
Independent Communications Authority of South Africa

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# *The State of the ICT Sector Report in South Africa*

## *2020*

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## EXECUTIVE SUMMARY

This is the 5th State of the ICT Sector in South Africa Report from the Independent Communications Authority of South Africa ("the Authority"). The Authority has published this report since 2016. The Authority recognizes that the access to a comprehensive and timely set of Information Communication Technology (ICT) indicators is vital for a proper regulation of the sectors for which it is responsible; namely the telecommunications, broadcasting and postal sectors. The intention is to use these indicators to benchmark values, inform sector policy analysis and to ensure compatibility with global benchmarking and data compiled by other regulators. The data used to compile this report was collected over a 12-month period ending 30 September 2019. The data were collected from secondary sources (such as Statistics South Africa ("Stats SA") and OOKLA) as well as through a detailed questionnaire sent to relevant stakeholders by the Authority. The report also includes an international comparison of South Africa's internet speeds for fixed as well as mobile broadband (both download and upload speeds).

The Authority received a total of one hundred and four (104) responses from the Electronic Communication Services (ECS) and Electronic Communication Network Services (ECNS) licensees, thirty-four (34) responses were from television and radio broadcasters and only three (3) responses were received from postal services licensees.

According to Stats SA's general household survey (GHS) report, at a provincial level the proportion of Households with access only to cellular phones in 2018 was the highest in Mpumalanga at 96.5% and the lowest was in the Western Cape at 77.1%. In the same year, the province with the highest proportion of Households with both cellular and landline phones was the Western Cape at 18.4% and the lowest was Limpopo at 1.9%. For Households with no access to neither a cellular phone nor a landline, the highest proportion was in the Northern Cape at 10.3% and the lowest

in Mpumalanga at 1.1%. The highest proportion of Households with access to landline phones only was in the Northern Cape at 0.3% in 2018.

The total revenue reported for the three sectors regulated by the Authority (telecommunications, broadcasting and postal) increased by 4% (from R229 billion in 2018 to R238 billion in 2019. Telecommunications services revenue increased by 3.6% from R187 billion in 2018 to R194 billion in 2019, broadcasting services revenue increased by 3.8% from R36 billion to R38 billion and postal services revenue significantly increased by 19.9% between 2018 and 2019.

The overall total employment numbers for the three sectors decreased by 8.2% in 2019. Over the same period, employment changes in the specific sectors were as follows: telecommunications sector employment decreased by 8.9%, postal sector employment also decreased by 7.1% and broadcasting sector employment decreased by 7.3%. When looking at the employment numbers over a 5-year period, the overall total sector employment decreased by 0.7%. For the same period of 5 years, but looking at specific sectors: telecommunications sector employment increased by 2.2%, broadcasting sector employment increased by 1.8% and postal services sector employment declined by 5%.

Total mobile cellular phone voice subscriptions increased by 5.7% from 91 million in 2018 to 96 million in 2019. Of this total, 82 million (85%) was prepaid subscriptions and 14 million (15%) was post-paid subscriptions. Over a 5-year period, the total mobile cellular phone voice subscriptions increased by 2.8%, prepaid mobile cellular subscriptions increased by 3.3% and post-paid mobile cellular voice subscriptions decreased by 0.2%.

Mobile phone network coverage in South Africa is in good state, national population coverage for 3G increased from 99.5% in 2018 to 99.7% in 2019 and national population coverage for 4G/LTE increased from 85.7% in 2018 to 92.8% in 2019.

However, when looking at mobile phone network population coverage for rural areas in 2019 the Northern Cape had the lowest coverage for 2G, 3G and LTE 99%, 97% and 72%, respectively. Gauteng had the highest mobile phone network population coverage of 99% for LTE, followed by Mpumalanga at 96%.

South Africa's global ranking for internet speed in 2019 in terms of speedtest was s at position 96 for fixed broadband (download speed of 26.87 Mbps and upload speed of 19.12 Mbps) and position 60 for mobile broadband (download speed of 31.36 Mbps and upload speed of 9.41 Mbps).

The data on the broadcasting sector shows that expenditure on broadcasting programmes increased by 12.4% from R11.1 billion in 2018 to R12.5 billion in 2019. When observed over a 5-year period, the expenditure increased by 3.4%. The total number of Pay TV subscriptions increased by 4.3%, from 7.3 million in 2018 to 7.6 million in 2019. Over a 5-year period, subscriptions increased by 7.8%.

Regarding postal services, the data shows that the total number of letters delivered (these are registered letters) decreased by 1.3% from 616 million in 2018 to 609 million in 2019. Domestic service and international outbound (local volumes) decreased by 1.5% from 604 million in 2018 to 595 million in 2019 and the domestic service and international outbound (international mail centre volume) increased by 11.7% from 12 million in 2018 to 13 million in 2019. The total number of virtual post users increased by 5.3% from 5.9 million in 2018 to 6.2 million in 2019.

# 1 INTRODUCTION

The Information Communication Technology (ICT) sector has proved to be the backbone of many economies, both developed and developing. With that realisation many companies in the past five years have been making a lot of investment into the sector, from new Internet Service Providers (ISP's) to postal services companies and Television and radio broadcasters. However, the sector needs to adapt to the Fourth Industrial Revolution (4IR) that is bringing new technologies, which means business models, government decisions and other choices will have to transform due to a new set of challenges and uncertainties.

This is the fifth annual State of Information Communication Technology (ICT) sector report produced by the Independent Communication Authority of South Africa (ICASA).

## Aim

The report presents the performance and developments in the ICT sector, focusing on the three areas that are regulated by ICASA, namely: telecommunications, broadcasting and postal services.

The report aims to provide up to date information to enable interested parties to make informed decisions on the ICT sector.

## ICASA Mandate

ICASA is a creature of statute and derives its mandate from the Independent Communications Authority of South Africa Act No.13 of 2000, the Broadcasting Act No.4 of 1999, the Electronic Communications Act No.36 of 2005 and the Postal

Services Act No.124 of 1998. The Authority regulates electronic communications, postal services and broadcasting in the public interest.

Within this mandate, the Authority's responsibility includes the collection of information and statistics on the ICT sector to monitor, report and ensure that regulations are fact-based.

The Authority also has a responsibility to ensure that all South Africans have access to affordable services of high quality, as stipulated in the letter and spirit of the underlying statutes.

**Methodology**

ICASA has authority to request data from licensees in terms of section 4(3)(g) of the ICASA Act. The Authority uses questionnaires customized for Electronic Communication Services (ECS) and Electronic Communication Network Services (ECNS), television and radio broadcasters and postal service licensees to collect data on ICT indicators. The questionnaires cover data over a 12-month period ending on the 30th September each year, unless otherwise specified. For confidentiality reasons, the information gathered is aggregated to conceal stakeholder-specific information.

Data collected is then used by the Authority to produce the State of the ICT Sector report that is published on its website on annual basis. The report also features data from secondary sources, such as Statistics South Africa (Stats SA).

In the compilation of this report, a total of one hundred and four (104) ECS and ECNS licensees' responses were received thirty-four (34) responses were from television and radio broadcasters and three (3) responses were received from postal service licensees. For Telecommunication and Broadcasting licensees, all major players have responded to the questionnaire.

**Limitations**

In terms of identified possible limitations to the report that should be borne in mind when interpreting the information collected is that:

- the unreserved postal sector had a low response rate to the questionnaire; and
- the data contained in the report is self-reported by licensees, which therefore requires a more rigorous data-validation process.

**Structure of the report**

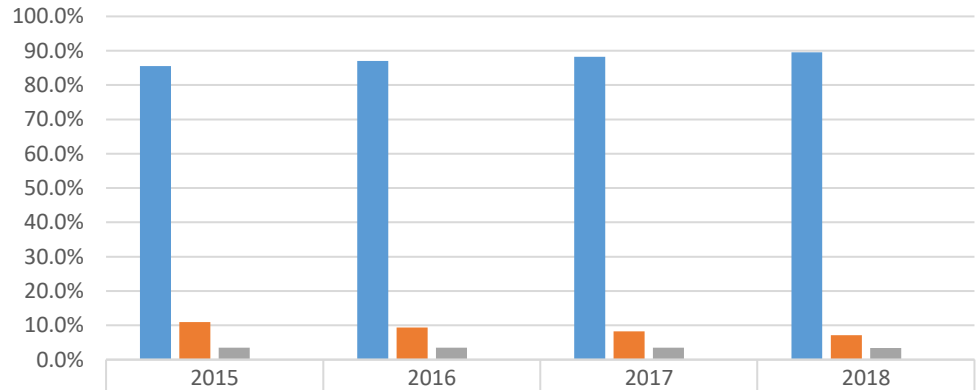
The report is structured as follows: Section 2 presents information as collected by Stats SA. Section 3 looks at information as collected by the Authority. The information is then broken down and presented by sector: telecommunications sector (section 4), broadcasting sector (section 5), and postal services sector (section 6). Section 7 provides a conclusion.

## 2 INFORMATION ON THE ICT SECTOR AS REPORTED BY STATISTICS SOUTH AFRICA

The State of ICT sector report is usually published one year ahead of Stats SA's *General Household Survey* ("GHS") on or by the 31st March annually in accordance with ICASA's Annual Performance Plan.

According to the GHS, the proportion of households who use only cellular phones as a means of communication steadily increased from 85.5% in 2015 to 89.5% in 2018. This shows greater reliance on cellular phones by households. Households using both cellular phones and fixed (or landlines) reduced from 10.9% in 2017 to 7.1% in 2018. A proportion of 0.1% was accounted for by households that use only landlines phones over the 4-year period. Households that have no access to neither a cellular nor a landline phone decreased to 3.4% in 2018.

**Graph 1: Proportion of Households who have a functional landline and/or cellular telephone in the Republic of South Africa for 2015 to 2018**

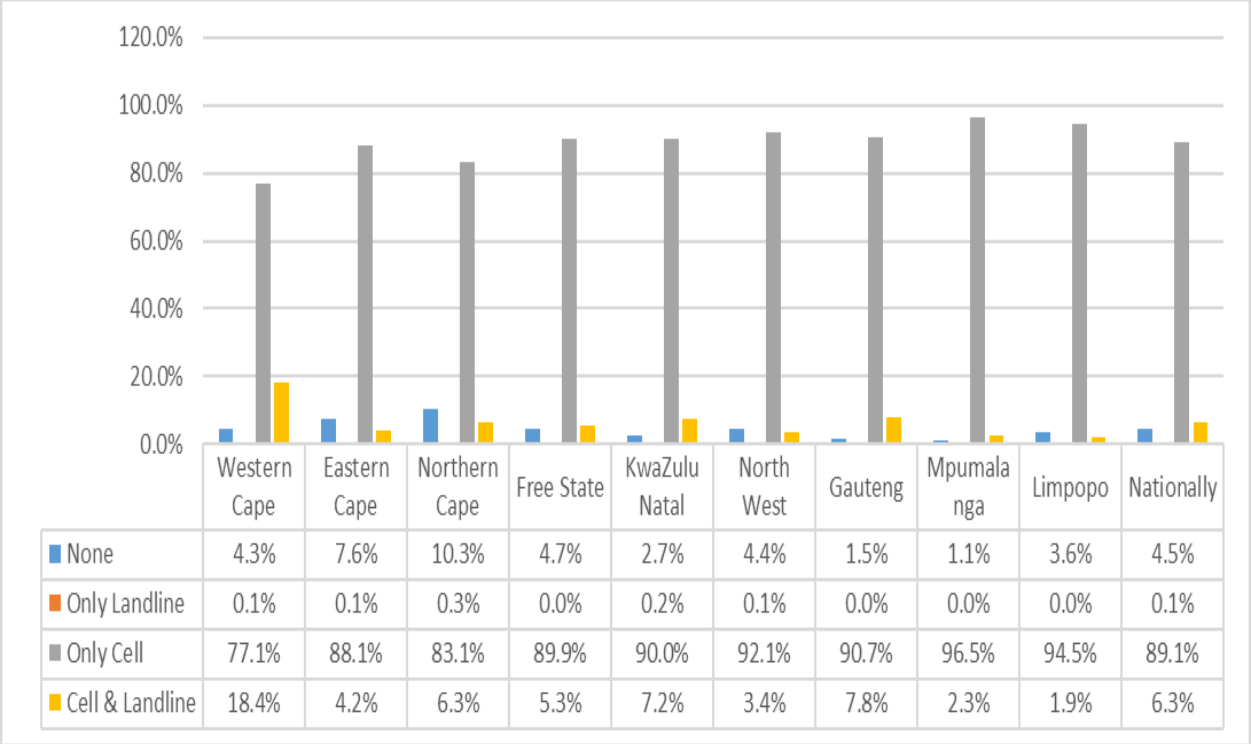



| | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| Only Cellular Phone | 85.5% | 87.0% | 88.2% | 89.5% |
| Cellular and Landline Phone | 10.9% | 9.4% | 8.2% | 7.1% |
| None | 3.5% | 3.5% | 3.5% | 3.4% |
| Only Landline Phone | 0.1% | 0.1% | 0.1% | 0.1% |

*Source: StatsSA GHS, 2015,2016,2017 & 2018*

In terms of the GHS, at a provincial level the proportion of Households with access to only cellular phones in 2018 was highest in Mpumalanga at 96.5% and the lowest was Western Cape at 77.1%. In the same year, the province with the highest proportion of Households with both cellular and landline phones was Western Cape at 18.4% and the lowest was Limpopo at 1.9%. For Households with no access to neither a cellular phone nor a landline, the highest proportion was in Northern Cape at 10.3% and the lowest in Mpumalanga at 1.1%. The highest Household with access only to landline phone was Northern Cape at 0.3% in 2018.

**Graph 2: Percentage of Households who have functional landline and cellular telephone in their dwellings by province for 2018**



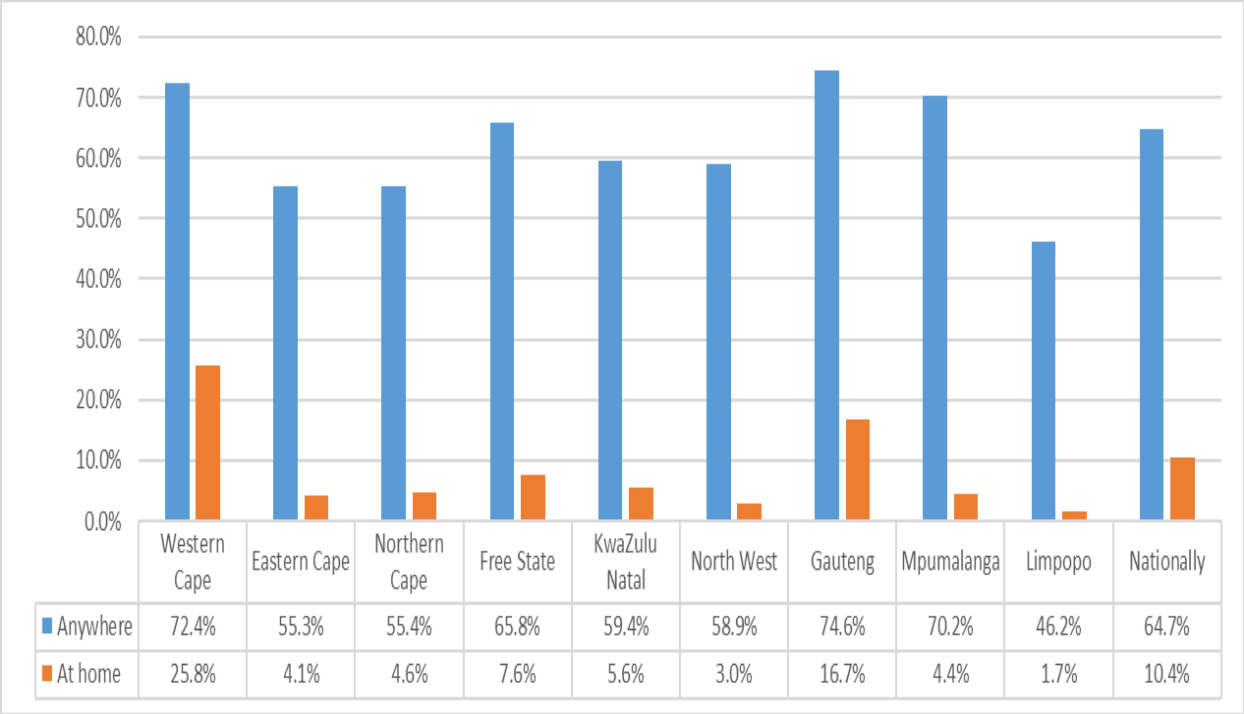

| | Western Cape | Eastern Cape | Northern Cape | Free State | KwaZulu Natal | North West | Gauteng | Mpumalanga | Limpopo | Nationally |
|---|---|---|---|---|---|---|---|---|---|---|
| None | 4.3% | 7.6% | 10.3% | 4.7% | 2.7% | 4.4% | 1.5% | 1.1% | 3.6% | 4.5% |
| Only Landline | 0.1% | 0.1% | 0.3% | 0.0% | 0.2% | 0.1% | 0.0% | 0.0% | 0.0% | 0.1% |
| Only Cell | 77.1% | 88.1% | 83.1% | 89.9% | 90.0% | 92.1% | 90.7% | 96.5% | 94.5% | 89.1% |
| Cell & Landline | 18.4% | 4.2% | 6.3% | 5.3% | 7.2% | 3.4% | 7.8% | 2.3% | 1.9% | 6.3% |

*Source: StatsSA GHS, 2018*

At the national level, the GHS reported that in 2018 the proportion of Households with access to Internet was at 64.7%. In terms of how access is defined, it means that at least one member in a Household could access the Internet either at home, workplace, place of study or Internet café.

At Provincial level, Gauteng was the Province with the highest proportion of Households with access to the Internet at 74.6%, followed by Western Cape at 72.4%. The Province with the lowest access to the Internet was Limpopo at 46.2%.

**Graph 3: Percentage of Households with access to the Internet at home, or for which at least one member has access to or used the Internet by province for 2018**




| | Western Cape | Eastern Cape | Northern Cape | Free State | KwaZulu Natal | North West | Gauteng | Mpumalanga | Limpopo | Nationally |
|---|---|---|---|---|---|---|---|---|---|---|
| Anywhere | 72.4% | 55.3% | 55.4% | 65.8% | 59.4% | 58.9% | 74.6% | 70.2% | 46.2% | 64.7% |
| At home | 25.8% | 4.1% | 4.6% | 7.6% | 5.6% | 3.0% | 16.7% | 4.4% | 1.7% | 10.4% |

*Source: StatsSA GHS, 2018*

In Table 1 below Internet access is further broken down in terms of place of access and geographical type (metropolitan, urban or rural) at both Provincial and National levels. In 2018, more than half (60%) of Households nationally had access to the Internet using mobile devices, with the majority of this access accounted for by Households living in metropolitan areas sitting at 67%. Mobile devices are also the most used means of accessing the Internet by Households in rural areas nationally at 45%.

**Table 1: Households' access to the Internet by place of access, geotype and province, 2018**

| Place where Internet is | Rural/ Urban status | Province (per cent) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WC | EC | NC | FS | KZN | NW | GP | MP | LP | RSA |
| At home | Metro | 31 | 6.3 | - | 13 | 8.9 | - | 18 | - | - | 17 |
| | Urban | 17 | 5.7 | 5.9 | 5.8 | 6.9 | 5.1 | 12 | 6.1 | 5.4 | 8 |
| | Rural | 16 | 1.4 | 1.1 | 2.9 | 1.2 | 0.8 | 6.4 | 3.1 | 0.6 | 1.7 |
| | Total | 26 | 4.1 | 4.6 | 7.6 | 5.6 | 3 | 17 | 4.4 | 1.7 | 10 |
| At work | Metro | 23 | 24 | - | 12 | 23 | - | 27 | - | - | 25 |
| | Urban | 20 | 13 | 15 | 12 | 20 | 11 | 18 | 7.9 | 19 | 15 |
| | Rural | 9.5 | 1.8 | 3.3 | 2.9 | 3.1 | 4.6 | 9.7 | 5.5 | 1.8 | 3.3 |
| | Total | 21 | 12 | 11 | 11 | 15 | 7.6 | 26 | 6.5 | 5.7 | 16 |
| Using mobile devices | Metro | 68 | 72 | - | 70 | 60 | - | 69 | - | - | 67 |
| | Urban | 55 | 58 | 55 | 64 | 61 | 68 | 69 | 76 | 58 | 64 |
| | Rural | 27 | 37 | 50 | 51 | 45 | 47 | 35 | 63 | 39 | 45 |
| | Total | 62 | 54 | 54 | 64 | 55 | 57 | 68 | 69 | 43 | 60 |
| At Internet Cafes or educational facilities | Metro | 16 | 18 | - | 4.3 | 10 | - | 18 | - | - | 16 |
| | Urban | 14 | 9.8 | 2.9 | 11 | 9.2 | 5.8 | 5.7 | 2.5 | 5.6 | 7.6 |
| | Rural | 0 | 1.5 | 1.9 | 5.9 | 4 | 7.7 | 0 | 4.6 | 1.9 | 3.5 |
| | Total | 14 | 9 | 2.6 | 8.3 | 7.8 | 6.7 | 16 | 3.7 | 2.7 | 10 |

*Source: StatsSA GHS, 2018*

# 3 ICT DATA COLLECTED BY ICASA

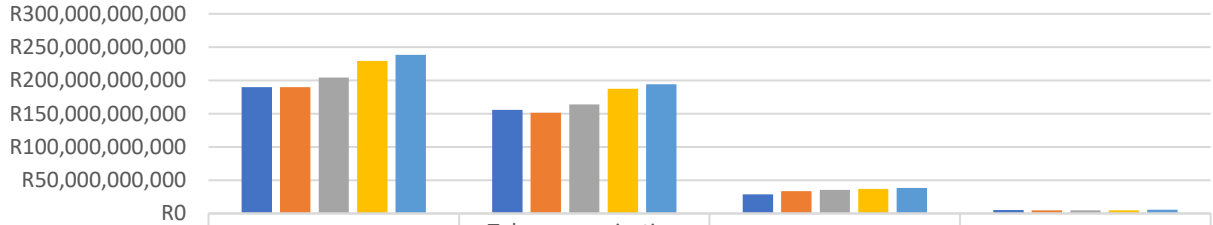
This section reports on the aggregated data that was received by ICASA through questionnaires sent to licensees in December 2019.

## 3.1 Revenue for the three sectors regulated by ICASA

The revenue reported for the three sectors (telecommunications, broadcasting and postal) increased by 4%, from R229 billion in 2018 to R238 billion in 2019. Telecommunication services revenue increased by 3.6% from R187 billion in 2018 to R194 billion in 2019, broadcasting services revenue increased marginally by 3.8% from R36 billion to R38 billion and postal services revenue has significantly increased by 19.9% in 2019.

Over a 5-year period, the combined revenue for the three sectors increased by 5.9%. Over the same period, telecommunication services revenue increased by 5.7%, broadcasting services revenue increased by 7.5% and postal services revenue also increased by 2%.

**Graph 4: Total revenue of the 3 sectors, for the 12 months ending 30th September each year**



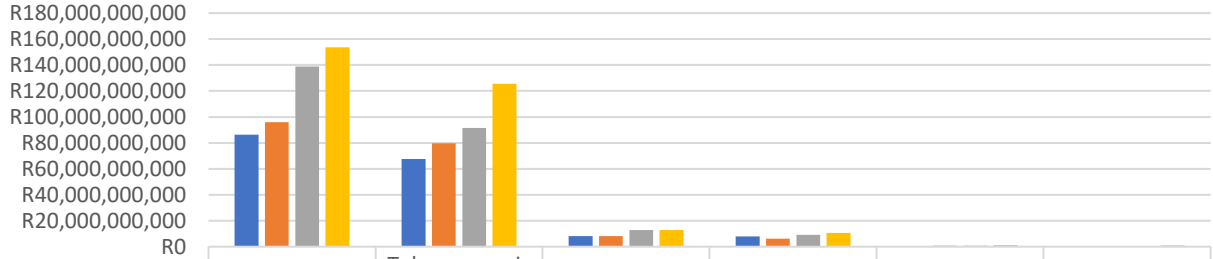

| | Total Sector revenue | Telecommunication revenue | Broadcasting revenue | Postal revenue |
|---|---|---|---|---|
| 2015 | R189,727,239,150 | R155,731,039,861 | R28,688,718,290 | R5,307,481,000 |
| 2016 | R190,044,525,308 | R151,569,024,076 | R33,655,415,072 | R4,820,086,160 |
| 2017 | R204,386,608,276 | R163,987,306,320 | R35,606,415,286 | R4,792,886,670 |
| 2018 | R229,296,293,291 | R187,587,374,843 | R36,921,489,746 | R4,787,428,702 |
| 2019 | R238,351,239,862 | R194,284,132,172 | R38,325,761,969 | R5,741,345,721 |

*Source: ICASA Electronic Telecommunications, Broadcasting and Postal Questionnaire 2019*

### 3.2 Procurement spend from all suppliers in all 3 sectors

Total combined telecommunication services procurement spend from all suppliers was R153 billion in 2019, with R125 billion (81.7%) of that spent on suppliers on the basis of their B-BBEE rating level. Total combined broadcasting services procurement spend from all suppliers was R12 billion in 2019, with R10 billion (82.6%) of that spent on suppliers on the basis of their B-BBEE rating level. Total combined postal services procurement spend from all suppliers was R1.2 billion in 2019, with R1 billion (90.1%) of that spent on suppliers on the basis of their B-BBEE rating level.

**Graph 5: Procurement spend from all suppliers in all 3 sectors**




| | Telecommunication Procument Spend from all supplliers | Telecommunication Procument Spend from all supplliers based on the B-BBEE Procument Recognition Levels | Broadcasting Procument Spend from all supplliers | Broadcasting Procument Spend from all supplliers based on the B-BBEE Procument Recognition Levels | Postal service Procument Spend from all supplliers | Postal service Procument Spend from all supplliers based on the B-BBEE Procument Recognition Levels |
|---|---|---|---|---|---|---|
| 2016 | R86,448,461,0 | R67,548,274,2 | R8,267,951,96 | R8,018,052,76 | R555,395,857 | R555,395,857 |
| 2017 | R95,898,396,4 | R79,716,674,4 | R8,133,329,92 | R6,243,530,61 | R817,935,346 | R503,345,609 |
| 2018 | R138,796,397, | R91,387,499,3 | R12,916,707,2 | R9,164,201,65 | R747,631,839 | R8,523,706 |
| 2019 | R153,709,327, | R125,580,981, | R12,966,834,3 | R10,703,663,7 | R1,212,745,25 | R1,092,692,23 |

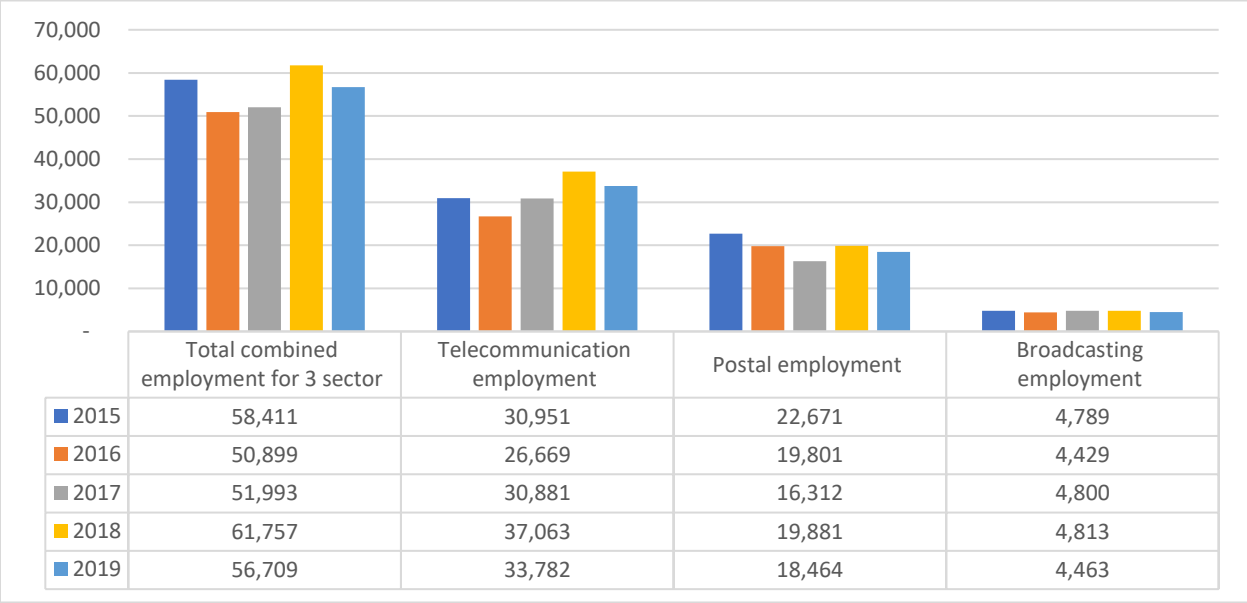
*Source: ICASA Electronic Communications, Broadcasting and Postal Questionnaires, December 2019*

### 3.3 Employment levels for the three sectors that ICASA regulates

Total overall employment numbers for the three sectors decreased by 8.2% in 2019. Over the same period, employment changes in the specific sectors were as follows: telecommunications sector employment decreased by 8.9%, postal sector employment also decreased by 7.1% and broadcasting sector employment decreased by 7.3%.

Over a 5-year period, the total sector employment decreased by 0.7%. Telecommunications increased by 2.2%, broadcasting employment increased by 1.8% and postal service employment still shows a decline in terms of growth as it decreased by 5% for the same period.

**Graph 6: Total employment for the 3 sectors, as of 30th September each year**




| | Total combined employment for 3 sector | Telecommunication employment | Postal employment | Broadcasting employment |
|---|---|---|---|---|
| 2015 | 58,411 | 30,951 | 22,671 | 4,789 |
| 2016 | 50,899 | 26,669 | 19,801 | 4,429 |
| 2017 | 51,993 | 30,881 | 16,312 | 4,800 |
| 2018 | 61,757 | 37,063 | 19,881 | 4,813 |
| 2019 | 56,709 | 33,782 | 18,464 | 4,463 |

*Source: ICASA Electronic Communications, Broadcasting and Postal Questionnaires 2019*

# 4 TELECOMMUNICATIONS SECTOR

The telecommunications sector is a critical part of modern lifestyles and has significant influence on the growth of the country's economy as it strengthens productivity levels.

South Africa's telecommunications sector has continued to grow despite the economic challenges faced by the nation. Mobile subscriptions and internet penetration and other related services continue to grow. South Africa's fibre network and data centre markets are expanding rapidly.

The Authority continues to work on regulatory initiatives aimed at reducing the cost to communication. To this effect, the Authority published its initial analysis on the mobile broadband services market inquiry on 29 November 2019 so as to solicit stakeholder comments. The Authority is also in the process of engaging the Competition Commission on its final findings and recommendations report for the data services market inquiry published on 2 December 2019. The purpose of the Inquiry was to investigate the cause and reason for alleged high prices for data services in South Africa, and to make recommendations that would lead to lower prices for data services.

