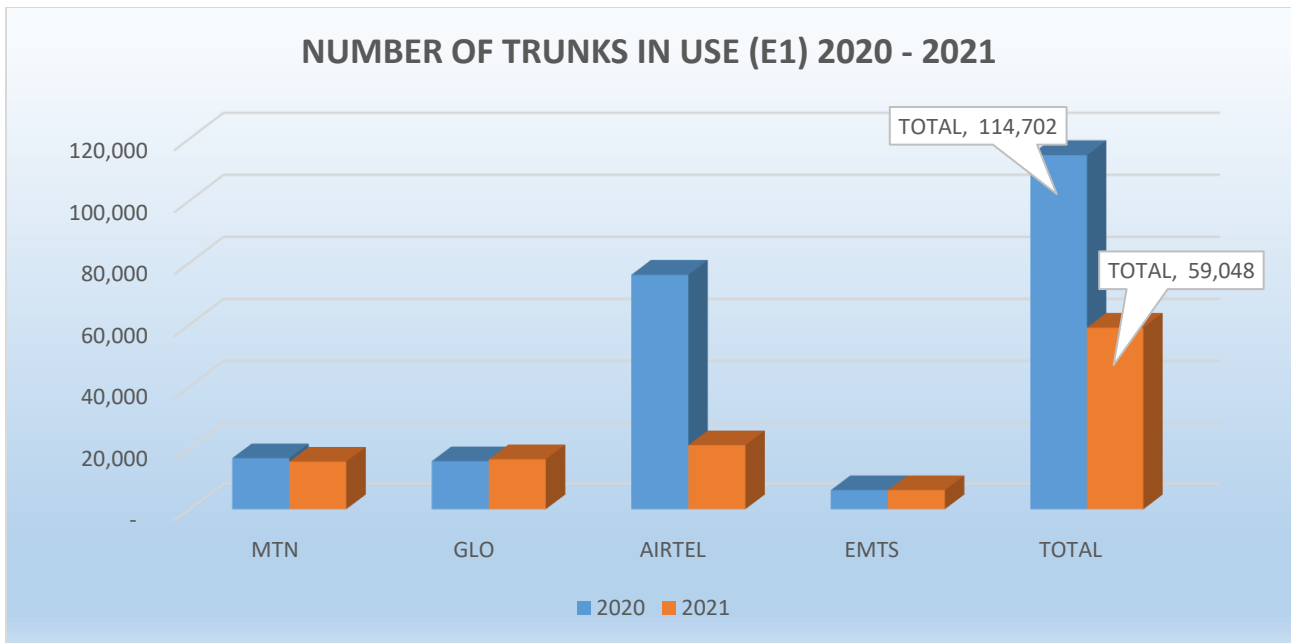


Figure 4. Number of Trunks (E1) in use (2020– 2021)

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.

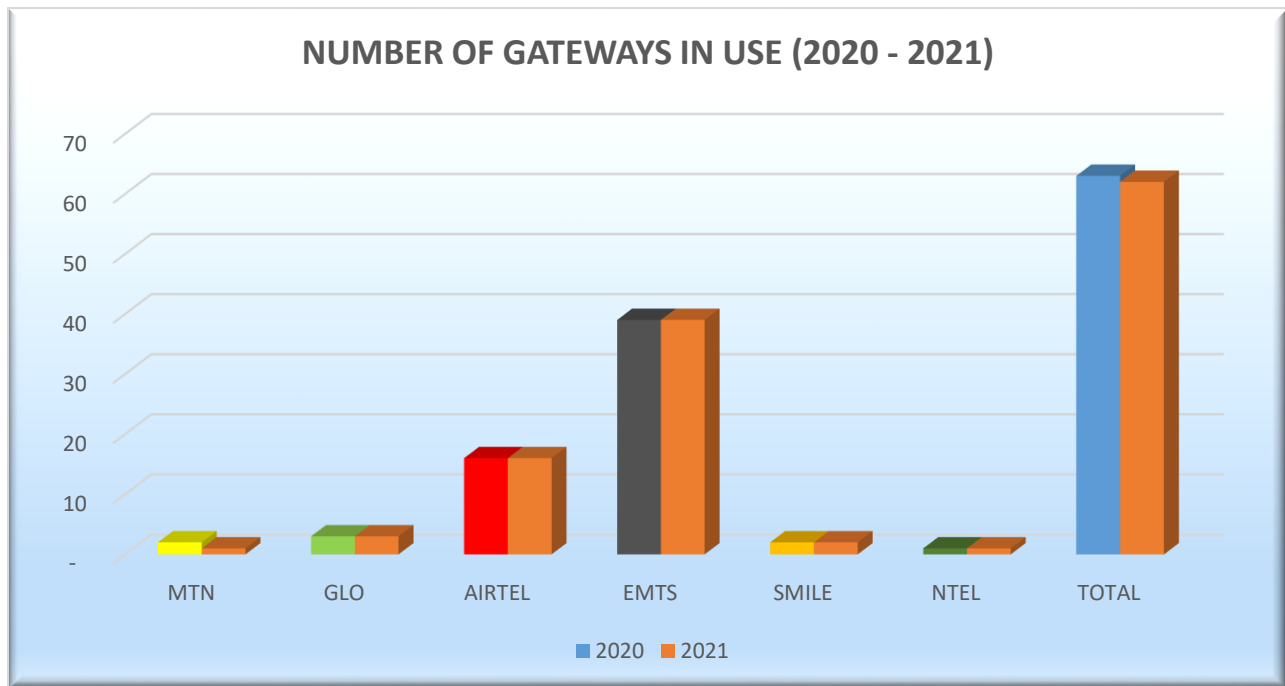


Figure 5. Number of Gateways in use (2020– 2021)

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.

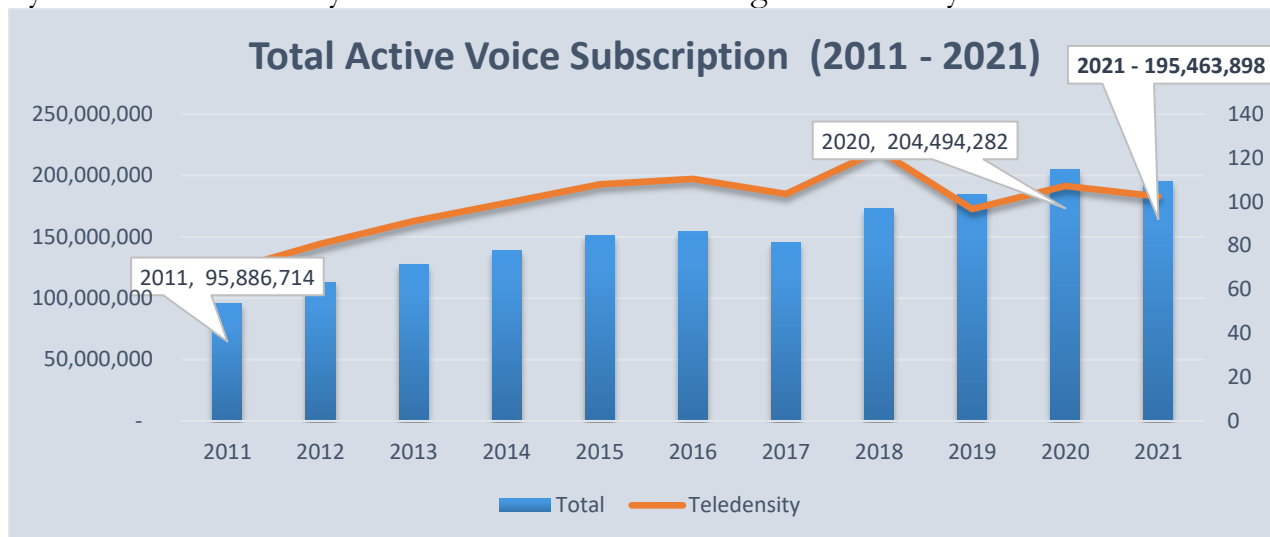


Figure 6. Subscriber Data- Active Voice Subscriptions & Teledensity (2011 - 2021)

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.

Market Share of GSM Operators as at December' 2021

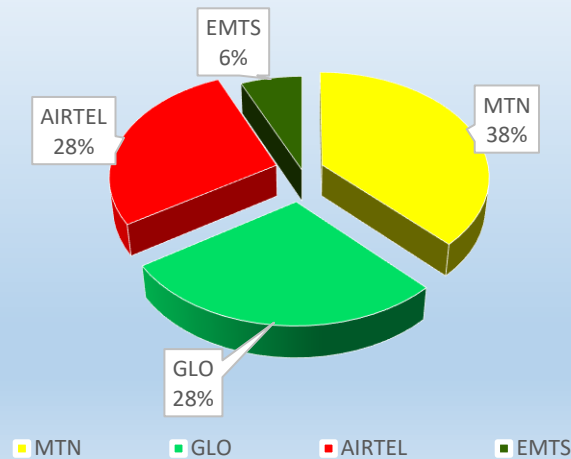


Figure 7. Market Share of Mobile GSM Operators – December 2021

ACTIVE VOICE SUBSCRIPTIONS MOBILE (2020 - 2021)

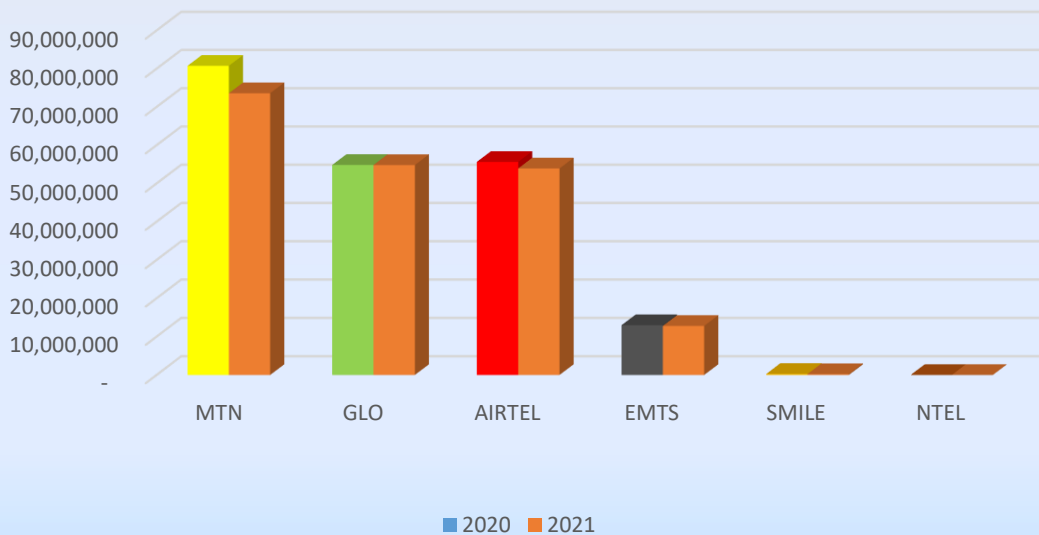


Figure 8. Active Voice Subscriptions of Mobile Segment, 2020 – 2021

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

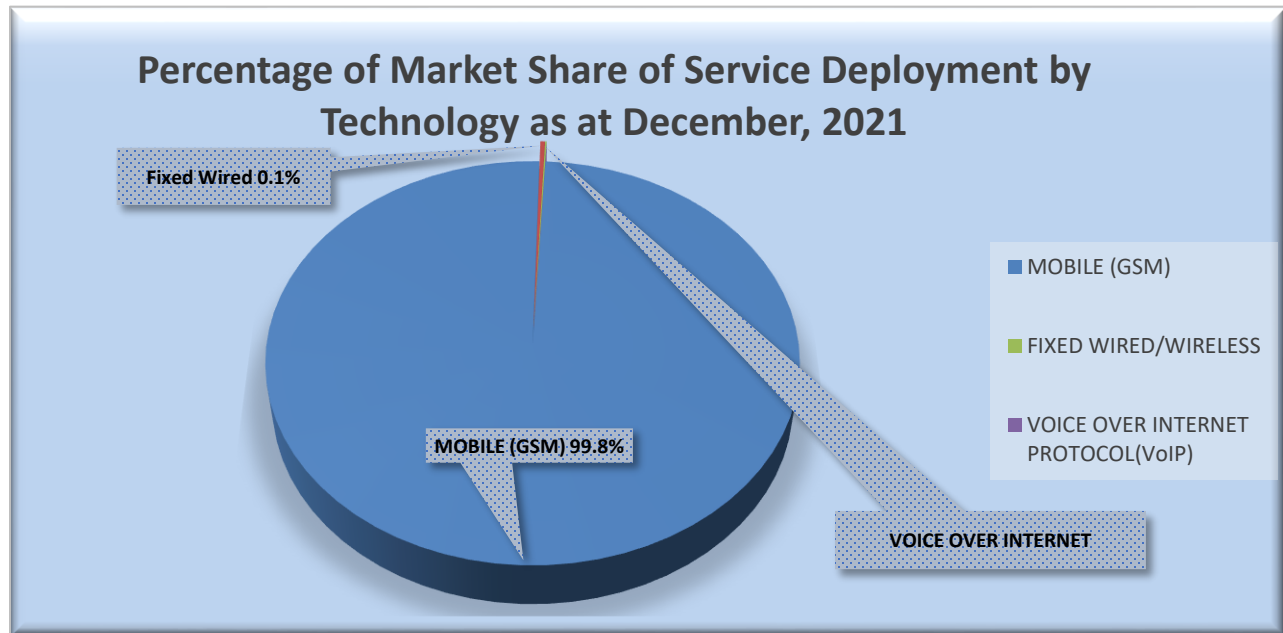


Figure 9: Percentage of Market Share of Service Deployment by Technology as at December, 2021

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 subscriptions are in the Southwest (SW) zone, while the Northeast has the least percentage of Active Voice subscriptions of 10%.

