





Annual Sector Performance Report 2022



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Disclaime

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LIST OF ACRONYMS

| 2G | Second Generation |
|------|------------------------------------|
| 3G | Third Generation |
| ACPU | Average Cost per User |
| AMPU | Average Margin per User |
| ARPU | Average Revenue per User |
| ADSL | Asymmetric Digital Subscriber Line |
| GB | Gigabyte |
| LTE | Long Term Evolution |
| MB | Megabyte |
| Mbps | Megabits per second |
| PSTN | Public Switched Telephone Network |
| TB | Terabyte |
| VoIP | Voice Over Internet Protocol |

1. EXECUTIVE SUMMARY

This report presents annual information on the performance of the markets within the postal and telecommunications sector during the period January to December 2022. The report covers data on subscriptions, usage traffic, infrastructure deployment, revenues, investment and employment in the postal and telecommunication sector. The data collected is also used by the Authority to monitor and inform policy decisions aimed at facilitating orderly growth of these sectors. The following trends characterised the postal and telecommunications sector in the year 2022:

• Growth in subscriptions across all telecommunication markets

The total number of active fixed telephone lines increased by 6.5% to reach 291,324, as of 31 December 2022, from 273,431 recorded as of 31 December 2021. As a result, the fixed density increased by 0.1% to reach 1.9% as of 31 December 2022, from 1.8% recorded as of 31 December 2021. On the other hand, active mobile subscriptions grew by 0.3% to reach 14,300,790 as of 31 December 2022, from 14,257,590 recorded as of 31 December 2021. The mobile penetration rate grew by 0.3% to reach 94.2% as of 31 December 2022, from 93.9% recorded as of 31 December 2021. The total number of active Internet and data subscriptions also grew by 4.1% to reach 9,915,393 as of 31 December 2022, from 9,526,421 recorded as of 31 December 2021; hence the Internet penetration rate increased by 2.5% to reach 65.3%, from 62.8% recorded in 2021.

• Overall growth in Internet & data usage as well as voice traffic

A total of 113,857 Terabytes of mobile Internet and data were consumed in 2022. This represents an 18.4% growth from 96,194Terabytes of mobile Internet and data that were consumed in 2021. Used incoming international Internet bandwidth capacity also increased by 39.5% to record 272,340Mbps as of 31 December 2022, from 195,158Mbps as of 31 December 2021.

Used outgoing international Internet bandwidth capacity also increased by 64.9% to record 89,790Mbps as of 31 December 2022, from 54,464Mbps recorded as of 31 December 2021, signalling an increase in consumption of local online content. Total voice traffic also increased

by 38.2% to record 10.5 billion minutes in 2022, from 7.6 billion minutes recorded in 2021. The growth in total voice traffic emanated mainly from an increase in national traffic, particularly on-net traffic.

• Decline in postal and courier volumes.

A total of 2,148,849 postal and courier items were processed in 2022; this represents an 11.7% decline from 2,434,576 recorded in 2021. Domestic courier was the only service category to record an annual growth in volumes. Domestic courier volumes increased by 7% to record 514,454 items in 2022, from 477,724 items recorded in 2021. Overall, postal and courier operators will continue to be challenged by e-substitution, particularly letters and documents, unless there is digital transformation of services.

• Growth in sector revenues amidst rising operating costs

The year 2022 was characterised by a trend of growing revenues, amidst rising operating costs across all subsectors, owing to the inflationary economic environment. Total postal and telecommunication sector revenue for 2022 was ZWL428.7 billion, up from ZWL108.5 billion recorded in 2021; this represents an annual variance of 295.1% and an inflation adjusted growth rate of 34.7%.

Total postal and telecommunication sector operating costs amounted to ZWL278.1 billion in 2022, up from ZWL65.7 billion recorded in 2021, giving an annual variance of 323.3% and an inflation adjusted growth rate of 44.3%. Overall, operating costs grew by a bigger margin than the growth in operating revenues, owing to the inflationary operating environment.