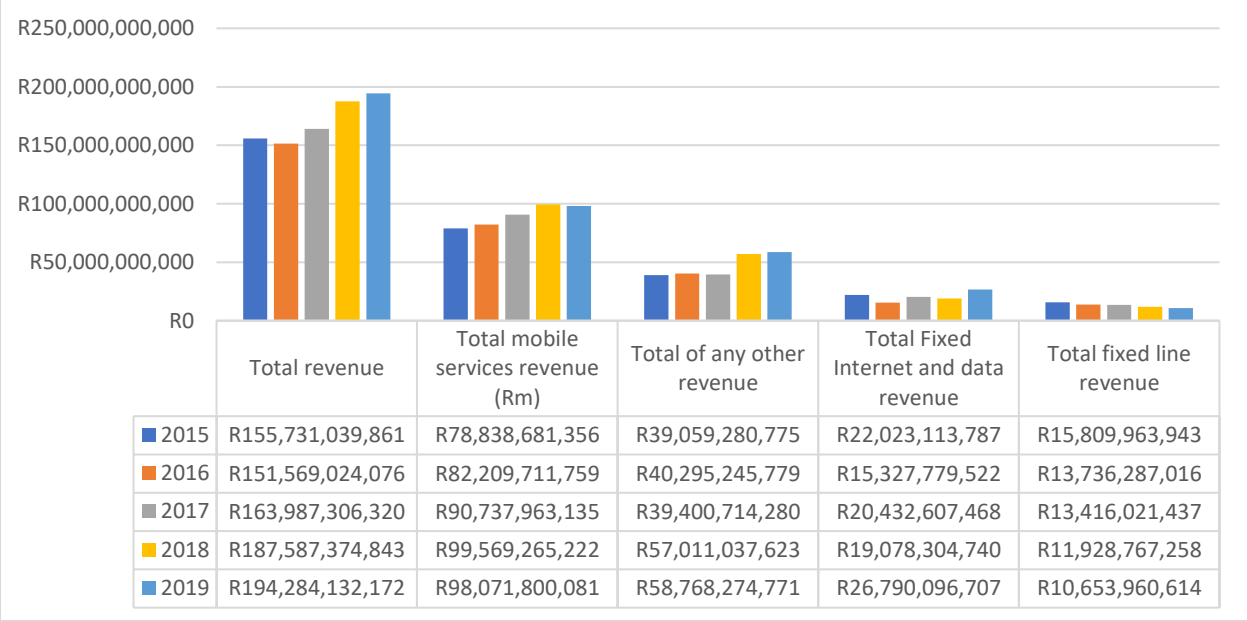
Following the Policy Directive from the Minister of Telecommunications and Digital Technologies on high demand spectrum in July 2019, the Authority has since published an Information Memorandum in November 2019.

### 4.1 Telecommunications Sector Revenues

The total telecommunication revenue increased by 3.6% in 2019. Total fixed internet and data revenue increased by 33.2% in 2019. Total mobile services revenue and total fixed line revenue decreased by 1.5% and 10.7%, respectively in 2019.

Over a period of 5 years total mobile services revenue and total of any other revenue increased by 5.7% and 3.1%, respectively. Total fixed internet and data revenue increased by 10.8% and total fixed line revenue decreased by 9.4% for the same period.

**Graph 7: Telecommunications revenue, for the 12 months ending 30th September each year**




| | Total revenue | Total mobile services revenue (Rm) | Total of any other revenue | Total Fixed Internet and data revenue | Total fixed line revenue |
|---|---|---|---|---|---|
| 2015 | R155,731,039,861 | R78,838,681,356 | R39,059,280,775 | R22,023,113,787 | R15,809,963,943 |
| 2016 | R151,569,024,076 | R82,209,711,759 | R40,295,245,779 | R15,327,779,522 | R13,736,287,016 |
| 2017 | R163,987,306,320 | R90,737,963,135 | R39,400,714,280 | R20,432,607,468 | R13,416,021,437 |
| 2018 | R187,587,374,843 | R99,569,265,222 | R57,011,037,623 | R19,078,304,740 | R11,928,767,258 |
| 2019 | R194,284,132,172 | R98,071,800,081 | R58,768,274,771 | R26,790,096,707 | R10,653,960,614 |

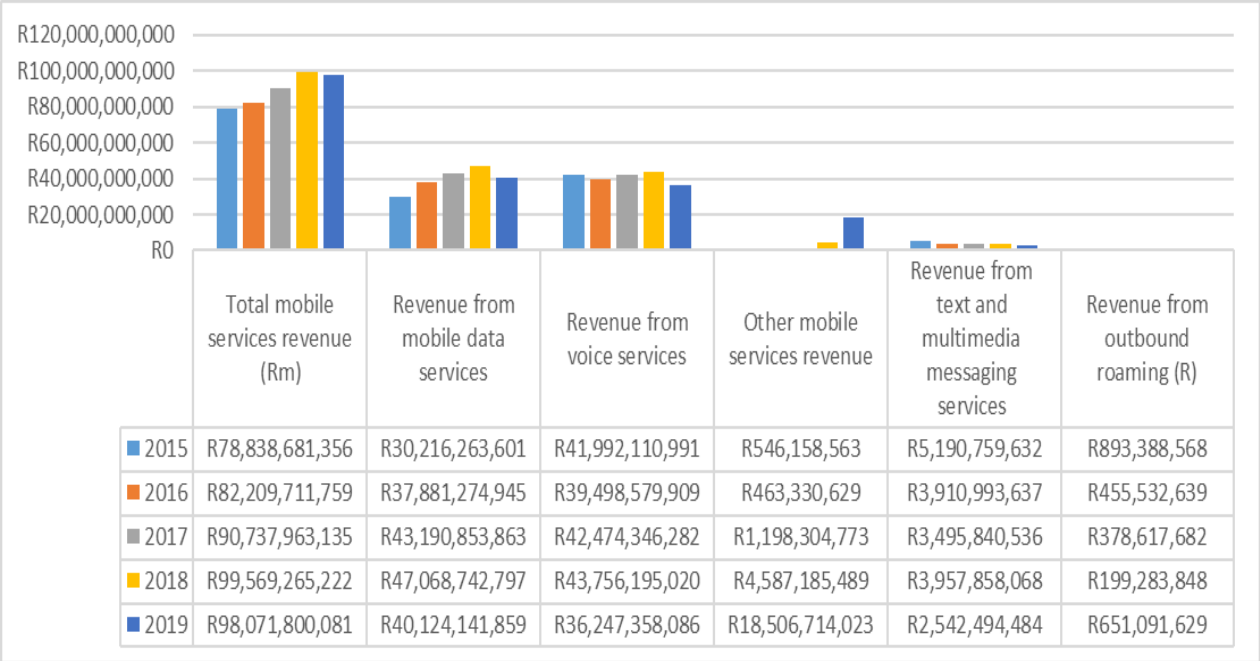
*Source: ICASA Electronic Communications Questionnaire 2019*
*Note: Includes revenues from telecommunication services earned from retail fixed-telephone, mobile-cellular, internet and data services offered by telecommunication operators (both network and virtual, including resellers) and interconnection, equipment sales and any other revenue.*

### 4.1.1 Total Mobile Services Revenue

The total mobile services revenue and revenue from mobile data services decreased by 1.5% and 14.8%, respectively in 2019. Revenue from outbound roaming increased by over 100% in 2019.

For a period of 5 years total mobile services revenue and revenue from mobile data services increased by 5.6% and 7.4%, respectively. Revenue from outbound roaming and revenue from voice services decreased by 3.6% and 7.6%, respectively.

**Graph 8: Mobile services revenue for the 12 months, ending 30th September each year**




| | Total mobile services revenue (Rm) | Revenue from mobile data services | Revenue from voice services | Other mobile services revenue | Revenue from text and multimedia messaging services | Revenue from outbound roaming (R) |
|---|---|---|---|---|---|---|
| 2015 | R78,838,681,356 | R30,216,263,601 | R41,992,110,991 | R546,158,563 | R5,190,759,632 | R893,388,568 |
| 2016 | R82,209,711,759 | R37,881,274,945 | R39,498,579,909 | R463,330,629 | R3,910,993,637 | R455,532,639 |
| 2017 | R90,737,963,135 | R43,190,853,863 | R42,474,346,282 | R1,198,304,773 | R3,495,840,536 | R378,617,682 |
| 2018 | R99,569,265,222 | R47,068,742,797 | R43,756,195,020 | R4,587,185,489 | R3,957,858,068 | R199,283,848 |
| 2019 | R98,071,800,081 | R40,124,141,859 | R36,247,358,086 | R18,506,714,023 | R2,542,494,484 | R651,091,629 |

*Source: ICASA Electronic Communications Questionnaire 2019*

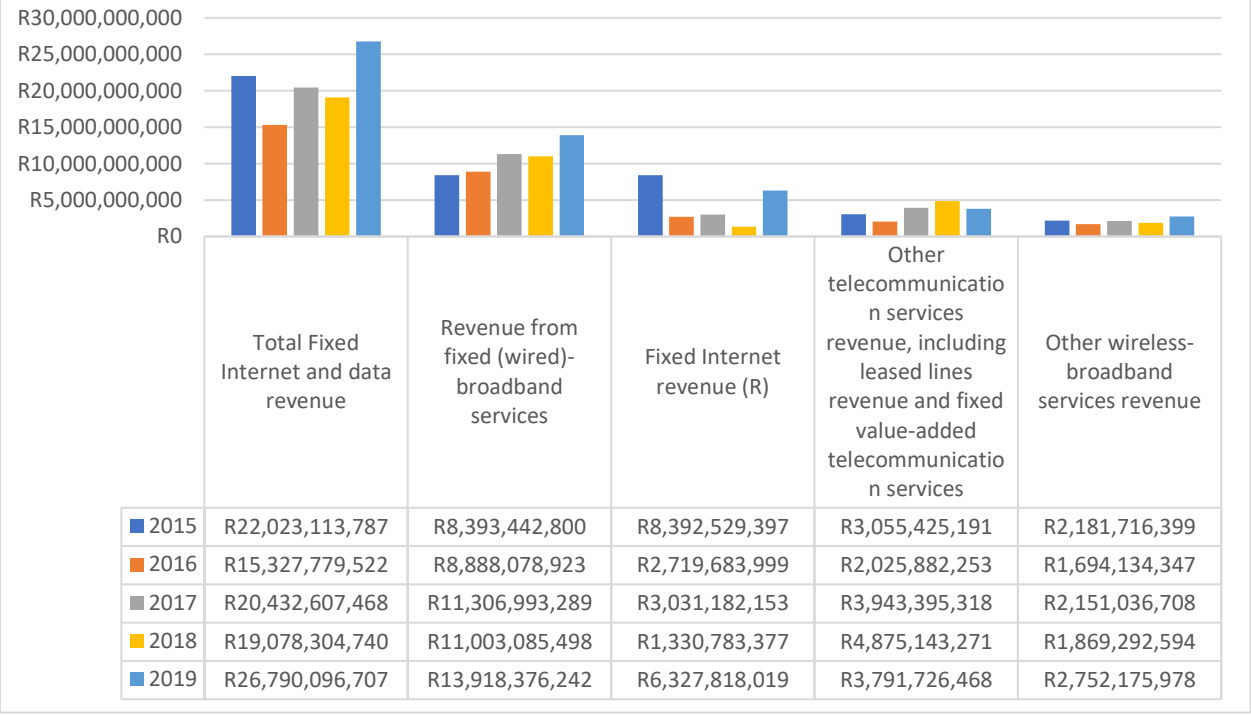
*Note: This includes retail mobile revenue from the provision of voice services from national and international calls; outbound roaming abroad; mobile data; and text messaging and multimedia messaging (SMS and MMS) and any other mobile revenue. Excludes equipment revenue and termination (interconnection) revenue and any other revenue categories e.g. other wholesale services.*

### 4.1.2 Total Fixed Internet and Data Revenues

Total fixed internet and data revenue increased by 40.4% from R19 billion in 2018 to R26 billion in 2019. Revenue from fixed (wired)-broadband services increased by 26.5% for the same period.

Over a 5-year period, total fixed internet and data revenues and revenue from fixed (wired)-broadband services increased by 5% and 13.5%, respectively.

**Graph 9: Fixed internet revenue, 12 months ending 30th September each year**




| | Total Fixed Internet and data revenue | Revenue from fixed (wired)-broadband services | Fixed Internet revenue (R) | Other telecommunication services revenue, including leased lines revenue and fixed value-added telecommunication services | Other wireless-broadband services revenue |
|---|---|---|---|---|---|
| 2015 | R22,023,113,787 | R8,393,442,800 | R8,392,529,397 | R3,055,425,191 | R2,181,716,399 |
| 2016 | R15,327,779,522 | R8,888,078,923 | R2,719,683,999 | R2,025,882,253 | R1,694,134,347 |
| 2017 | R20,432,607,468 | R11,306,993,289 | R3,031,182,153 | R3,943,395,318 | R2,151,036,708 |
| 2018 | R19,078,304,740 | R11,003,085,498 | R1,330,783,377 | R4,875,143,271 | R1,869,292,594 |
| 2019 | R26,790,096,707 | R13,918,376,242 | R6,327,818,019 | R3,791,726,468 | R2,752,175,978 |

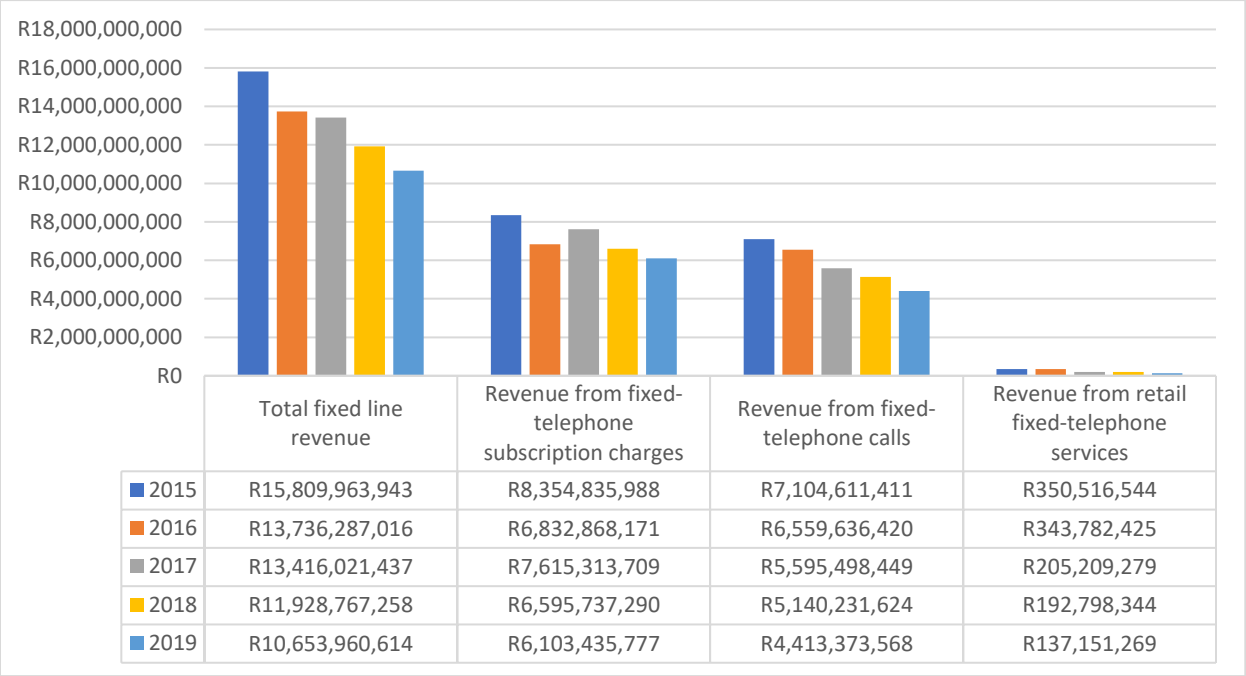
*Source: ICASA Electronic Communications Questionnaire, December 2019*
*Note: *One of the big operators did not submit the fixed internet revenue in 2018**

### 4.1.3 Total Fixed Line Revenue

The total fixed line revenue decreased by 10.7% from R11.9 billion in 2018 to R10.6 billion in 2019. Revenue from fixed-telephone calls decreased by 14.1% in 2019.

For a period of 5 years, the fixed line revenue shows a decrease in all categories as shown on the graph below.

**Graph 10: Total Fixed line revenue, 12 months ending 30th September each year**




| | Total fixed line revenue | Revenue from fixed-telephone subscription charges | Revenue from fixed-telephone calls | Revenue from retail fixed-telephone services |
|---|---|---|---|---|
| 2015 | R15,809,963,943 | R8,354,835,988 | R7,104,611,411 | R350,516,544 |
| 2016 | R13,736,287,016 | R6,832,868,171 | R6,559,636,420 | R343,782,425 |
| 2017 | R13,416,021,437 | R7,615,313,709 | R5,595,498,449 | R205,209,279 |
| 2018 | R11,928,767,258 | R6,595,737,290 | R5,140,231,624 | R192,798,344 |
| 2019 | R10,653,960,614 | R6,103,435,777 | R4,413,373,568 | R137,151,269 |

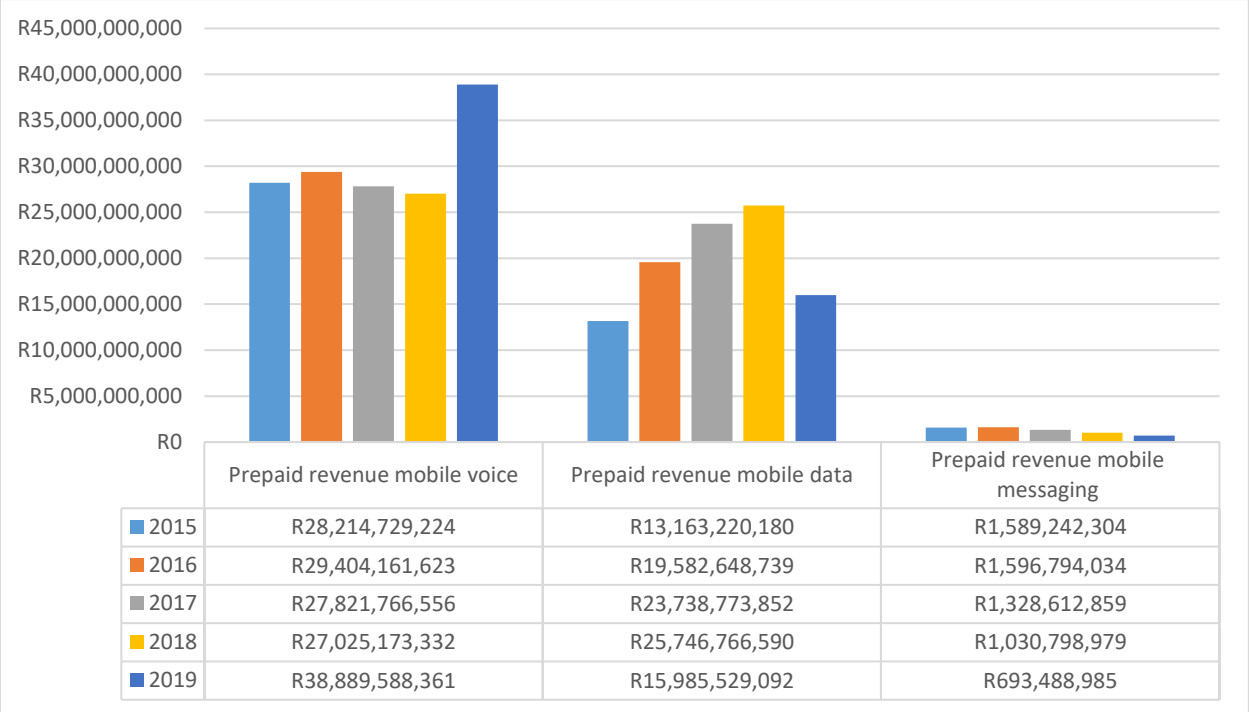
*Source: ICASA Electronic Communications Questionnaire, December 2019*

### 4.1.4 Prepaid Mobile Voice, Data and Messaging Revenue

In 2019, prepaid revenue mobile voice increased by 43.9%, whilst revenue from both prepaid mobile data and messaging decreased by 37.9% and 32.7%, respectively.

Over a 5-year period revenue from prepaid mobile voice and data increased by 8.4% and 5% respectively. Revenue from prepaid mobile messaging decreased by 18.7%.

**Graph 11: Prepaid mobile voice, data and messaging revenue for the 12 months ending on 30th September each year**




| | Prepaid revenue mobile voice | Prepaid revenue mobile data | Prepaid revenue mobile messaging |
|---|---|---|---|
| 2015 | R28,214,729,224 | R13,163,220,180 | R1,589,242,304 |
| 2016 | R29,404,161,623 | R19,582,648,739 | R1,596,794,034 |
| 2017 | R27,821,766,556 | R23,738,773,852 | R1,328,612,859 |
| 2018 | R27,025,173,332 | R25,746,766,590 | R1,030,798,979 |
| 2019 | R38,889,588,361 | R15,985,529,092 | R693,488,985 |

*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.1.5 Prepaid data prices (month validity)

The Prepaid data bundle sizes range from 100 MB to 20480 MB, with prices ranges as indicated in the table below. The data bundles are valid for a period of a month with an automatic roll-over for any unused data remaining after the expiry of the validity period.

**Table 2: Prepaid data price (month validity)**

| Prepaid data Bundle prices | | |
|---|---|---|
| **Data Bundle (MB)** | **Price Range per MB** | |
| | **Lowest price** | **Highest price** |
| 100 (MB) | R29 | R29.25 |
| 250 (MB) | R39.50 | R63 |
| 300 (MB) | R60 | R60 |
| 500 (MB) | R69.60 | R100 |
| 600 (MB) | R99 | R99 |
| 750 (MB) | R100 | R120 |
| 1024 (MB) | R100 | R149 |
| 1536 (MB) | R149 | R189 |
| 2048 (MB) | R140 | R249 |
| 2560 (MB) | R249 | R249 |
| 3072 (MB) | R201 | R299 |
| 4608 (MB) | R299 | R299 |
| 5120 (MB) | R301 | R405 |
| 6144 (MB) | R399 | R399 |
| 6656 (MB) | R399 | R399 |
| 10240 (MB) | R499 | R605 |
| 20480 (MB) | R799 | R1,010 |

*Source:ICASA Electronic Communications Questionnaire as at 2020*

### 4.1.6 Post-paid data prices (month validity)

The post-paid data bundle, as indicated in the table below, shows the price ranges per Gigabyte.

**Table 3: Post-paid data price (month validity)**

| Post-paid data price | | |
|---|---|---|
| **Data Bundle (GB)** | **Price Range per GB** | |
| | **Lowest price** | **Highest price** |
| **1 GB** | **R40** | **R79** |
| **2 GB** | **R60** | **R110** |
| **3 GB** | **R149** | **R171** |
| **4 GB** | **R100** | **R100** |
| **5 GB** | **R199** | **R221** |
| **6 GB** | **R129** | **R129** |
| **10 GB** | **R200** | **R332** |
| **14 GB** | **R259** | **R259** |
| **20 GB** | **R355** | **R504** |
| **30 GB** | **R605** | **R699** |
| **50 GB** | **R907** | **R999** |
| **100 GB** | **R1,210** | **R1,699** |
| **200 GB** | **R2,099** | **R2,099** |

*Source: ICASA Electronic Communications Questionnaire as at 2020*

### 4.1.7 Prepaid and Post-paid Voice and Messaging prices

The price range per minute, for prepaid voice is from R0.66 to R2 and for post-paid is from R1.52 to R2.77.

The local SMS's prices range for prepaid is between R0.15 and R0.52 and post-paid is between R0.50 and R0.80.

The international SMS's price range for prepaid and post-paid is from R1.61 to R2 and R1.61 to R1.72, respectively.

**Table 4: Prepaid and post-paid voice and SMS prices**

| Price range | Voice (Per minute) | SMS (Local) | SMS (International) |
|---|---|---|---|
| **Prepaid** | R0.66 to R2.00 | R0.15 to R0.52 | R1.61 to R2.00 |
| **Post-paid** | R1.52 to R2.77 | R0.50 to R0.80 | R1.61 to R1.72 |

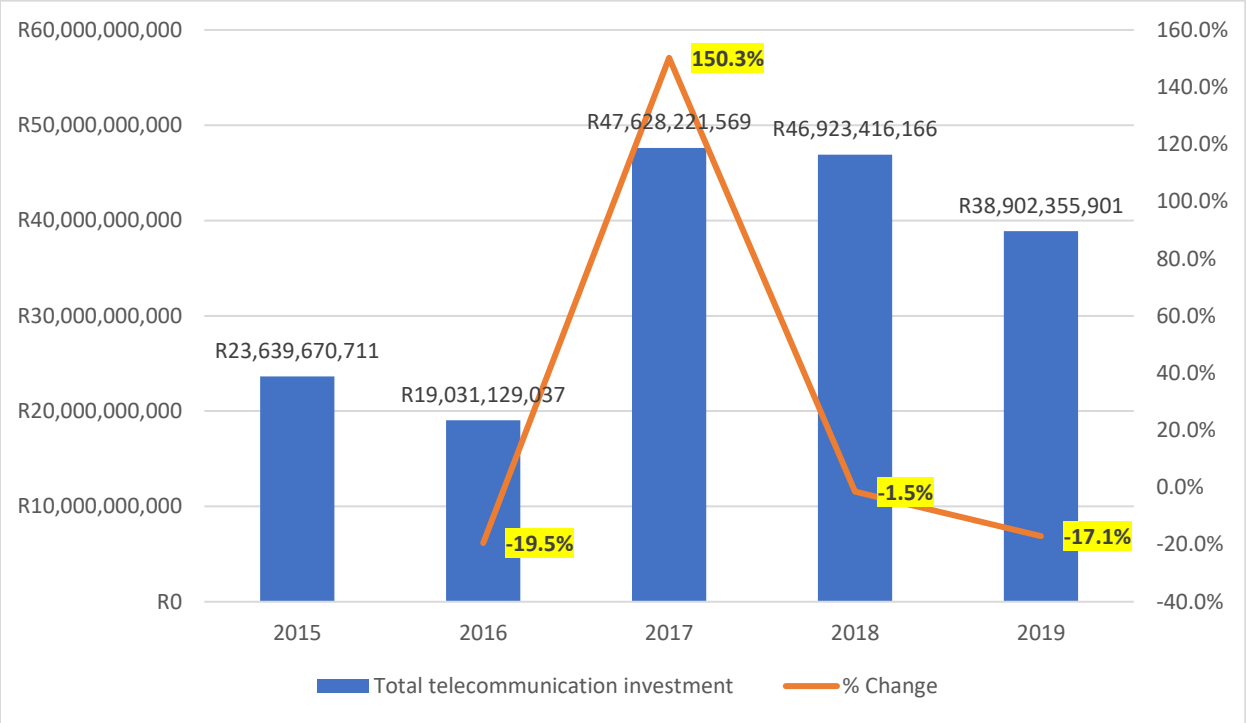
*Source: ICASA Electronic Communications Questionnaire as at 2020*

## 4.2 Total Telecommunication Investment

Total telecommunication investment decreased by 17.1% from R46 billion in 2018 to R38 billion in 2019.

Over a 5-year period, total telecommunication investment increased by 13.3%.

**Graph 12: Total telecommunication investment, for the 12 months ending 30th September each year**



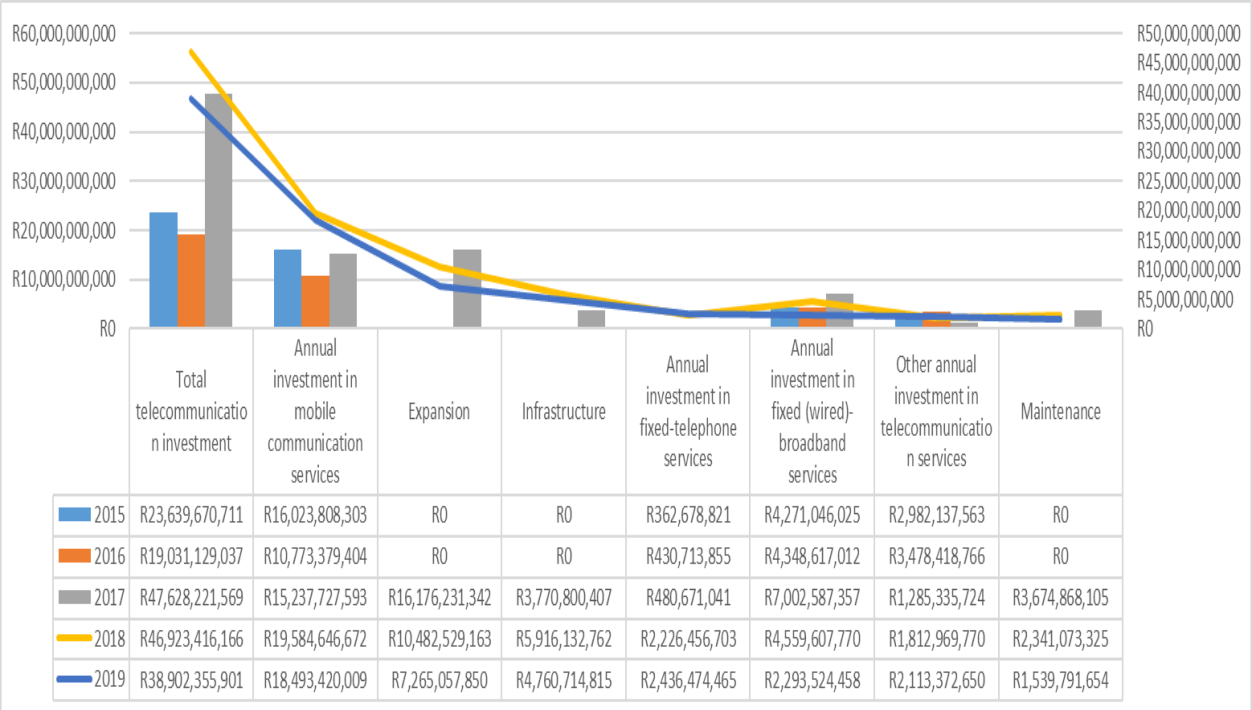

*Source: ICASA Electronic Communications, Broadcasting and Postal Questionnaires 2019*

### 4.2.1 Telecommunication Investment Breakdown

Total combined annual investment in the telecommunication sector decreased by 17.1%. Annual investment in mobile communication service and Annual investment in fixed (wired)-broadband services decreased by 5.6% and 49.7%, respectively in 2019.

Over a 5-year period the total telecommunication investment increased by 13.3%, Annual investment in mobile communication service increased by 3.7% for the same period.

**Graph 13: Telecommunication investment breakdown, for the 12 months ending 30th September each year**



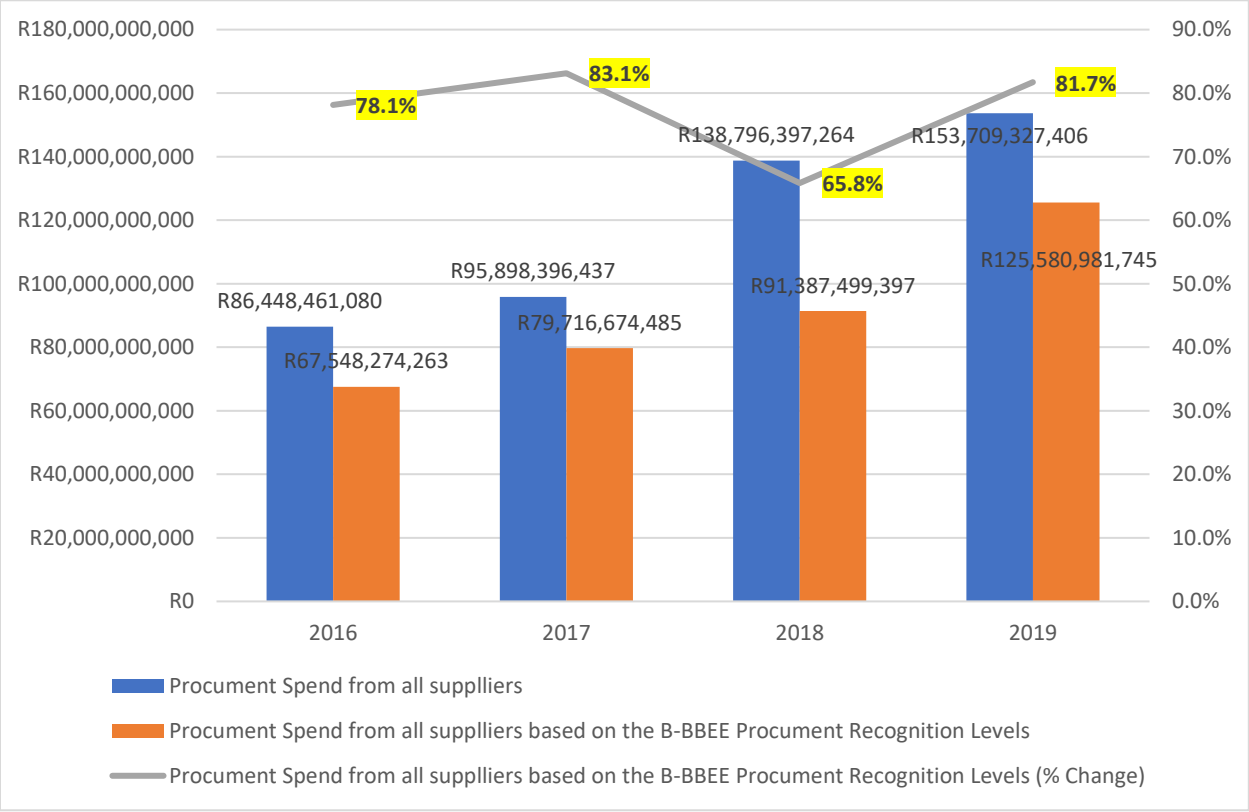

| | Total telecommunication investment | Annual investment in mobile communication services | Expansion | Infrastructure | Annual investment in fixed-telephone services | Annual investment in fixed (wired)-broadband services | Other annual investment in telecommunication services | Maintenance |
|---|---|---|---|---|---|---|---|---|
| 2015 | R23,639,670,711 | R16,023,808,303 | R0 | R0 | R362,678,821 | R4,271,046,025 | R2,982,137,563 | R0 |
| 2016 | R19,031,129,037 | R10,773,379,404 | R0 | R0 | R430,713,855 | R4,348,617,012 | R3,478,418,766 | R0 |
| 2017 | R47,628,221,569 | R15,237,727,593 | R16,176,231,342 | R3,770,800,407 | R480,671,041 | R7,002,587,357 | R1,285,335,724 | R3,674,868,105 |
| 2018 | R46,923,416,166 | R19,584,646,672 | R10,482,529,163 | R5,916,132,762 | R2,226,456,703 | R4,559,607,770 | R1,812,969,770 | R2,341,073,325 |
| 2019 | R38,902,355,901 | R18,493,420,009 | R7,265,057,850 | R4,760,714,815 | R2,436,474,465 | R2,293,524,458 | R2,113,372,650 | R1,539,791,654 |

*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.3 Telecommunication Procurement Spend from All Suppliers Based on B-BBEE Ranking.