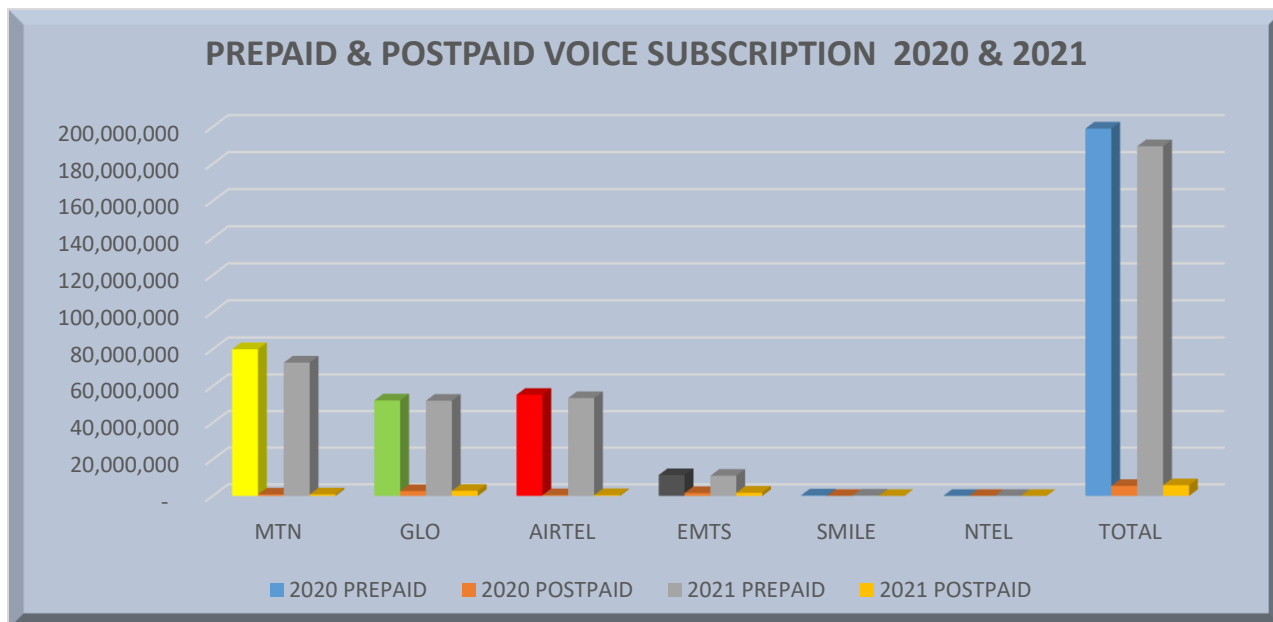


Figure 10: Prepaid & Postpaid Voice Subscriptions- Mobile 2020 – 2021

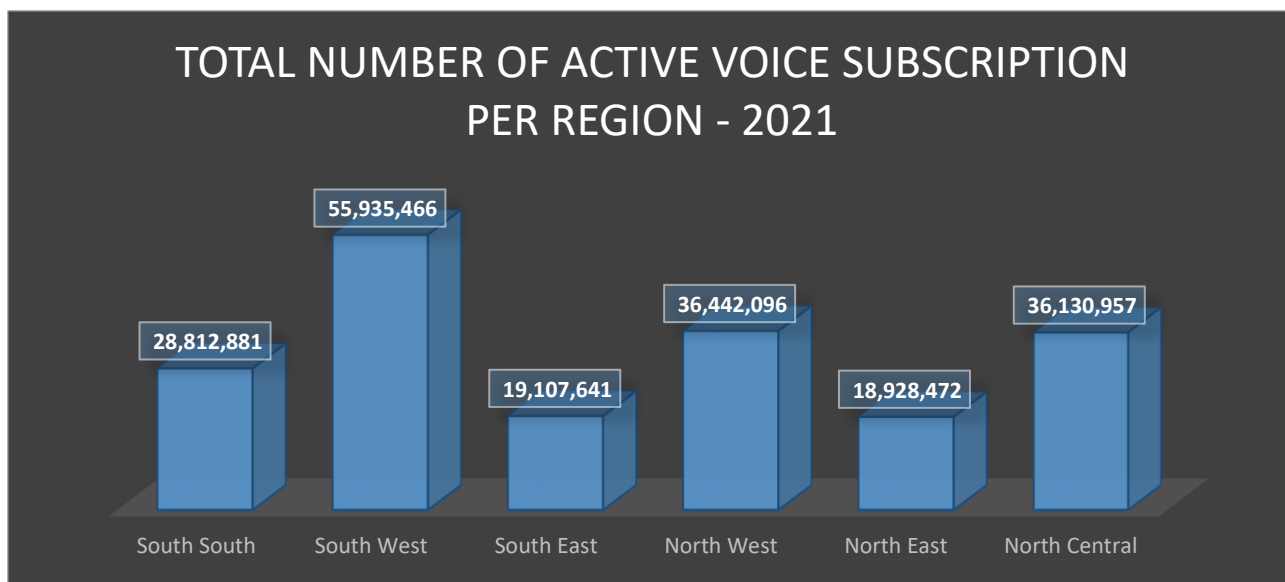


Figure 11a: Number of Active Voice Subscriptions per Region (2021)

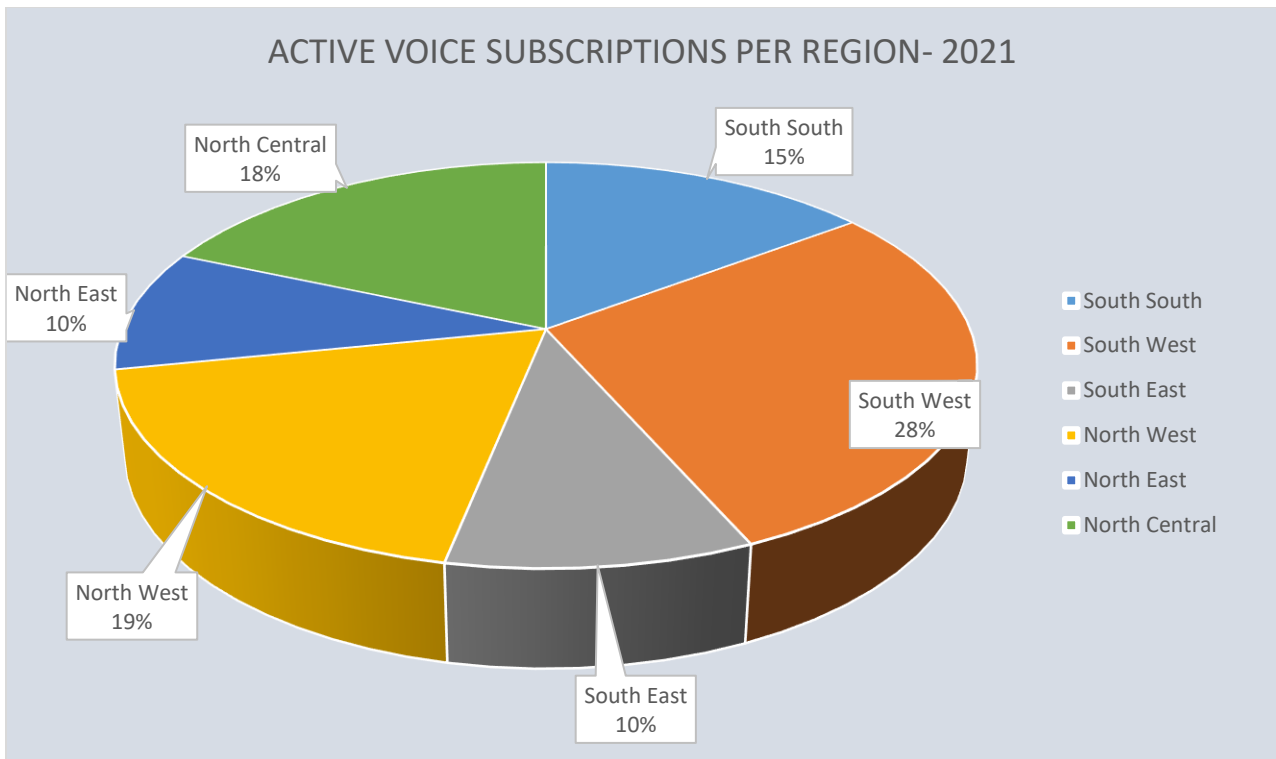


Figure 11b: Number of Active Voice Subscriptions per Region (2021)

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. This is to ensure that all registered SIM is tied to a NIN.

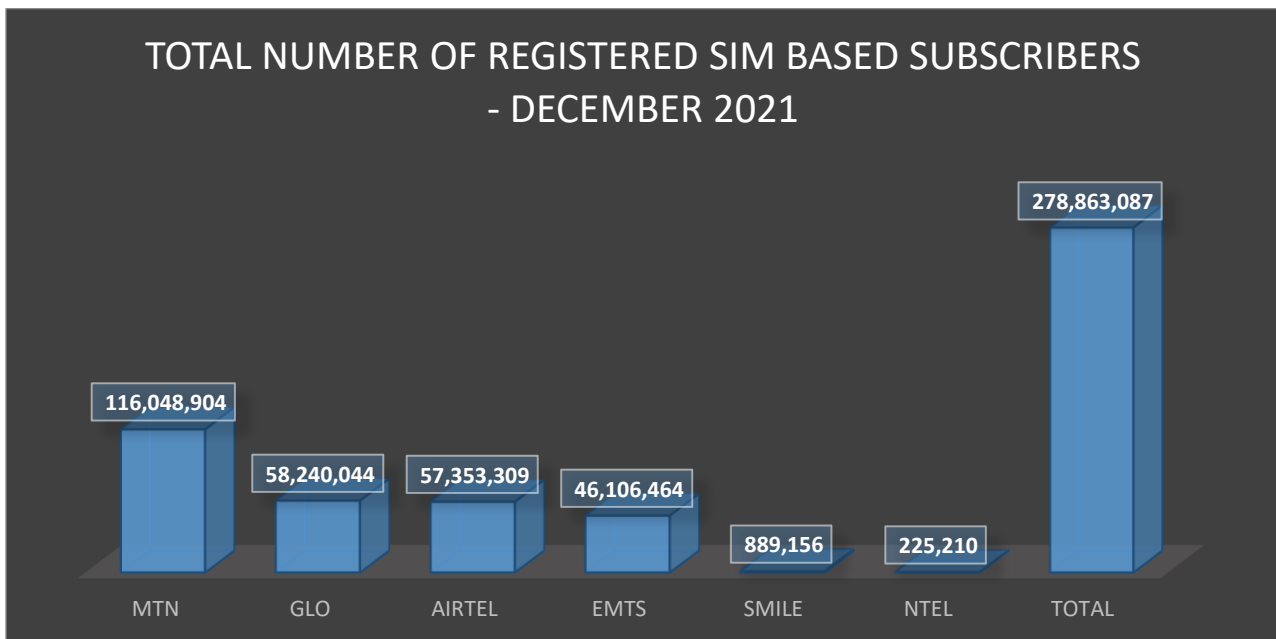


Figure 12: Total Number of Registered SIM- Based Subscribers (2021)

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 |
| TOTAL | 173,555,413,817.69 | 86,086,349,945.79 |

Table 5: Local and National Traffic in 2021

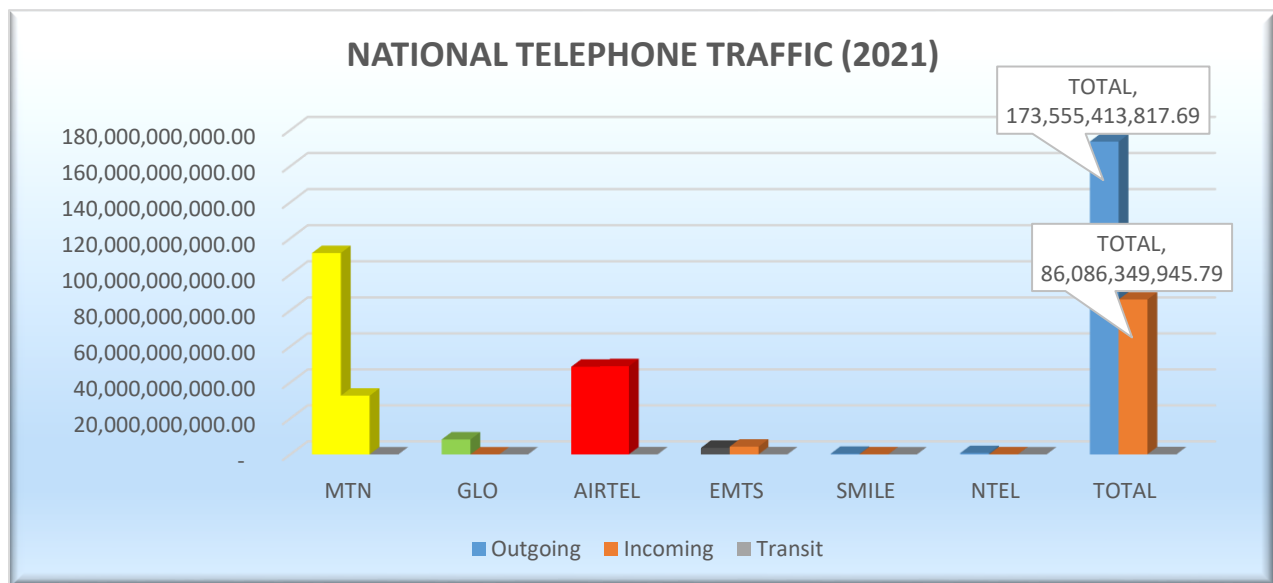


Figure 13: Local and National Telephone traffic – 2021

- 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 |
| TOTAL | 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 |
| TOTAL | 146,680,976,558.28 | 110,163,167,642.06 | 256,844,144,200.34 |