• Growth in capital expenditure

Telecommunication capital expenditure totalled ZWL28.3 billion in 2022, from ZWL5.1 billion recorded in 2021. This represents an annual variance of 454.9% and an inflation adjusted growth rate of 89.1%. The capital expenditure was mainly on LTE, 5G and Fibre expansion projects. Capital expenditure by postal and courier operators totalled ZWL 213.3 million in 2022, from ZWL25.6 million recorded in 2021. This represents an annual variance of 733.2% and an inflation adjusted growth rate of 184%. This was a huge improvement from

a period of low investment during the COVID-19 era. The capital expenditure by postal and courier operators was mainly in delivery vehicles, hardware and software.

• Increase in the number of licensees.

There was an increased uptake of different classes of licenses in 2022, with the notable granting of one (1) Mobile Virtual Network Operator licence, six (6) Internet Service Provider licenses and one (1) Application Services license, bringing the total number of telecommunication licenses to twenty-four (24). Two (2) additional courier services licenses were also issued in 2022, bringing the total number of postal and courier licenses to ten (10), as of 31 December 2022. The list of the licensed operators in the various markets as of 31 December 2022 is provided in the following table:

| License Category | Licensed Operators |
|--------------------------------------------|--------------------------------|
| Unified Telecommunication Services | 1. TelOne |
| Mobile Cellular Services | 1. Econet |
| | 2. NetOne |
| | 3. Telecel |
| Internet Access Providers | 1. Africom |
| | 2. Dandemutande |
| | 3. Liquid |
| | 4. PowerTel |
| | 5. Pecus |
| | 6.Telecontract |
| | 7. ZARNet |
| | 8. Powertel |
| | 9. Dark Fibre Africa Zimbabwe |
| | 10. ZIMREN (Pvt) Ltd |
| Network Facilities, Network Services and | 1. Fiber Connections |
| International Gateway | |
| Internet Service Provider (ISP - Metro) | 1. ClikIt Telecom |
| | 2. Frampol Investments Pvt Ltd |
| | 3. IT Anywhere |
| Internet Service Provider (ISP - National) | 1. Timeless Technology |

| | 2. ZODSAT |
|----------------------------------------------|----------------------------------|
| Internet Service Provider (ISP - Provincial) | Kamba Communications |
| Mobile Virtual Network Operator | 1. Dolphin Telecoms |
| Application Services | 1. Canlink |
| Postal Services | 1. ZIMPOST |
| Courier Services | 1. DHL |
| | 2. FEDEX |
| | 3. Courier Connect |
| | 4. Unifreight/Swift |
| | 5. Innscor Transport Company t/a |
| | Overnight express |
| | 6. United Parcel Services |
| | 7. Skynet |
| | 8. Tuma Logistics |
| | 9. Zimdelivery |

2. SUBSCRIPTIONS & PENETRATION RATES

2.1 FIXED

The total number of active fixed telephone lines increased by 6.5% to reach 291,324 as of 31 December 2021, from 273,431 recorded as of 31 December 2021. Growth was recorded in fixed VoIP as well as PSTN active subscriptions as shown in Figure 1 below:



Figure 1: Growth in Fixed Telephone Subscriptions

The increase in overall fixed telephone subscriptions emanated from fixed VoIP active subscriptions, which increased by 36.3% to reach 40,895 as of 31 December 2022, from 30,010 recorded as of 31 December 2021. Active fixed telephone subscriptions, particularly VoIP, have been on an upward trajectory over the course of year. Corporates and households are increasingly adopting VoIP, as it is a low cost alternative to the traditional telephone system.

Traditional fixed voice active subscriptions also increased by a modest 2.9% to reach 250,429 as of 31 December 2022, from 243,421 as of 31 December 2021. Resultantly, the fixed teledensity increased by 0.1% to reach 1.9% as of 31 December 2022, from 1.8% recorded as of 31 December 2021 as shown in Figure 2 below:

Figure 2: Fixed Tele-density



The fixed tele-density is expected to gradually increase, in line with the growing uptake of fixed VoIP telephony.