The proportion of telecommunication procurement spend from all suppliers based on the B-BBEE ranking levels was 78.1% in 2016 to 81.7% in 2019 of total procurement spend from all suppliers.

**Graph 14: Telecommunication procurement spend from all suppliers based on the B-BBEE, for the 12-month period ending 30th September each year**



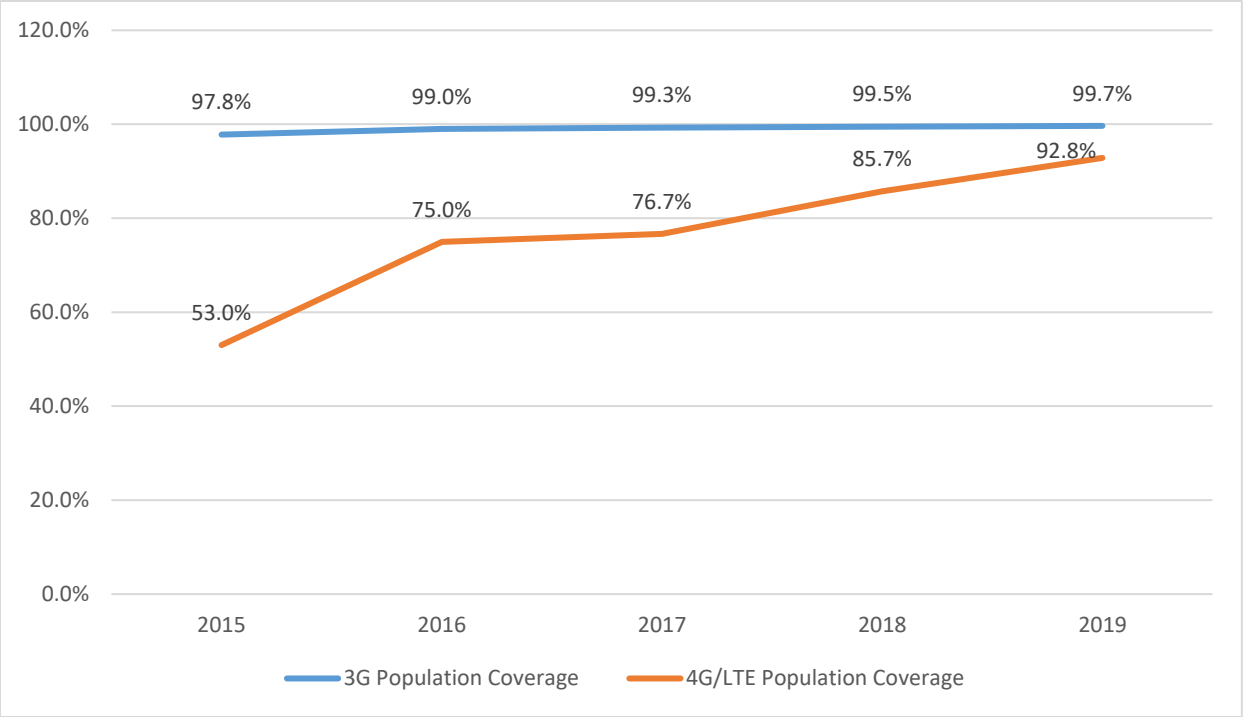

*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.4 National Population Coverage

National population coverage for 3G increased from 99.5% in 2018 to 99.7% in 2019.

National population coverage for 4G/LTE increased from 85.7% in 2018 to 92.8% in 2019.

**Graph 15: National population coverage for 3G and 4G/LTE**



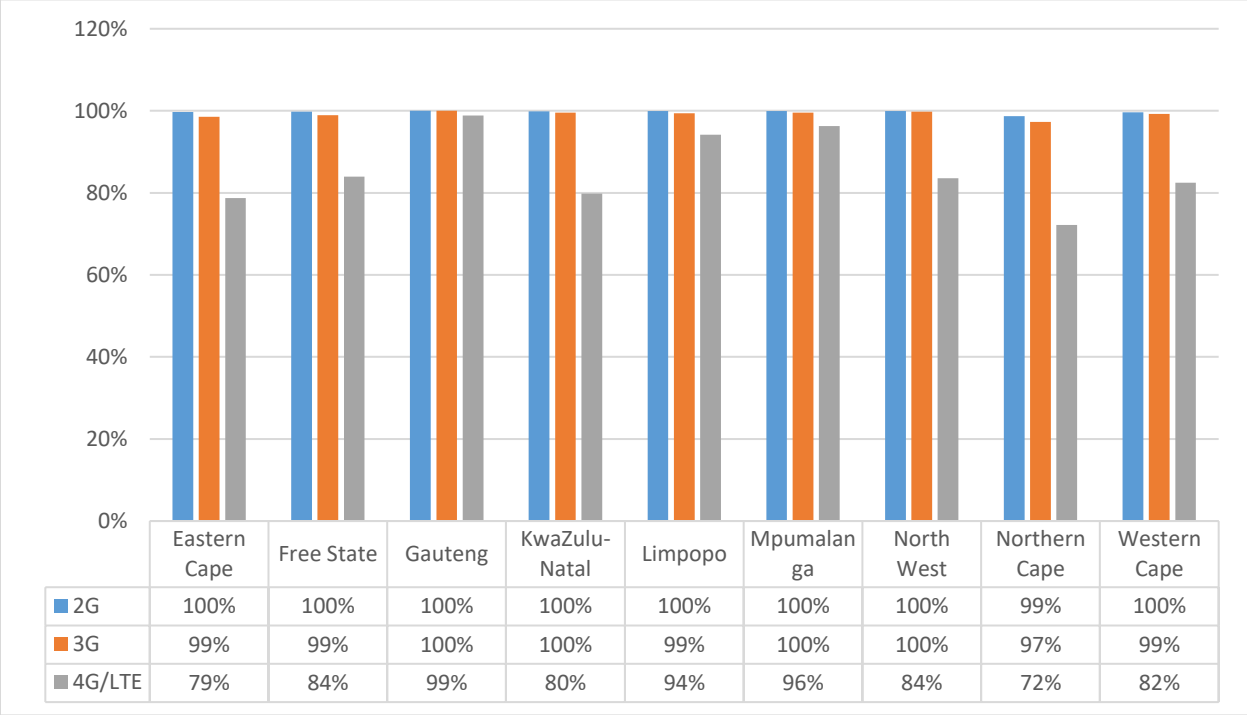

*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.4.1 Rural Population Coverage

Northern Cape had the lowest coverage of 2G, 3G and LTE sitting at 99%, 97% and 72% in 2019, respectively.

Gauteng Province had the highest population coverage of LTE at 99%, followed by Mpumalanga Province at 96%.

**Graph 16: Rural Population Covered per province in 2019**




| | Eastern Cape | Free State | Gauteng | KwaZulu-Natal | Limpopo | Mpumalanga | North West | Northern Cape | Western Cape |
|---|---|---|---|---|---|---|---|---|---|
| 2G | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 99% | 100% |
| 3G | 99% | 99% | 100% | 100% | 99% | 100% | 100% | 97% | 99% |
| 4G/LTE | 79% | 84% | 99% | 80% | 94% | 96% | 84% | 72% | 82% |

*Source: ICASA Electronic Communications Questionnaire 2019*

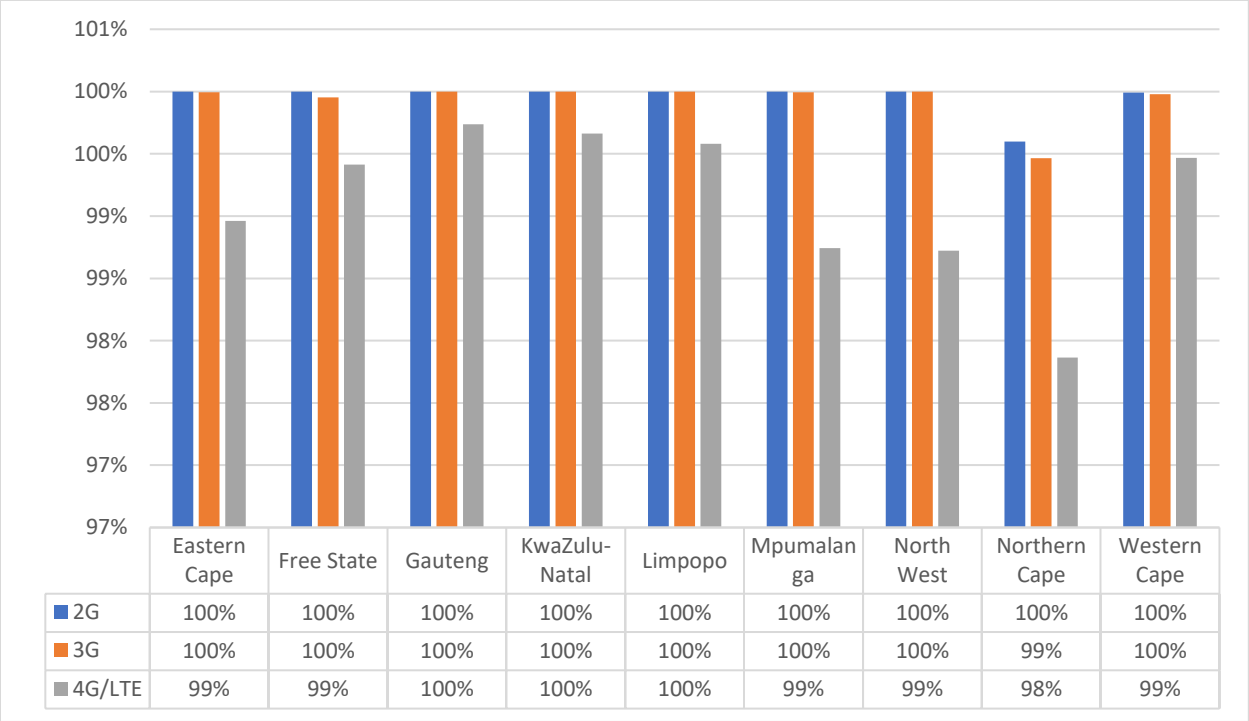
### 4.4.2 Urban Population Coverage

**2G**: All nine Provinces had a 100% 2G urban population coverage in 2019.

**3G:** Northern Cape Province had the lowest 3G urban population coverage at 99% in 2019, with the rest of the other Provinces at 100%.

**LTE:** The lowest Province was the Northern Cape at 98% coverage in 2019.

**Graph 17: Urban Population Covered per province in 2019**



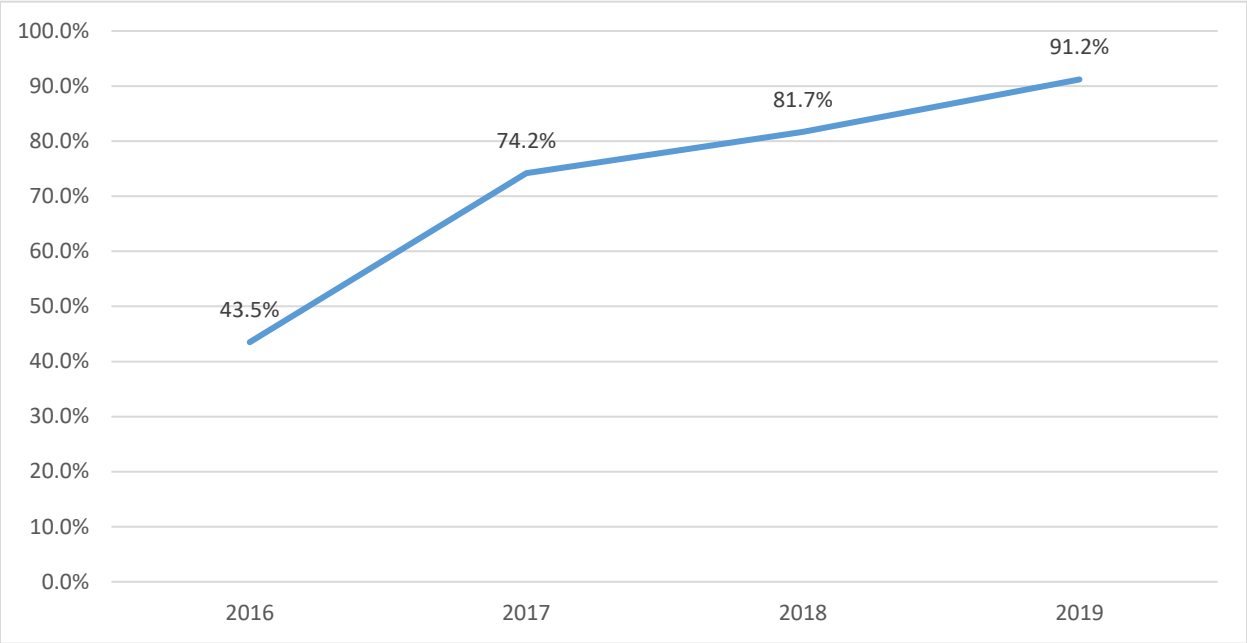

| | Eastern Cape | Free State | Gauteng | KwaZulu-Natal | Limpopo | Mpumalanga | North West | Northern Cape | Western Cape |
|---|---|---|---|---|---|---|---|---|---|
| 2G | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 3G | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 99% | 100% |
| 4G/LTE | 99% | 99% | 100% | 100% | 100% | 99% | 99% | 98% | 99% |

*Source: ICASA Electronic Communications Questionnaire 2019*

## 4.5 Smartphone Penetration

Smartphone[1] penetration was at 81.7% in 2018 and 91.2% in 2019.

**Graph 18: Smartphone penetration, as at 30th September each year**



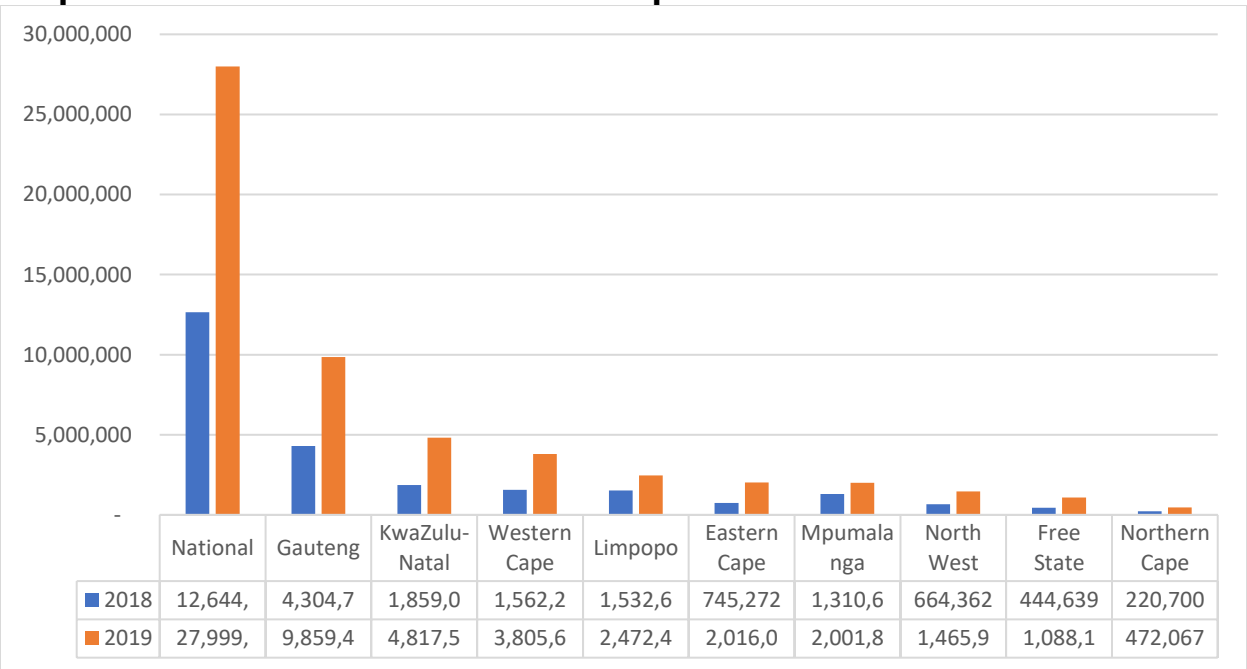

*Source: ICASA Electronic Communications Questionnaire.2019*

[1] *A smartphone is a mobile phone with advanced features: it has Wi-Fi connectivity, web browsing capabilities, a high-resolution touchscreen display and the ability to use apps. The majority use one of the following mobile operating systems: Android, Symbian, iOS, BlackBerry OS and Windows Mobile*

### 4.5.1 Total Number of LTE Devices

The LTE devices subscribers is growing fast in all provinces as it shown on the graph below.

**Graph 19: Total number of LTE Devices per Province in 2019**




| | National | Gauteng | KwaZulu-Natal | Western Cape | Limpopo | Eastern Cape | Mpumalanga | North West | Free State | Northern Cape |
|---|---|---|---|---|---|---|---|---|---|---|
| 2018 | 12,644, | 4,304,7 | 1,859,0 | 1,562,2 | 1,532,6 | 745,272 | 1,310,6 | 664,362 | 444,639 | 220,700 |
| 2019 | 27,999, | 9,859,4 | 4,817,5 | 3,805,6 | 2,472,4 | 2,016,0 | 2,001,8 | 1,465,9 | 1,088,1 | 472,067 |

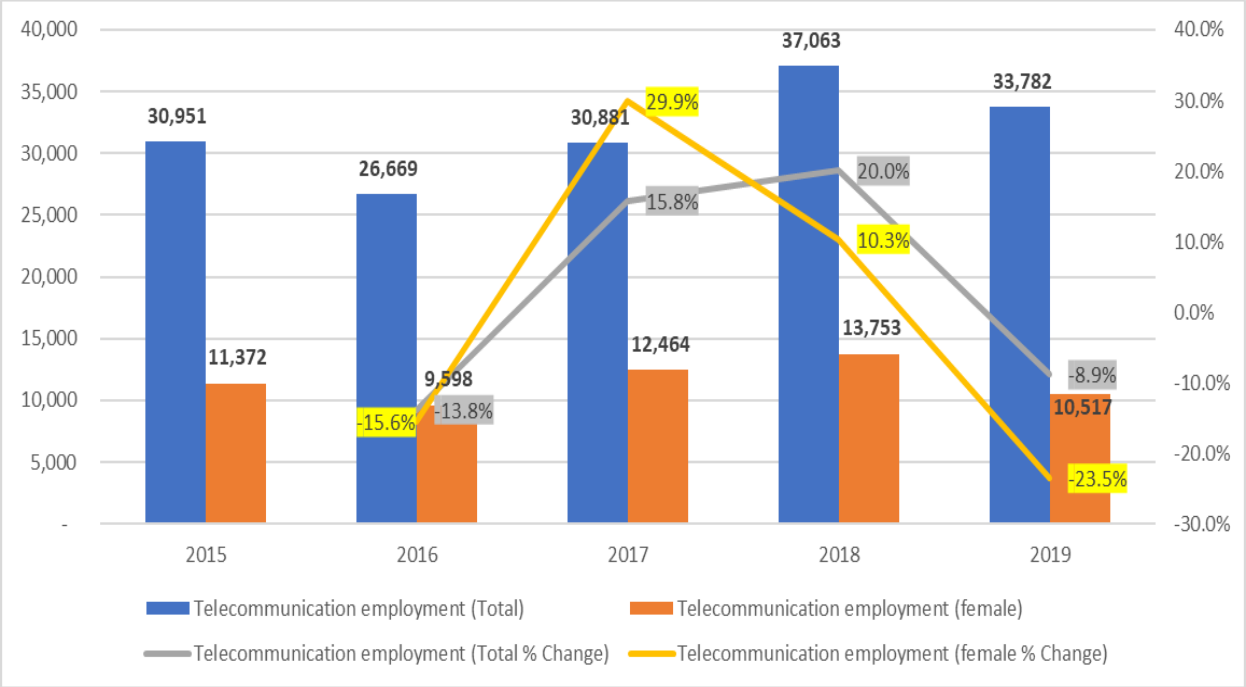
*Source: ICASA Electronic Communications Questionnaire 2019*
*Note: *Some of the big operators did not submit the LTE devices in 2018**

### 4.6 Persons Employed in the Telecommunications Sector

Total employment in the telecommunication sector decreased by 8.9% from 37,063 in 2018 to 33,782 in 2019. Female employees as a proportion of the total employment decreased by 23.5% in 2019.

Over a 5-year period, telecommunications sector total employment increased by 2.2%. Over the same period the number of female employees decreased by 1.9%.

**Graph 20: Persons employed in the telecommunications sector, as of the 30th September each year**

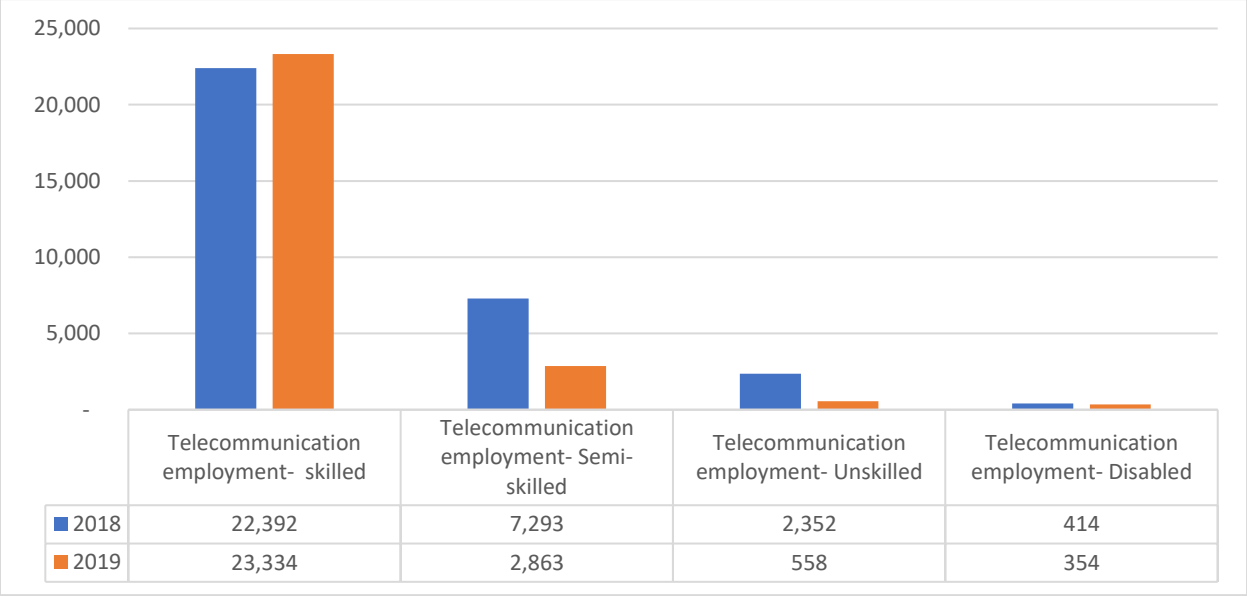



*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.7 Persons employed in the telecommunications sector breakdown

Telecommunication employment, skilled employees increased by 4.2%, semi-skilled and unskilled decreased by 60.7% and 76.3%, respectively in 2019. The disabled employment also decreased by 14.5% for the same period.

**Graph 21: Persons employed in the telecommunications sector breakdown in 2019**




| | Telecommunication employment- skilled | Telecommunication employment- Semi-skilled | Telecommunication employment- Unskilled | Telecommunication employment- Disabled |
|---|---|---|---|---|
| 2018 | 22,392 | 7,293 | 2,352 | 414 |
| 2019 | 23,334 | 2,863 | 558 | 354 |

*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.8 Black Economic Empowerment Employment Measures

Top Management (EXCO Members) in the telecommunication sector increased by 12.6%, Black Top Management (EXCO Members) increased by 19.1% and Black Females in Top Management (EXCO Members) decreased by 3.5% in 2019.

**Graph 22: Telecommunication Black Economic Empowerment Measures, for the 12-month period ending 30th September each year**


| | Telecoms employment- Top Management(EXCO Members) | Telecoms employment- Black Top Management(EXCO Members) | Telecoms employment- Black Top Female Management(EXCO Members) |
|---|---|---|---|
| 2017 | 192 | 52 | 21 |
| 2018 | 255 | 68 | 29 |
| 2019 | 287 | 81 | 28 |

*Source: ICASA Electronic Communications Questionnaire 2019*

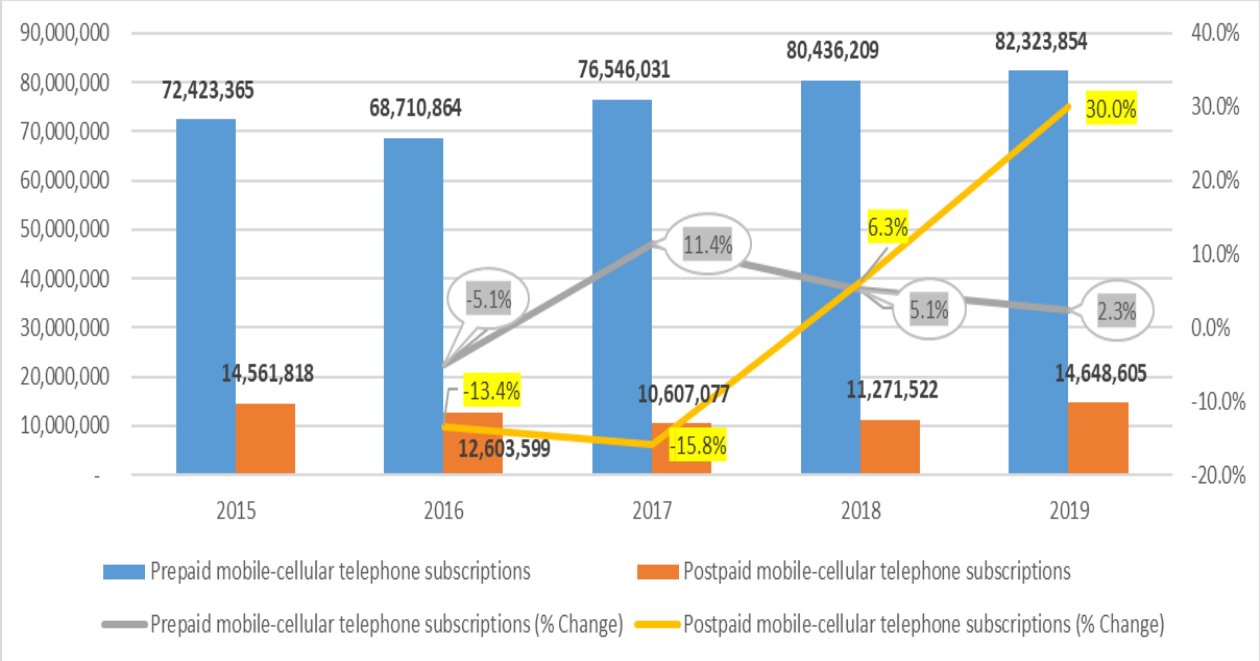
## 4.9 Telecommunications Subscriptions

### 4.9.1 Prepaid and Post-paid mobile Cellular Phone Voice Subscriptions

Total mobile cellular phone voice subscriptions increased by 5.7% from 91 million in 2018 to 96 million in 2019. Of this total, 82 million (85%) was prepaid subscriptions and 14 million (15%) was post-paid subscriptions in 2019.

Over a 5-year period, the total mobile cellular phone voice subscriptions increased by 2.8%, prepaid mobile cellular subscriptions increased by 3.3%, and post-paid mobile cellular subscriptions decreased by 0.2%.

**Graph 23: Prepaid and post-paid mobile cellular voice subscriptions, as at 30th September each year**



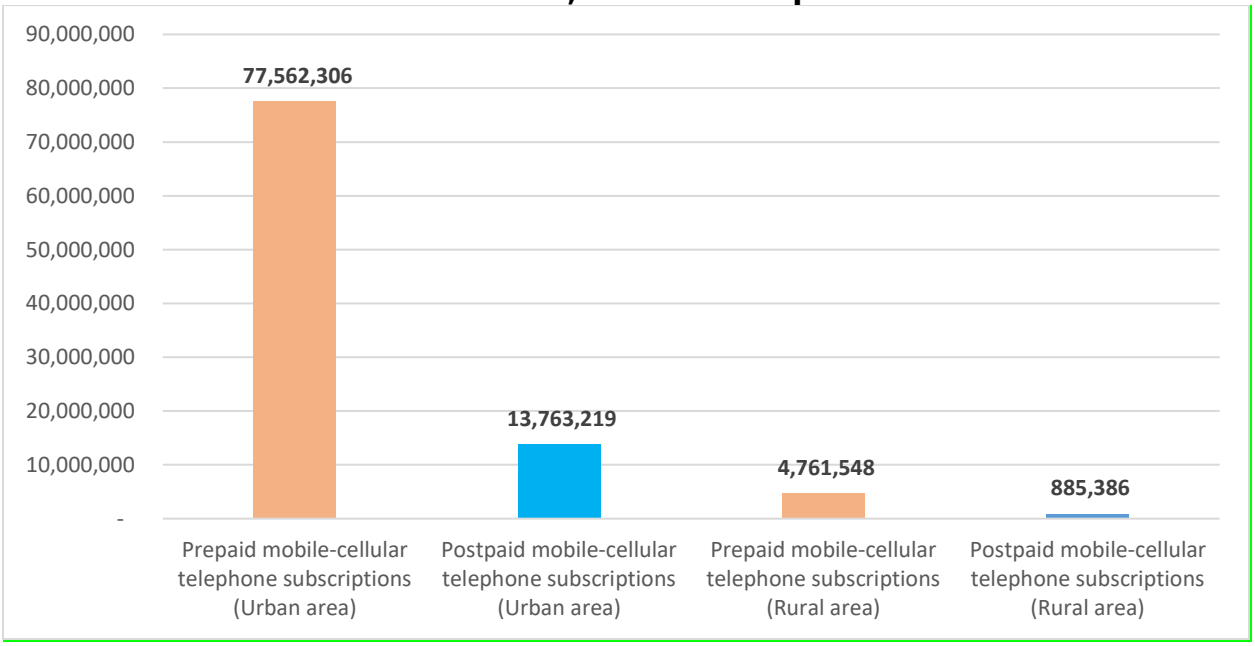

*Source: ICASA Electronic Communications Questionnaire 2019*

*Note: The definition of prepaid subscribers is adopted from the ITU definition of 3-month active subscribers. Some South African operators do not have this metric available but rather count SIMs that have not been disconnected within a 90-day window implying that the number may be overstated according to the strict definition. Top up bundles and machine-to-machine subscriptions were included in post-paid mobile cellular subscriptions.*

### 4.9.2 Prepaid and post-paid mobile Cellular Phone Voice Subscriptions for Urban and Rural areas

In 2019, prepaid mobile phone subscriptions in urban areas was at 77.5 million, post-paid subscriptions at 13.7 million. In rural areas, prepaid mobile phone subscriptions was at 4.7 million and post-paid mobile phone subscriptions at just over 885 thousand.