Table 7: Mobile to Mobile Voice Traffic December 2021

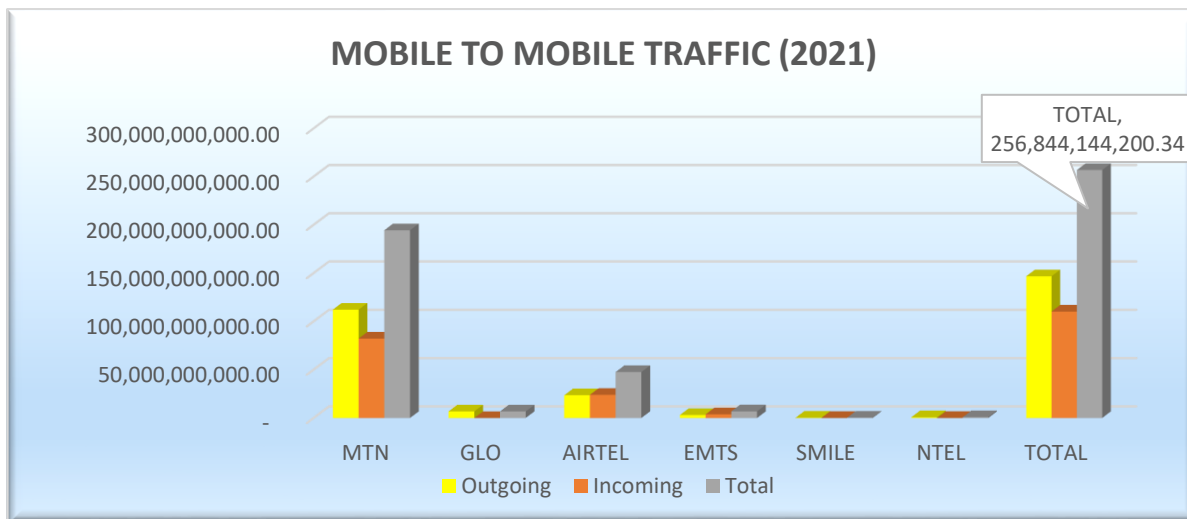


Figure 14: Mobile to Mobile traffic – December 2021

- 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 |
| TOTAL | 6,618,964,693.84 | 5,766,273,807.48 | 12,385,238,501.32 |

Table 8: Table of Mobile to Fixed Traffic in 2021

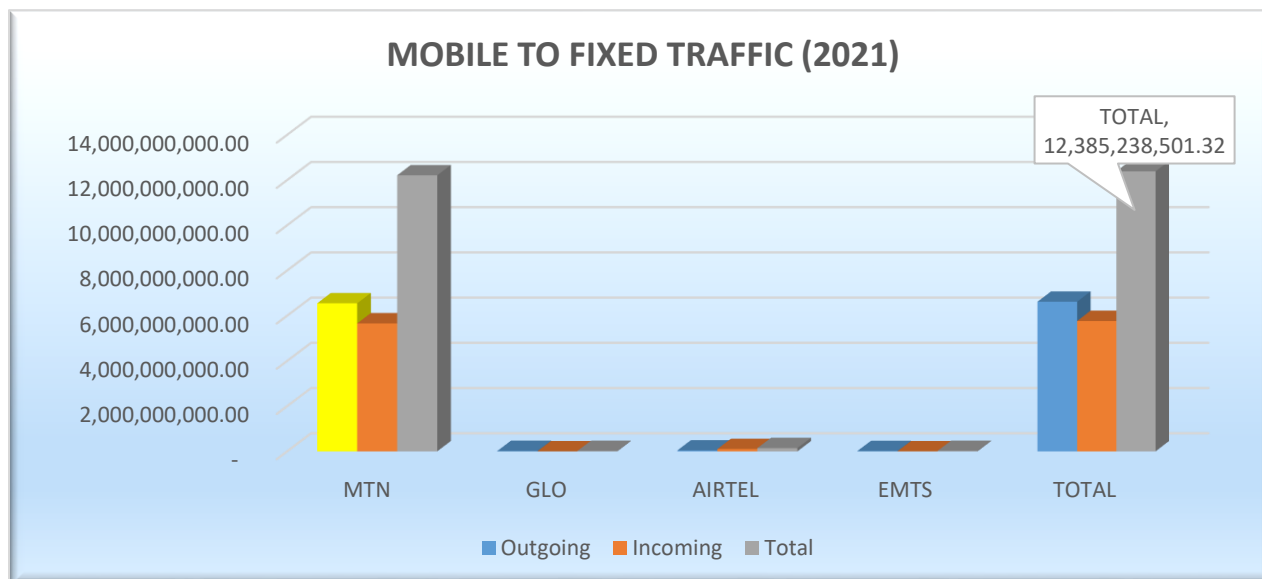


Figure 15: Mobile to Fixed traffic – December 2021

- 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 |
| TOTAL | 67,671,581.45 | 68,304,922.73 | 135,976,504.18 |

Table 9: Number of Roaming Minutes (2021)

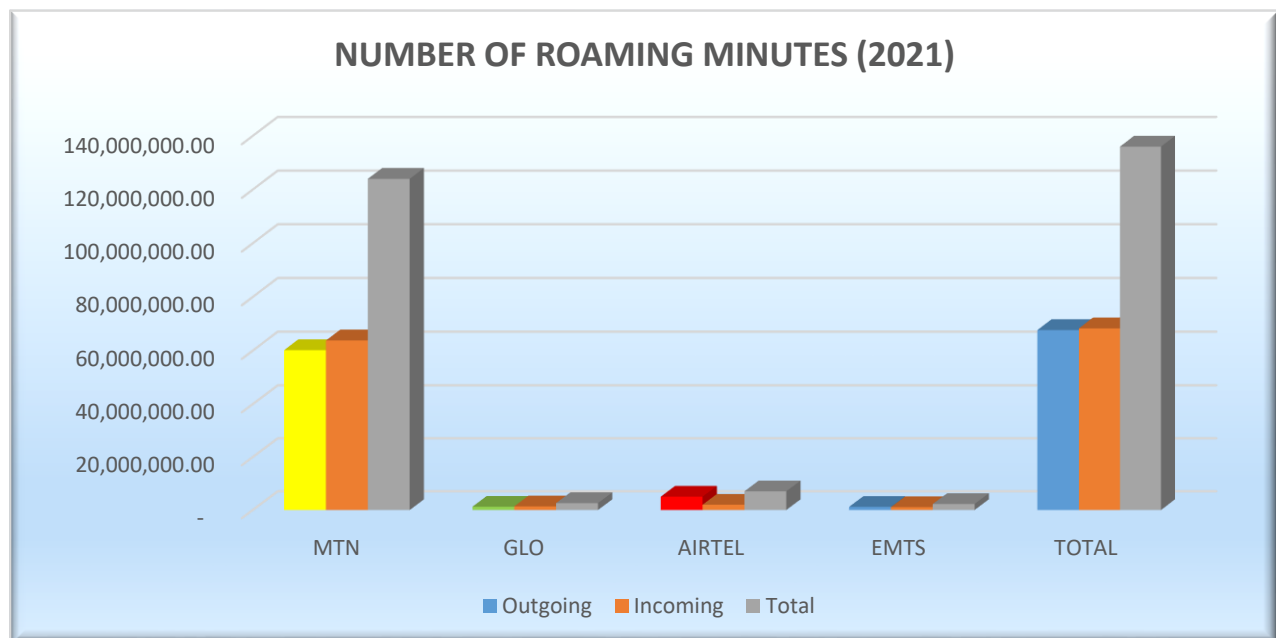


Figure 16: Number of Roaming Minutes-December 2021

- vi. **National SMS in 2021:** The Total Number of national SMS both sent and received as at December 2021 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 |
| MTN | 7,882,538,193 | 8,234,925,441 | 16,117,463,634.00 |
| GLO | 3,340,936.00 | 61,709,380.00 | 61,712,720.00 |
| AIRTEL | 1,272,460,703 | 2,056,406,293 | 3,328,866,996.00 |
| EMTS | 305,077,330.33 | 304,611,422.20 | 305,077,330.33 |
| SMILE | 265,176 | 1,023,489 | 1,288,665.00 |
| NTEL | 2,089,649.00 | 2,103,810.00 | 4,193,459.00 |
| TOTAL | 9,465,771,987.33 | 10,660,779,835.20 | 19,818,602,804.33 |

Table 10: Total number of Outgoing/Incoming Local/National SMS trend (2021)

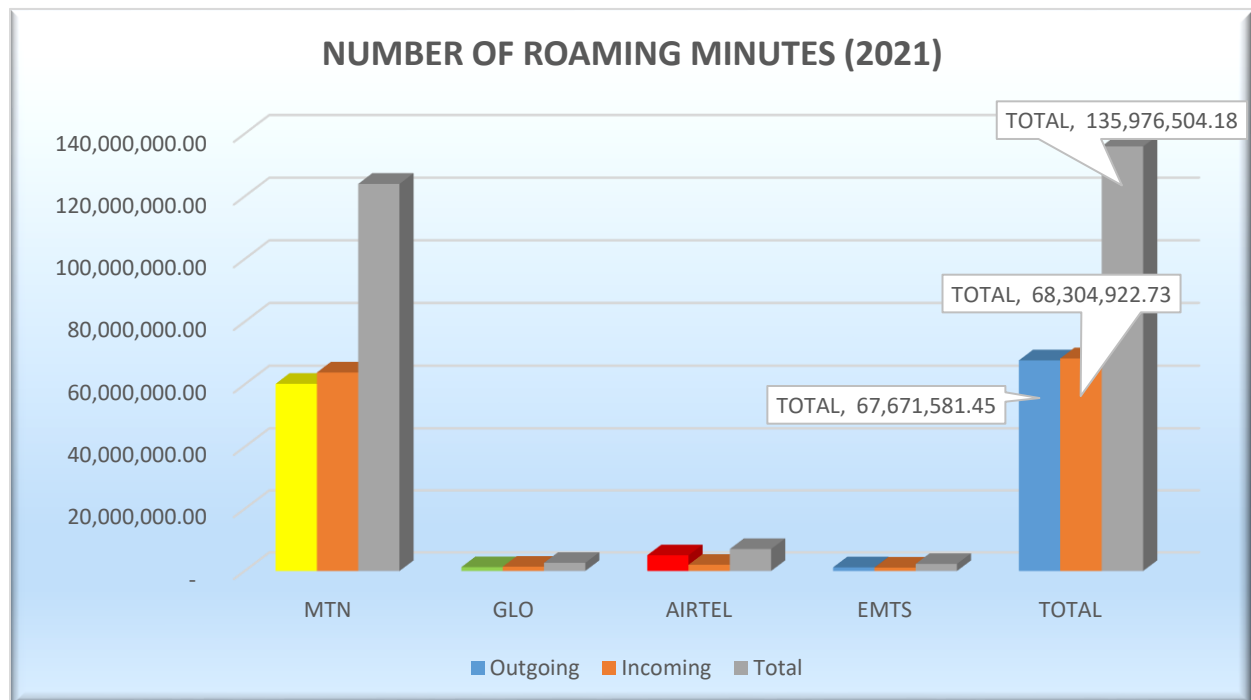


Figure 17: Total Outgoing/ Incoming SMS, Mobile December 2021

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

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

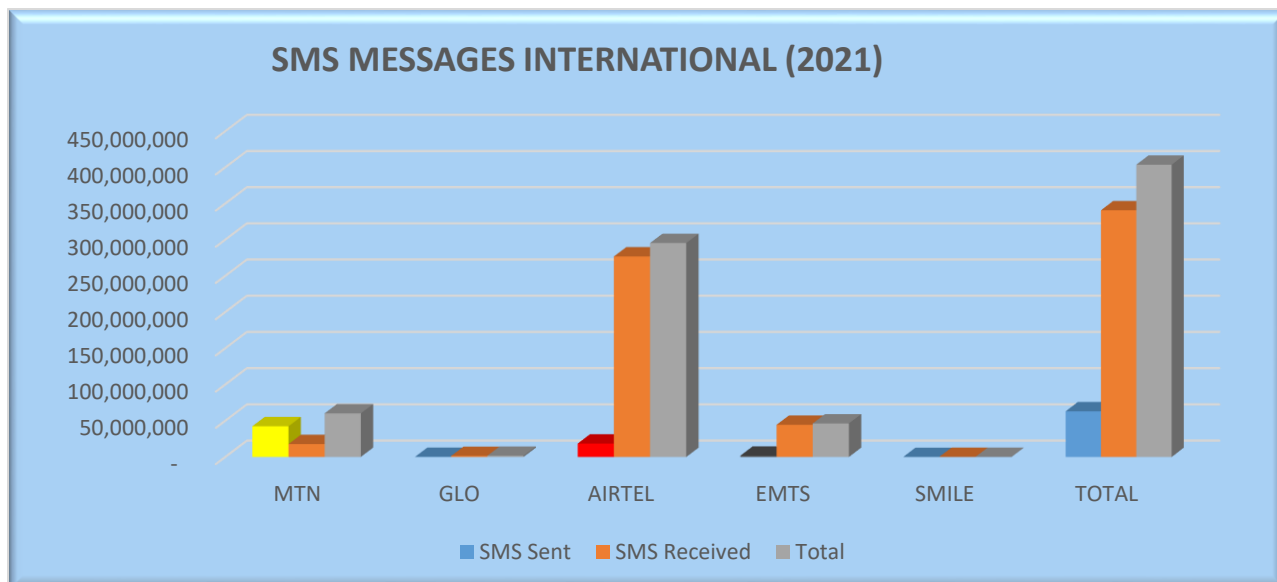


Figure 18: Total Outgoing/ Incoming SMS International, 2021

- 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 340,655,884 SMS as at December 2021. This translated to 48.6% 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 the 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 an (8%) decline in Total Active Internet Subscriptions Year on Year.

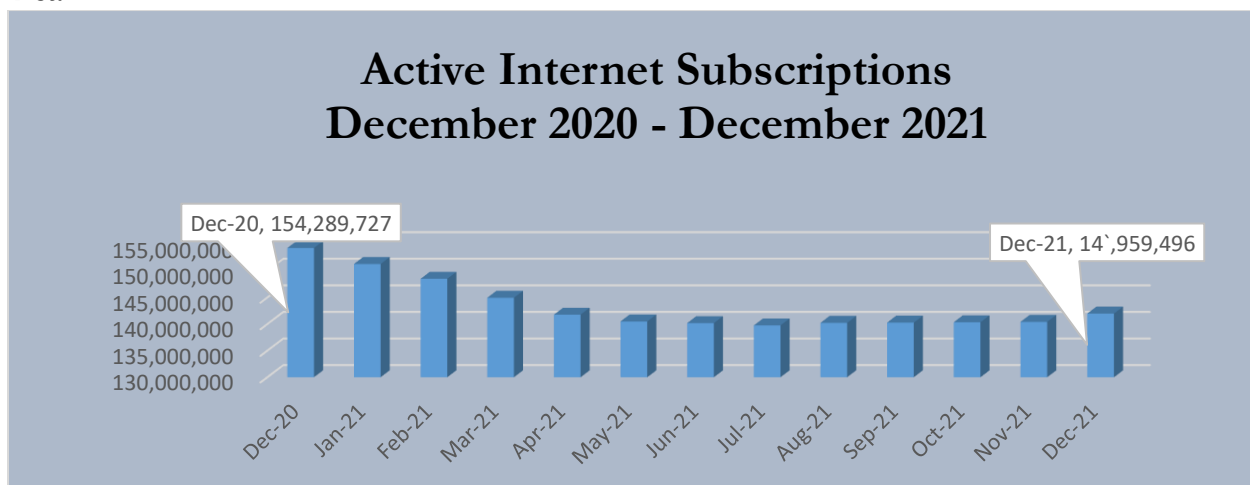


Figure 19: Active Internet Subscriptions: December, 2020 to December, 2021

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) |
| TOTAL | 154,289,727 | 141,959,496 | (12,330,231) | (8.0) |

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

- In view of 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.