2.2 MOBILE

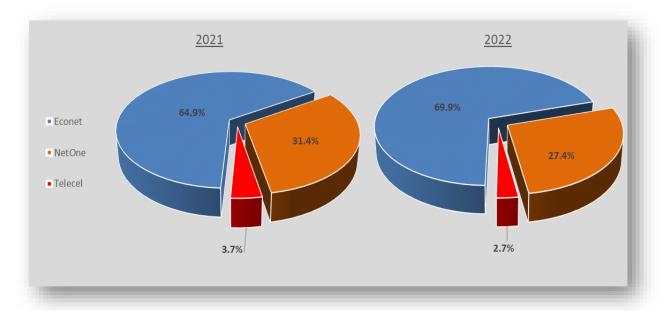
The total number of active mobile subscriptions as at 31 December 2022 was 14,300,790; this represents a 0.3% growth from 14,257,590 recorded as at 31 December 2021, as shown in table 1 below:

Table 1: Active Mobile Subscriptions per Operator

| | Active Subscriptions 2021 | Active Subscriptions 2022 | Variance (%) |
|---------|---------------------------|---------------------------|--------------|
| Econet | 9,253,453 | 9,988,105 | 7.9% |
| NetOne | 4,470,592 | 3,922,734 | -12.3% |
| Telecel | 533,545 | 389,951 | -26.9% |
| Total | 14,257,590 | 14,300,790 | 0.3% |

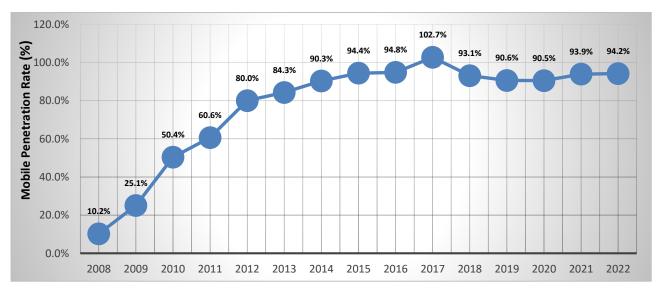
Econet was the only operator to record growth in active subscriptions, whereas Telecel recorded the biggest fall in active subscriptions. The annual variation in the market share of active mobile subscriptions is shown in Figure 3 below:

Figure 3: Market Share of Mobile Subscriptions



As shown above, Econet gained market share by 5%, in line with the growth in their active subscriber base. On the other hand, NetOne and Telecel lost market share by 1% and 4% respectively. The mobile penetration rate grew by 0.3% to reach 94.2% as at 31 December 2022, from 93.9% recorded as of 31 December 2021 as shown in Figure 4 below:

Figure 4: Mobile penetration rate



The growth in the mobile penetration rate is a result of the 0.3% annual growth in active mobile telephone subscriptions. The mobile penetration rate is expected to continue increasing, with the increased adoption of Internet of Things.

2.3 INTERNET

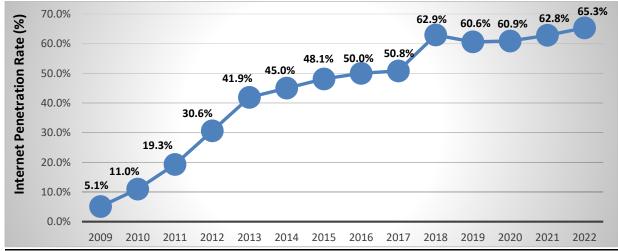
The total number of active Internet and data subscriptions as of 31 December 2022 was 9,914,950. This represents a 4.1% increase from 9,526,421 active subscriptions, as of 31 December 2021. The growth in active subscriptions by technology is shown in table 2 below:

Table 2: Active Internet subscriptions

| Technology | 2021 | 2022 | Variance (%) |
|----------------------------|-----------|-----------|--------------|
| 3G/HSDPA/LTE | 9,331,088 | 9,720,328 | 4.2% |
| Leased Lines | 2,446 | 2,667 | 9.0% |
| DSL | 111,701 | 104,888 | -6.1% |
| WiMAX | 6,185 | 7,821 | 26.5% |
| CDMA | 10,344 | 5,767 | -44.2% |
| VSAT | 2,653 | 5,518 | 108.0% |
| Active Fibre Subscriptions | 62,004 | 67,961 | 9.6% |
| Total | 9,526,421 | 9,914,950 | 4.1% |

DSL and CDMA were the only two categories to record a decline in active subscriptions, for a consecutive year. DSL faces competition from Fibre whilst CDMA has been declining over the years, as it is gradually being replaced by other technologies. The Internet penetration rate increased by 2.5% to reach 65.3%, from 62.8% recorded in 2021 as shown in Figure 5 below:

Figure 5: Internet penetration rate 70.0% 62.9% 60.0%



The Internet penetration rate is expected to continue growing as access, demand and the scope of digital services improves.