**Graph 24: Prepaid and post-paid mobile cellular voice subscriptions for Urban and Rural areas, as at 30th September 2019**



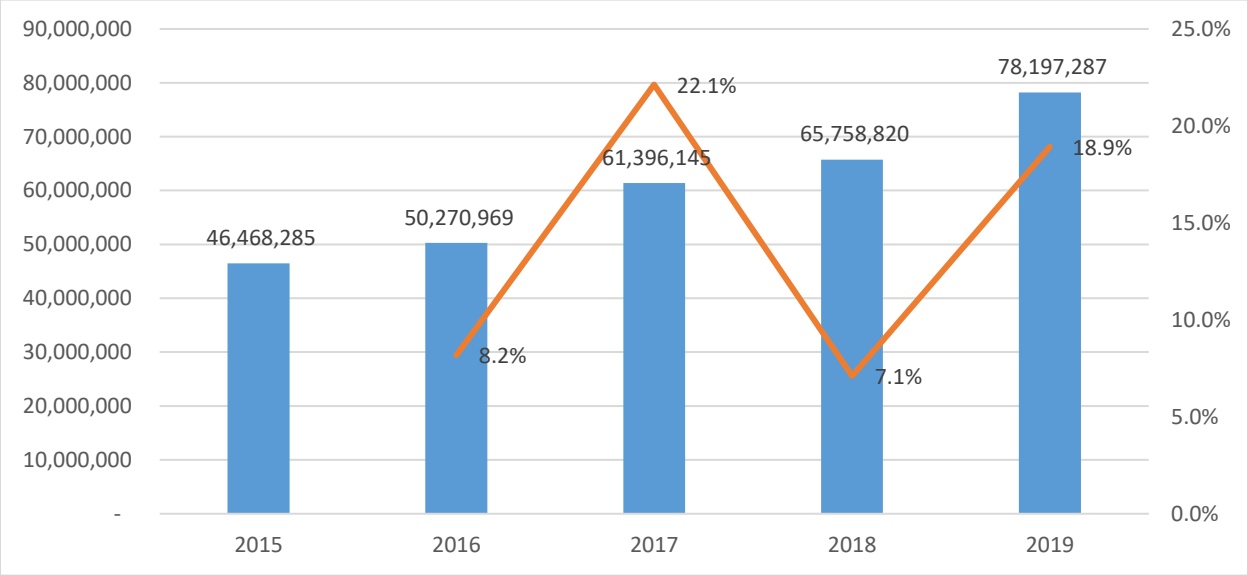

*Source: ICASA Electronic Communications Questionnaire 2019*
*Note: The definition of prepaid subscribers is adopted from the ITU definition of 3-month active subscribers. Some South African operators do not have this metric available but rather count SIMs that have not been disconnected within a 90-day window implying that the number may be overstated according to the strict definition. Top up bundles and machine-to-machine subscriptions were included in post-paid mobile cellular subscriptions.*

### 4.9.3 Mobile Cellular Phone Data Subscriptions

Mobile cellular data subscriptions increased by 18.8% from 65 million in 2018 to 78 million in 2019.

Over a 5-year period, mobile data subscriptions increased by 13.9%.

**Graph 25: Mobile cellular phone data subscriptions, as at 30th September each year**



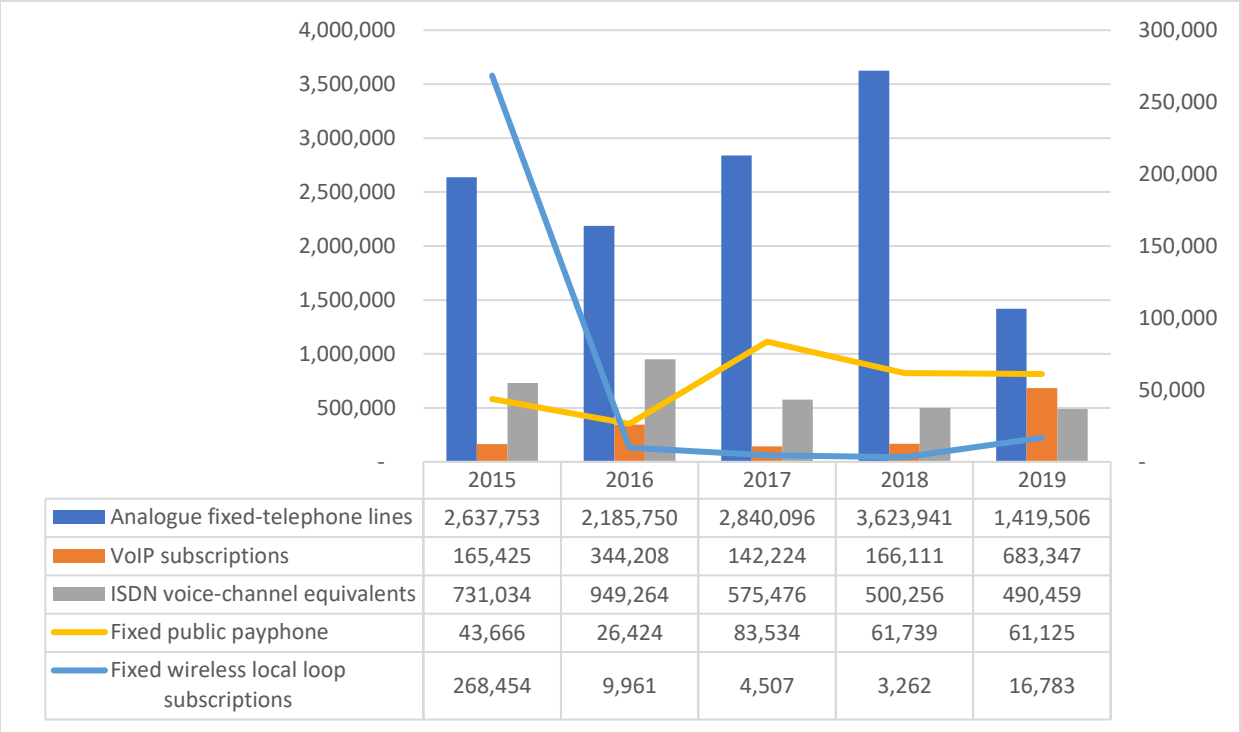

*Source: ICASA Electronic Communications Questionnaire 2019*
*Note: All LTE connections are included in 'mobile'. There is room for the definition of 'mobile broadband subscriptions' to be improved in subsequent reports, noting that it was not possible to accurately distinguish between handset data usage and mobile data usage on other devices, or alternatively to distinguish SIMs used for both voice and data from SIMs dedicated to data usage. It was also necessary to count total internet subscriptions rather than 'broadband' subscriptions, as it was not possible to accurately break out 'narrowband' internet, albeit this is now a small minority of total internet subscriptions. 'Wireless broadband' number may be incomplete in respect of some players, especially those operating in unlicensed spectrum bands.*

### 4.9.4 Fixed Line Voice Subscriptions

The total number of fixed line subscriptions decreased by 38% from 4.4 million in 2018 to 2.7 million in 2019. In 2019, analogue fixed-telephone lines decreased by 60.8%, ISDN voice-channel equivalents decreased by 2%, VoIP subscriptions increased by over 100%, fixed public payphones decreased by 1% and fixed wireless local loop subscriptions also significantly increased by over 100%.

Over a 5-year period, VoIP subscriptions and fixed public payphone increased by 42.6% and 8.8%.

**Graph 26: Fixed line subscriptions, as at 30th September each year**




| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Analogue fixed-telephone lines | 2,637,753 | 2,185,750 | 2,840,096 | 3,623,941 | 1,419,506 |
| VoIP subscriptions | 165,425 | 344,208 | 142,224 | 166,111 | 683,347 |
| ISDN voice-channel equivalents | 731,034 | 949,264 | 575,476 | 500,256 | 490,459 |
| Fixed public payphone | 43,666 | 26,424 | 83,534 | 61,739 | 61,125 |
| Fixed wireless local loop subscriptions | 268,454 | 9,961 | 4,507 | 3,262 | 16,783 |

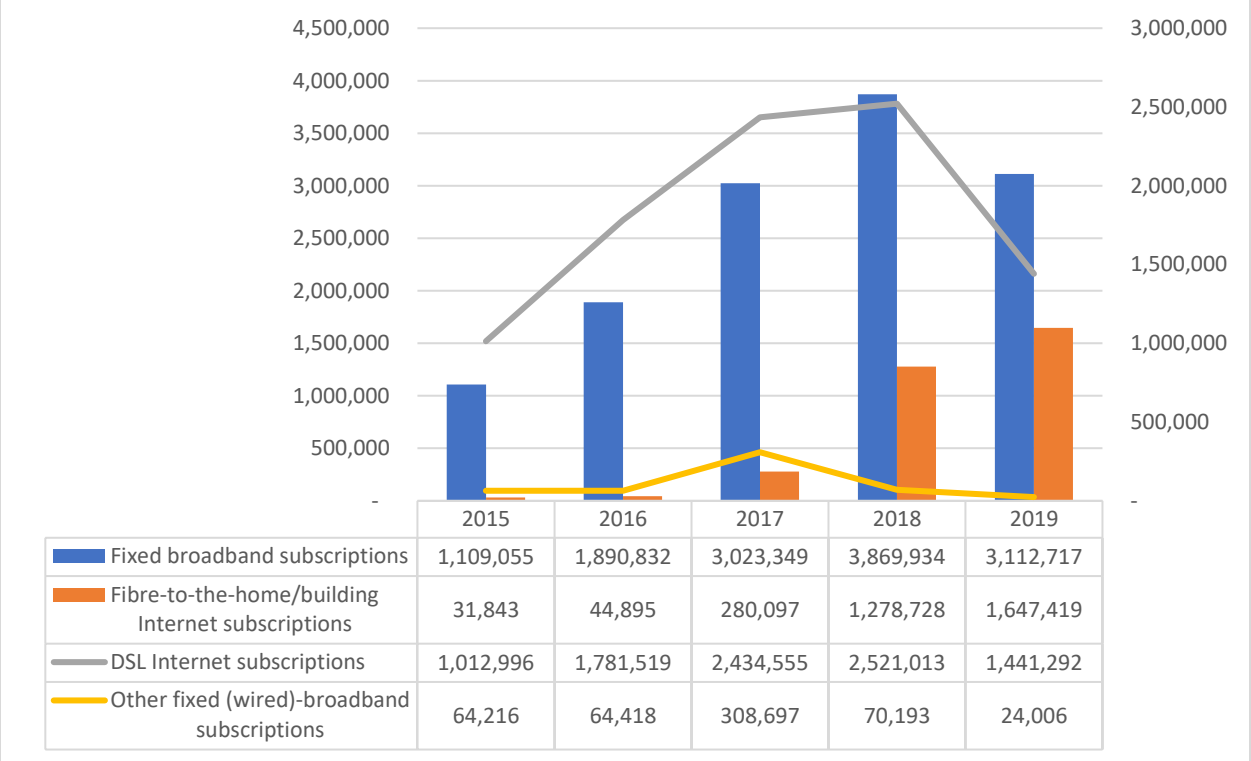
*Source: ICASA Electronic Communications Questionnaire, December 2019*
**Some of the operator did not submit the VOIP and Fixed wireless local loop subscriptions in 2018**
**one of the operator did not submit the Analogue fixed-telephone lines in 2019**

### 4.9.5 Fixed Line Broadband Subscriptions

Total fixed broadband subscriptions decreased by 19.6% in 2019. This jump in subscriptions was mainly as a result of significant decrease in DSL internet subscriptions, which went down by 42.8%. Fibre-to-the-home/building Internet subscriptions increased by 28.8% for the same period.

For a period of 5-years, fixed broadband subscriptions increased significantly by 29.4%. Over the same period, Fibre-to-the-home/building Internet subscriptions increased by 168.2%.

**Graph 27: Fixed broadband subscriptions, as at 30th September each year**




| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Fixed broadband subscriptions | 1,109,055 | 1,890,832 | 3,023,349 | 3,869,934 | 3,112,717 |
| Fibre-to-the-home/building Internet subscriptions | 31,843 | 44,895 | 280,097 | 1,278,728 | 1,647,419 |
| DSL Internet subscriptions | 1,012,996 | 1,781,519 | 2,434,555 | 2,521,013 | 1,441,292 |
| Other fixed (wired)-broadband subscriptions | 64,216 | 64,418 | 308,697 | 70,193 | 24,006 |

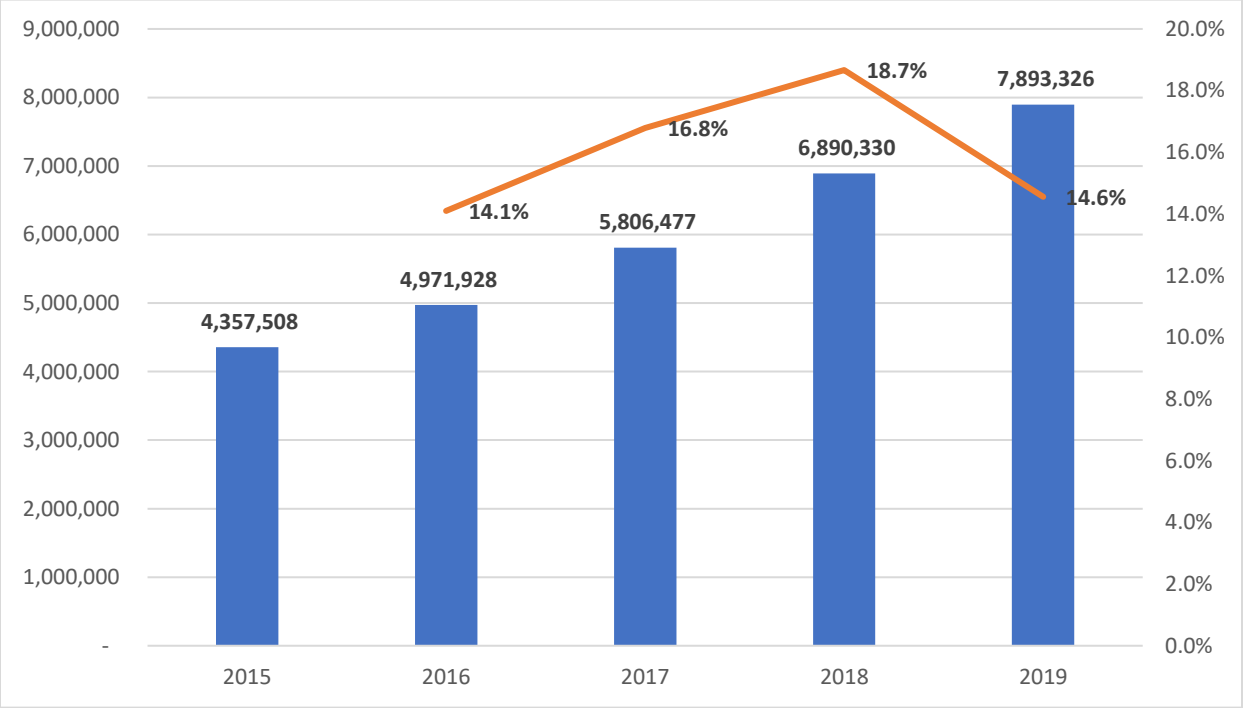
*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.9.6 Machine-to-Machine (M2M) Mobile Subscriptions

M2M mobile-network subscriptions increased by 14.6% from 6.8 million in 2018 to 7.8 million in 2019.

For over a period of 5 years, M2M mobile-network subscriptions increased by 16%.

**Graph 28: M2M mobile-network subscriptions, as at 30th September each year**



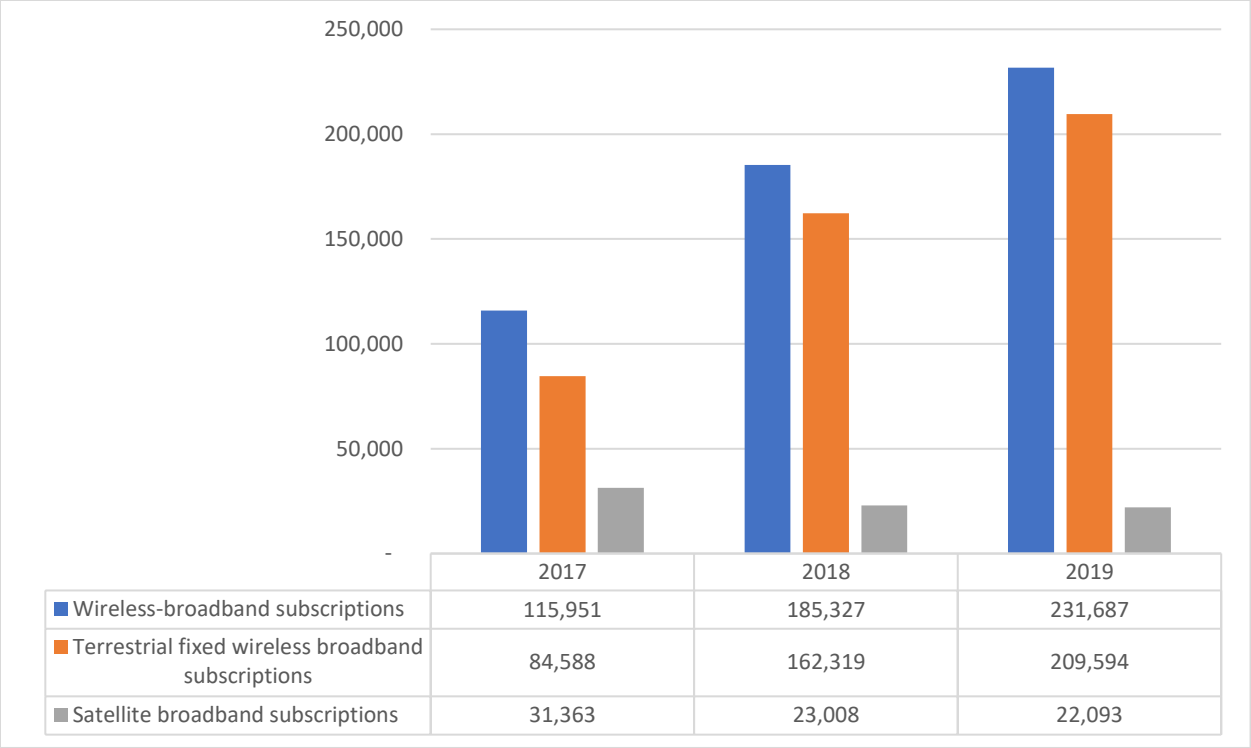

*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.9.7 Wireless-broadband subscriptions

Wireless-broadband subscriptions increase by 25% from 185,327 in 2018 to 231,687 in 2019.

For a period of 5 years, Wireless-broadband subscriptions increased by 11.7%.

**Graph 29: Wireless-broadband subscriptions, as at 30th September each year**




| | 2017 | 2018 | 2019 |
|---|---|---|---|
| Wireless-broadband subscriptions | 115,951 | 185,327 | 231,687 |
| Terrestrial fixed wireless broadband subscriptions | 84,588 | 162,319 | 209,594 |
| Satellite broadband subscriptions | 31,363 | 23,008 | 22,093 |

*Source: ICASA Electronic Communications Questionnaire 2019*

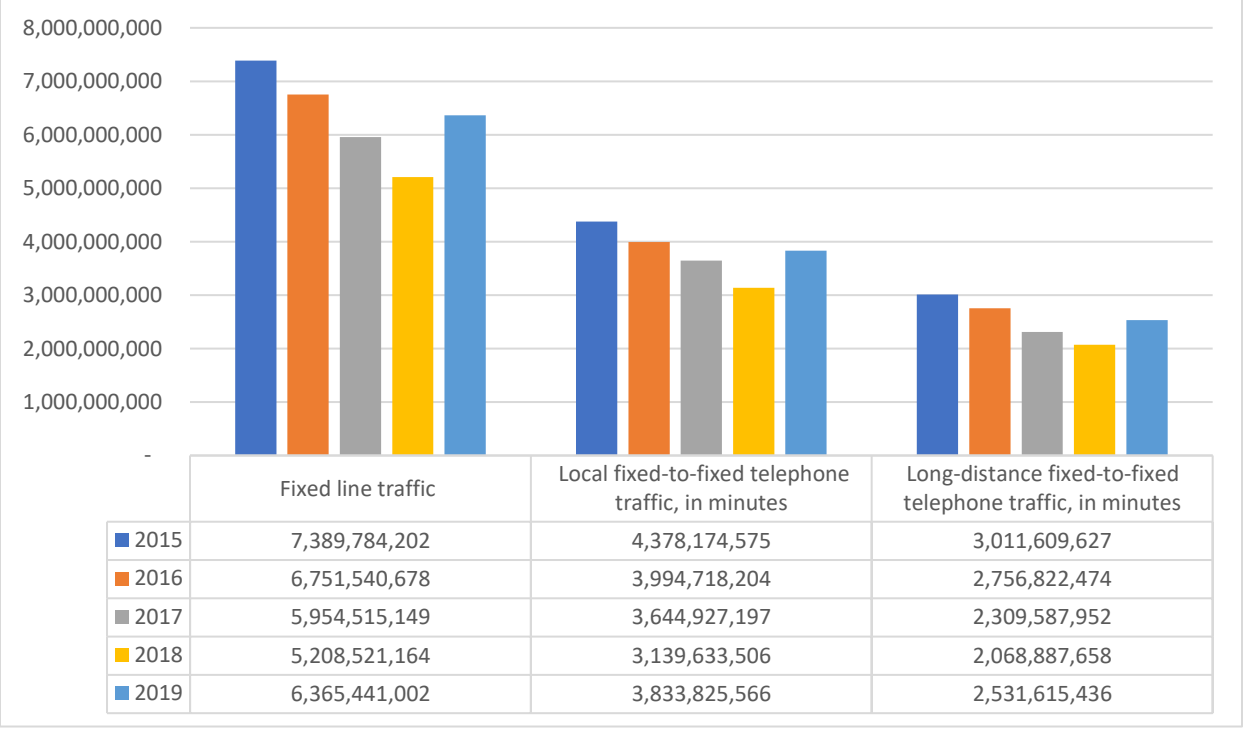
### 4.10 Network Traffic

This section highlights the usage of operator networks in terms of traffic volumes in minutes.

#### 4.10.1 Fixed Line Traffic

Total fixed line traffic (local and long distance) increased by 22.2% from 5.2 billion minutes in 2018 to 6.3 billion minutes in 2019. The volume of fixed line traffic has consistently declined over the 5-years period.

**Graph 30: Fixed line traffic, in minutes, for the 12-month period ending 30th September each year**




| | Fixed line traffic | Local fixed-to-fixed telephone traffic, in minutes | Long-distance fixed-to-fixed telephone traffic, in minutes |
|---|---|---|---|
| 2015 | 7,389,784,202 | 4,378,174,575 | 3,011,609,627 |
| 2016 | 6,751,540,678 | 3,994,718,204 | 2,756,822,474 |
| 2017 | 5,954,515,149 | 3,644,927,197 | 2,309,587,952 |
| 2018 | 5,208,521,164 | 3,139,633,506 | 2,068,887,658 |
| 2019 | 6,365,441,002 | 3,833,825,566 | 2,531,615,436 |

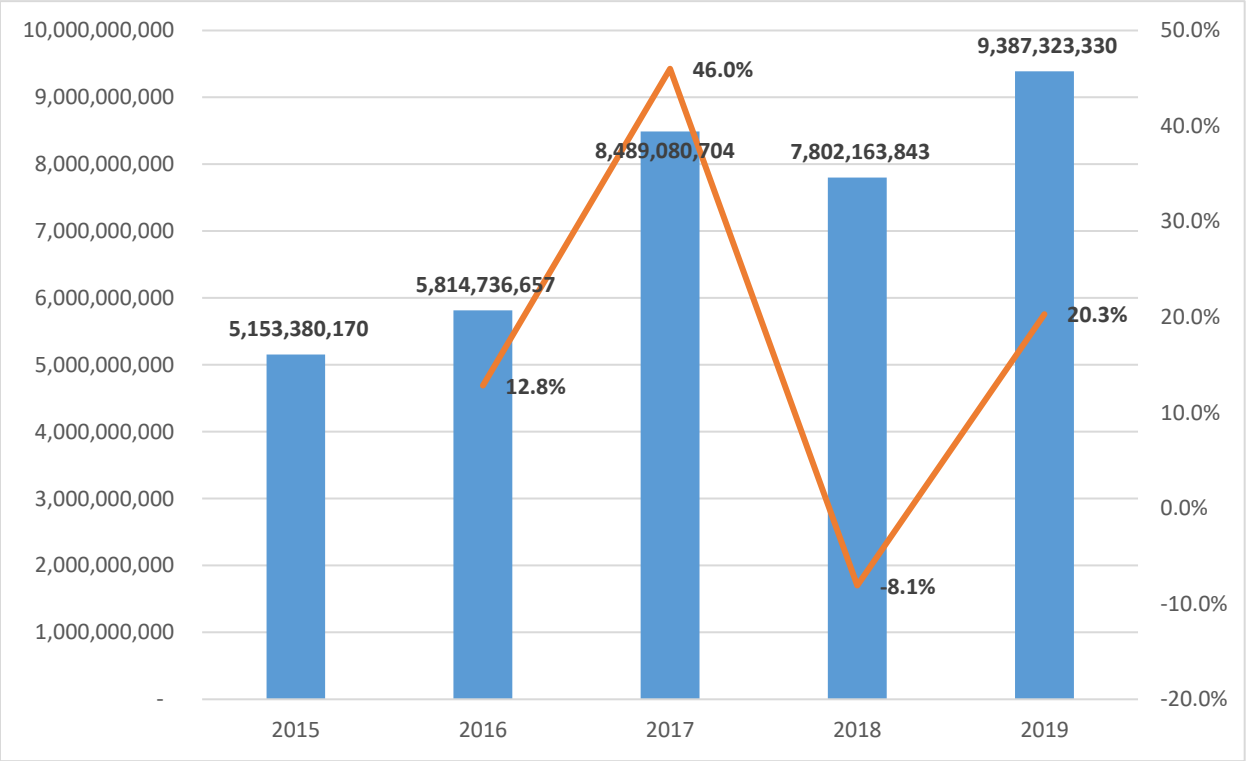
*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.10.2 Fixed-to-Mobile Telephone Traffic

Fixed-to-mobile telephone call traffic increased by 20.3% in 2019.

The increase was 16.2% over a period of 5 years.

**Graph 31: Fixed-to-mobile telephone traffic minutes, for the 12-month period ending 30th September each year**



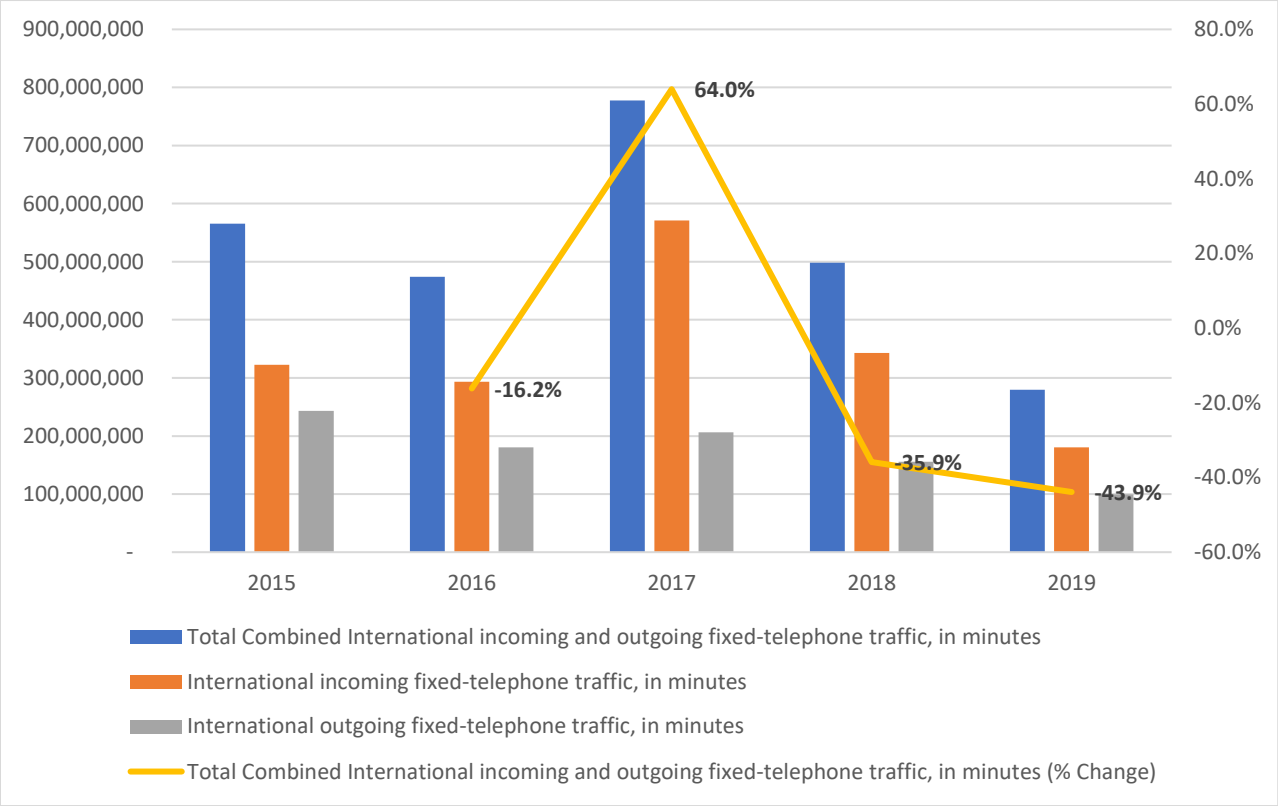

*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.10.3 International Incoming and Outgoing Fixed Telephone Traffic

The total combined international incoming and outgoing fixed-telephone call traffic decreased by 43.9% from 498 million minutes in 2018 to 279 million minutes in 2019. International incoming fixed-telephone calls decreased by 47.4% and outgoing calls decreased by 36.1% in 2019 respectively.

Over a period of 5 years the total combined international fixed-telephone traffic has decreased by 16.1%.