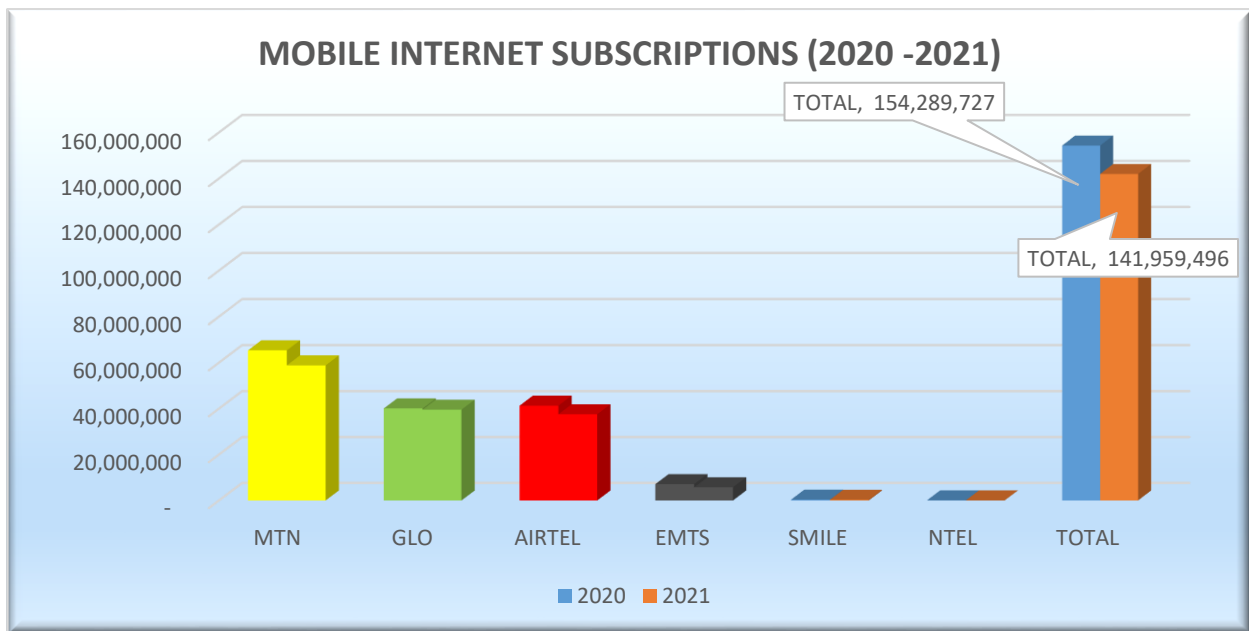


Figure 20: Total Number of Active Mobile Subscriptions – (2020- 2021)

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 |
| Dec-20 | 49,402,994 | 36,538,228 | 85,941,222 | 45.02 |
| Jan-21 | 46,189,611 | 35,760,372 | 81,949,983 | 42.93 |
| Feb-21 | 44,779,588 | 35,500,561 | 80,280,149 | 42.06 |
| Mar-21 | 42,877,861 | 35,735,828 | 78,613,689 | 41.18 |
| Apr-21 | 41,987,169 | 35,618,331 | 77,605,500 | 40.66 |
| May-21 | 40,179,564 | 35,389,878 | 75,569,442 | 39.59 |
| Jun-21 | 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

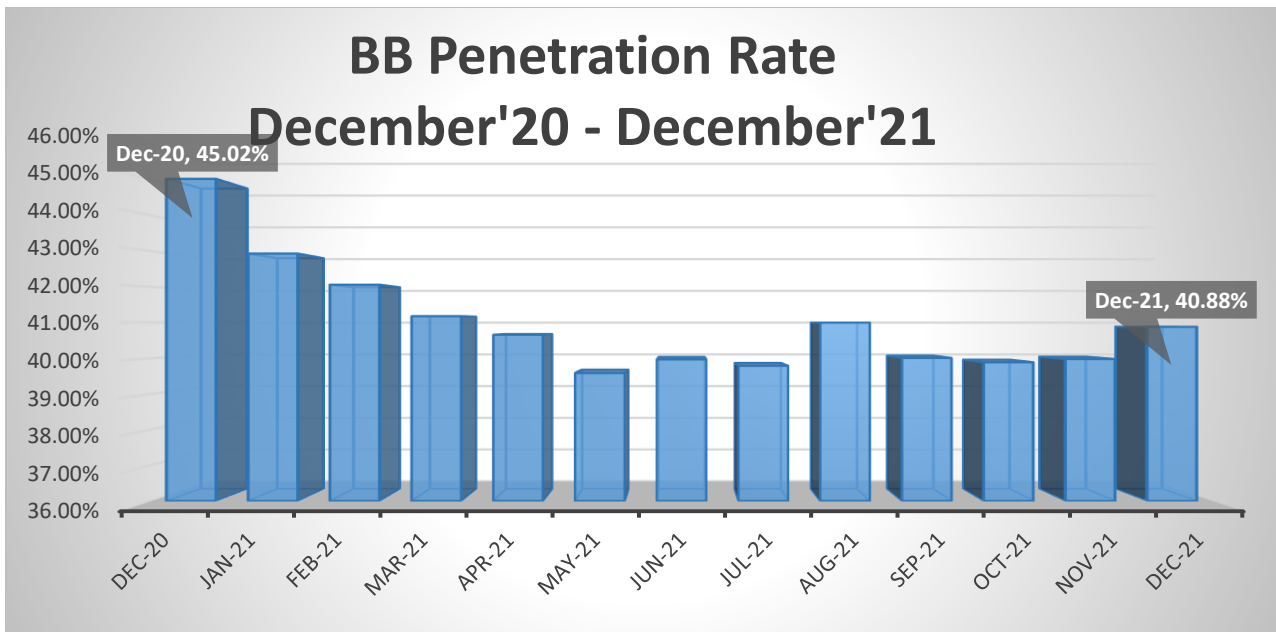


Figure 21: Active Broadband Subscriptions (2021)

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.

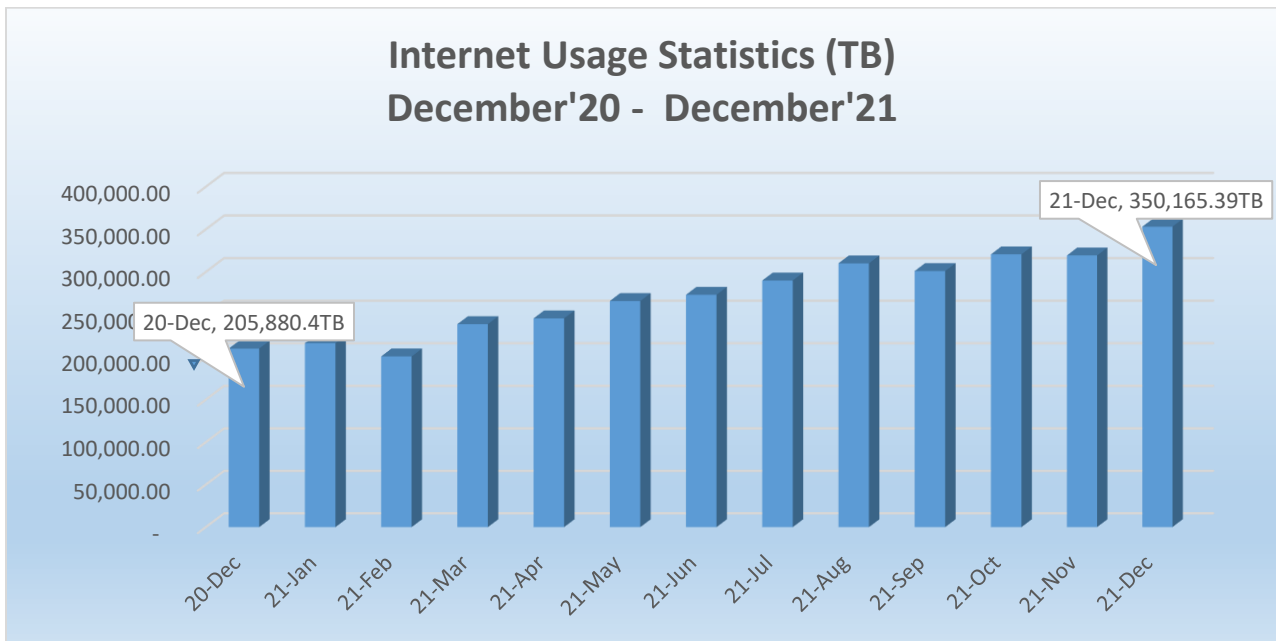


Figure 22: Internet Usage Statistics December 2020 – December, 2021

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 recorded 332,783 M2M subscriptions with MTN reporting the least with 957 subscriptions as shown in Figure 23 below;

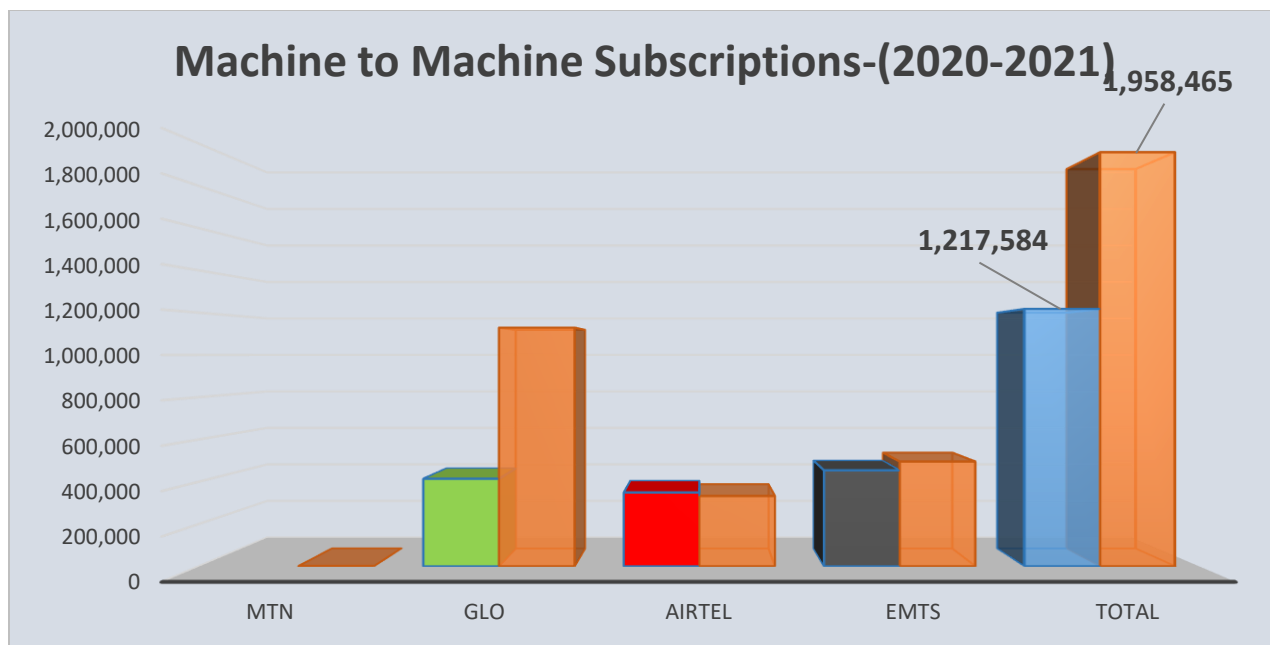


Figure 23: Machine to Machine Subscriptions (2020-2021)

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.