3. TRAFFIC AND USAGE PATTERNS

3.1 VOICE TRAFFIC

Total voice traffic increased by 38.2% to record 10.5 billion minutes in 2022, from 7.6 billion minutes recorded in 2021. The growth in total voice traffic emanated mainly from an increase in national traffic, particularly on-net traffic, as a result of promotions. Whilst growth was recorded in national voice traffic, international incoming and international outgoing traffic declined as shown in Figure 6 below:

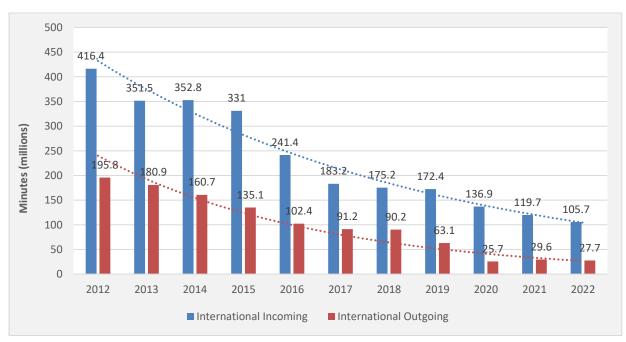


Figure 6: International traffic

As shown above, international voice traffic has been declining over the years, particularly international incoming traffic. The decline is partly attributable to the use of cheaper Over-the-Top services. In the year under review, international incoming traffic declined by 11.7%; international outgoing traffic also declined by 6.3%. The decline in international incoming traffic was higher than the decline in international outgoing traffic. This implies a decline in foreign currency earnings from international voice traffic in 2022.

3.2 MOBILE INTERNET & DATA TRAFFIC

A total of 113,858TB of mobile Internet and data traffic were consumed in 2022. This represents a 15.5% increase in usage, from 96,194TB recorded in 2021. The growth in mobile Internet and data traffic is shown in Figure 7 below:



Figure 7: Growth in mobile Internet & data usage

Mobile Internet and data usage has been consistently rising; the biggest leap was experienced in 2021, during the COVID-19 era as shown in Figure 7 above. Growth is expected to continue post-COVID, given the continued growth in active subscriptions, continued use of e-learning, e-conferencing as well as increased use of social media.

3.3 USED INTERNATIONAL INTERNET BANDWIDTH CAPACITY

Used incoming international bandwidth capacity also increased by 39.5% to record 272,340Mbps as of 31 December 2022, from 195,158Mbps as of 31 December 2021. Used outgoing international Internet bandwidth capacity also increased by 64.9% to record 89,790Mbps as of 31 December 2022, from 54,464Mbps recorded as of 31 December 2021. The growth in used incoming and outgoing international Internet bandwidth capacity over the past year is shown in Figure 8 below:

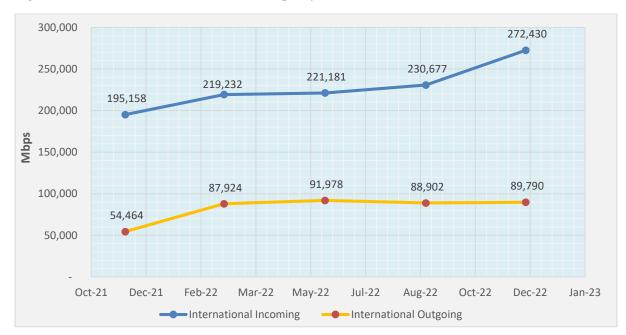


Figure 8: International Internet Bandwidth Capacity

The growth in used international Internet bandwidth capacity is attributable to the growth in the number of active subscriptions as well as the increased number and scope of Internet services and applications.