**Graph 32: International fixed line traffic in minutes (million) for the 12-month period ending 30th September each year**



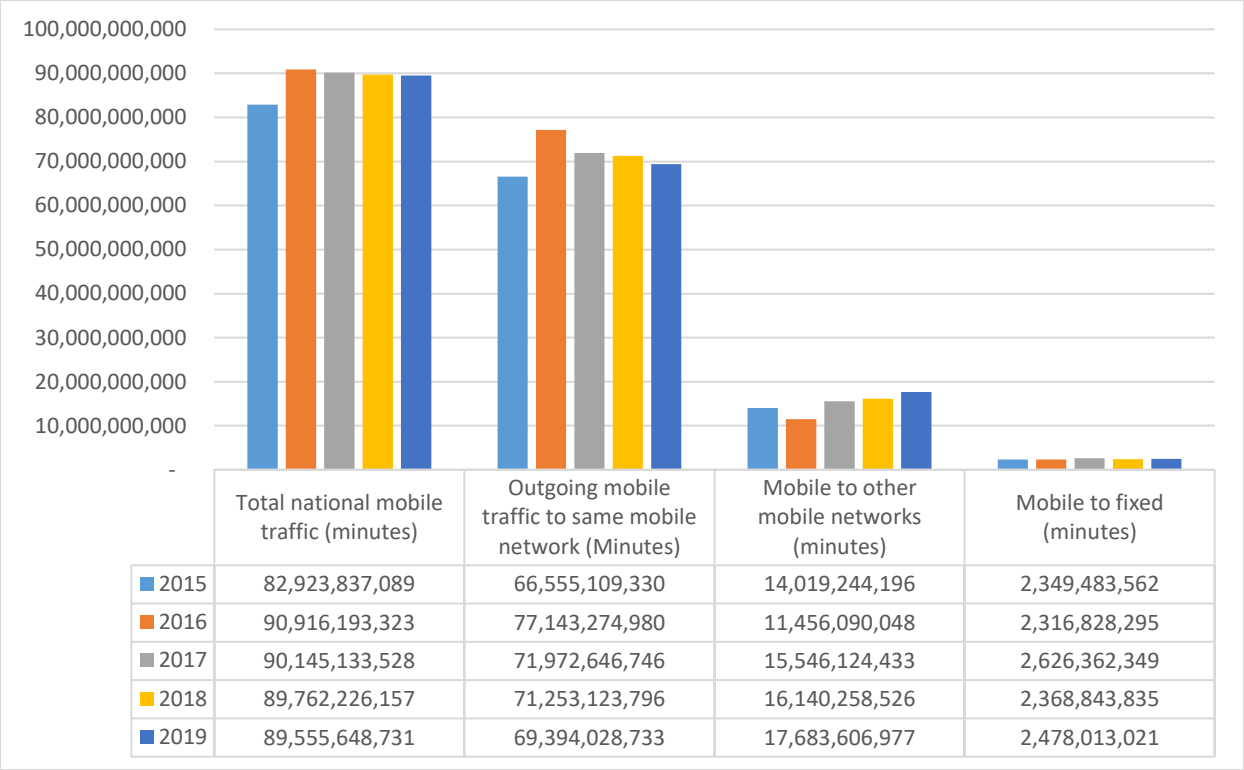

*Source: ICASA Electronic Communications Questionnaire 2019*

### 4.10.4 Total national mobile traffic (Minutes)

The total national mobile traffic in minutes slightly decreased by 0.2% in 2019. Mobile to other mobile networks and Mobile to fixed increased by 9.6% and 4.6%, respectively, however the outgoing mobile traffic to same mobile network decreased by 2.6% for the same period.

For a period of 5 years, total national mobile traffic in minutes slightly increased by 1.9%.

**Graph 33: Mobile voice traffic in minutes for the 12-month period ending 30th September each year**




| | Total national mobile traffic (minutes) | Outgoing mobile traffic to same mobile network (Minutes) | Mobile to other mobile networks (minutes) | Mobile to fixed (minutes) |
|---|---|---|---|---|
| 2015 | 82,923,837,089 | 66,555,109,330 | 14,019,244,196 | 2,349,483,562 |
| 2016 | 90,916,193,323 | 77,143,274,980 | 11,456,090,048 | 2,316,828,295 |
| 2017 | 90,145,133,528 | 71,972,646,746 | 15,546,124,433 | 2,626,362,349 |
| 2018 | 89,762,226,157 | 71,253,123,796 | 16,140,258,526 | 2,368,843,835 |
| 2019 | 89,555,648,731 | 69,394,028,733 | 17,683,606,977 | 2,478,013,021 |

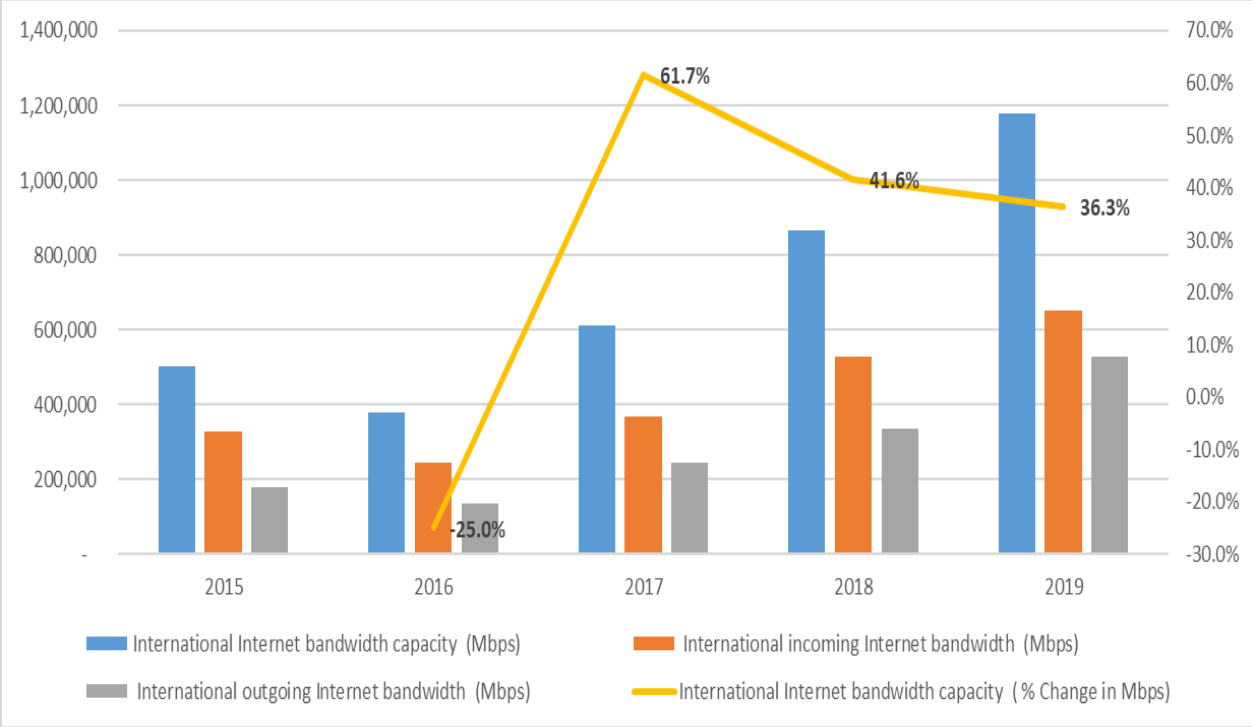
*Source: ICASA Electronic Communications Questionnaire 2019*

## 4.11 International Internet Bandwidth Capacity in Megabytes per second (Mbps)

Total international internet bandwidth (Mbps) capacity increased by 36.3% from 2018 to 2019. Bandwidth for international outgoing and incoming internet increased by 57% and 23.1% between 2018 and 2019, respectively.

For a 5-year period, the total international internet bandwidth capacity increased by 23.7%. Bandwidth for international outgoing and incoming internet increased by 31.3% and 18.9%, respectively.

**Graph 34: International internet bandwidth Megabytes per second (Mbps) for the 12-month period ending 30th September each year**




*Source: ICASA Electronic Communications Questionnaire 2019*

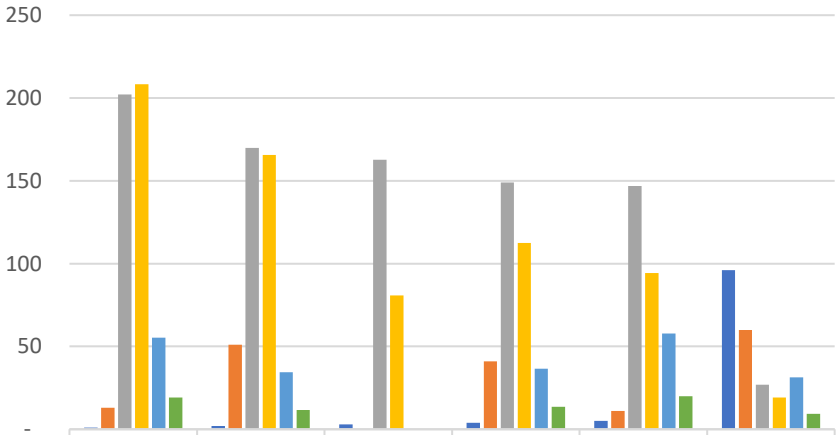
### 4.12 International Comparison of South Africa's Internet Speeds

It is insightful to track South Africa's progress in fixed broadband and mobile (download and upload speed) compared to other countries to have a better understanding of how it is performing internationally.

#### 4.12.1 International speedtest benchmarks

The global speedtest ranking for South Africa was at 96 for fixed broadband and 60 for mobile broadband in 2019.

**Graph 35: Speedtest benchmark in 2019**



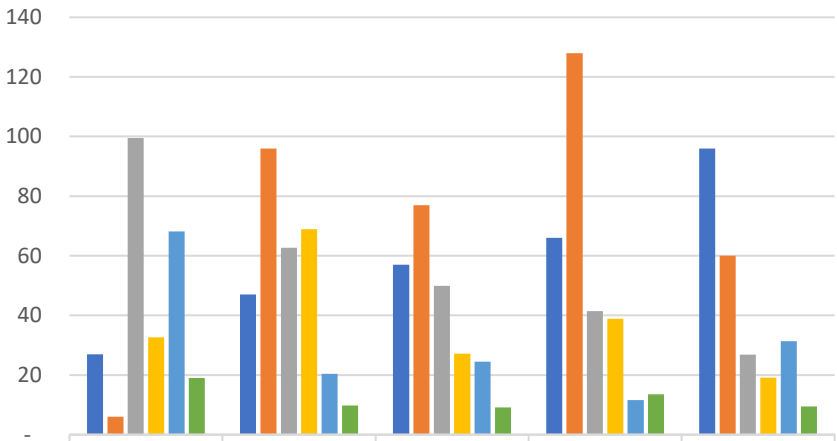

| | Singapore | Hong Kong (SAR) | Monaco | Romania | Switzerland | South Africa |
|---|---|---|---|---|---|---|
| Fixed Broadband speed (rank) | 1 | 2 | 3 | 4 | 5 | 96 |
| Mobile speed (rank) | 13 | 51 | - | 41 | 11 | 60 |
| Fixed Broadband Download speed (Mbps) | 202.21 | 169.78 | 162.65 | 148.98 | 146.81 | 26.87 |
| Fixed Broadband Upload speed(Mbps) | 208.41 | 165.59 | 80.77 | 112.58 | 94.26 | 19.12 |
| Mobile Download speed (Mbps) | 55.21 | 34.45 | - | 36.64 | 57.81 | 31.36 |
| Mobile Upload speed(Mbps) | 19.17 | 11.55 | - | 13.50 | 19.91 | 9.41 |

*Source: OOKLA, Speeedtest intelligence 2019*

### 4.12.2 Speedtest benchmark with BRICS countries

When compared to other BRICS countries, South Africa's speedtest ranking for fixed broadband was at 96 (which is the lowest ranking in the grouping). South Africa's speedtest ranking for mobile broadband was the second best in the BRICS grouping at 60 (only surpassed by China with a ranking of 6).

**Graph 36: Speedtest benchmark BRICS countries in 2019**



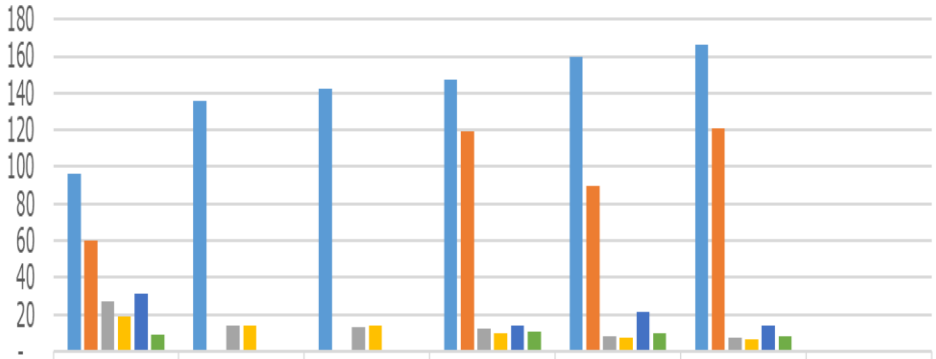

| | China | Russia | Brazil | India | South Africa |
|---|---|---|---|---|---|
| Fixed Broadband speed (rank) | 27 | 47 | 57 | 66 | 96 |
| Mobile speed (rank) | 6 | 96 | 77 | 128 | 60 |
| Fixed Broadband Download speed (Mbps) | 99.49 | 62.68 | 49.96 | 41.48 | 26.87 |
| Fixed Broadband Upload speed(Mbps) | 32.63 | 68.90 | 27.17 | 38.84 | 19.12 |
| Mobile Download speed (Mbps) | 68.21 | 20.43 | 24.45 | 11.58 | 31.36 |
| Mobile Upload speed(Mbps) | 19.04 | 9.79 | 9.12 | 13.50 | 9.41 |

*Source: OOKLA, Speeedtest intelligence 2019*

### 4.12.3 Speedtest benchmark with neighbouring countries

South Africa's speedtest ranking for fixed broadband was at 96, which is the highest when compared to other neighbouring countries. Similarly, South Africa is the highest ranked country amongst its neighbours for mobile broadband with a ranking of 60.

**Graph 37: Speedtest benchmark neighbouring countries in 2019**



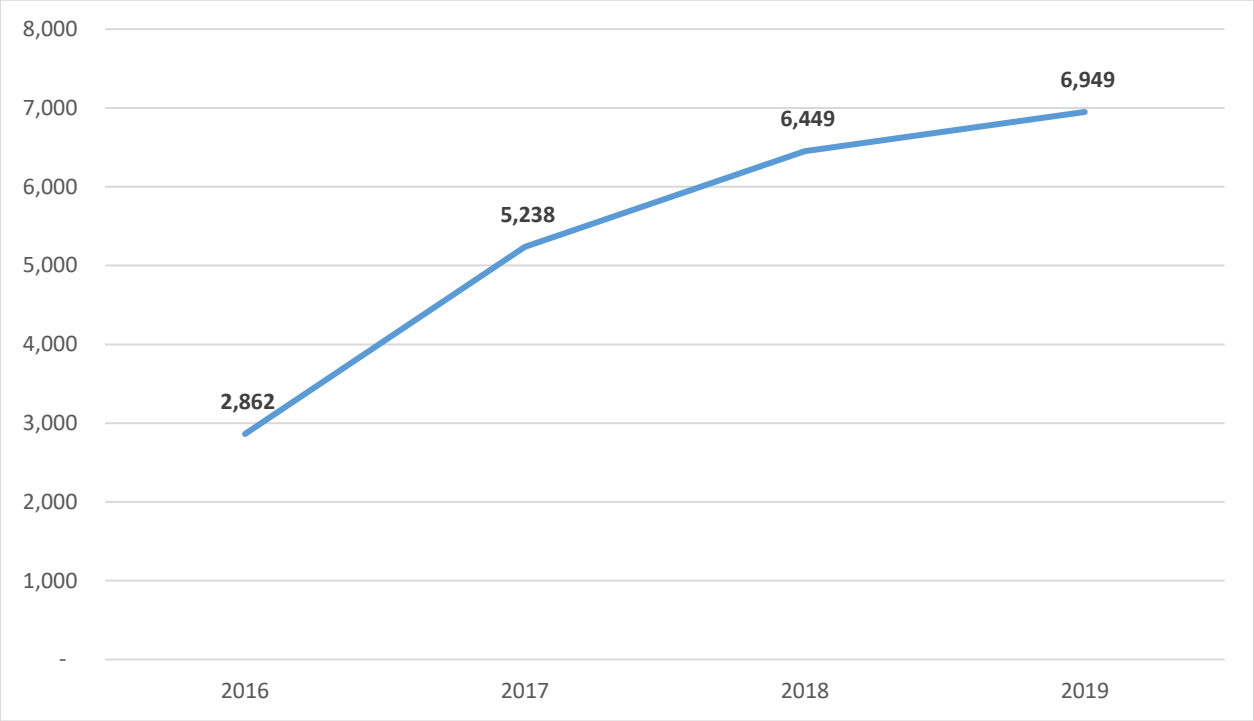

| | South Africa | Eswatini | Zimbambwe | Namibia | Mozambique | Botswana | Lesotho |
|---|---|---|---|---|---|---|---|
| Fixed Broadband speed (rank) | 96 | 136 | 142 | 147 | 160 | 166 | - |
| Mobile speed (rank) | 60 | - | - | 119 | 90 | 121 | - |
| Fixed Broadband Download speed (Mbps) | 26.87 | 14.23 | 13.17 | 12.11 | 8.24 | 7.12 | - |
| Fixed Broadband Upload speed(Mbps) | 19.12 | 14.33 | 13.91 | 9.75 | 7.20 | 6.45 | - |
| Mobile Download speed (Mbps) | 31.36 | - | - | 14.28 | 21.27 | 13.78 | - |
| Mobile Upload speed(Mbps) | 9.41 | - | - | 11.12 | 10.09 | 8.24 | - |

*Source: OOKLA, Speeedtest intelligence 2019*

### 4.13 Number of Schools Connected to the Internet Based on Obligations Imposed by ICASA

The total number of schools connected to the internet based on universal service obligations imposed by ICASA was 6,949 as at 2019.

**Graph 38: Number of schools connected to the internet as at 2019**




*Source: ICASA Electronic Communications Questionnaire 2019*

# 5 BROADCASTING SECTOR

The broadcasting sector is important as it plays a big role in education, entertainment and informing the public through radio and TV (both public and commercial broadcasting). However, the rapid changes in technology are changing the broadcasting landscape. South Africa is in a process of migrating broadcasting signals from analogue to digital, the objective of the digital migration is to clear the radio frequency spectrum currently occupied by broadcasters to enable the provision of wireless mobile broadband services and other innovative applications.

While broadcasting revenues continue to grow annually, on-demand audio and video online streaming services are causing significant disruptions in the broadcasting sector globally and will offer serious competition to South African broadcasters in the near future. The digital revolution sweeping video entertainment is affecting community TV stations, free-to-air and public broadcasters and subscription TV services are have to adapt to keep up with these developments.

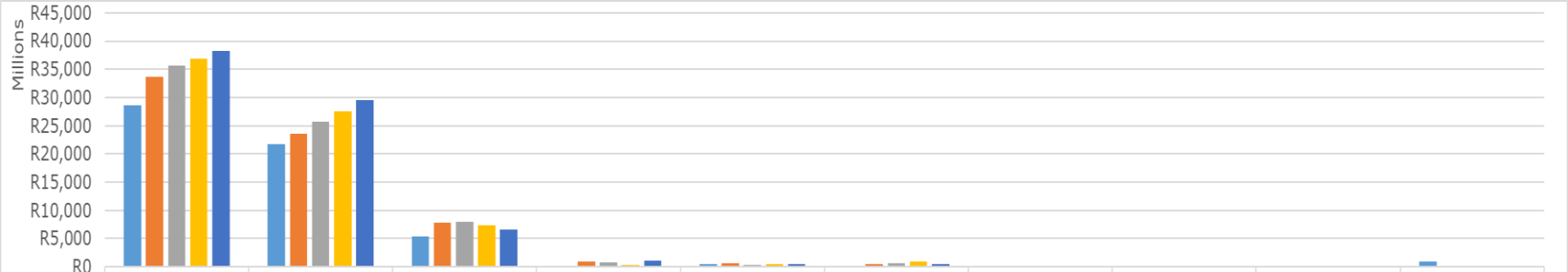
The work of the Authority on the inquiry into subscription television broadcasting services in terms of section 4B of the ICASA Act (read with section 67 of the ECA) continued during the period under review. The objective of the inquiry is ultimately to determine whether or not there are competition issues in the sector which may require the imposition of pro-competitive license conditions on relevant licensees. The Authority also completed and published updated regulations for the community broadcasting sector to address challenges faced by community broadcasters. In March 2019 the Authority published a position paper on Digital Sound Broadcasting to look into issues of technical standards for DSB equipment and spectrum efficiency issues.

## 5.1 Broadcasting Revenue

Total broadcasting services revenue increased by 3.8% from over R36.9 billion to over R38.3 billion from 2018 to 2019 respectively. Revenue from subscriptions increased by 7% in 2019, however advertising and informational decreased by 11.4% and 21.8%, respectively between 2018 and 2019.

Over the 5-year period total revenue from broadcasting services increased by 7.5%. Revenue from advertising increased by 4.9% and from subscriptions it increased by 7.9%.

**Graph 39: TV and Radio broadcasting revenues for the 12-month period**



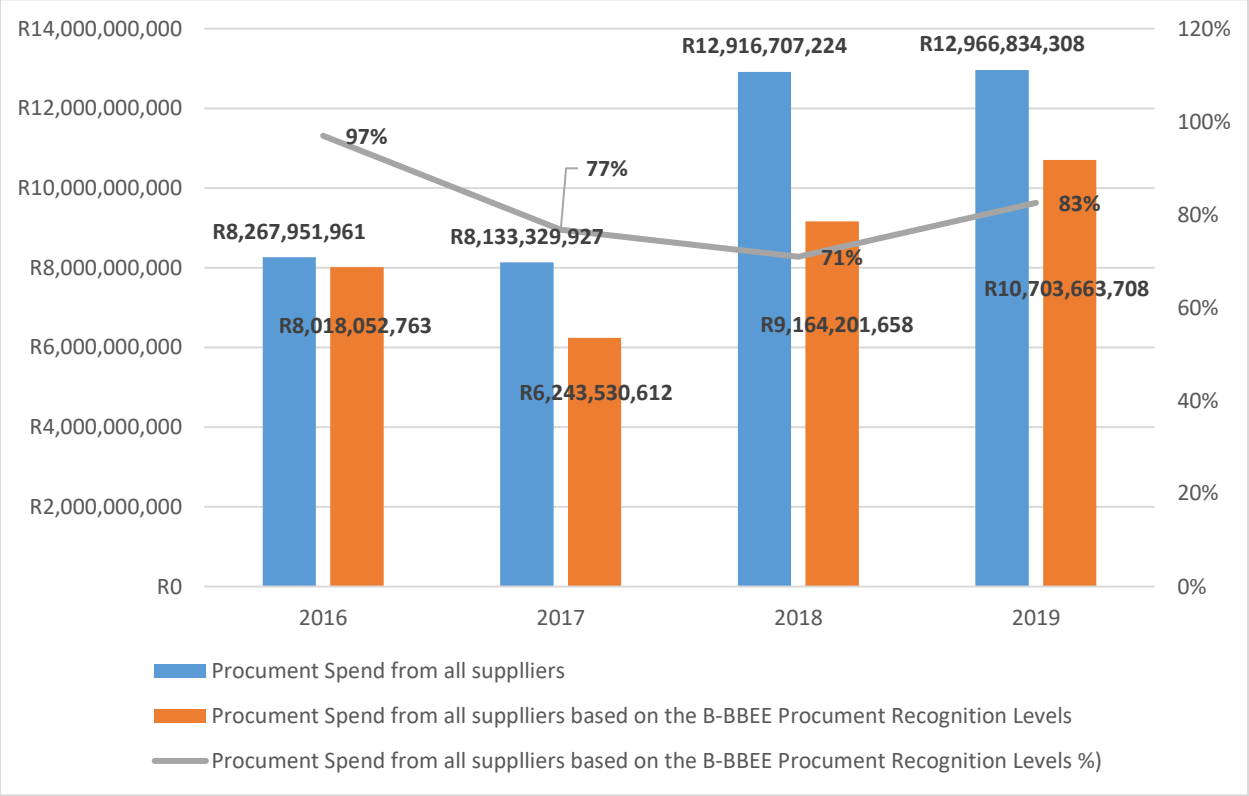

| | Total revenue | Broadcasting Subscriptions Revenue | Broadcasting Advertising Revenue | Total of any other revenue | Revenue from sponsorhips | Revenue from Broadcasting Promotions (with flighting code). | Revenue from Government or State grant | Revenue from infomercials | Revenue from donations | Revenue from membership fees |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | R28,688,718,290 | R21,788,645,350 | R5,384,344,985 | R735,530 | R531,363,207 | R216,000 | R59,843,068 | R1,988,000 | R2,164,250 | R919,417,900 |
| 2016 | R33,655,415,072 | R23,584,825,897 | R7,860,473,603 | R917,747,350 | R680,926,353 | R535,015,544 | R6,557,651 | R69,854,929 | R3,746 | R10,000 |
| 2017 | R35,606,415,286 | R25,773,619,194 | R8,020,046,840 | R829,053,088 | R272,913,790 | R660,208,406 | R23,351,477 | R16,434,074 | R10,783,817 | R4,600 |
| 2018 | R36,921,489,746 | R27,622,475,742 | R7,364,895,390 | R282,568,469 | R525,969,858 | R992,582,404 | R101,264,960 | R22,002,230 | R7,052,479 | R2,678,215 |
| 2019 | R38,325,761,969 | R29,552,474,837 | R6,526,380,420 | R1,092,957,907 | R538,833,271 | R493,549,925 | R92,217,049 | R17,211,421 | R9,579,462 | R2,557,677 |

*Source:ICASA Broadcasters Questionnaire, December 2019 (* data includes TV & radio broadcasting*

## 5.2 Broadcasting Black Economic Empowerment Measures

The proportion of procurement spend from suppliers based on their B-BBEE ranking as a percentage of total spend from all suppliers was 71% in 2018 and 83% in 2019.

**Graph 40: Broadcasting sector procurement spend from all suppliers based on B-BBEE, for the 12-month period ending 30th September**

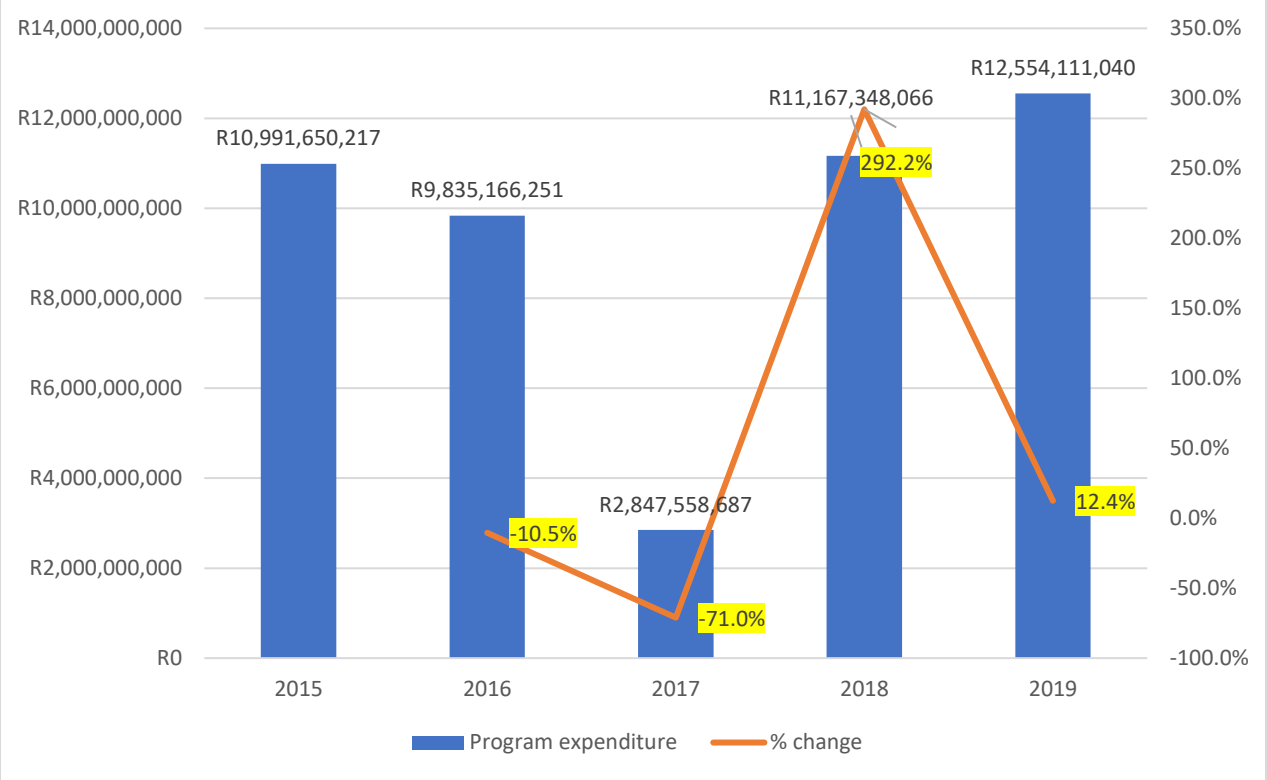



*Source: ICASA Broadcasters Questionnaire, December 2019*

## 5.3 Program expenditure

Programme expenditure increased by 12.4% in 2019. For a period of 5 years it increased by 3.4%.

**Graph 41: Program expenditure as of 30th September each year**

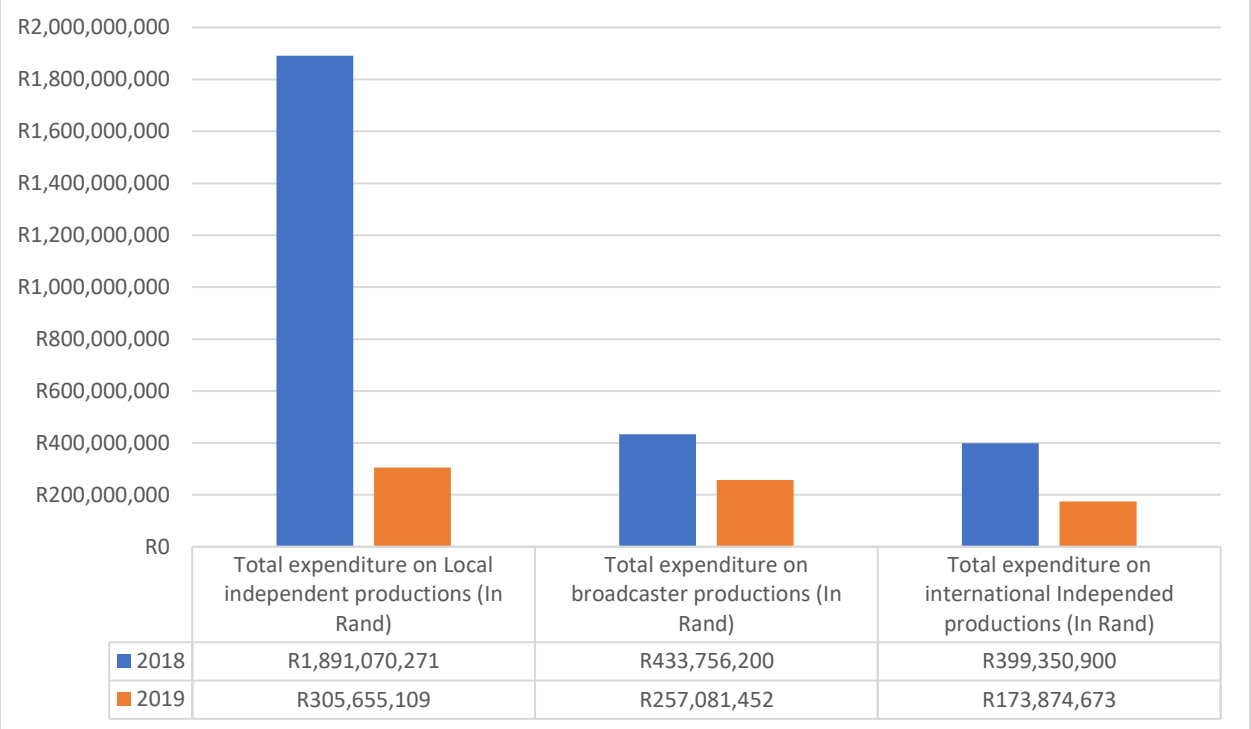



*Source: ICASA Broadcasters Questionnaire, December 2019*

## 5.4 Broadcasting productions expenditure

Broadcasting productions expenditure decrease between 2018 and 2019.