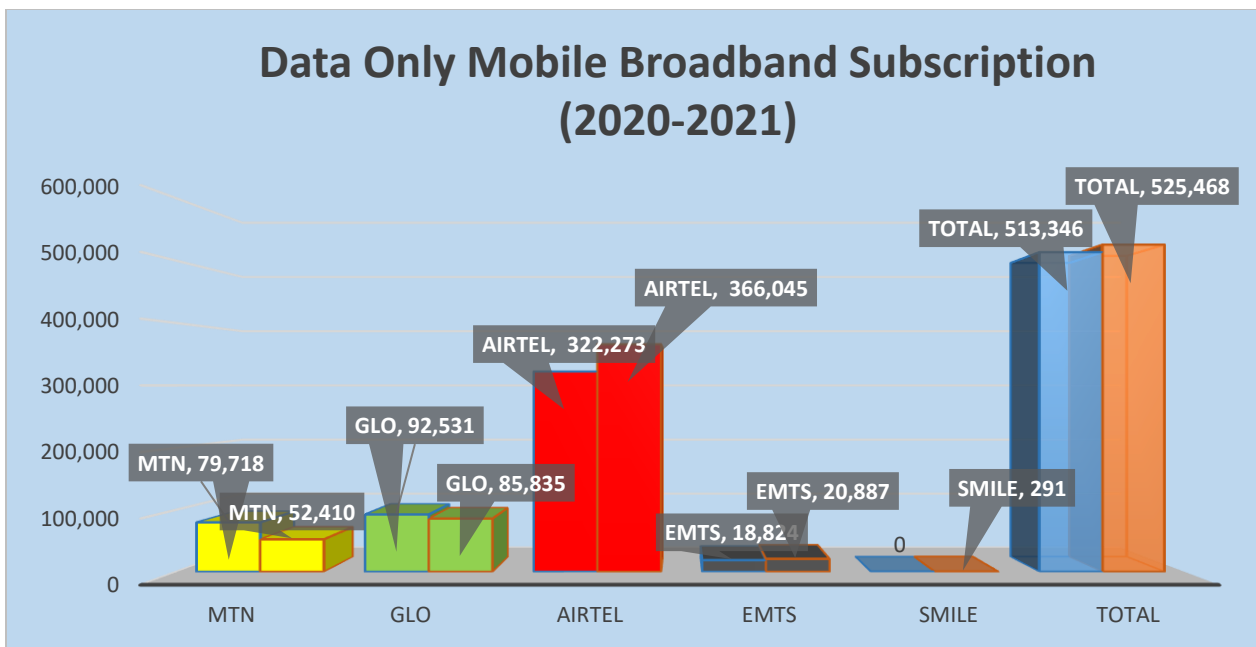


Figure 24: Data-Only Broadband Subscriptions December (2020 - 2021)

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)

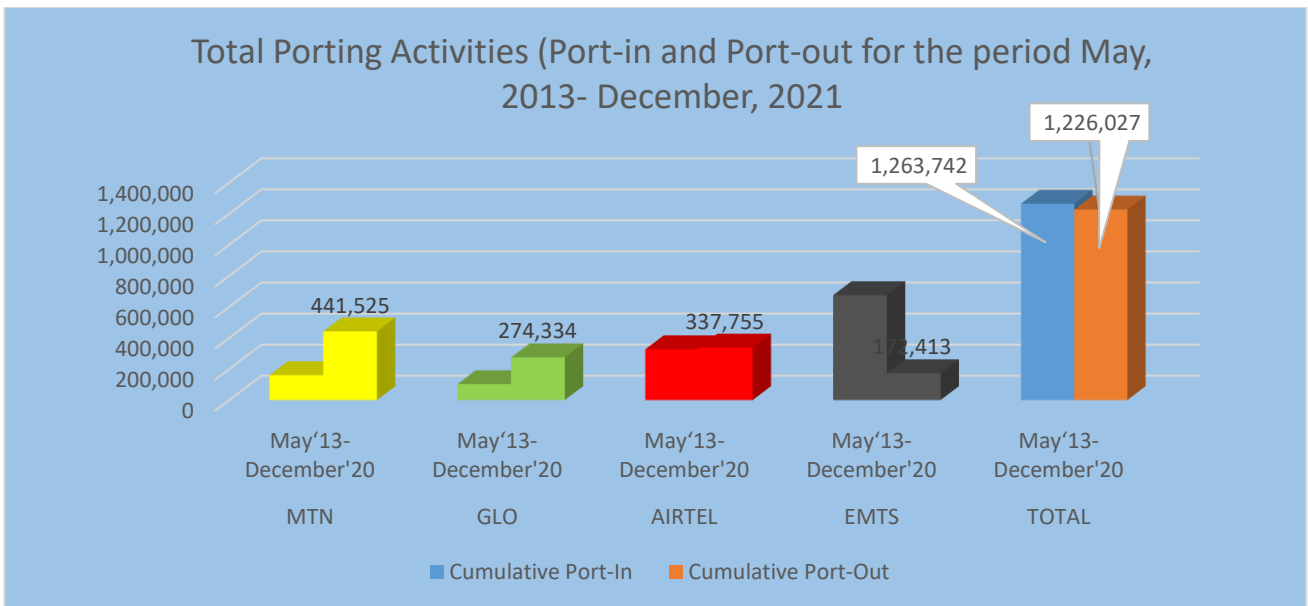


Figure 25: Cumulative Mobile Number Portability (May, 2013 – December, 2021)

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) |
| TOTAL | 182,958 | 17,467 | (90) |

Table 15: Port-In Activities 2020 - 2021

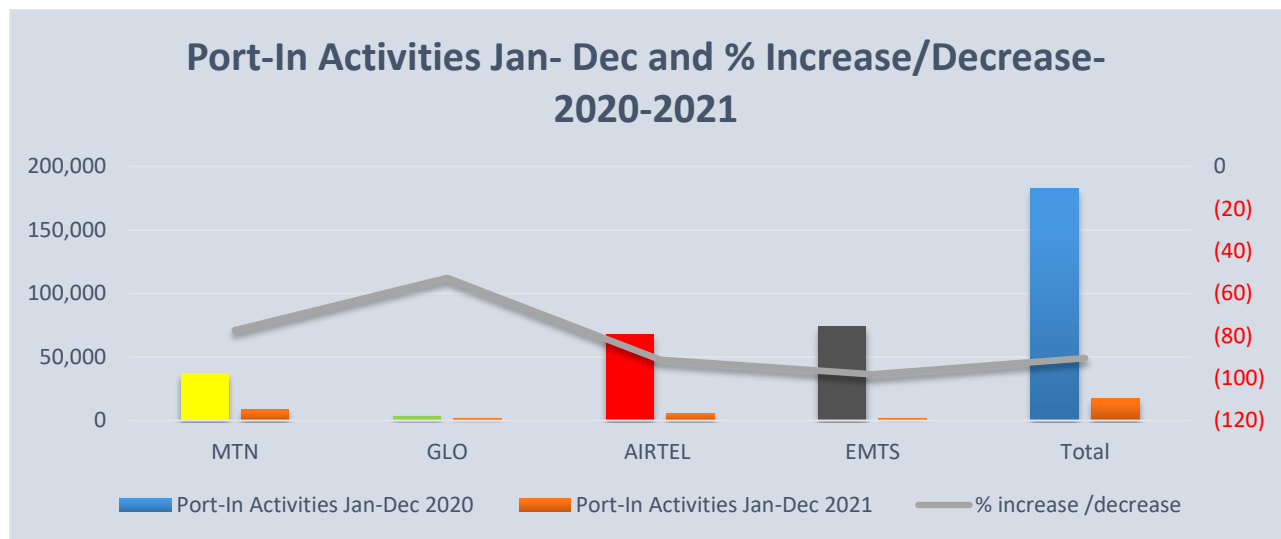


Figure 26: Port-In Activities Jan-Dec and Percentage Increase/Decrease of Port-In (2020 – 2021)

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) |
| TOTAL | 187,171 | 11,514 | (94) |

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

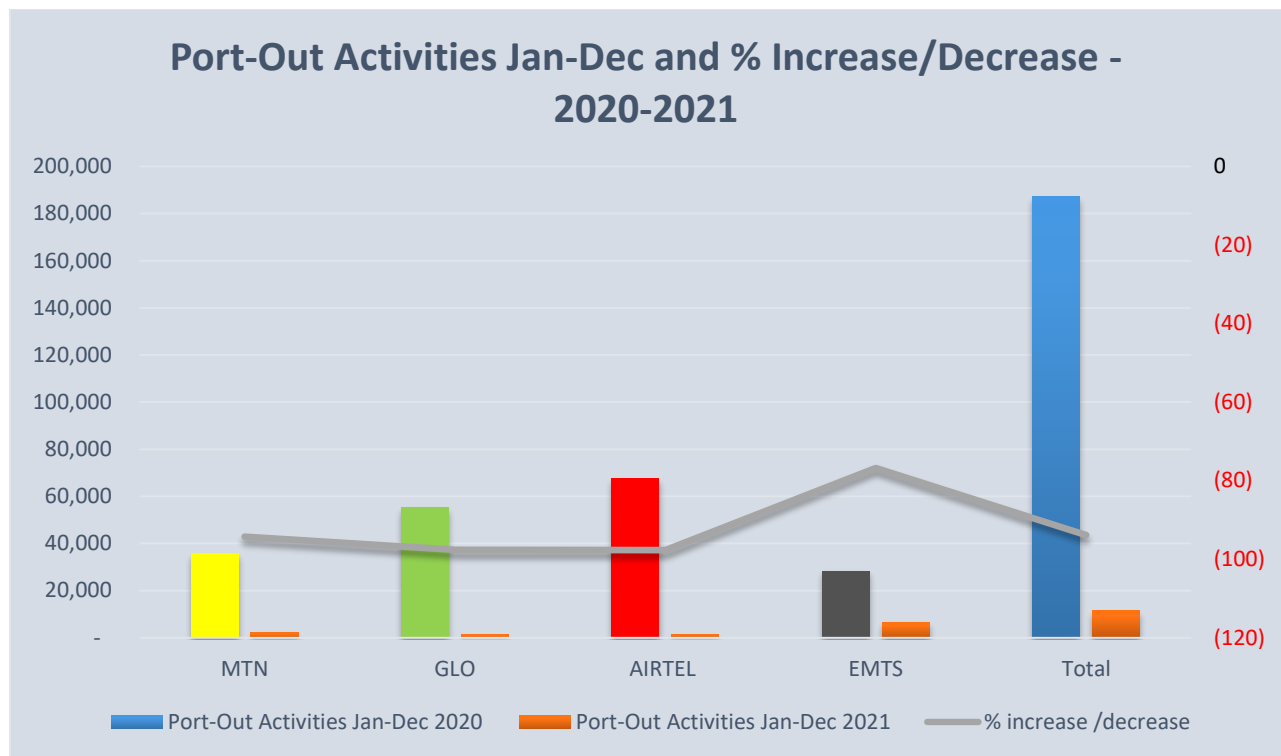


Figure 27: Port-Out Activities and Percentage Increase/Decrease of Port-Out Activities December 2020-2021

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 operator’s 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 and Big Picture; making it a total of Eight Companies which are presented in the report below:

NETWORK DATA

1. **Base Transceiver Stations:** As at December, 2021 a total of 165 base stations were recorded by operators in this category.

2. **Infrastructure Deployment:**

Fiber Optics: As at December, 2021 21st 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.

3. **Microwave Radio:** 21st Century and IpNX, jointly reported 315km in Microwave Radio deployment for 2021.

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

4. **Gateways in Use:** 21st Century, ipNX and Swift Telephone Network jointly reported a total of **10 Gateways** in use as at December 2021. 21ST 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; 21st Century reported a decline of 1.4⁰% 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 |
| TOTAL | 117,414 | 127,778 | 8.83 |

Table 1: Total Active Voice Subscriptions 2020 – 2021

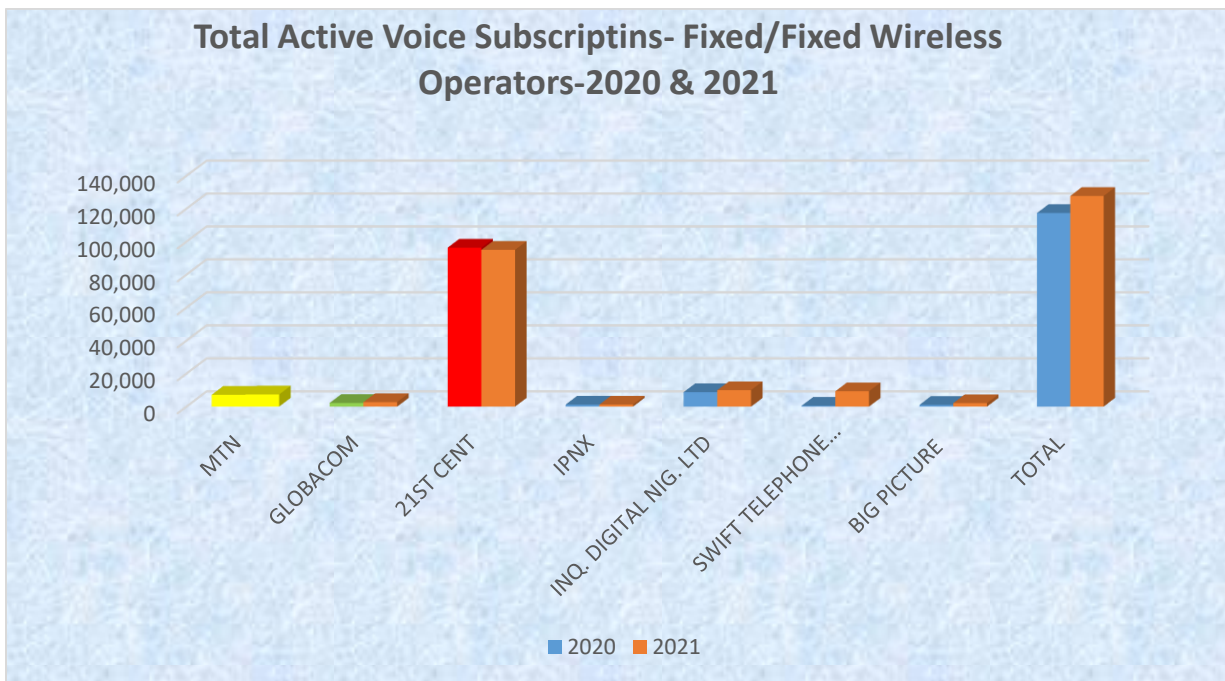


Figure 1: Total Active Voice Subscriptions (2020 - 2021)

2. **Total Active Internet Subscriptions:** As at December 2021 the Active Internet subscriptions for MTN, 21st 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**, 21st 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%**.