3.4 POSTAL & COURIER VOLUMES

A total of 2,148,849 postal and courier items were processed in 2022; this represents an 11.7% decline from 2,434,576 recorded in 2021. The annual variation in postal and courier volumes is shown in Table 3 below:

Table 3: Postal & Courier Volumes

| | 2021 | 2022 | Variance (%) |
|-----------------------------------------|-----------|-----------|--------------|
| Domestic postal | 1,186,780 | 949,911 | -20.0% |
| domestic courier | 477,724 | 514,454 | 7.7% |
| International incoming postal & courier | 646,930 | 613,541 | -5.2% |
| International outgoing postal & courier | 123,142 | 102,762 | -16.5% |
| Total postal & courier | 2,434,576 | 2,148,849 | -11.7% |

Domestic courier was the only category that recorded growth in volumes as shown above. Total mail volumes over the past eight years are shown in Figure 9 below:

12,000,000 10,000,000 8,721,550 8,000,000 Volume of mail 6,000,000 4,000,000 2,000,000 2,270,080 2,434,576 2,148,849 2015 2016 2017 2018 2019 2020 2021 2022

Figure 9: Postal & Courier Volumes

As shown above, mail volumes are still to recover and match pre-COVID-19 levels. This calls for the urgent need for postal and courier sector transformation, in the face of e-substitution.

4. REVENUES & INVESTMENT

4.1 FIXED TELEPHONY REVENUES & INVESTMENT

The fixed network generated a total revenue of ZW39.6 billion in 2022; Operating costs mounted to ZWL31.45 billion, whilst capital expenditure was ZWL3.4 billion. An annual comparison of the absolute and the inflation adjusted figures is shown in Table 4 below:

Table 4: Fixed Network Revenue, Costs & Investment

| | 2021 | 2022 | % | CPI Adjusted |
|------------|---------------|----------------|--------|--------------|
| | (Absolute) | (Absolute) | Growth | Growth Rate |
| Revenue | 8,878,870,002 | 39,572,336,318 | 345.7% | 51.9% |
| Costs | 8,507,786,979 | 31,445,781,785 | 269.6% | 26.0% |
| Investment | 454,791,883 | 3,425,937,774 | 653.3% | 156.7% |

Capital expenditure recorded the biggest growth as shown in Table 4 above. The trend of growing revenues and growing operating costs continued into 2022, as shown in Figure 10 below:



Figure 10: Fixed Telephone Revenues & Operating Costs

The trend is reflective of the inflationary operating environment. The annual variation in the revenue contribution by service is shown in Figure 11 below:

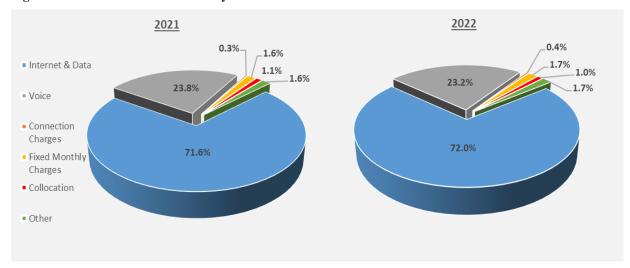


Figure 11: Contribution to revenue by service

As shown in Figure 11 above, the revenue contribution of voice services declined, whereas, the revenue contribution of Internet and data grew in 2022. Internet and data services continued to be the main revenue contributors for the incumbent fixed network operator.

4.2 MOBILE

An annual comparison of the absolute and the inflation adjusted mobile revenue, operating costs and investment is shown in Table 5 below:

Table 5: Mobile Revenue, Operating Costs & Investment

| | 2021 | 2022 | % | CPI |
|------------|----------------|-----------------|--------|-------------|
| | (Absolute) | (Absolute) | Growth | Adjusted |
| | | | | Growth Rate |
| Revenue | 76,379,685,041 | 266,745,601,165 | 249.2% | 19.0% |
| Costs | 42,910,828,756 | 171,962,701,818 | 300.7% | 36.6% |
| Investment | 3,596,377,718 | 16,933,589,289 | 370.9% | 60.5% |

As shown above, operating costs grew by a bigger margin than the growth in revenues, which is reflective of the inflationary environment. The year 2022 was characterised by growing revenues and rising operating costs for mobile network operators as shown in Figure 12 below:

Figure 12: Mobile Network Revenues & Costs



The annual variation in the mobile network revenue contribution per service is shown in Figure 13 below:

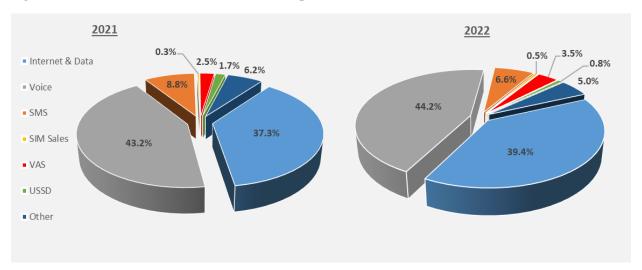


Figure 13: Mobile Network Revenue Contribution per Service

Voice continued to be the main revenue contributor for the mobile networks. Its contribution increased by 1% in line with the growth in voice traffic. However, the contribution of Internet & data increased by a bigger margin of 2.1%. On the other hand, the contribution of SMS declined by 2.2%.