**Graph 42: Broadcasting productions expenditure as of 30th September each year**



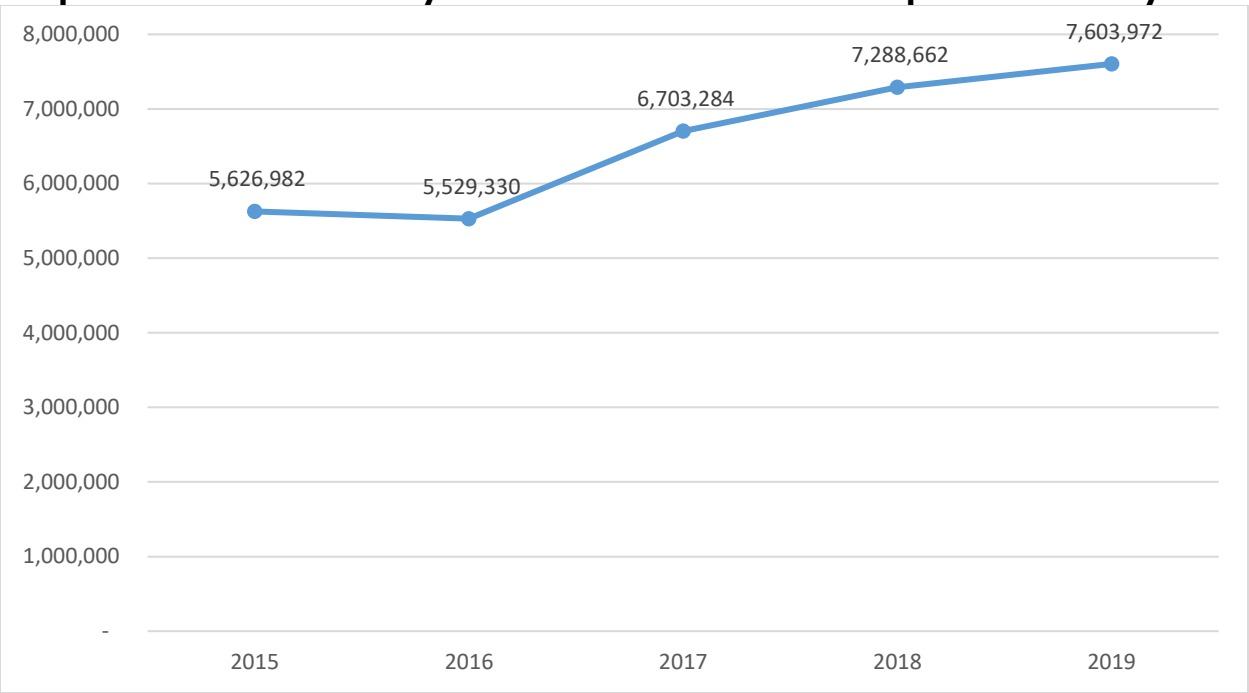

| | Total expenditure on Local independent productions (In Rand) | Total expenditure on broadcaster productions (In Rand) | Total expenditure on international Independed productions (In Rand) |
|---|---|---|---|
| 2018 | R1,891,070,271 | R433,756,200 | R399,350,900 |
| 2019 | R305,655,109 | R257,081,452 | R173,874,673 |

*Source: ICASA Broadcasters Questionnaire, December 2019*

## 5.5 Number of Pay TV Subscribers

The total number of Pay TV subscriptions increased by 4.3%, from 7.3 million in 2018 to 7.6 million in 2019. For a period of 5 years it increased by 7.8%.

**Graph 43: Number of Pay TV subscribers as of 30th September each year**

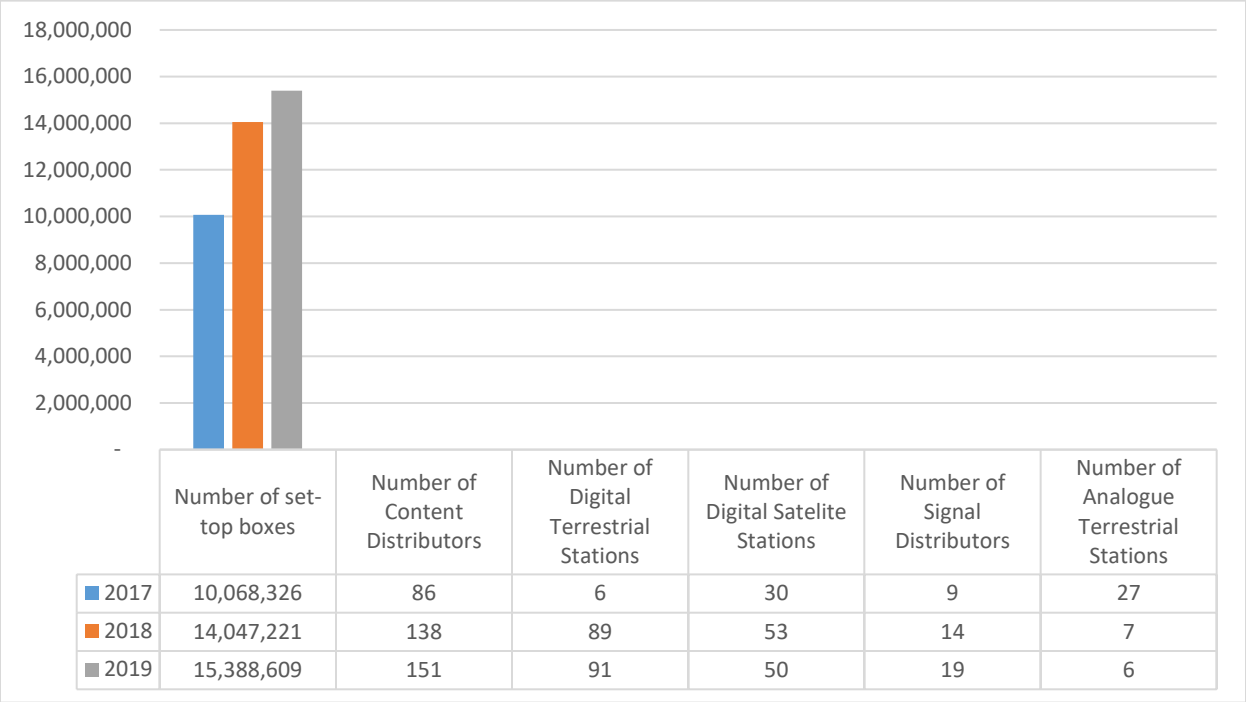



*Source: ICASA Broadcasters Questionnaire, December 2019*

## 5.6 Total Number of Television Stations and Distributors

The Number of set-top boxes increased by 9.6% from around 14 million in 2018 to just over 15 million in 2019. The Number of Content Distributors increased by 9.4% from 138 in 2018 to 151 in 2019. The Number of Analogue Terrestrial Stations decreased by 14.3% from 7 in 2018 to 6 in 2019.

**Graph 44: Total Number of Television Stations and Distributors as of 30th September each year**



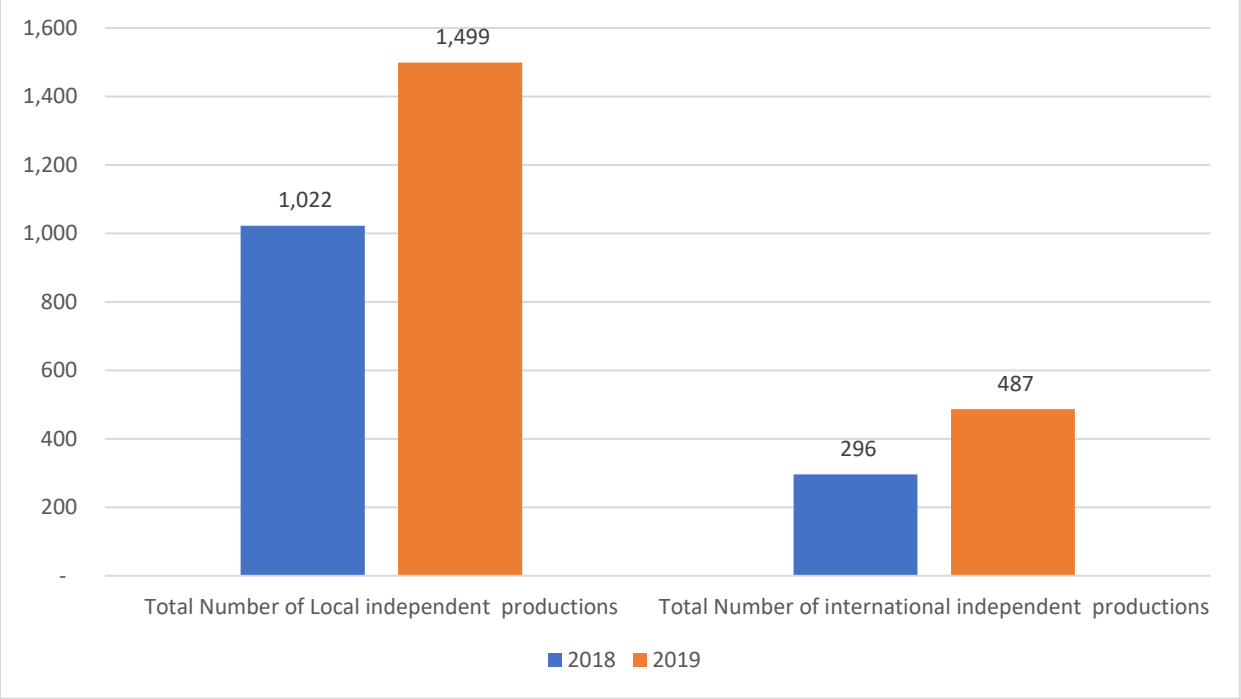

| | Number of set-top boxes | Number of Content Distributors | Number of Digital Terrestrial Stations | Number of Digital Satelite Stations | Number of Signal Distributors | Number of Analogue Terrestrial Stations |
|---|---|---|---|---|---|---|
| 2017 | 10,068,326 | 86 | 6 | 30 | 9 | 27 |
| 2018 | 14,047,221 | 138 | 89 | 53 | 14 | 7 |
| 2019 | 15,388,609 | 151 | 91 | 50 | 19 | 6 |

*Source: ICASA Broadcasters Questionnaire, December 2019*

## 5.7 Total Number of broadcasting productions

Local independent productions increased form 1,022 in 2018 to 1,499 in 2019 and international independent productions increased form 296 in 2018 to 487 in 2019.

**Graph 45: Total Number of broadcasting productions as of 30th September each year**




*Source: ICASA Broadcasters Questionnaire, December 2019*

## 5.8 Broadcasting Sector Employment

The total number of people employed in the broadcasting sector decreased by 7.3% from 4,813 in 2018 to 4,463 in 2019. Female employees decreased by 5.5% in 2019.

Over a 5-year period, the total employment decreased by 1.6% and the female employment slightly increased by 0.3%.

**Graph 46: People employed in the broadcasting sector, as at the 30th September each year**

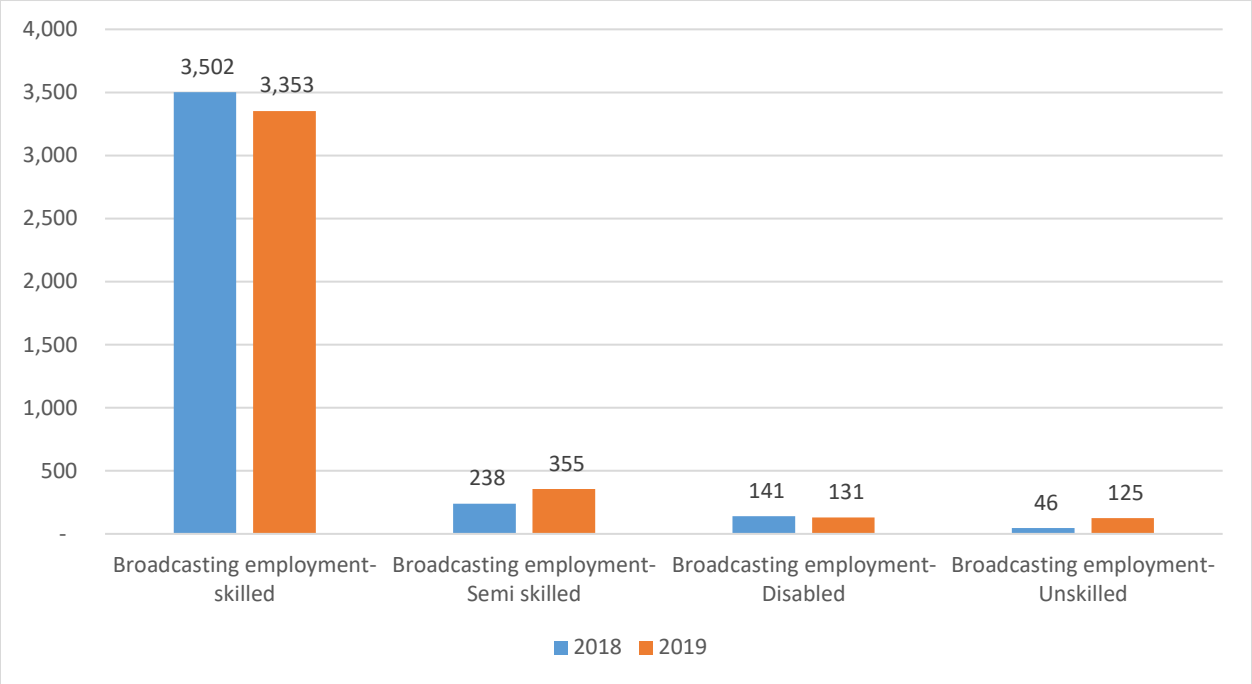

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Broadcasting employment -Total | 4,789 | 4,429 | 4,800 | 4,813 | 4,463 |
| Broadcasting employment- female | 2,308 | 2,220 | 2,421 | 2,471 | 2,336 |
| Broadcasting employment -Total (% change) | | -7.5% | 8.4% | 0.3% | -7.3% |
| Broadcasting employment- female (% change) | | -3.8% | 9.1% | 2.1% | -5.5% |

*Source: ICASA Broadcasters Questionnaire, December 2019*

### 5.8.1 Persons employed in the broadcasting sector breakdown

In 2019, the broadcasting employment for skilled was 3,353, for semi-skilled was 355, for disabled was 131 and unskilled was 125.

**Graph 47: Persons employed in the broadcasting sector breakdown in 2019**

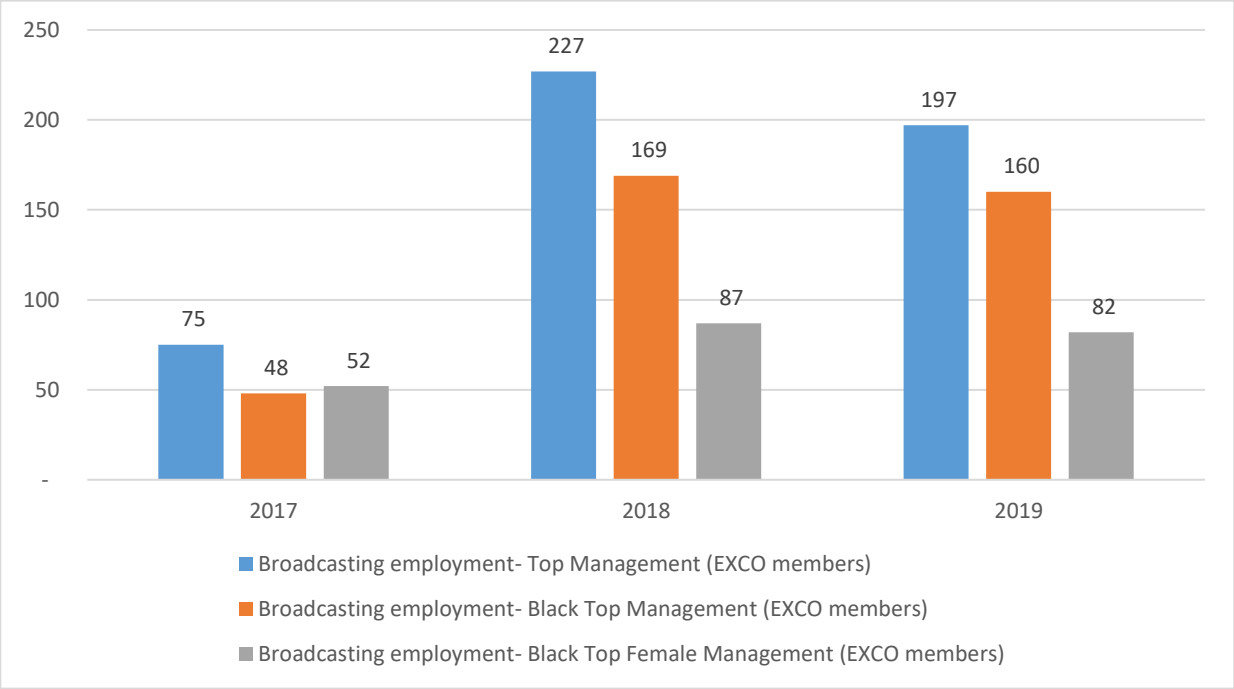



*Source: ICASA Broadcasters Questionnaire, December 2019*

### 5.8.2 Proportion of Black People in Top Management in the Broadcasting Sector

In the 2019, a total of 197 people occupied top management (EXCO) positions in the broadcasting sector. Black top management decreased by 5.3% and black top female management decreased by 5.8% in 2019.

**Graph 48: Broadcasting Black Economic Empowerment Measures, for the 12-month period ending 30th September each year**




*Source: ICASA Broadcasters Questionnaire, December 2019*

# 6 POSTAL SERVICES SECTOR

The postal services sector contributes 3.16% to the country's Gross Domestic Product (GDP). This includes the courier and express parcel services. Letter post is declining both in terms of volumes as well as in terms of its percentage contribution to revenue that is generated in the sector. The declining trend in letter mail volumes is ascribed to the global recession and electronic substitution effects.

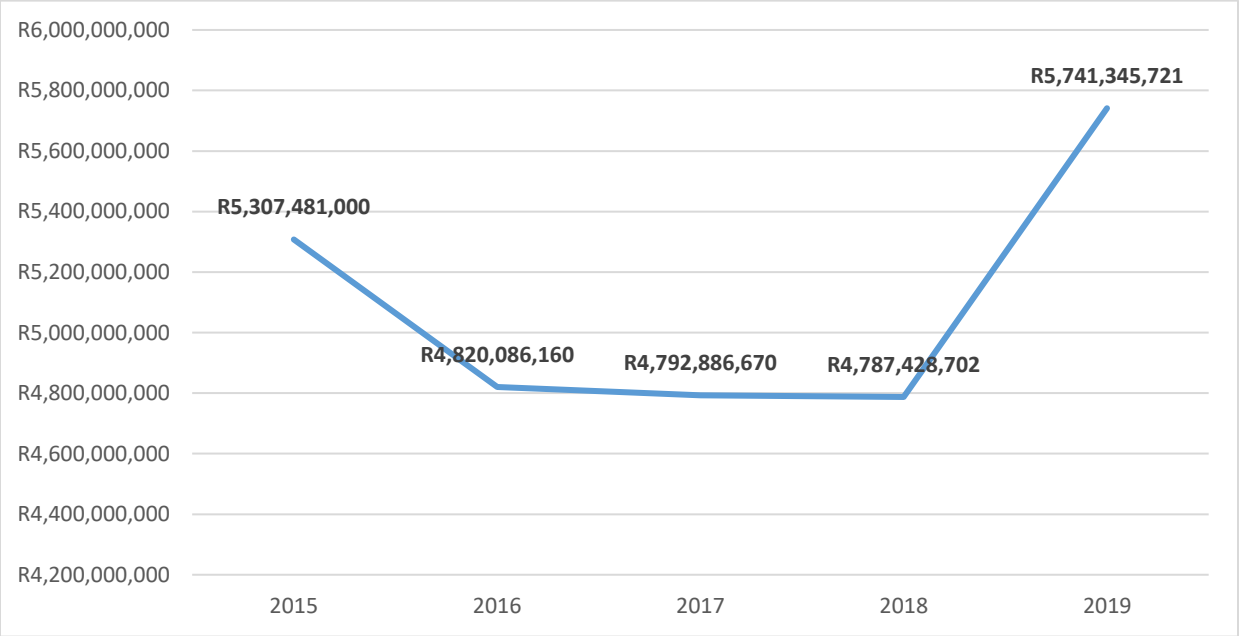
Currently, the Authority in terms of section 21 (read with sections 61(b) and (c)) of the Postal Services Act No.124 of 1998 is reviewing the regulations applicable to unreserved postal services, which are all the services not reserved for exclusive provision by the South African Post Office (SAPO). The purpose of these regulations is to set out procedures for the application and renewal of the registration certificate for the provision of unreserved postal services; procedures for notification for change of information and the surrender of a registration certificate; setting of fees payable; validity period of the registration certificate; obligation(s) on third party contracting; and penalties applicable for the contraventions of the regulations.

## 6.1 Postal Sector Revenue

The postal sector revenue increased by 19.9%, from R4.8 billion in 2018 to R5.7 billion in 2019.

For a period of 5 years the postal revenue increased by 2%.

**Graph 49: Postal sector revenue, 12-month period ending 30th September each year**

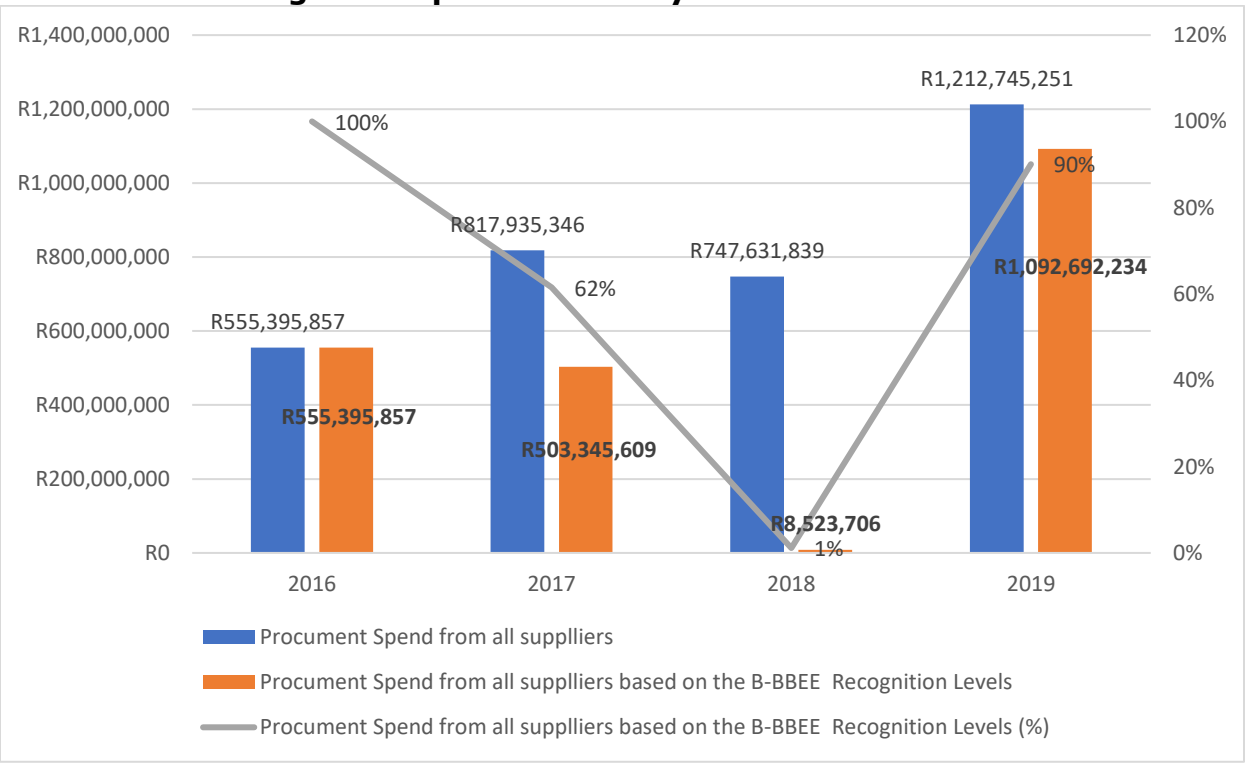



*Source: ICASA Postal Questionnaire, December 2019*
**we had low response rate from unreserved postal sector**

## 6.2 Postal Sector Black Economic Empowerment Measures

The proportion of the postal sector procurement spend based on suppliers' B-BBEE ranking as a percentage of overall spend from all suppliers represented 1% in 2018 and 90% in 2019.

**Graph 50: Postal sector procurement spend from suppliers based on the B-BBEE Procurement Recognition Levels, for the 12-month period ending 30th September each year**

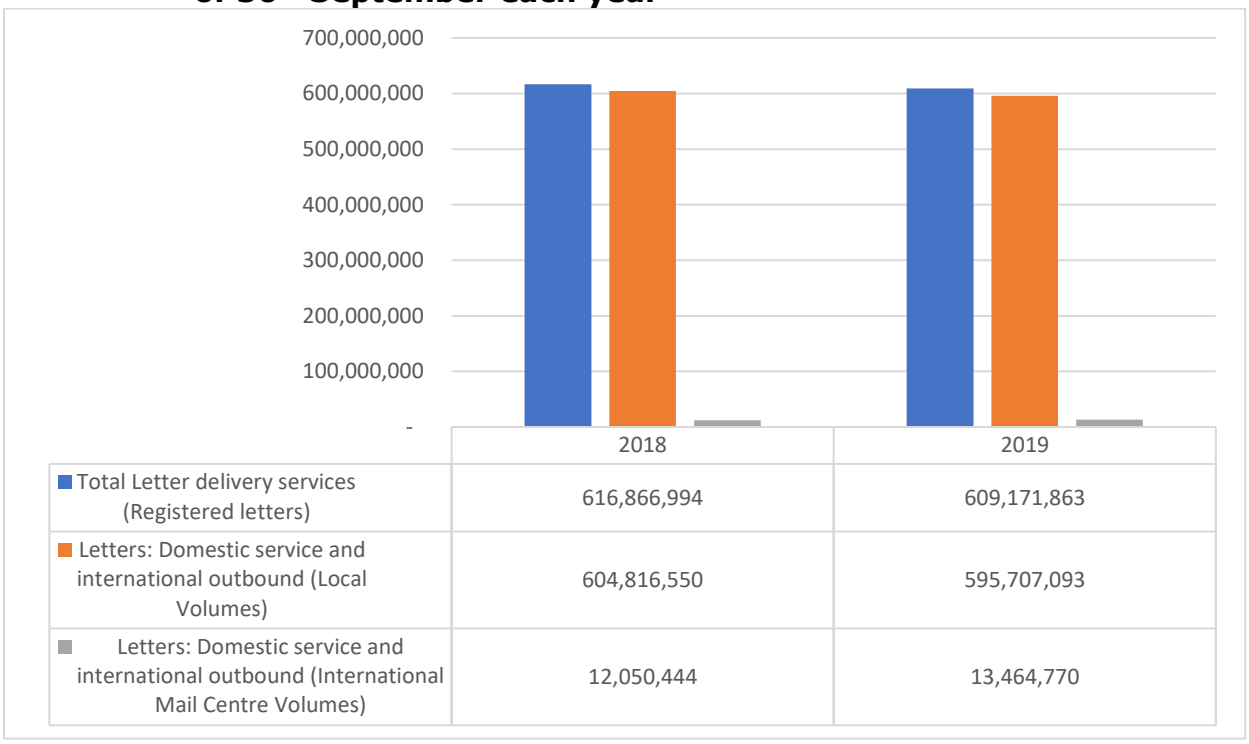



*Source: ICASA Postal Questionnaire, December 2019*
*Note: *we had low response rate from unreserved postal sector**

### 6.3 Total Letter delivery services (Registered letters)

Total letter delivery services (Registered letters) and domestic service and international outbound (Local Volumes) decreased by 1.3% and 1.5%, respectively in 2019. The domestic service and international outbound (International mail centre volume) increased by 11.7% in 2019.

**Graph 51: Total number of letter delivery services (registered letters), as of 30th September each year**



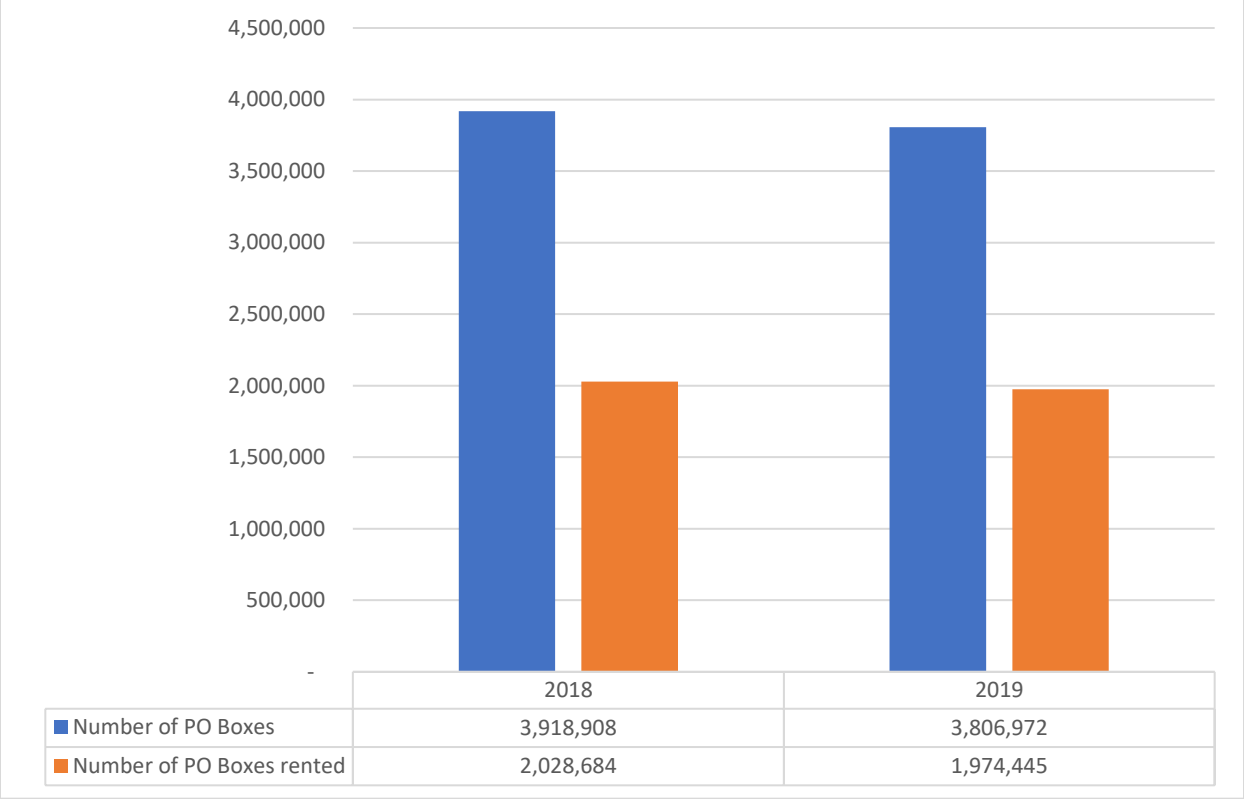

| | 2018 | 2019 |
|---|---|---|
| Total Letter delivery services (Registered letters) | 616,866,994 | 609,171,863 |
| Letters: Domestic service and international outbound (Local Volumes) | 604,816,550 | 595,707,093 |
| Letters: Domestic service and international outbound (International Mail Centre Volumes) | 12,050,444 | 13,464,770 |

*Source: ICASA Postal Questionnaire, December 2019*
*Note: *we had low response rate from unreserved postal sector**

### 6.4 Number of PO Boxes and PO Boxes rented

Number of PO Boxes and Number of PO Boxes rented decreased by 2.9% and 2.7%, respectively in 2019.