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

Table 2: Total Active Internet Subscriptions 2020 - 2021

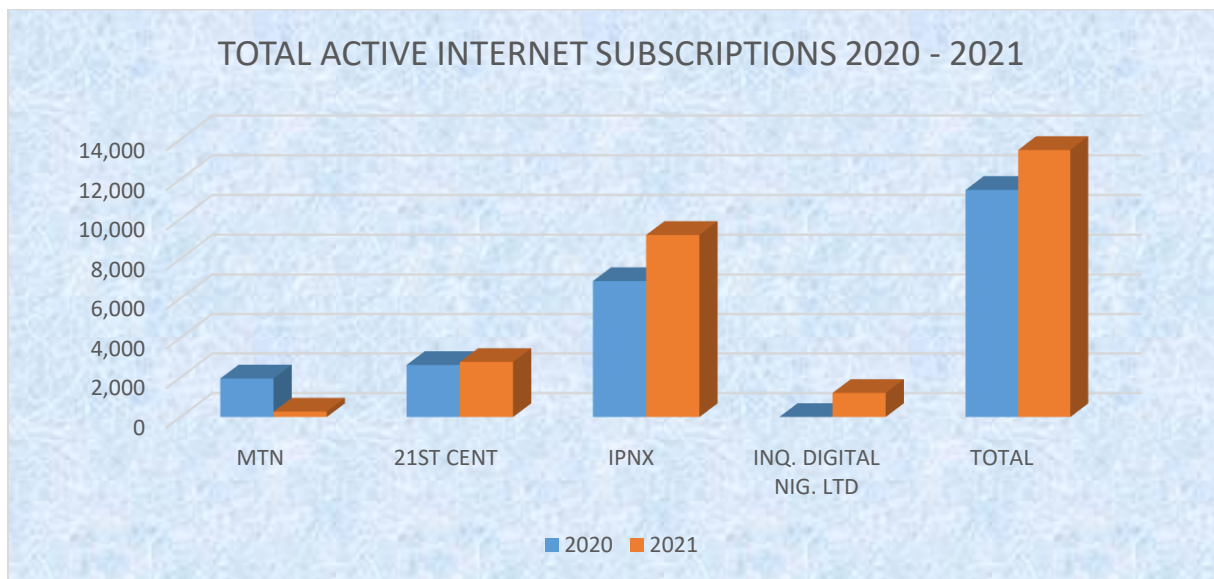


Figure 2: Total Active Internet Subscriptions 2020 - 2021

3. Fibre to the Home/ Building Subscriptions: As at December 2021 ipNX, MTN, and 21st 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.

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

Table 3: Fibre to the Home/Building Subscriptions 2021

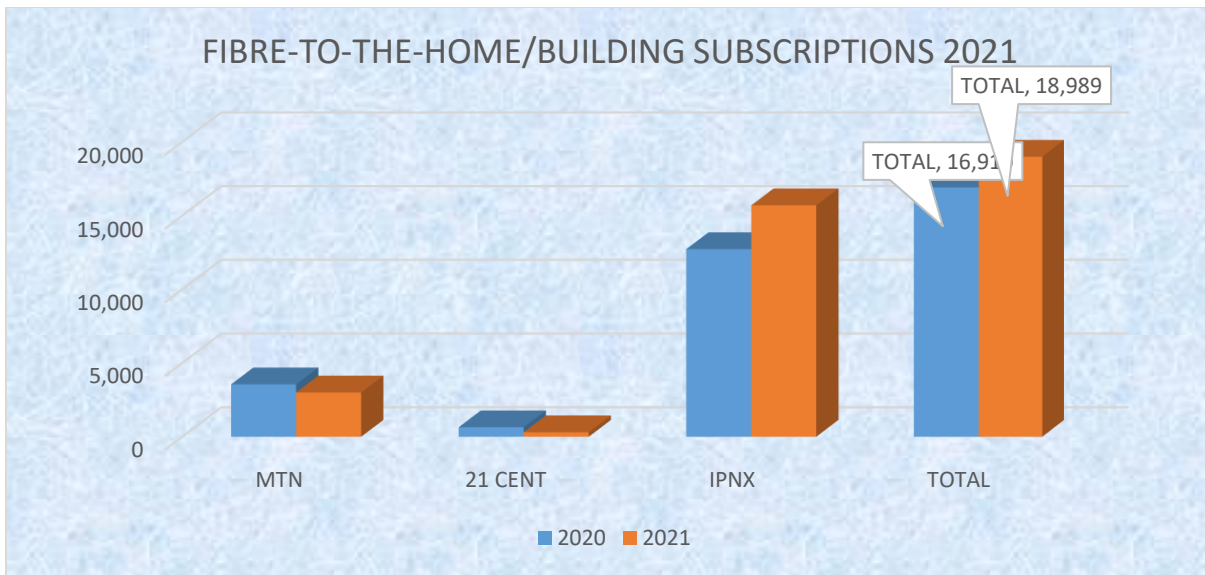


Figure 3: Fibre to the Home/Building Subscriptions 2021

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, 21st 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 |
| TOTAL | 480 | 2,371 | 17,145 | N/A |

Table 4: Fibre to the Home/Building Subscriptions 2021

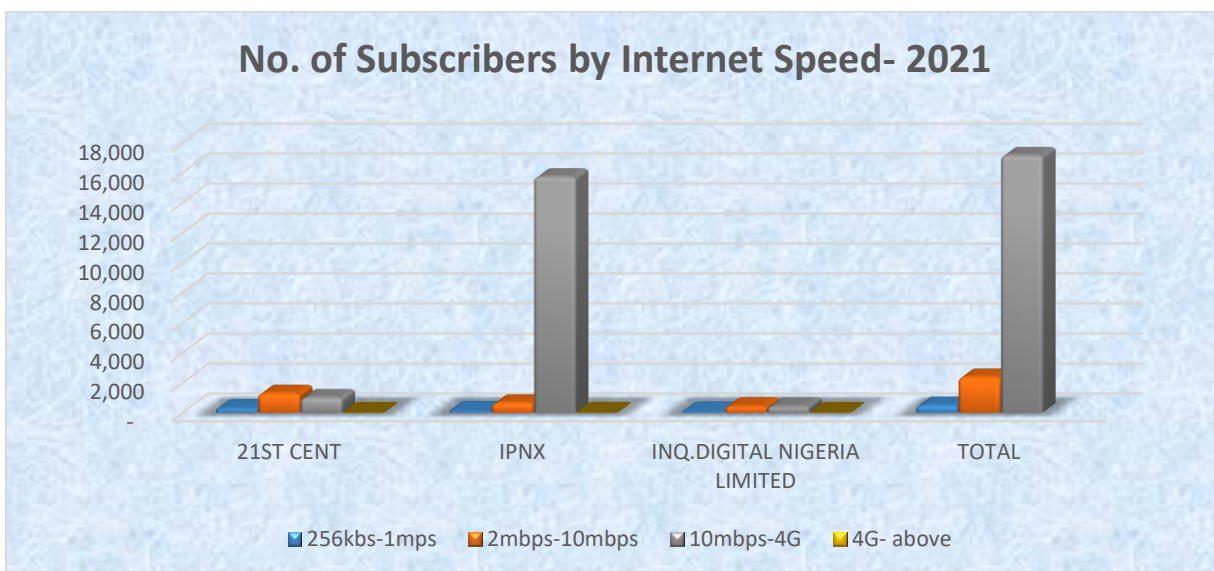


Figure 4: Number of Subscribers by Internet Speed 2021

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, 21st 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, 21st 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 **21st Century** for both Incoming and Outgoing traffic during the year under review.

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

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

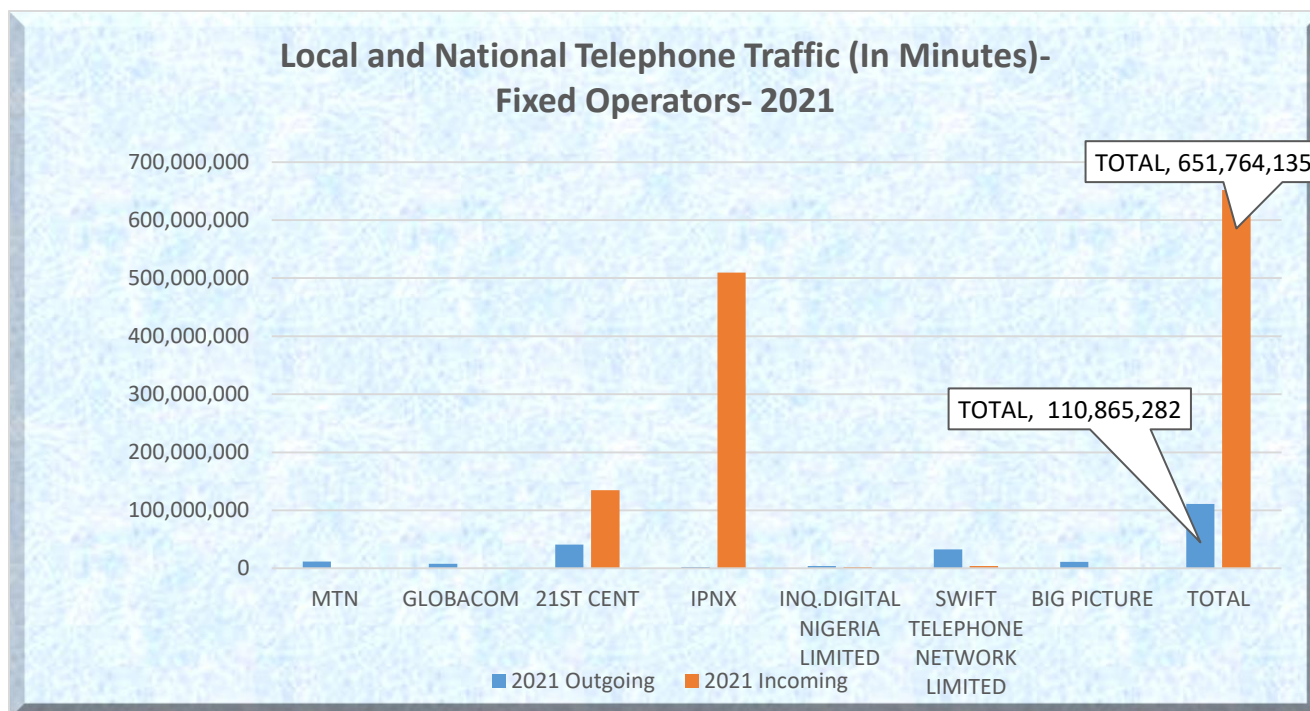


Figure 5: Total Number of Local & National Outgoing/ Incoming Calls – 2021

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 |
| TOTAL | 160,066,968 | 191,621,470 | 344,923,300 |

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

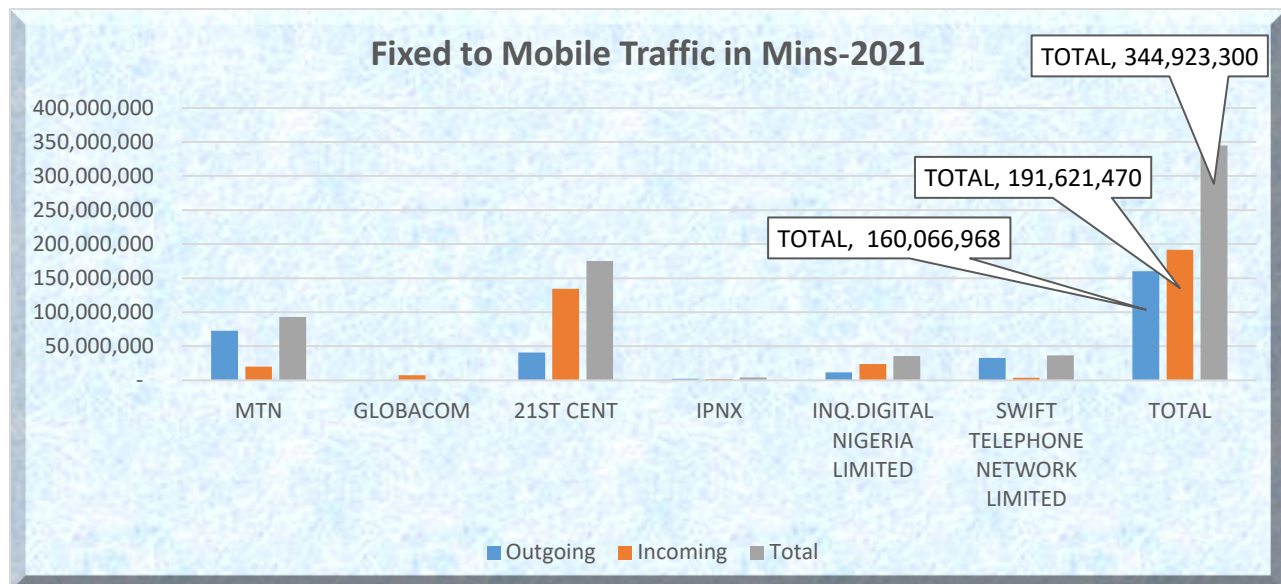


Figure 6: Total number of Fixed to Mobile Traffic (2021)

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.

Overall 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.

| OUTGOING/ORIGINATING FIXED MINUTES INTERNATIONAL TELEPHONE TRAFFIC 2021 | | | |
|---|-------------------|------------------|-------------------|
| SERVICE PROVIDERS | Outgoing | Incoming | Total |
| MTN | 81,648,938 | 239,381 | 81,888,319 |
| 21ST CENT | 1,213,940 | 4,199,245 | 5,413,185 |
| IPNX | 1,690,642 | N/A | 1,690,642 |
| INQ.DIGITAL NIGERIA LIMITED | 1,121,456 | 1,085,046 | 2,206,503 |
| TOTAL | 85,674,976 | 5,523,672 | 91,198,649 |

Table 7: Local and National Telephone Traffic 2021

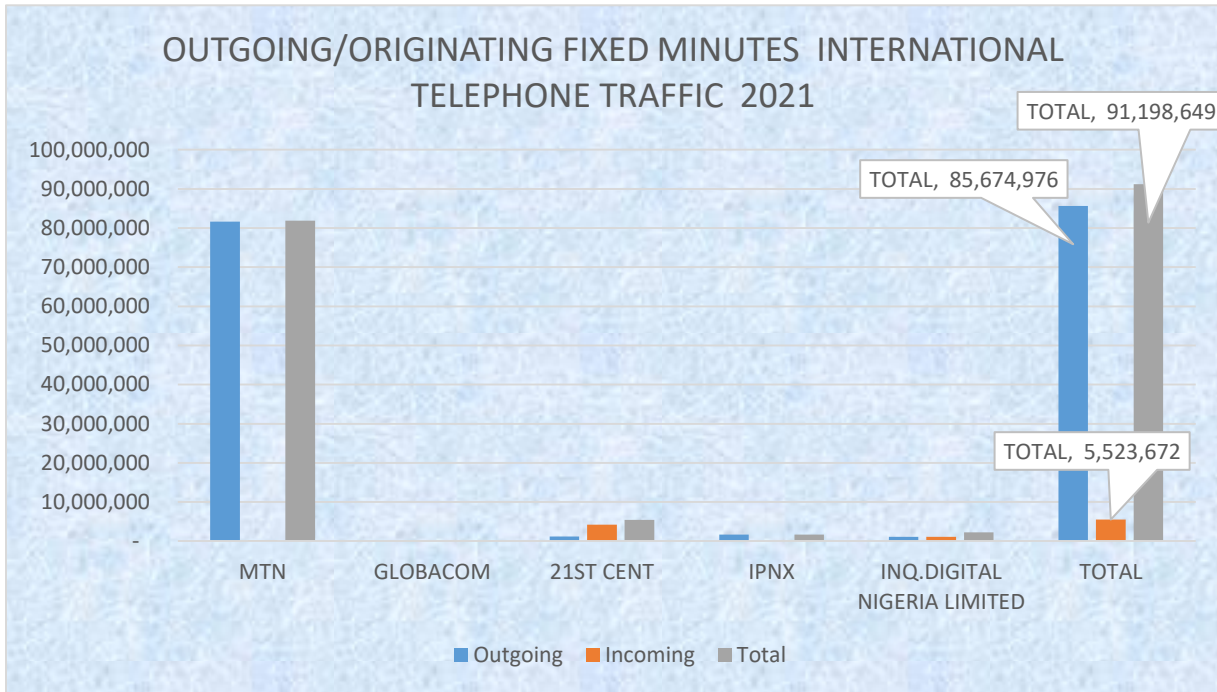


Figure 7: Total number of Outgoing/ Incoming Fixed Minutes International Traffic - 2021

D. FINANCIAL DATA

- 1. 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.
- 2. 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.
- 3. 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 (21st 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
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:

1. Point-of-Presence (POP):

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.