4.3 IAP REVENUES & INVESTMENT

Internet Access Providers generated a total of ZW111.3 billion in 2022; Operating costs amounted to ZW65.3 billion, whereas capital expenditure amounted to ZWL7.9 billion. An annual comparison of the absolute and the inflation adjusted figures is shown in Table 6 below:

Table 6: IAP Revenues & Investment

| | 2021 | 2022 | % | CPI Adjusted |
|------------|----------------|-----------------|--------|--------------|
| | (Absolute) | (Absolute) | Growth | Growth Rate |
| Revenue | 27,940,179,437 | 111,279,334,365 | 298.3% | 35.7% |
| Costs | 17,155,250,786 | 65,258,570,999 | 280.4% | 29.7% |
| Investment | 1,056,332,104 | 7,895,338,616 | 647.4% | 154.7% |

As shown above, there was significant growth in capital expenditure by IAPs in 2022. The bulk of capital expenditure was in national fibre backbone, whilst operating costs were consistently increasing as shown in Figure 14 below:

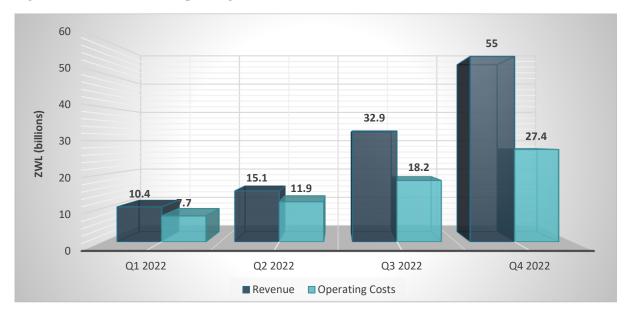


Figure 14: IAP Revenues & Operating Costs

The consistent growth in revenues and operating costs is attributable to the inflationary operating environment.

4.4 POSTAL & COURIER

An annual comparison of the absolute and the inflation adjusted postal and courier revenue, operating costs and investment is shown in Table 7 below.

Table 7: Postal & Courier Revenue, Costs & Investment

| | 2021 | 2022 | % | CPI Adjusted |
|------------|---------------|----------------|--------|--------------|
| | (Absolute) | (Absolute) | Growth | Growth Rate |
| Revenue | 1,535,975,246 | 11,055,083,580 | 619.7% | 145.3% |
| Costs | 1,391,220,022 | 9,356,614,446 | 572.5% | 129.2% |
| Investment | 25,680,858 | 213,330,548 | 730.7% | 183.1% |

Like other subsectors, postal and courier revenues and operating costs were consistently increasing during the course of the year, in line with the inflationary operating environment. The growth in investment by postal and courier operators marked a huge improvement from a period of low investment during the COVID-19 era. The capital expenditure by postal and courier operators was mainly in delivery vehicles, hardware and software.

5. TELECOMMUNICATIONS INFRASTRUCTURE

5.1 MOBILE BASE STATIONS

The total number of base stations was 9,985 as of 31 December 2022, up from 9,312 as at 31 December 2021. The breakdown of base stations by technology is shown in Figure 15 below:

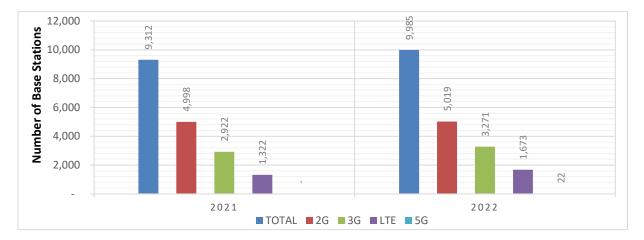


Figure 15: Mobile Base Stations

LTE eNode Bs had the biggest number of deployments, for a consecutive year. Twenty-two 5G base stations were also deployed by Econet, as a Proof-of-Concept; full scale rollout is expected in 2023. The annual variation in population coverage by technology is shown in the table 8 below:

Table 8: Mobile Network Population Coverage

| | | 2021 | 2022 | Variance (%) |
|------------|-------|--------|--------|--------------|
| 2G | Rural | 74.90% | 74.96% | 0.06% |
| | Urban | 99.87% | 99.89% | 0.02% |
| | Total | 93.54% | 93.62% | 0.08% |
| 3 G | Rural | 67.25% | 67.30% | 0.05% |
| | Urban | 99.9% | 99.92% | 0.02% |
| | Total | 84.01% | 84.08% | 0.07% |
| LTE | Rural | 2.64% | 2.85% | 0.09% |
| | Urban | 92.83% | 92.87% | 0.04% |
| | Total | 39.12% | 40.06% | 0.94% |
| 5G | Rural | - | - | - |
| | Urban | - | 2.65% | 2.65% |
| | Total | - | 2.65% | 2.65% |

As shown above, the rural areas lag in coverage rates for all technologies compared to urban areas, yet the majority (61.8%) of the country's population resides in rural areas, according to the 2022 national census. More effort needs to be put into connecting the rural populace, especially with broadband capacity higher than 3G.

6. INTERNATIONAL INTERNET BANDWIDTH

Equipped international incoming Internet bandwidth increased by 11.4% to reach 553,700Mbps as of 31 December 2022, from 496,916Mbps as of 31 December 2021. Demand for data and Internet services rose and has continued to increase over the years. To meet this demand, Internet Access Providers increased their bandwidth capacities as shown in Figure 16 below:

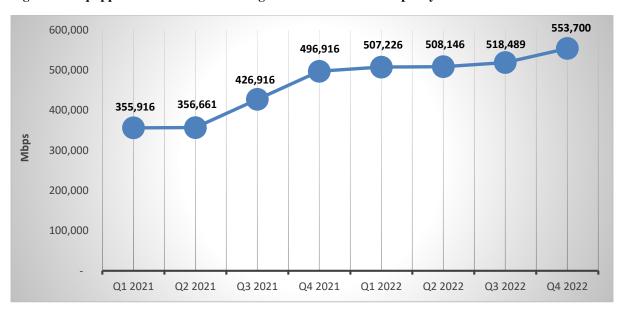


Figure 16: Equipped International Incoming Internet Bandwidth Capacity

The equipped capacity is expected to further increase in 2023, as IAPs expand their capacity to meet the ever-growing demand.

7. EMPLOYMENT

The total number of people employed on a full-time basis in the postal and telecommunications sector increased by 1.7%, to reach 5,883 as at 31 December 2022, from 5,786 people employed as at 31 December 2021. The number of employees is broken down by subsector and by gender as follows:

7.1 MOBILE NETWORK OPERATORS

The total number of people employed by the mobile networks on a full-time basis, as at 31 December 2022, was 2,387. This represents a 2.8% increase from 2,323 people employed as of 31 December 2021. The total number of mobile network employees is broken down by gender in Figure 17 below:

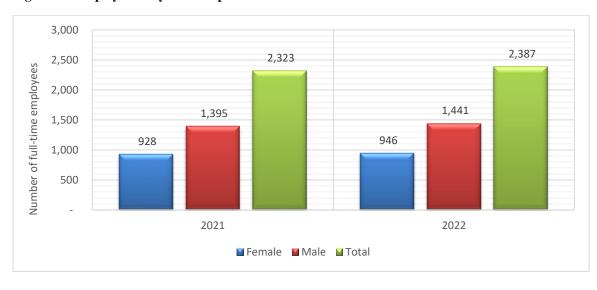


Figure 17: Employment by mobile operators

As shown above, there was growth in employment by mobile network operators, across gender, in 2022.