**Graph 52: Number of PO Boxes and PO Boxes rented, as of 30th September each year**



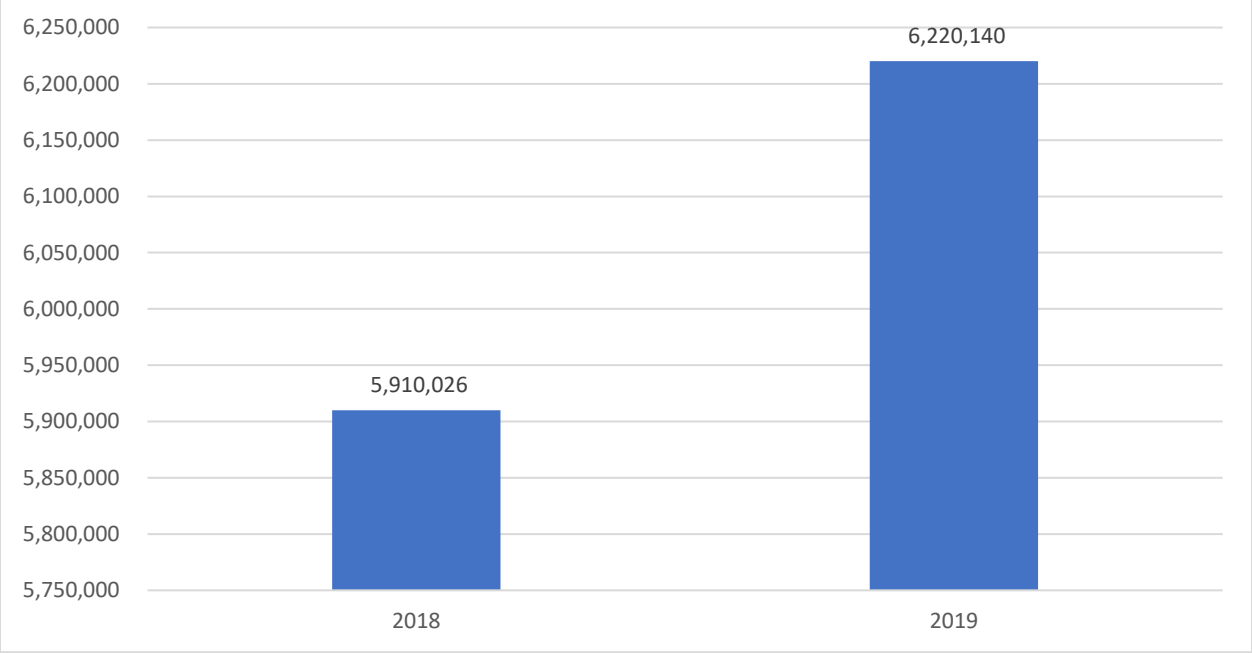

| | 2018 | 2019 |
|---|---|---|
| Number of PO Boxes | 3,918,908 | 3,806,972 |
| Number of PO Boxes rented | 2,028,684 | 1,974,445 |

*Source: ICASA Postal Questionnaire, December 2019*
*Note: *we had low response rate from unreserved postal sector**

## 6.5 Total number of Virtual post users

The total number of virtual post users[2] increased by 5.3% in 2019.

**Graph 53: Total number of Virtual post users, as of 30th September each year**



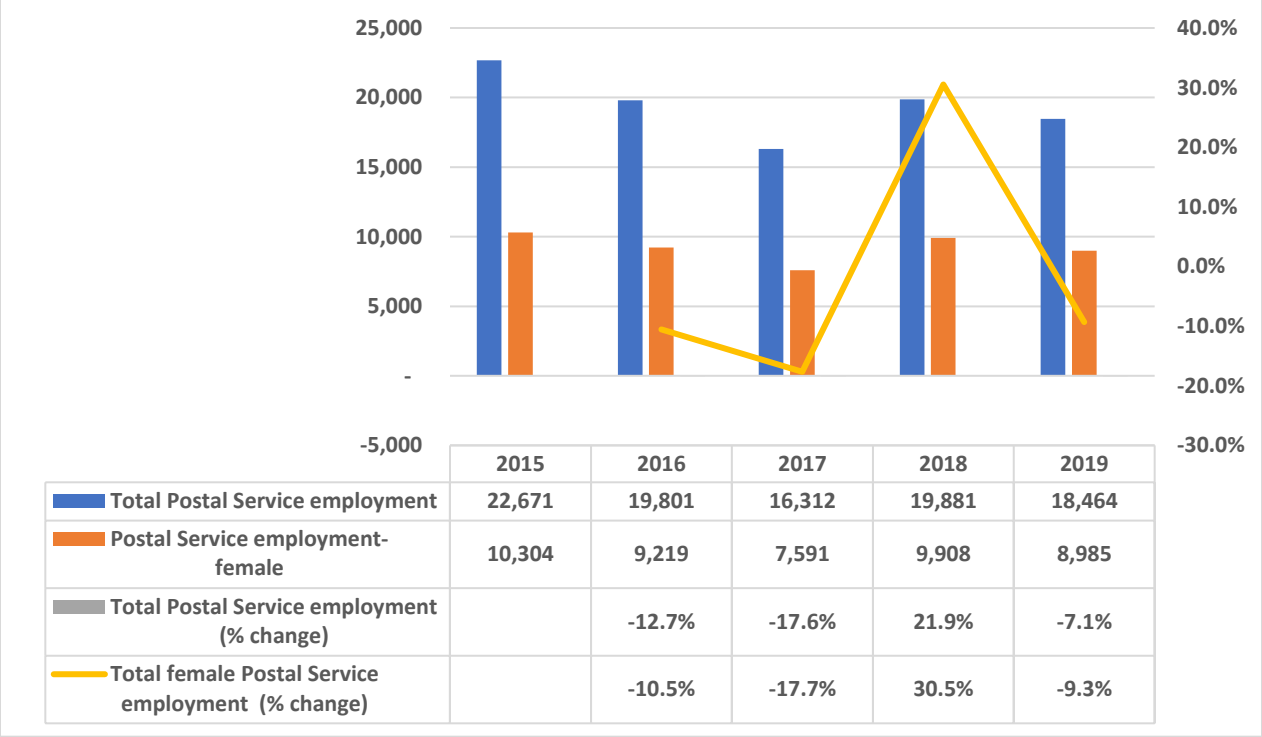

*Source: ICASA Postal Questionnaire, December 2019*
*Note: *we had low response rate from unreserved postal sector**

[2] *Virtual post is a digital mailbox post service that you access via any computer, tablet, or smartphone. Receive, forward, pick up, shred, or discard mail and packages. It allows you to manage your postal mail and packages with our smartphone app or online anytime, from anywhere.*

## 6.6 Postal Service Sector Employment

Total employment in the postal sector decreased by 7.1% in 2019. Female employment decreased by 9.3% in 2019.

**Graph 54: Persons employed in Post Service Sector, by gender, as of 30th September each year**



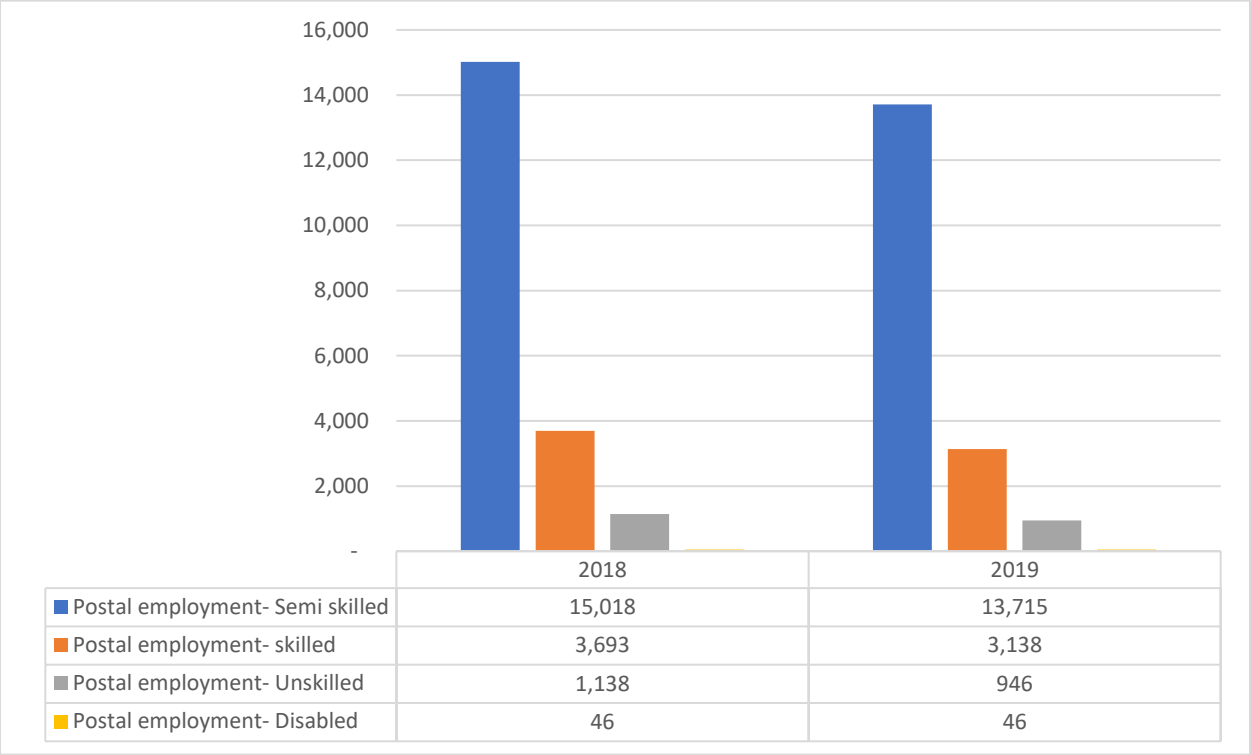

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Total Postal Service employment | 22,671 | 19,801 | 16,312 | 19,881 | 18,464 |
| Postal Service employment-female | 10,304 | 9,219 | 7,591 | 9,908 | 8,985 |
| Total Postal Service employment (% change) | | -12.7% | -17.6% | 21.9% | -7.1% |
| Total female Postal Service employment (% change) | | -10.5% | -17.7% | 30.5% | -9.3% |

*Source: ICASA Postal Questionnaire, December 2019*
*Note: *we had low response rate from unreserved postal sector**

## 6.7 Persons employed in the postal sector breakdown

The postal sector employment experienced a decrease in 2019, with semi-skilled employees decreasing by 8.7%, skilled employees decreasing by 15% and unskilled employees decreasing by 16.9%. However, the number of employees with disabilities remained the same.

**Graph 55: Persons employed in the postal sector breakdown, for the 12-month period ending 30th September each year**



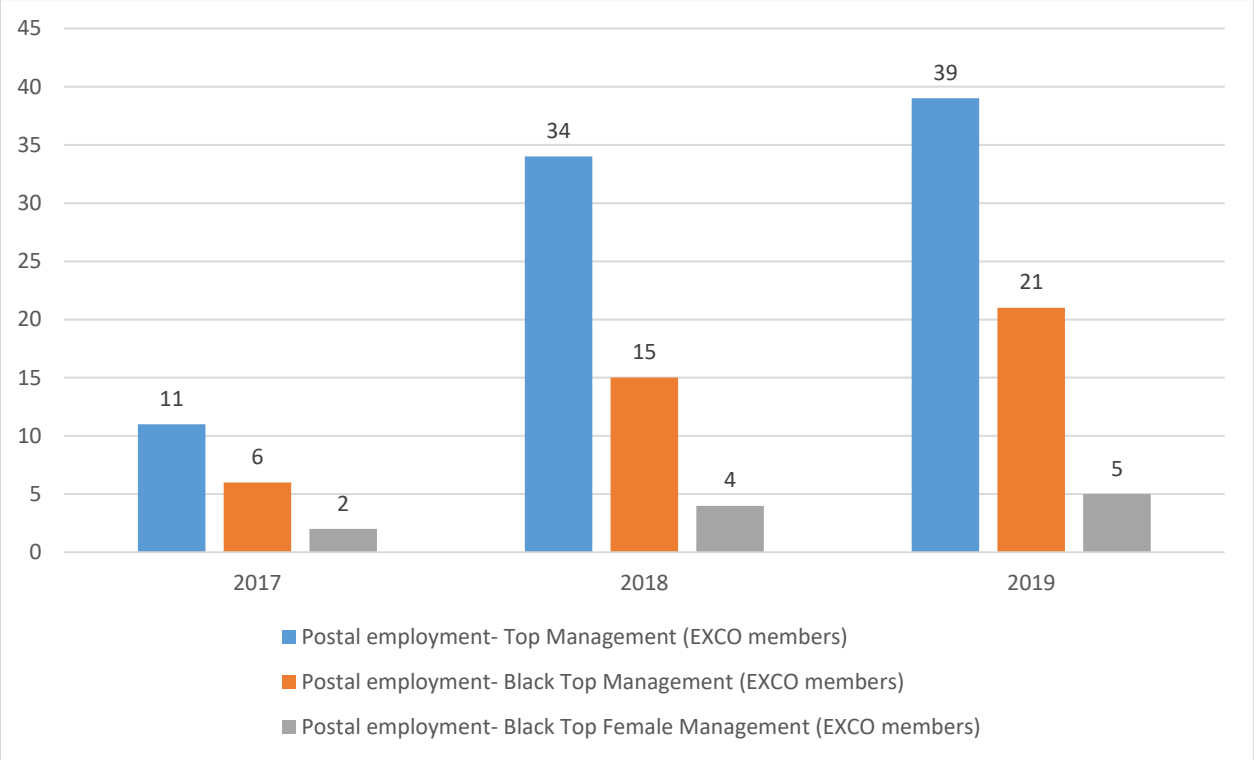

| | 2018 | 2019 |
|---|---|---|
| Postal employment- Semi skilled | 15,018 | 13,715 |
| Postal employment- skilled | 3,693 | 3,138 |
| Postal employment- Unskilled | 1,138 | 946 |
| Postal employment- Disabled | 46 | 46 |

*Source: ICASA Postal Questionnaire, December 2019*

## 6.8 Postal service sector Black Economic Empowerment Measures

In 2019, a total of 39 people occupied top management (EXCO) positions in the postal sector, indicating a 14.7% increase from 2018. The black top management increased by 40% and black top female management increased by 25%.

**Graph 56: Postal sector Black Economic Empowerment Measures, for the 12-month period ending 30th September each year**




*Source: ICASA Postal Questionnaire, December 2019*
*Note: *we had low response rate from unreserved postal sector**

# 7 CONCLUSION

**The following highlights are worth noting for three sectors (telecommunications, broadcasting and postal services)**

- The revenue reported for the three sectors (telecommunications, broadcasting and postal) increased by 4%, from R229 billion in 2018 to R238 billion in 2019. Telecommunications services revenue increased by 3.6% from R187 billion in 2018 to R194 billion in 2019, broadcasting services revenue increased by 3.8% from R36 billion to R38 billion and postal services revenue significantly increased by 19.9% from R 4.7 billion in 2018 to R 5.7 billion in 2019.

- Total overall employment numbers for the three sectors decreased by 8.2% in 2019. Over the same period, employment changes in the specific sectors were as follows: telecommunications sector employment decreased by 8.9%, postal sector employment decreased by 7.1% and broadcasting sector employment decreased by 7.3%.

**The following highlights are worth noting for the telecommunications sector**

- When we breakdown employment in the telecommunications sector by gender, skills and disabilities, the majority (23,334) of employees were classified as skilled, 2,863 semi-skilled, 558 unskilled and those with disabilities were 354 in 2019.

- Total telecommunications investment decreased by 17.1% from R46 billion in 2018 to R38 billion in 2019.

- As at September 2019, prepaid mobile phone subscriptions in urban areas was 77 million, post-paid mobile phone subscriptions in urban areas was 13 million,

prepaid mobile phone subscriptions in rural areas was 4.8 million and post-paid mobile phone subscriptions was over 885 thousand.

- National population coverage for 3G increased form 99.5% in 2018 to 99.7% in 2019 and National population coverage for 4G/LTE increased from 85.7% in 2018 to 92.8% in 2019.

**The following highlights are worth noting for the broadcasting sector**

- The total number of Pay TV subscriptions increased by 4.3%, from 7.3 million in 2018 to 7.6 million in 2019. Over a 5-year period the increase was 7.8%.

- When we breakdown employment in the broadcasting sector by skilled, semi-skilled, disabilities and unskilled, the broadcasting employment for skilled was 3,353, for semi-skilled was 355, for disabled was 131 and unskilled was 125 in 2019.

- The total number of productions by broadcasters increased from 414 in 2018 to 3,637 in 2019, local independent productions increased from 1,022 in 2018 to 1,499 in 2019 and international independent productions increased from 296 in 2018 to 487 in 2019.

**The following highlights are worth noting for the postal services sector**

- The postal sector employment experienced a decrease in 2019, with semi-skilled employees decreasing by 8.7%, skilled employees decreasing by 15% and unskilled employees decreasing by 16.9%. However, the number of employees with disabilities remained the same.

- Total letter delivery services (registered letters) and domestic service and international outbound (local volumes) decreased by 1.3% and 1.5%, respectively in 2019. The domestic service and international outbound (International mail centre volume) increased by 11.7% in 2019.

- The number of PO Boxes and number of PO Boxes rented both decreased by 2.9% and 2.7% respectively in 2019.

## APPENDICES

### Appendix 1: ICASA questionnaire respondents, December 2019

| ICASA questionnaire respondents, December, 2019 | |
|---|---|
| **Telecommunication's Licensees** | |
| 1 | Afrihost SP (Pty) Ltd |
| 2 | Airband High Speed Internet (Pty) Ltd |
| 3 | Amobia Communications (Pty) Ltd |
| 4 | Anne Knox |
| 5 | ASK Internet Technologies CC |
| 6 | AT&T South Africa (Proprietary) Limited |
| 7 | Atcomm (Pty) Ltd t/a Ntelecom. |
| 8 | Axxess DSL (Pty) LTD |
| 9 | Bethnet cc |
| 10 | BitCo Telecoms |
| 11 | Border Internet (Pty) Ltd |
| 12 | Borwood Communications |
| 13 | Breedenet (Pty) Ltd |
| 14 | BSS DIGITAL |
| 15 | Bundu NetworX (Pty) Ltd |
| 16 | Cell C (PTY) LTD |
| 17 | Century City Connect |
| 18 | CenturyLink Communications South Africa (PTY) LTD (previously known as Level 3 Communications South Africa (PTY) LTD) |
| 19 | China Telecom South Africa (Pty) Ltd |
| 20 | Cipherwave Networks (Pty) Ltd |
| 21 | Cloudconnect Networks (Pty) Ltd |
| 22 | Comsol Networks (Pty) Ltd |
| 23 | Connection Telecom (Pty) Ltd |
| 24 | CRAZYWEB TECH. |
| 25 | Cutman Bush Net |
| 26 | CWNET |
| 27 | Dark Fibre Africa Proprietary Limited |
| 28 | Datonet (Pty) Ltd |
| 29 | DAVO CORP CC |

| | |
|---|---|
| 30 | Dube Trade Port Corporation |
| 31 | Edelnet |
| 32 | Elu Investments Limited |
| 33 | Equation Business Solutions Pty Ltd |
| 34 | First Technology (Pty) Ltd |
| 35 | FRANCOIS O'KENNEDY W.O.R.X (PTY) LTD |
| 36 | FUSION VOICE & DATA |
| 37 | Fusion Wireless (Pty) Ltd ta Sonic Telecoms |
| 38 | Future Perfect Corporation CC TA Vanilla |
| 39 | GVSC Communications SA (Pty) Ltd |
| 40 | Heinrich Heunis |
| 41 | Hi Tech Wireless (Pty) Ltd |
| 42 | HX Systems (Pty) Ltd |
| 43 | Hymax Talking Solutions (Pty) Ltd |
| 44 | Imply IT (Pty) Ltd |
| 45 | InterActive Systems Designs (Pty) Ltd |
| 46 | Interexcel World Connection (Pty) Ltd |
| 47 | Internet Generation (PTY) Ltd |
| 48 | Internet Solutions Digital Pty Ltd (MWEB) |
| 49 | Internet Solutions, the division of Dimension Data |
| 50 | Internet Uncapped CC |
| 51 | J STEMMET TA CSI BOLAND |
| 52 | JSDAAV ZA Telecoms (Pty) Ltd |
| 53 | Kliq (Pty) Ltd |
| 54 | lanlink |
| 55 | Lasernet Pty Ltd |
| 56 | LCOM (PTY) LTD |
| 57 | Letaba Wireless Internet |
| 58 | Level 7 Wireless |
| 59 | Linux Based Systems Design SA (Pty) Ltd |
| 60 | LIQUID TELECOMMUNICATIONS SOUTH AFRICA (PTY) LTD |
| 61 | METRO FIBRE NETWORX PTY LTD |
| 62 | MICHAEL HENRY WISCH |
| 63 | Mobile Telephone Networks (PTY) LTD |

| | |
|---|---|
| 64 | Mzanzi Lisetta Media & Printing (Pty) Ltd |
| 65 | Nepic (Pty) Ltd |
| 66 | Netwide Internet |
| 67 | Newwave Communications (Africa) Pty Ltd |
| 68 | NEXUS NET WIRED AND WIRELESS CC ta NEXUS.NET |
| 69 | Olive Tree Technologies |
| 70 | Orange Business Services South Africa Pty Ltd |
| 71 | Petrpops 36 CC |
| 72 | Platformity cc |
| 73 | Rain Networks (Pty) Ltd |
| 74 | River Broadband (Pty) Ltd |
| 75 | Saicom Voice Services (Pty) Ltd |
| 76 | Seagle Telecom (PTY) Ltd |
| 77 | SiFi Net |
| 78 | SIMIGENIX (PTY)LTD |
| 79 | Skyber Wi-Fi Enterprises |
| 80 | SMSPORTAL (PTY) LTD |
| 81 | Snowball Effect (Pty) Ltd |
| 82 | Sonic Computers & Wi-Fi CC |
| 83 | Stuart Bodill ta IT.Net |
| 84 | Switch Telecom |
| 85 | Sybaweb PTY Ltd |
| 86 | Telkom SA SOC Limited |
| 87 | Touchnet Telecommunications CC |
| 88 | Tribal Zone Telecommunications |
| 89 | Trusc Technologies |
| 90 | TT CONNECT (PTY) LTD |
| 91 | Udy Net |
| 92 | Urban Wisp |
| 93 | Vangibuzz Pty Ltd ta True Communications |
| 94 | Vodacom (Pty) Ltd |
| 95 | VOX TELECOMMUNICATIONS (PTY) LTD |
| 96 | Voys Telecom SA (Pty) Ltd |
| 97 | Vumatel (Pty) Ltd |

| | |
|---|---|
| 98 | Wicotel CC |
| 99 | Wireless Associate Service Providers CC |
| 100 | Wispernet |
| 101 | XLink Communications (Pty) Ltd |
| 102 | Xtranet Internet Services CC |
| 103 | ZA GAS CK |
| **Broadcasting Licensees** | |
| 1 | Med FM |
| 2 | Pretoria FM |
| 3 | TSHEPO FM |
| 4 | Witbank FM |
| 5 | Bokone-Bophirima FM Community Radio Station |
| 6 | Umoya Communications (Pty) Ltd |
| 7 | Life Broadcasting |
| 8 | CHRISTELIKE RADIO DIENSTE ta RADIO TYGERBERG |
| 9 | Deukom (Pty) Ltd. |
| 10 | SOUTH AFRICAN BROADCASTING CORPORATION (TV) |
| 11 | SOUTH AFRICAN BROADCASTING CORPORATION (Radio) |
| 12 | SA jonisi youth radio |
| 13 | Lekoa FM |
| 14 | Impact Radio |
| 15 | e.tv (PTY) LTD |
| 16 | Wild Coast FM |
| 17 | Ngqushwa FM |
| 18 | Witzenberg Radio |
| 19 | PERRON FM |
| 20 | Highway Christian Outreach Association |
| 21 | Bush Radio |
| 22 | Groot FM |
| 23 | Modiri FM |
| 24 | Vuwani Community Radio Station |
| 25 | 100.5FM Radio Laeveld |
| 26 | Faith Broadcasting Terrestrial |
| 27 | Magic 828 pty ltd |

| | |
|---|---|
| **28** | **On Digital Media** |
| **29** | **702** |
| **30** | **947** |
| **31** | **Cape Talk** |
| **32** | **KFM** |
| **33** | **Univen Community Radio 99.8** |
| **34** | **MultiChoice (Pty) Ltd** |
| **Postal Services Licensees** | |
| **1** | **POST OFFICE** |
| **2** | **Fastway Couriers** |
| **3** | **Royal International** |

## Appendix 2: Definitions of Telecommunications categories

| Definitions of Telecommunications categories | |
|---|---|
| ICT | Information Communication Technology |
| Stats SA | Statistics South Africa |
| ECS | Electronic Communication Services |
| ECNS | Electronic Communication Network Services |
| GHS | General household survey |
| ISP's | Internet Service Providers |
| 4IR | Fourth Industrial Revolution |

| **Telecommunications sector** |
|---|
| The telecommunications sector comprises fixed and mobile telecommunications services as well as the provision of Internet access. |
| ***Total telecommunication investment*** |
| Total annual investment in telecommunication services, also referred to as annual capital expenditure, refers to the investment during the financial year in telecommunication services (including fixed, mobile and Internet services) for acquiring or upgrading property and networks. Property includes tangible assets such as plant, intellectual and non-tangible assets such as computer software. The indicator is a measure of investment in telecommunication infrastructure in the country and includes expenditure on initial installations and additions to existing installations where the usage is expected to be over an extended period of time. It excludes expenditure on research and development (R&D), annual fees for operating licences and the use of radio spectrum, and investment in telecommunication software or equipment for internal use. |
| *Annual investment in fixed-telephone services* |
| Refers to investment in fixed-telephone services for acquiring and upgrading property and networks within the country. This refers to annual investment in assets related to fixed-telephone networks and the provision of services. |
| *Annual investment in fixed (wired) broadband services* |

| |
|---|
| Refers to investment in fixed (wired)-broadband services for acquiring and upgrading property and networks within the country. This refers to annual investment in assets related to fixed (wired)-broadband networks and the provision of services. |
| *Annual investment in mobile communication services* |
| Refers to investment in mobile services for acquiring and upgrading property and networks within the country. It should include investments made for mobile-broadband services. This refers to annual investment in assets related to mobile communication networks and the provision of services. It should include investment in mobile-broadband networks. |
| *Other annual investment in telecommunication services* |
| Refers to investment in other telecommunication services, such as fixed wireless-broadband, satellite and leased lines. |
| ***Total telecommunications revenue*** |
| The aggregated revenue includes the total telecommunications services revenue and any other revenue. |
| ***Total telecommunication services revenue*** |
| The sum of revenue from all telecommunication services (in local currency at current prices). Revenue from all telecommunication services refers to revenue earned from retail fixed-telephone, mobile-cellular, Internet and data services offered by telecommunication operators (both network and virtual, including resellers) offering services within the country during the financial year under review. It includes retail revenues earned from the transmission of TV signals but excludes revenues from TV content creation. Exclude: (i) wholesale revenues (e.g. termination rates), (ii) revenues from device sales and rents, (iii) VAT and excise taxes. Any deviation from the definition should be specified in a note, including clarifications on what TV revenues are included/excluded (e.g. IPTV, cable TV, pay satellite and free-to-air TV). |
| *Total fixed line services revenue* |
| This aggregate value is defined as the sum of Fixed line voice revenue, fixed (wired) internet revenue, Other fixed (wireless) broadband revenue and Other fixed telecommunications services revenue as defined below. |

| |
|---|
| *Total fixed line voice revenue* |
| Sum of revenue from retail fixed-telephone services refers to revenue received for the connection (installation) of fixed-telephone services, revenue from recurring charges for subscription to the PSTN and revenue from fixed-telephone calls. |
| *Revenue from fixed-telephone connection charges* |
| Revenue from fixed-telephone connection charges refers to retail revenue received for connection (installation) of fixed- telephone services. This may include charges for transfer or cessation of services. |
| *Revenue from fixed-telephone subscription charges* |
| Revenue from fixed-telephone subscription charges refers to revenue from recurring charges for subscriptions to the PSTN, including Internet access if it cannot be separated from fixed-telephone. |
| *Revenue from fixed-telephone calls* |
| Revenue from fixed-telephone calls refers to retail fixed-telephone revenue received from charges for local, national long-distance and international calls. |
| ***Fixed (wired) internet revenue*** |
| Revenue from fixed (wired) Internet services refers to retail revenue received from the provision of fixed (wired) Internet services such as subscriptions, traffic and data communication. It excludes the provision of access lines used to connect to fixed (wired) Internet (such as fixed-telephone lines used to access DSL connections). This includes revenue from fixed (wired)-broadband services (previously a separate indicator under ITU code i7311_fb, but for reporting purposes here counted together with any small residual narrowband internet revenue in a single indicator, viz. fixed wired internet). |
| ***Other (wireless) broadband services revenue*** |
| Revenue from other wireless-broadband services refers to the retail revenue received from the provision of high-speed (at least 256 Kbit/s) data connectivity and related services over a wireless infrastructure other than mobile cellular, such as satellite or terrestrial fixed wireless broadband infrastructures. |

| |
|---|
| ***Other fixed telecommunication services revenue, including leased lines revenue and fixed value-added telecommunication services*** |
| Revenue from leased lines refers to retail revenue received from the provision of leased lines. |
| Revenue from fixed value-added telecommunication services refers to the retail revenue generated by the telecommunication service sector for fixed value-added telecommunication services, such as call forwarding, itemized billing, conference calls and voice-message services. |
| Value-added means additional services beyond the basic telephone service line rental and calls |
| Other telecommunication revenue refers to any other retail telecommunication services revenue received but not accounted for elsewhere. |
| ***Total mobile services revenue (retail)*** |
| Revenue from mobile networks refers to retail revenue earned from the provision of mobile-cellular communication services, including all voice, SMS and data (narrowband and broadband) services offered by mobile operators offering services within the country during the financial year under review. Revenues from value added services (e.g. premium SMS) should be included. Data reported should exclude: (i) wholesale revenues (e.g. termination rates), (ii) revenues from device sales and rents, (iii) VAT and excise taxes. |
| *Revenue from mobile voice services* |
| Refers to all mobile-cellular retail revenue from the provision of voice services. It includes voice revenues from national and international calls but excludes revenues from roaming services. |
| *Revenue from outbound mobile cellular roaming* |
| Refers to all mobile-cellular retail roaming revenue from own subscribers roaming abroad. It does not cover foreign mobile subscribers roaming into the country and international calls originating or terminating on the country's mobile networks. |
| *Revenue from mobile data services* |

| |
|---|
| Refers to revenue from the provision of non-voice services including messaging (other than SME and MMs), data and Internet services, including M2M/telemetry. It excludes other mobile-cellular services and wireless Internet access services not relating to mobile networks (e.g. satellite or terrestrial fixed wireless technologies). |
| *Revenue from text and multimedia messaging services* |
| Refers to revenue from text messaging and multimedia messaging (SMS and MMS). Some countries may account for this in different ways. For example, some mobile plans include free SMS or MMS that are liable to be classified as voice revenue rather than mobile-messaging revenue. The treatment of premium messages – where users pay an additional amount over the regular messaging rate – can vary among operators, since they typically share the revenue with a premium-service provider. Operators may also include revenue from international messaging in other categories. The preference is to include all revenue earned by the operator from the provision of messaging services to retail customers. |
| *Other mobile services revenue* |
| Any other mobile revenue, like banking |
| ***Total of any other revenue*** |
| Sum of interconnection revenue, equipment sale revenue and any other revenue |
| *Interconnection revenues* |
| Revenues from terminating voice and messaging traffic coming from outside the operator's own network |
| *Equipment revenue* |
| Revenues from equipment sales |
| *Any other revenue* |
| Any other revenue which could include wholesale revenues, excluding voice termination (interconnection); IT type services; revenue of a capital nature. E.g. sale of assets or a business. |
| ***Telecommunications employment*** |
| *Persons employed in full-time equivalents* |

| |
|---|
| Persons employed in full-time equivalents refers to the total number of persons, in full-time equivalent (FTE) units, employed by telecommunication operators in the country for the provision of telecommunication services, including fixed-telephone, mobile-cellular, Internet and data services. This indicator excludes staff working in broadcasting businesses that offer only traditional broadcasting services. Part-time staff should be expressed in terms of full-time staff equivalents (FTE). |
| *Telecoms employment- female* |
| Persons employed by all telecommunication operators, female should be expressed in terms of full-time staff equivalents. |
| ***Telecommunication Subscriptions*** |
| ***Fixed-telephone subscriptions*** |
| Fixed-telephone subscriptions refers to the sum of active analogue fixed- telephone lines, voice-over-IP (VoIP) subscriptions, fixed wireless local loop (WLL) subscriptions, ISDN voice-channel equivalents and fixed public payphones. This indicator was previously called Main telephone lines in operation. |
| *Analogue fixed-telephone lines* |
| Analogue fixed-telephone lines refer to the number of active lines connecting subscribers' terminal equipment to the PSTN and which have a dedicated port in the telephone-exchange equipment. It includes all post-paid lines and those prepaid lines that have registered an activity in the past three months. This term is synonymous with the terms 'main station' and 'direct exchange line' (DEL) that are commonly used in telecommunication documents. |
| *VoIP subscriptions* |
| VoIP subscriptions refers to the number of voice-over-Internet protocol (VoIP) fixed-line subscriptions. It is also known as voice over broadband (VoB), and includes VoIP subscriptions through fixed wireless, DSL, cable, fibre optic and other fixed-broadband Internet platforms that provide fixed telephony using IP. It excludes software-based VoIP applications (e.g. VoIP with Skype using computer-to-computer or computer-to-telephone). Those VoIP subscriptions that do not imply a recurrent |