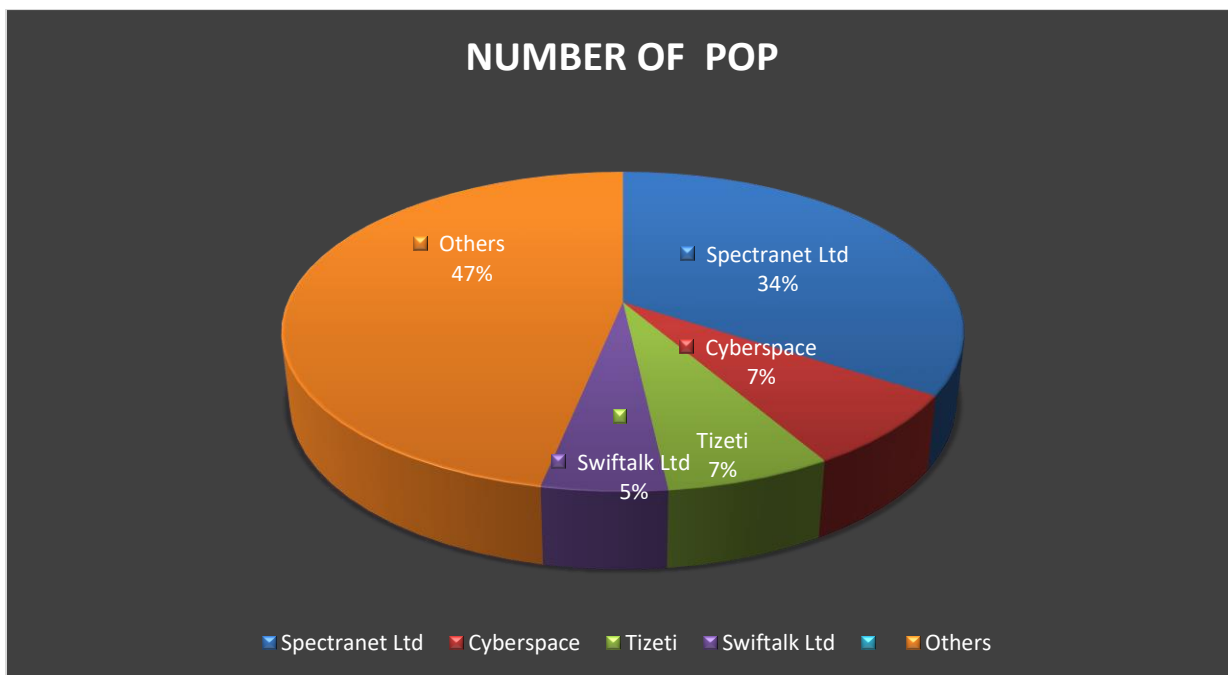


Figure 1: Point-of-Presence (POP) 2021

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%.

2. Location of Service Provider:

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 to boost the Federal Government initiative of a robust and pervasive broadband penetration.

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.

4. Operator 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.

5. Access Speed 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:

1. Total Wired Internet Subscriptions

| S/N | Number of Users Per Fixed [Wired] Internet Subscriptions | 2020 | 2021 |
|-----|--|------|-------|
| 1. | 21st Century Technologies Ltd | 0 | 2,590 |
| 2. | 5M Telecom Ltd | 0 | 299 |
| 3. | 8ight Unique Global Telecommunication Ltd | 22 | 31 |
| 4. | Access and Content Ltd | 0 | 23 |
| 5. | Arif Investment Nig Ltd | 100 | 80 |
| 6. | Bat Computer Technologies Ltd | 0 | 8 |
| 7. | Brainshare Technologies & Services Nig Ltd | 0 | 700 |
| 8. | CBC Emea Ltd | 0 | 1 |
| 9. | CITCC Nigeria Ltd | 0 | 1 |
| 10. | Cobweb Communications Ltd | 16 | 0 |
| 11. | Cyberspace Ltd | 0 | 11 |
| 12. | Dotmac Technologies Ltd | 50 | 32 |
| 13. | Ejalet Tech Ltd | 1 | 0 |
| 14. | Fibrehub Internetworking Services Ltd | 0 | 290 |
| 15. | Inq. Digital Nigeria Ltd (formerly Vodacom) | 150 | 127 |
| 16. | Internetsional Technologies Ltd | 0 | 33 |
| 17. | Interweb Satcom Ltd | 350 | 320 |
| 18. | IP Express Ltd | 0 | 707 |
| 19. | ITX Telecoms Ltd | 0 | 26 |
| 20. | Juniper solutions Ltd | 6 | 6 |
| 21. | Khal Communications Ltd | 15 | 25 |
| 22. | Layer3 Ltd | 82 | 106 |
| 23. | Nanocom International Ltd | 4 | 4 |
| 24. | Netaccess Communications Nigeria Ltd | 25 | 17 |
| 25. | Passage Telecommunications Nig Ltd | 0 | 20 |
| 26. | Platinum Index Data Ltd | 50 | 200 |
| 27. | Radical Technology Network Ltd | 0 | 20 |
| 28. | Smart City Technology Company Ltd | 0 | 300 |
| 29. | Syscodes Communications Ltd | 0 | 50 |
| 30. | Telserve Networks Ltd | 0 | 1 |

| | | | |
|-----|--------------------------|---------------|---------------|
| 31. | Tizeti Network Ltd | 15,571 | 16,621 |
| 32. | VDT Communications Ltd | 886 | 0 |
| 33. | Winrock Nigeria Ltd | 85 | 76 |
| 34. | Briclinks Africa PLC Ltd | 5 | 0 |
| 35. | Hyperia Ltd | 10 | 0 |
| 36. | Phonetime Telecoms Ltd | 60 | 0 |
| 37. | Fast feet Ltd | 112 | 0 |
| 38. | Excelsimo Networks Ltd | 120 | 0 |
| 39. | Hotspot Network Ltd | 10 | 0 |
| | Total | 17,730 | 22,725 |

Table 1: 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.

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

| S/N | Average Number of Users Per Fixed Internet Subscriptions [Broadband] | 2020 | 2021 |
|-----|--|------|------|
| 1. | 8ight Unique Global Telecommunication Ltd | 22 | 31 |
| 2. | Access Solutions Ltd | 0 | 54 |
| 3. | Arif Investment Nig Ltd | 100 | 80 |
| 4. | Bat Computer Technologies Ltd | 0 | 50 |
| 5. | Brainshare Technologies & Services Nig Ltd | 0 | 2 |
| 6. | CBC Emea Ltd | 450 | 20 |
| 7. | Cobweb Communications Ltd | 0 | 22 |
| 8. | Cyberspace Ltd | 0 | 152 |
| 9. | Dotmac Technologies Ltd | 25 | 223 |
| 10. | Ejalet Tech Ltd | 1 | 0 |
| 11. | Fibrehub Internetworking Services Ltd | 0 | 215 |
| 12. | Information Connectivity Solutions Ltd (ICSL) | 48 | 0 |
| 13. | Internetsional Technologies Ltd | 0 | 15 |
| 14. | Interweb Satcom Ltd | 300 | 250 |

| | | | |
|-----|------------------------------------|----------------|----------------|
| 15. | IP Express Ltd | 0 | 707 |
| 16. | ITX Telecoms Ltd | 0 | 1 |
| 17. | I-World Networks Ltd | 502 | 850 |
| 18. | Juniper solutions Ltd | 6 | 6 |
| 19. | Khal Communications Nigeria Ltd | 70 | 90 |
| 20. | Layer3 Ltd | 99 | 113 |
| 21. | Nanocom International Ltd | 38 | 52 |
| 22. | Passage Telecommunications Nig Ltd | 0 | 20 |
| 23. | Platinum Index Data Ltd | 30 | 170 |
| 24. | Radical Technology Network Ltd | 30 | 30 |
| 25. | Skymax Integrated Network Ltd | 5 | 7 |
| 26. | Smart City Technology Company Ltd | 0 | 100 |
| 27. | Spectranet Ltd | 247,686 | 250,787 |
| 28. | Syscodes Communications Ltd | 0 | 10 |
| 29. | Tehilah Base Digital Ltd | 305 | 323 |
| 30. | Telsolve Networks Ltd | 0 | 1 |
| 31. | Tizeti Network Ltd | 5 | 5 |
| 32. | Winrock Ltd | 85 | 76 |
| 33. | Briclinks Africa PLC Ltd | 7 | 0 |
| 34. | Excelsimo Networks Ltd | 90 | 0 |
| 35. | Fast feet Ltd | 80 | 0 |
| 36. | Hotspot Network Ltd | 9 | 0 |
| 37. | Hyperia Ltd | 10 | 0 |
| 38. | Phonetime Telecoms Ltd | 46 | 0 |
| 39. | Wavetek Ltd | 4 | 0 |
| | Total | 250,053 | 254,462 |

Table 2: 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%.

3. Digital Subscriber Line (DSL) Internet Subscriptions

| S/N | Average Number of Users Per Cable Modem Internet Subscriptions | 2020 | 2021 |
|-----|--|------------|--------------|
| 1. | 21st Century Technologies Ltd | 0 | 2,590 |
| 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 |
| | Total | 411 | 3,292 |

Table 3: 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.

4. Fiber to Home/Building (FTTH)

| | Fibre to the Home/Building | 2020 | 2021 |
|----|--|--------|--------|
| 1 | 8ight Unique Global Telecommunication Ltd | 4 | 4 |
| 2 | Access and Content Ltd | 0 | 23 |
| 3 | Access Solutions Ltd | 4 | 3 |
| 4 | Brainshare Technologies & Services Nig Ltd | 0 | 757 |
| 5 | CBC Emea Ltd | 0 | 1 |
| 6 | CITCC Nigeria Ltd | 0 | 1 |
| 7 | Ciudad Infrastructure Ltd | 19 | 92 |
| 8 | Clear Sky Broadband Ventures Ltd | 0 | 5 |
| 9 | Cobranet Ltd | 57 | 96 |
| 10 | Content Oasis Ltd | 0 | 2 |
| 11 | Dotmac Technologies Ltd | 390 | 0 |
| 12 | Estream Ltd | 12 | 17 |
| 13 | Fibrehub Internetworking Services Ltd | 0 | 215 |
| 14 | Galaxy Backbone Ltd | 0 | 325 |
| 15 | Gutti Global Solutions Ltd | 1 | 1 |
| 16 | IDS Africa Ltd | 0 | 40 |
| 17 | Internetsional Technologies Ltd | 0 | 1 |
| 18 | IP Express Ltd | 0 | 41 |
| 19 | IPNX Nigeria Ltd | 13,192 | 15,689 |
| 20 | Juniper solutions Ltd | 6 | 15 |

| | | | |
|----|-----------------------------------|---------------|---------------|
| 21 | Layer3 Ltd | 62 | 266 |
| 22 | Nanocom International Ltd | 4 | 2 |
| 23 | Platinum Index Data Ltd | 15 | 15 |
| 24 | Radical Technology Network Ltd | 0 | 25 |
| 25 | Smart City Technology Company Ltd | 0 | 15 |
| 26 | Spectranet Nigeria Ltd | 187 | 539 |
| 27 | Teleweb Services Ltd | 0 | 133 |
| 28 | Telserve Networks Ltd | 0 | 1 |
| 29 | VDT Communications Ltd | 181 | 190 |
| 30 | Winrock Ltd | 61 | 76 |
| 31 | Briclinks Africa PLC Ltd | 35 | 0 |
| 32 | Excelsimo Networks Ltd | 130 | 0 |
| 33 | Galaxy backbone Ltd | 302 | 0 |
| 34 | Phonetime Telecoms Ltd | 40 | 0 |
| 35 | Hotspot Network Ltd | 4 | 0 |
| | Total | 14,706 | 18,590 |

Table 4: 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.