7.2 INTERNET ACCESS PROVIDERS

The total number of people employed, on a full-time basis, by Internet Access Providers, as of 31 December 2022, was 778. This represents a 12.3% increase from 693 full time employees recorded as of 31 December 2021. The employees are broken down by gender in Figure 18 below:

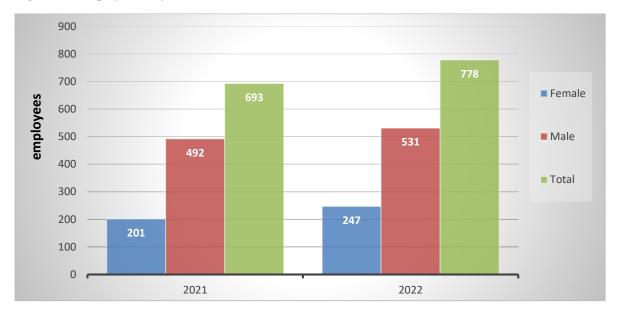


Figure 18: Employment by Internet Access Providers

As shown above, there was an increase in employment figures by Internet Access Providers (IAPs), across gender, in 2022.

7.3 FIXED NETWORK

The total number of people employed by the fixed network on a full-time basis declined by 2.5% to reach 1,611 as of 31 December 2022, from 1,652 people employed as of 31 December 2021. The annual comparison is shown in Figure 19 below.

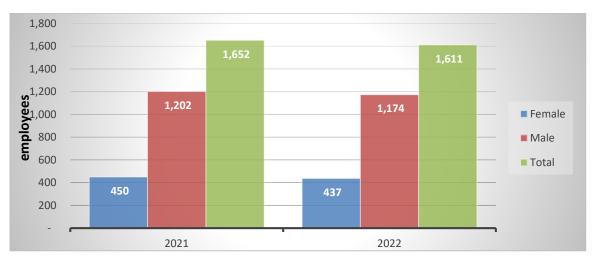


Figure 19: Employment by the fixed network

The decline is attributable to deliberate staff rationalisation by the Public Switched Telephone Network Operator.

7.4 POSTAL & COURIER

The total number of people employed on a full-time basis by the postal and courier operators was as at 31 December 2022 was 1,107, down from 1118 people employed as at 31 December 2021 as shown in Figure 20 below:

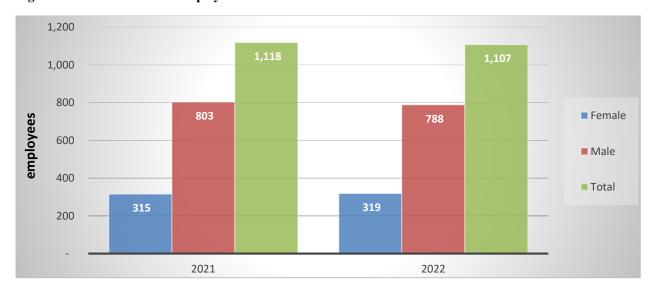


Figure 20: Postal & Courier employees

The decline is attributable to staff rationalisation by some of the postal and courier operators, in a bid to reduce operating costs.

8. OUTLOOK

The year 2022 was characterized by the increased economic activity after the lifting of the COVID restrictions. E-learning, e-conferencing continued to be the new norm, further accelerating Internet and data usage rates. With the large-scale rollout of 5G and other advances, 2023 will likely be an important year for the telecommunications industry. We are likely to see the coming on board of new applications as the Internet of Things ecosystem takes centre stage. Although 5G is very much in the "build" phase, expectations are high as we anticipate more next generation applications based on 5G.

Data privacy and security are a top priority in the year ahead. Consumers still fear unauthorized use of sensitive data, according to POTRAZ 2022 Consumer Satisfaction Survey. As a result, consumers want increased control over their personal data, and telecommunications companies

need to work across sectors to create digital environments in which people feel safe. The Authority will also implement the Data Protection Act which was promulgated in 2022.

The sector is expected to continue enabling other sectors as envisioned in Government's National Development Strategy 1 (NDS1). For the sector and the economy to reap full benefits, issues of foreign currency availability, price and exchange rate disparity as well as power shortages need to be addressed. Inflation continued to put upward pressure on prices, thus negatively affecting service affordability in face of dwindling disposable incomes. The credit crunch continues to stifle investment in next generation technologies that is required to accelerate the digitization path. Nevertheless, opportunities are awash for organizations that can stay close to their customers and capitalize on industry innovations, and successfully navigate the economic landscape.