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

| S/N | Total Number of Terrestrial Subscriptions (Fixed and Fixed Wireless) | 2020 | 2021 |
|-----|---|-------|-------|
| 1 | 5M Telecom Ltd | 0 | 299 |
| 2 | 8ight Unique Global Telecommunication Ltd | 22 | 31 |
| 3 | Access Solutions Ltd | 0 | 54 |
| 4 | Arif Investment Nig Ltd | 100 | 90 |
| 5 | Bat Computer Technologies Ltd | 41 | 66 |
| 6 | BridgeOne Telecoms Ltd | 19 | 39 |
| 7 | CBC Emea Ltd | 0 | 38 |
| 8 | Cobranet Ltd | 3,401 | 3,397 |
| 9 | Comternet World Ltd | 0 | 63 |
| 10 | Coz Internet Ltd | 150 | 180 |
| 11 | Dimension Data Ltd | 605 | 679 |
| 12 | Dotmac Technologies Ltd | 475 | 0 |
| 13 | Ekovolt Ltd | 0 | 50 |
| 14 | Estream Ltd | 119 | 149 |

| | | | |
|----|--|----------------|----------------|
| 15 | Futurecom Ltd | 28 | 26 |
| 16 | Galaxy Information Technology and Telecommunications Ltd | 0 | 37 |
| 17 | Galaxy Backbone Ltd | 0 | 325 |
| 18 | IDS Africa Ltd | 3 | 44 |
| 19 | Information connectivity solutions (ICSL) Ltd | 332 | 581 |
| 20 | Inq. Digital Nigeria Ltd (formerly Vodacom) | 970 | 923 |
| 21 | Interweb Satcom Ltd | 300 | 180 |
| 22 | ITX Telecoms Ltd | 0 | 16 |
| 23 | Juniper Solutions Ltd | 99 | 105 |
| 24 | Layer3 Ltd | 102 | 113 |
| 25 | Nanocom International Ltd | 42 | 56 |
| 26 | Odua telecoms Ltd | 0 | 4 |
| 27 | One Network Integrated Links Ltd | 8 | 5 |
| 28 | Orange Business Ltd | 0 | 150 |
| 29 | Passage Telecommunications Nig Ltd | 0 | 20 |
| 30 | Radical Technology Network Ltd | 420 | 422 |
| 31 | Skymax Ltd | 168 | 353 |
| 32 | Syscodes Communications Ltd | 0 | 229 |
| 33 | Tehilah Base Digital Ltd | 305 | 323 |
| 34 | Telserve Networks Ltd | 0 | 20 |
| 35 | Tizeti Network Ltd | 152,386 | 152,386 |
| 36 | Trakatel Ltd | 0 | 105 |
| 37 | VDT Communications Ltd | 1,151 | 3,168 |
| 38 | Zeta-web Nigeria Ltd | 0 | 48 |
| 39 | Briclinks Africa PLC Ltd | 103 | 0 |
| 40 | Phonetime Telecoms Ltd | 45 | 0 |
| 41 | Excelsimo Networks Ltd | 426 | 0 |
| 42 | Galaxy backbone Ltd | 302 | 0 |
| | TOTAL | 162,122 | 164,774 |

Table 5: 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.

6. Total Number of Satellite Subscriptions

| S/N | Total number of Satellite Internet Subscriptions | 2020 | 2021 |
|-----|--|--------------|--------------|
| 1 | Arif Investment Nig Ltd | 100 | 0 |
| 2 | CBC Emea Ltd | 174 | 236 |
| 3 | Clear Sky Broadband Ventures Ltd | 0 | 11 |
| 4 | Cyberspace Ltd | 0 | 47 |
| 5 | Dimension Data Ltd | 33 | 15 |
| 6 | Estream Ltd | 9 | 3 |
| 7 | Galaxy Backbone Ltd | 0 | 356 |
| 8 | Information Connectivity Solutions (ICSL) Ltd | 12 | 12 |
| 9 | Inq. Digital Nigeria Ltd (formerly Vodacom) | 16 | 10 |
| 10 | Internetsional Technologies Ltd | 0 | 27 |
| 11 | Interweb Satcom Ltd | 350 | 300 |
| 12 | IP Express Ltd | 0 | 700 |
| 13 | MainOne Ltd | 5 | 3 |
| 14 | Radical Technology Network Ltd | 895 | 1500 |
| 15 | Sea Net Technologies Ltd | 14 | 12 |
| 16 | Skymax Ltd | 11 | 8 |
| 17 | Zeta-web Nigeria Ltd | 241 | 289 |
| 18 | Galaxy backbone Ltd | 148 | 0 |
| 19 | Hyperia | 1230 | 0 |
| | Total | 3,238 | 3,529 |

Table 6: 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.

7. Subscriber Matrix by Organisation (Internet Use)

| | SUBSCRIBER MATRIX | TOTALS | PERCENTAGE |
|-----|---------------------------------|---------|------------|
| 1. | Government | 1,048 | 0.33% |
| 2. | NGOs | 625 | 0.20% |
| 3. | Multinationals | 445 | 0.14% |
| 4. | Schools & Research Institutions | 25,860 | 8.26% |
| 5. | Residential/Individual | 247,493 | 79.01% |
| 6. | Private Businesses | 32,571 | 10.40% |
| 7. | Cybercafes | 1,194 | 0.38% |
| 8. | Hospitals & Medical Research | 566 | 0.18% |
| 9. | Public Libraries | 25 | 0.01% |
| 10. | Military | 254 | 0.08% |
| 11. | Public Security Services | 42 | 0.01% |
| 12. | Others | 3,103 | 0.99% |

| | | |
|-------|---------|---------|
| Total | 313,226 | 100.00% |
|-------|---------|---------|

Table 7: Number of Subscriber Matrix December 2021

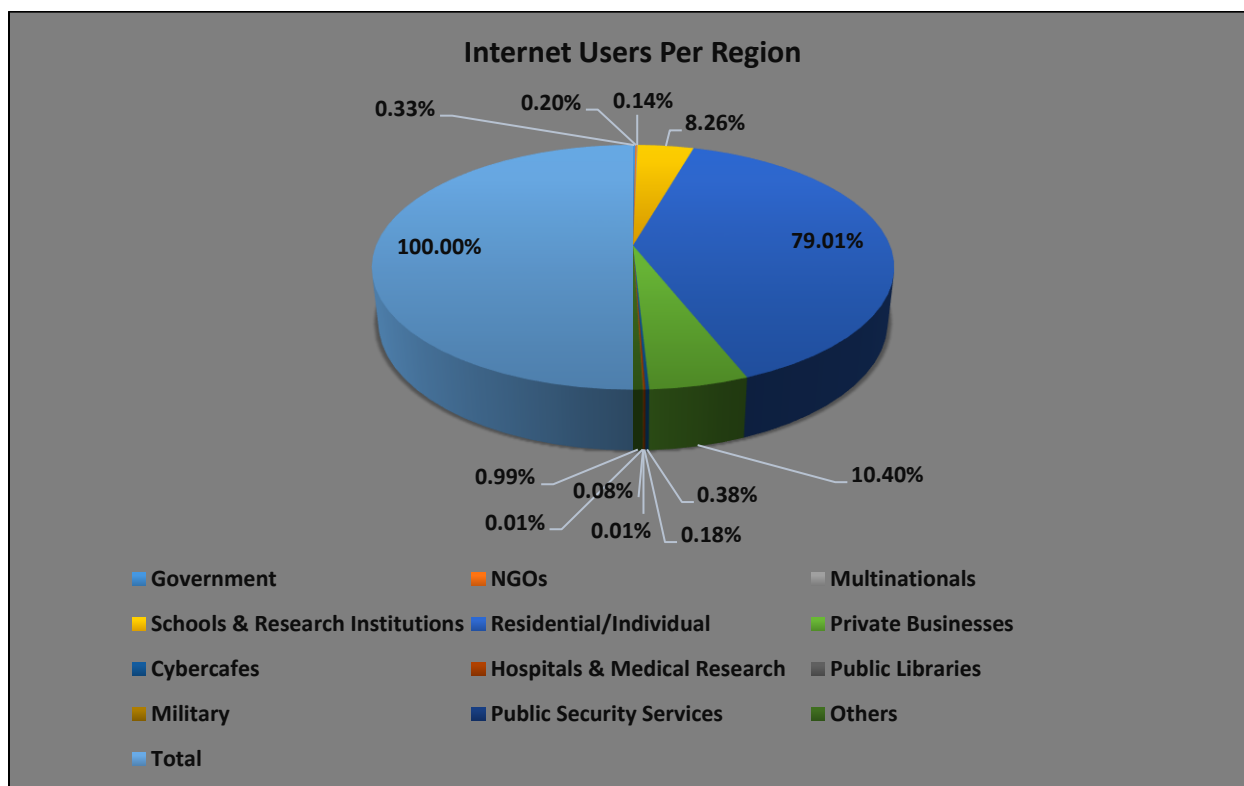


Figure 2: Number of Internet Users per Region December 2021

8. 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.

9. Number of Users by Internet Speed

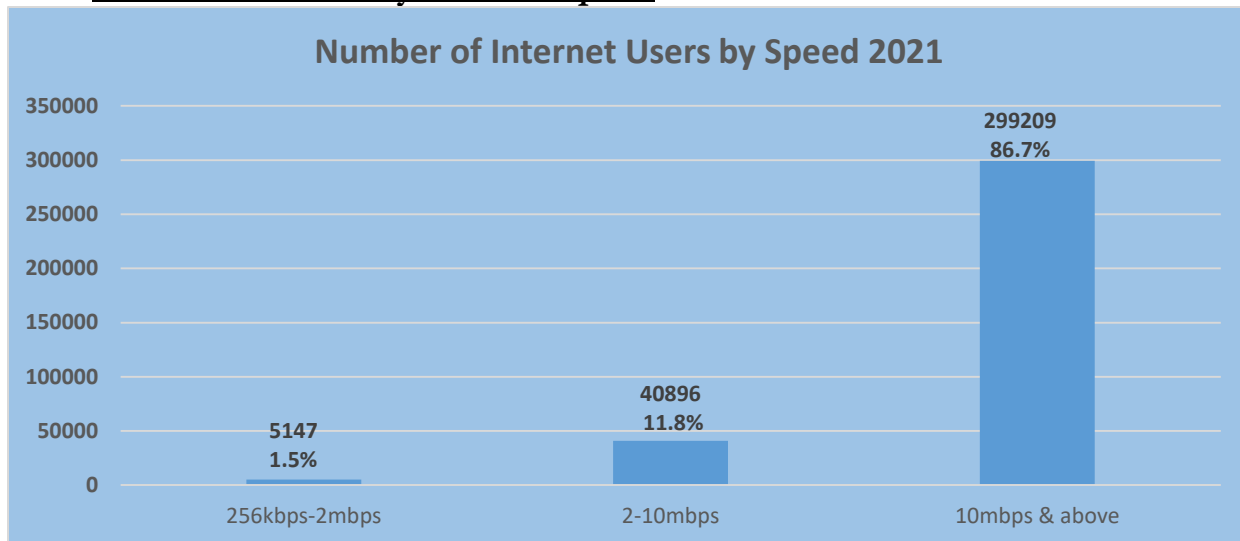


Figure 3: Speed of Internet as delivered to subscribers 2021

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.

C. 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.

2. Operating Cost:

The Operating Costs reported by the ISPs was **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**.

3. Investment:

CAPEX reported by ISPs in 2021 stood at **N3,606,353,757.18** (Three Billion, Six Hundred and Six Million, Three Hundred and Fifty Three Thousand, Seven Hundred and Fifty Seven Naira, Eighteen kobo.

D. 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**.

E. 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 2020 and 2021. 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 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.

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 **35,136**.

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 IHS 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

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 VALUE ADDED SERVICE (VAS) OPERATORS

A. INTRODUCTION

The Value Added Service (VAS) 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

B. NETWORK STATISTICS:

Based on the available data, the total number of active subscriptions 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

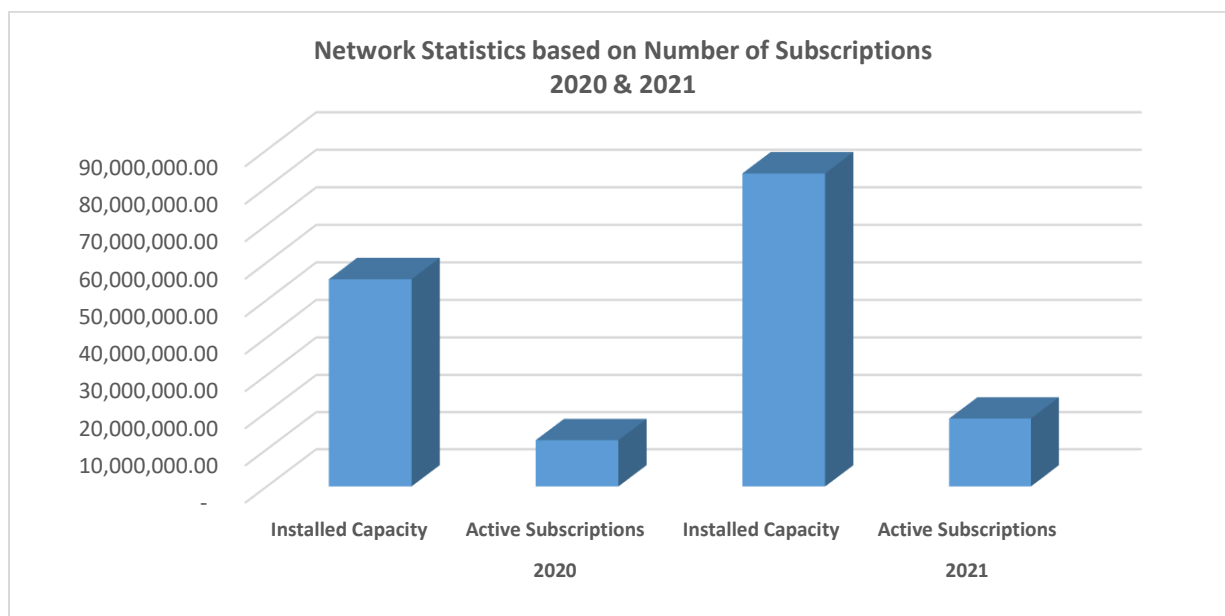


Figure 1: Installed Capacity and Active Subscriptions 2020 - 2021

C. 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 **₦ 10,122,690,514.79** only.
3. **Investments:** The Domestic Investment (CAPEX) figure reported was **₦335, 871,200.00** as at end of Year 2021.

A. 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.

CHAPTER SEVEN
ANALYSIS OF 2021 YEAR END SUBSCRIBER / NETWORK DATA
OTHER OPERATORS

A. INTRODUCTION

These “Other Operators” referred to in the report provide ancillary telecom services such as National Long Distance Operators (NLDOs), Automated Vehicle Tracking Services (AVTS), Interconnect Exchange, Metropolitan Fiber License Operators, International Data Access (IDA), Sales & Installation (S&I). 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 Other 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.

APPENDIX A

| S/N | 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. | Telserve 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 |
| | Total | 1,843 |

APPENDIX B

| 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. | Telsolve 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 |