| |
|---|
| monthly fee should only be counted if they have generated inbound or outbound traffic within the past three months. |
| *Fixed wireless local loop subscriptions* |
| Fixed wireless local loop (WLL) subscriptions refers to subscriptions provided by licensed fixed-line telephone operators that provide 'last-mile' access to the subscriber using radio technology and where the subscriber's terminal equipment is either stationary or limited in its range of use. |
| *ISDN voice-channel equivalents* |
| ISDN voice-channel equivalents refers to the sum of basic-rate and primary-rate voice-channel equivalents (B-channel equivalents). Basic-rate voice-channel equivalents is the number of basic-rate ISDN subscriptions multiplied by 2, and primary-rate voice-channel equivalents is the number of primary-rate ISDN subscriptions multiplied by 23 or 30, depending on the standard implemented. |
| *Fixed public payphones* |
| Fixed public payphones refers to payphones that are available to the public using the fixed network. |
| ***Mobile cellular subscriptions*** |
| Mobile-cellular telephone subscriptions, by post-paid and prepaid Mobile-cellular telephone subscriptions refers to the number of subscriptions to a public mobile-telephone service that provide access to the PSTN using cellular technology. |
| *Prepaid mobile-cellular telephone subscriptions* |
| Refers to the total number of mobile-cellular telephone subscriptions that use prepaid refills. These are subscriptions where, instead of paying an ongoing monthly fee, users purchase blocks of usage time. Although the definition of prepaid subscribers from the ITU definition is 3 month active subscribers (those used at least once in the last three months for making or receiving a call or carrying out a non-voice activity such as sending or reading an SMS or accessing the Internet), some South African operators do not have this metric available but rather count SIMs that have not been disconnected within a 90 day window, reporting, implying that the number may be overstated according to the strict definition. The indicator applies to all |

| |
|---|
| mobile-cellular subscriptions that offer voice communications. It excludes subscriptions via data cards or USB modems, subscriptions to public mobile data services, private trunked mobile radio, telepoint, radio paging and telemetry services. |
| *Post-paid mobile-cellular telephone subscriptions* |
| Refers to the total number of mobile-cellular subscriptions, including top up bundles, where subscribers are billed after their use of mobile services, at the end of each month. The post-paid service is provided on the basis of a prior arrangement with a mobile- cellular operator. Typically, the subscriber's contract specifies a limit or allowance of minutes, text messages, etc. The subscriber will be billed at a flat rate for any usage equal to or less than that allowance. Any usage above that limit incurs extra charges. Theoretically, a subscriber in this situation has no limit on use of mobile services and, as a consequence, unlimited credit. M2M mobile-network subscriptions are included in post-paid subscriptions |
| *M2M mobile-network subscriptions* |
| M2M subscriptions is a subset of post-paid mobile cellular subscriptions and refers to the number of mobile-cellular machine- to-machine subscriptions that are assigned for use in machines and devices (cars, smart meters, consumer electronics) for the exchange of data between networked devices and are not part of a consumer subscription. For instance, SIM-cards in personal navigation devices, smart meters, trains and automobiles should be included. Mobile dongles and tablet subscriptions should be excluded. |
| ***Internet and data subscriptions*** |
| *Fixed broadband subscriptions* |
| Fixed-broadband subscriptions refers to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 Kbit/s. This includes cable modem, DSL, fibre-to-the- home/building, other fixed (wired)-broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband. This total is measured irrespective of the method of payment. It excludes subscriptions that have access to data communications (including the |

| |
|---|
| Internet) via mobile-cellular networks. It should include fixed WiMAX and any other fixed wireless technologies. It includes both residential subscriptions and subscriptions for organizations. |
| *DSL Internet subscriptions* |
| Refers to the number of Internet subscriptions using digital subscriber line (DSL) services to access the Internet, at downstream speeds greater than or equal to 256 Kbit/s. DSL is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. It should exclude very high-speed digital subscriber line (VDSL) subscriptions if these are provided using fibre directly to the premises. |
| *Fibre-to-the-home/building Internet subscriptions* |
| Refers to the number of Internet subscriptions using fibre-to-the-home or fibre-to-the-building, at downstream speeds equal to, or greater than, 256 Kbit/s. This should include subscriptions where fibre goes directly to the subscriber's premises or fibre-to-the-building subscriptions that terminate no more than 2 metres from an external wall of the building. Fibre-to-the-cabinet and fibre-to-the-node are excluded. |
| *Other fixed (wired) broadband subscriptions* |
| Refers to Internet subscriptions using other fixed (wired) broadband technologies to access the Internet (other than DSL, cable modem, and fibre), at downstream speeds equal to, or greater than, 256 Kbit/s. This includes technologies such as ethernet LAN, and broadband-over-powerline (BPL) communications. Ethernet LAN subscriptions refer to subscriptions using IEEE 802.3 technology. BPL subscriptions refer to subscriptions using broadband-over-powerline services. Users of temporary broadband access (e.g. roaming between PWLAN hotspots), users of WiMAX and those with Internet access via mobile-cellular networks are excluded. |
| *Wireless broadband subscriptions* |
| Wireless-broadband subscriptions refers to the sum of satellite broadband, terrestrial fixed wireless broadband and active mobile-broadband subscriptions to the public Internet. The indicator does not cover fixed (wired) broadband or Wi-Fi subscriptions. |
| *Satellite broadband subscriptions* |

| |
|---|
| Satellite broadband subscriptions refers to the number of satellite Internet subscriptions with an advertised download speed of at least 256 Kbit/s. It refers to the retail subscription technology and not the backbone technology. |
| *Terrestrial fixed wireless broadband subscriptions* |
| Terrestrial fixed wireless broadband subscriptions refer to the number of terrestrial fixed wireless Internet subscriptions with an advertised download speed of at least 256 Kbit/s. This includes fixed WiMAX and fixed wireless subscriptions but excludes occasional users at hotspots and Wi-Fi hotspot subscribers. It also excludes mobile-broadband subscriptions where users can access a service throughout the country wherever coverage is available." |
| *Mobile data subscriptions* |
| Number of prepaid and post-paid mobile subscriptions that were used to access the Internet the last 3 months, regardless of speed. |

| ***Traffic*** |
|---|
| *Fixed line voice traffic* |
| *This aggregated value is the sum of Fixed line traffic (i.e. fixed-to-fixed) and all other fixed line originated traffic (Fixed to mobile and International outgoing).* |
| *Fixed line traffic* |
| Refers to domestic fixed-to-fixed telephone traffic, in minutes. Domestic fixed-to-fixed telephone traffic refers to completed local and domestic long-distance fixed-telephone voice traffic. The indicator should be reported as the number of minutes of traffic during the reference quarter. This exclude minutes used for dial-up Internet access. |
| *Local fixed-to-fixed telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone line voice traffic exchanged within the local charging area in which the calling station is situated. This is the area within which one subscriber can call another on payment of the local charge (if applicable). This is reported in the number of minutes, which should exclude minutes used for dial-up Internet access. |

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| *Long-distance fixed-to-fixed telephone traffic, in minutes* |
| Refers to effective (completed) fixed national long-distance telephone voice traffic exchanged with a station outside the local charging area in which the calling station is situated. This is reported as the number of minutes of traffic. It excludes local calls, calls to mobile networks, calls abroad, and calls to special service numbers such as ISPs for Internet dial-up. |
| *Fixed-to-mobile telephone traffic* |
| Refers to total traffic from all fixed-telephone networks to all mobile-cellular networks within the country. |
| *International incoming and outgoing fixed-telephone traffic* |
| Refers to the sum of international incoming and outgoing fixed-telephone voice traffic. |
| *International outgoing fixed-telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone voice traffic originating in a given country to destinations outside that country. This should include traffic to mobile phones outside the country. This is reported in number of minutes of traffic. It excludes calls originating in other countries. It should include VoIP traffic. |
| *International incoming fixed-telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone voice traffic originating outside the country with a destination inside the country, irrespective of whether the call was from a fixed or mobile subscriber. It excludes minutes of calls terminating in other countries, but includes VoIP traffic |
| *Mobile voice traffic* |
| *This aggregated value is the sum of Total national mobile traffic, as defined below, and International outgoing from mobile.* |
| *Total national mobile traffic* |
| Domestic mobile-telephone traffic refers to the total number of minutes of calls made by mobile subscribers within a country (including minutes to fixed-telephone and minutes to mobile-phone subscribers). |
| *Outgoing mobile traffic to same mobile network* |

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| Refers to the number of minutes of calls made by mobile subscribers to the same mobile network (within the country). This refers to the number of minutes originating on mobile networks and terminating on the same mobile network (on-net). It does not cover minutes of calls from mobile to fixed or mobile to other mobile networks. |
| *Mobile to other mobile networks* |
| Outgoing mobile traffic to other mobile networks, in minutes refers to the number of minutes of calls made by mobile subscribers to other mobile networks (within the country). The indicator refers to the number of minutes originating on mobile networks and terminating on different domestic mobile networks (off-net). It does not cover minutes of calls from mobile to fixed or mobile to the same mobile networks. |
| *Outgoing mobile traffic to fixed networks* |
| Refers to the number of minutes of calls made from mobile-cellular networks to fixed-line telephone networks within the country. The indicator refers to the number of minutes originating on mobile networks and terminating on fixed-line telephone networks within the country. |
| *International outgoing from mobile* |
| Outgoing mobile traffic to international refers to the number of mobile minutes originating in a country to any destinations outside that country. |
| *Incoming international traffic to mobile network* |
| Refers to the number of incoming minutes (fixed and mobile) received by mobile networks originating in another country. |
| *Mobile data traffic* |
| Mobile data traffic (within the country) refers to data traffic originated within the country from mobile networks. Download and upload traffic should be added up and reported together. Traffic should be measured at the end-user access point. Wholesale and walled-garden traffic should be excluded. The traffic should be reported in terabytes. |
| *SMS traffic* |

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| SMS sent refers to the total number of mobile short-message service (SMS) messages sent, both to national and international destinations. This should exclude messages sent from computers to mobile handsets or to other computers. |
| *SMS international traffic* |
| SMS international refers to the total number of mobile short-message service (SMS) messages sent to international destinations. This should exclude messages sent from computers to mobile handsets or to other computers. |
| ***Population coverage*** |
| *3G population coverage* |
| Percentage of the population covered by at a 3G mobile network refers to the percentage of inhabitants that are within range of a 3G mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by a 3G mobile-cellular signal by the total population and multiplying by 100. |
| *4G/LTE etc. population coverage* |
| Percentage of the population covered by a 4G/LTE mobile network refers to the percentage of inhabitants that are within range of a 4G/LTE mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by a 4G/LTE mobile-cellular signal by the total population and multiplying by 100. Note that all LTE variants are included. |
| ***Internet bandwidth*** |
| ***International Internet bandwidth*** |
| *International outgoing Internet bandwidth* |
| Refers to the total outgoing used capacity of international Internet bandwidth, in Mbit/s. This is measured as the sum of outgoing (uplink) capacity of all Internet exchanges offering international bandwidth. |
| *International incoming Internet bandwidth* |
| *Refers to the total incoming used capacity of international Internet bandwidth, in Mbit/s. This is measured as the sum of incoming (downlink) capacity of all Internet exchanges offering international bandwidth.* |

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| *Smartphone subscriptions* |
| A smartphone is a mobile phone with advanced features: it has Wi-Fi connectivity, web browsing, capabilities, a high-resolution touchscreen display and the ability to use apps. The majority use one of the following mobile operating systems: Android, Symbian, iOS, Blackberry OS and Windows Mobile. |
| ***Fixed post-paid local telephone services prices*** |
| *Installation fee for residential telephone service* |
| Installation fee for residential telephone service refers to the one-off charge involved in applying for a basic residential post-paid fixed-telephone service. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Monthly subscription for residential telephone service* |
| Monthly subscription for residential telephone service refers to the recurring fixed charge for subscribing to a residential post-paid fixed-telephone service. The charge should cover the rental of the line but not the rental of the terminal (e.g. telephone set). If the rental charge includes any allowance for free or reduced rate call units, this should be indicated in the note. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Price of a three-minute local call to a fixed-telephone line, peak rate* |
| Price of a three-minute local call (peak-rate) to a fixed-telephone line refers to the price of a three-minute peak local call from a residential fixed-telephone line, including any call set-up charges, within the same exchange area using the subscriber's own terminal (i.e. not from a public telephone). Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Price of a three-minute local call to a fixed-telephone line, off-peak rate* |
| Price of a three-minute local call to a fixed-telephone line refers to the price of a three-minute off-peak local call from a residential fixed-telephone line, including any call set-up charges, within the same exchange area using the subscriber's own |

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| terminal (i.e. not from a public telephone). Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| ***Mobile-cellular prepaid prices*** |
| *Mobile-cellular prepaid-price of a one-minute local call (peak, on-net)* |
| Refers to the price per minute of a peak prepaid call from a mobile-cellular telephone with a prepaid subscription to another subscriber in the same network. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Mobile-cellular prepaid-price of a one-minute local call (off-peak, on-net)* |
| Refers to the price per minute of a prepaid call from a mobile-cellular telephone with a prepaid subscription made to the same mobile-cellular network during off-peak time. Off-peak refers to the cheapest rate before mid-night. If the only off-peak period is after mid-night, the peak price should be used. Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| *Mobile-cellular prepaid-price of SMS (on-net)* |
| Mobile-cellular prepaid – price of SMS refers to the price of sending a short-message service (SMS) message from a mobile-cellular telephone with a prepaid subscription to a mobile-cellular number of the same network (on-net). Taxes should be included. If not included, it should be specified in a note including the applicable tax rate. |
| ***ICT Sector Black Economic Empowerment Measures*** |
| *Telecoms employment -Black Top Management* |
| Persons employed by all telecommunication operators, Black Top Management, should be expressed in terms of full-time staff equivalents. This should include Exco and other Executives. |
| *Procurement Spend from all suppliers* |
| Total spend on all goods and services procured by an Entity. |
| *Procurement Spend from all suppliers based on the B-BBEE Procurement Recognition Levels* |
| Total spend on all goods and services procured by an Entity based on the B-BBEE Procurement Recognition Levels. |

| *Number of Schools connected based on obligations imposed by ICASA* |
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| Total number of Schools connected based on obligations imposed by ICASA to operators. |

| *Total fixed line voice revenue* |
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| Sum of revenue from retail fixed-telephone services refers to revenue received for the connection (installation) of fixed-telephone services, revenue from recurring charges for subscription to the PSTN and revenue from fixed-telephone calls. |
| *Revenue from fixed-telephone connection charges* |
| Revenue from fixed-telephone connection charges refers to retail revenue received for connection (installation) of fixed- telephone services. This may include charges for transfer or cessation of services. |
| *Revenue from fixed-telephone subscription charges* |
| Revenue from fixed-telephone subscription charges refers to revenue from recurring charges for subscriptions to the PSTN, including Internet access if it cannot be separated from fixed-telephone. |
| *Revenue from fixed-telephone calls* |
| Revenue from fixed-telephone calls refers to retail fixed-telephone revenue received from charges for local, national long-distance and international calls. |
| ***Fixed (wired) internet revenue*** |
| Revenue from fixed (wired) Internet services refers to retail revenue received from the provision of fixed (wired) Internet services such as subscriptions, traffic and data communication. It excludes the provision of access lines used to connect to fixed (wired) Internet (such as fixed-telephone lines used to access DSL connections). This includes revenue from fixed (wired)-broadband services (previously a separate indicator under ITU code i7311_fb, but for reporting purposes here counted together with any small residual narrowband internet revenue in a single indicator, viz. fixed wired internet). |
| ***Other (wireless) broadband services revenue*** |

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| Revenue from other wireless-broadband services refers to the retail revenue received from the provision of high-speed (at least 256 Kbit/s) data connectivity and related services over a wireless infrastructure other than mobile cellular, such as satellite or terrestrial fixed wireless broadband infrastructures. |
| ***Other fixed telecommunication services revenue, including leased lines revenue and fixed value-added telecommunication services*** |
| Revenue from leased lines refers to retail revenue received from the provision of leased lines. |
| Revenue from fixed value-added telecommunication services refers to the retail revenue generated by the telecommunication service sector for fixed value-added telecommunication services, such as call forwarding, itemized billing, conference calls and voice-message services. |
| Value-added means additional services beyond the basic telephone service line rental and calls |
| Other telecommunication revenue refers to any other retail telecommunication services revenue received but not accounted for elsewhere. |
| ***Total mobile services revenue (retail)*** |
| Revenue from mobile networks refers to retail revenue earned from the provision of mobile-cellular communication services, including all voice, SMS and data (narrowband and broadband) services offered by mobile operators offering services within the country during the financial year under review. Revenues from value added services (e.g. premium SMS) should be included. Data reported should exclude: (i) wholesale revenues (e.g. termination rates), (ii) revenues from device sales and rents, (iii) VAT and excise taxes. |
| *Revenue from mobile voice services* |
| Refers to all mobile-cellular retail revenue from the provision of voice services. It includes voice revenues from national and international calls but excludes revenues from roaming services. |

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| *Revenue from outbound mobile cellular roaming* |

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| Refers to all mobile-cellular retail roaming revenue from own subscribers roaming abroad. It does not cover foreign mobile subscribers roaming into the country and international calls originating or terminating on the country's mobile networks. |
| *Revenue from mobile data services* |
| Refers to revenue from the provision of non-voice services including messaging (other than SME and MMs), data and Internet services, including M2M/telemetry. It excludes other mobile-cellular services and wireless Internet access services not relating to mobile networks (e.g. satellite or terrestrial fixed wireless technologies). |
| *Revenue from text and multimedia messaging services* |
| Refers to revenue from text messaging and multimedia messaging (SMS and MMS). Some countries may account for this in different ways. For example, some mobile plans include free SMS or MMS that are liable to be classified as voice revenue rather than mobile-messaging revenue. The treatment of premium messages – where users pay an additional amount over the regular messaging rate – can vary among operators, since they typically share the revenue with a premium-service provider. Operators may also include revenue from international messaging in other categories. The preference is to include all revenue earned by the operator from the provision of messaging services to retail customers. |
| *Other mobile services revenue* |
| Any other mobile revenue, like banking |
| ***Total of any other revenue*** |
| Sum of interconnection revenue, equipment sale revenue and any other revenue |
| *Interconnection revenues* |
| Revenues from terminating voice and messaging traffic coming from outside the operator's own network |
| *Equipment revenue* |
| Revenues from equipment sales |
| *Any other revenue* |

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| Any other revenue which could include wholesale revenues, excluding voice termination (interconnection); IT type services; revenue of a capital nature. E.g. sale of assets or a business. |
| ***Telecommunications employment*** |
| *Persons employed in full-time equivalents* |
| Persons employed in full-time equivalents refers to the total number of persons, in full-time equivalent (FTE) units, employed by telecommunication operators in the country for the provision of telecommunication services, including fixed-telephone, mobile-cellular, Internet and data services. This indicator excludes staff working in broadcasting businesses that offer only traditional broadcasting services. Part-time staff should be expressed in terms of full-time staff equivalents (FTE). |
| *Telecoms employment- female* |
| Persons employed by all telecommunication operators, female should be expressed in terms of full-time staff equivalents. |
| ***Telecommunication Subscriptions*** |
| ***Fixed-telephone subscriptions*** |
| Fixed-telephone subscriptions refers to the sum of active analogue fixed- telephone lines, voice-over-IP (VoIP) subscriptions, fixed wireless local loop (WLL) subscriptions, ISDN voice-channel equivalents and fixed public payphones. This indicator was previously called Main telephone lines in operation. |
| *Analogue fixed-telephone lines* |
| Analogue fixed-telephone lines refer to the number of active lines connecting subscribers' terminal equipment to the PSTN and which have a dedicated port in the telephone-exchange equipment. It includes all post-paid lines and those prepaid lines that have registered an activity in the past three months. This term is synonymous with the terms 'main station' and 'direct exchange line' (DEL) that are commonly used in telecommunication documents. |
| *VoIP subscriptions* |
| VoIP subscriptions refers to the number of voice-over-Internet protocol (VoIP) fixed-line subscriptions. It is also known as voice over broadband (VoB), and |

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| includes VoIP subscriptions through fixed wireless, DSL, cable, fibre optic and other fixed-broadband Internet platforms that provide fixed telephony using IP. It excludes software-based VoIP applications (e.g. VoIP with Skype using computer-to-computer or computer-to-telephone). Those VoIP subscriptions that do not imply a recurrent monthly fee should only be counted if they have generated inbound or outbound traffic within the past three months. |
| *Fixed wireless local loop subscriptions* |
| Fixed wireless local loop (WLL) subscriptions refers to subscriptions provided by licensed fixed-line telephone operators that provide 'last-mile' access to the subscriber using radio technology and where the subscriber's terminal equipment is either stationary or limited in its range of use. |
| *ISDN voice-channel equivalents* |
| ISDN voice-channel equivalents refers to the sum of basic-rate and primary-rate voice-channel equivalents (B-channel equivalents). Basic-rate voice-channel equivalents is the number of basic-rate ISDN subscriptions multiplied by 2, and primary-rate voice-channel equivalents is the number of primary-rate ISDN subscriptions multiplied by 23 or 30, depending on the standard implemented. |
| *Fixed public payphones* |
| Fixed public payphones refers to payphones that are available to the public using the fixed network. |
| ***Mobile cellular subscriptions*** |
| Mobile-cellular telephone subscriptions, by post-paid and prepaid Mobile-cellular telephone subscriptions refers to the number of subscriptions to a public mobile-telephone service that provide access to the PSTN using cellular technology. |
| *Prepaid mobile-cellular telephone subscriptions* |
| Refers to the total number of mobile-cellular telephone subscriptions that use prepaid refills. These are subscriptions where, instead of paying an ongoing monthly fee, users purchase blocks of usage time. Although the definition of prepaid subscribers from the ITU definition is 3 month active subscribers (those used at least once in the last three months for making or receiving a call or carrying |

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| out a non-voice activity such as sending or reading an SMS or accessing the Internet), some South African operators do not have this metric available but rather count SIMs that have not been disconnected within a 90 day window, reporting, implying that the number may be overstated according to the strict definition. The indicator applies to all mobile-cellular subscriptions that offer voice communications. It excludes subscriptions via data cards or USB modems, subscriptions to public mobile data services, private trunked mobile radio, telepoint, radio paging and telemetry services. |
| *Post-paid mobile-cellular telephone subscriptions* |
| Refers to the total number of mobile-cellular subscriptions, including top up bundles, where subscribers are billed after their use of mobile services, at the end of each month. The post-paid service is provided on the basis of a prior arrangement with a mobile- cellular operator. Typically, the subscriber's contract specifies a limit or allowance of minutes, text messages, etc. The subscriber will be billed at a flat rate for any usage equal to or less than that allowance. Any usage above that limit incurs extra charges. Theoretically, a subscriber in this situation has no limit on use of mobile services and, as a consequence, unlimited credit. M2M mobile-network subscriptions are included in post-paid subscriptions |
| *M2M mobile-network subscriptions* |
| M2M subscriptions is a subset of post-paid mobile cellular subscriptions and refers to the number of mobile-cellular machine- to-machine subscriptions that are assigned for use in machines and devices (cars, smart meters, consumer electronics) for the exchange of data between networked devices and are not part of a consumer subscription. For instance, SIM-cards in personal navigation devices, smart meters, trains and automobiles should be included. Mobile dongles and tablet subscriptions should be excluded. |
| ***Internet and data subscriptions*** |
| *Fixed broadband subscriptions* |
| Fixed-broadband subscriptions refers to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or |

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| greater than, 256 Kbit/s. This includes cable modem, DSL, fibre-to-the-home/building, other fixed (wired)-broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband. This total is measured irrespective of the method of payment. It excludes subscriptions that have access to data communications (including the Internet) via mobile-cellular networks. It should include fixed WiMAX and any other fixed wireless technologies. It includes both residential subscriptions and subscriptions for organizations. |
| *DSL Internet subscriptions* |
| Refers to the number of Internet subscriptions using digital subscriber line (DSL) services to access the Internet, at downstream speeds greater than or equal to 256 Kbit/s. DSL is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines. It should exclude very high-speed digital subscriber line (VDSL) subscriptions if these are provided using fibre directly to the premises. |
| *Fibre-to-the-home/building Internet subscriptions* |
| Refers to the number of Internet subscriptions using fibre-to-the-home or fibre-to-the-building, at downstream speeds equal to, or greater than, 256 Kbit/s. This should include subscriptions where fibre goes directly to the subscriber's premises or fibre-to-the-building subscriptions that terminate no more than 2 metres from an external wall of the building. Fibre-to-the-cabinet and fibre-to-the-node are excluded. |
| *Other fixed (wired) broadband subscriptions* |
| Refers to Internet subscriptions using other fixed (wired) broadband technologies to access the Internet (other than DSL, cable modem, and fibre), at downstream speeds equal to, or greater than, 256 Kbit/s. This includes technologies such as ethernet LAN, and broadband-over-powerline (BPL) communications. Ethernet LAN subscriptions refer to subscriptions using IEEE 802.3 technology. BPL subscriptions refer to subscriptions using broadband-over-powerline services. Users of temporary broadband access (e.g. roaming between PWLAN hotspots), users of WiMAX and those with Internet access via mobile-cellular networks are excluded. |

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| *Wireless broadband subscriptions* |
| Wireless-broadband subscriptions refers to the sum of satellite broadband, terrestrial fixed wireless broadband and active mobile-broadband subscriptions to the public Internet. The indicator does not cover fixed (wired) broadband or Wi-Fi subscriptions. |
| *Satellite broadband subscriptions* |
| Satellite broadband subscriptions refers to the number of satellite Internet subscriptions with an advertised download speed of at least 256 Kbit/s. It refers to the retail subscription technology and not the backbone technology. |
| *Terrestrial fixed wireless broadband subscriptions* |
| Terrestrial fixed wireless broadband subscriptions refer to the number of terrestrial fixed wireless Internet subscriptions with an advertised download speed of at least 256 Kbit/s. This includes fixed WiMAX and fixed wireless subscriptions but excludes occasional users at hotspots and Wi-Fi hotspot subscribers. It also excludes mobile-broadband subscriptions where users can access a service throughout the country wherever coverage is available." |
| *Mobile data subscriptions* |
| Number of prepaid and post-paid mobile subscriptions that were used to access the Internet the last 3 months, regardless of speed. |

| ***Traffic*** |
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| *Fixed line voice traffic* |
| *This aggregated value is the sum of Fixed line traffic (i.e. fixed-to-fixed) and all other fixed line originated traffic (Fixed to mobile and International outgoing).* |
| *Fixed line traffic* |
| Refers to domestic fixed-to-fixed telephone traffic, in minutes. Domestic fixed-to-fixed telephone traffic refers to completed local and domestic long-distance fixed-telephone voice traffic. The indicator should be reported as the number of minutes of traffic during the reference quarter. This exclude minutes used for dial-up Internet access. |

| *Local fixed-to-fixed telephone traffic, in minutes* |
| --- |
| Refers to effective (completed) fixed-telephone line voice traffic exchanged within the local charging area in which the calling station is situated. This is the area within which one subscriber can call another on payment of the local charge (if applicable). This is reported in the number of minutes, which should exclude minutes used for dial-up Internet access. |
| *Long-distance fixed-to-fixed telephone traffic, in minutes* |
| Refers to effective (completed) fixed national long-distance telephone voice traffic exchanged with a station outside the local charging area in which the calling station is situated. This is reported as the number of minutes of traffic. It excludes local calls, calls to mobile networks, calls abroad, and calls to special service numbers such as ISPs for Internet dial-up. |
| *Fixed-to-mobile telephone traffic* |
| Refers to total traffic from all fixed-telephone networks to all mobile-cellular networks within the country. |
| *International incoming and outgoing fixed-telephone traffic* |
| Refers to the sum of international incoming and outgoing fixed-telephone voice traffic. |
| *International outgoing fixed-telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone voice traffic originating in a given country to destinations outside that country. This should include traffic to mobile phones outside the country. This is reported in number of minutes of traffic. It excludes calls originating in other countries. It should include VoIP traffic. |
| *International incoming fixed-telephone traffic, in minutes* |
| Refers to effective (completed) fixed-telephone voice traffic originating outside the country with a destination inside the country, irrespective of whether the call was from a fixed or mobile subscriber. It excludes minutes of calls terminating in other countries, but includes VoIP traffic |
| *Mobile voice traffic* |

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| *This aggregated value is the sum of Total national mobile traffic, as defined below, and International outgoing from mobile.* |
| *Total national mobile traffic* |
| Domestic mobile-telephone traffic refers to the total number of minutes of calls made by mobile subscribers within a country (including minutes to fixed-telephone and minutes to mobile-phone subscribers). |
| *Outgoing mobile traffic to same mobile network* |
| Refers to the number of minutes of calls made by mobile subscribers to the same mobile network (within the country). This refers to the number of minutes originating on mobile networks and terminating on the same mobile network (on-net). It does not cover minutes of calls from mobile to fixed or mobile to other mobile networks. |
| *Mobile to other mobile networks* |
| Outgoing mobile traffic to other mobile networks, in minutes refers to the number of minutes of calls made by mobile subscribers to other mobile networks (within the country). The indicator refers to the number of minutes originating on mobile networks and terminating on different domestic mobile networks (off-net). It does not cover minutes of calls from mobile to fixed or mobile to the same mobile networks. |
| *Outgoing mobile traffic to fixed networks* |
| Refers to the number of minutes of calls made from mobile-cellular networks to fixed-line telephone networks within the country. The indicator refers to the number of minutes originating on mobile networks and terminating on fixed-line telephone networks within the country. |
| *International outgoing from mobile* |
| Outgoing mobile traffic to international refers to the number of mobile minutes originating in a country to any destinations outside that country. |
| *Incoming international traffic to mobile network* |
| Refers to the number of incoming minutes (fixed and mobile) received by mobile networks originating in another country. |

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| *Mobile data traffic* |
| Mobile data traffic (within the country) refers to data traffic originated within the country from mobile networks. Download and upload traffic should be added up and reported together. Traffic should be measured at the end-user access point. Wholesale and walled-garden traffic should be excluded. The traffic should be reported in terabytes. |
| ***Population coverage*** |
| *3G population coverage* |
| Percentage of the population covered by at a 3G mobile network refers to the percentage of inhabitants that are within range of a 3G mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by a 3G mobile-cellular signal by the total population and multiplying by 100. |
| *4G/LTE etc. population coverage* |
| Percentage of the population covered by a 4G/LTE mobile network refers to the percentage of inhabitants that are within range of a 4G/LTE mobile-cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants that are covered by a 4G/LTE mobile-cellular signal by the total population and multiplying by 100. Note that all LTE variants are included. |
| ***Internet bandwidth*** |
| ***International Internet bandwidth*** |
| *International outgoing Internet bandwidth* |
| Refers to the total outgoing used capacity of international Internet bandwidth, in Mbit/s. This is measured as the sum of outgoing (uplink) capacity of all Internet exchanges offering international bandwidth. |
| *International incoming Internet bandwidth* |
| Refers to the total incoming used capacity of international Internet bandwidth, in Mbit/s. This is measured as the sum of incoming (downlink) capacity of all Internet exchanges offering international bandwidth. |
| *BRICS* |

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| the acronym coined for an association of five major emerging national economies: Brazil, Russia, India, China and South Africa |
| *Vitual post users* |
| Is a digital mailbox post service that you access via any computer, tablet, or smartphone. Receive, forward, pick up, shred, or discard mail and packages. It allows you to manage your postal mail and packages with our smartphone app or online anytime, from anywhere |

**Appendix 3: Aggregated data from ICASA questionnaires**

The table below lists the aggregated figures from the three ICASA questionnaires to the electronic communications licensees, the TV broadcasting licensees and the SA Post Office, for the period of 1 October 2018 -30th September 2019. For definitions please refer to the Appendix 2 above, and for more clarification please refer to the notes accompanying the associated figures in the report.

| TELECOMMUNICATION SECTOR 2019 | |
|---|---|
| **Total revenue** | **R194,284,132,172** |
| **Total telecommunication services revenue** | **R135,515,857,401** |
| **Total fixed line revenue** | **R37,444,057,320** |
| **Total fixed line revenue** | **R10,653,960,614** |
| Revenue from retail fixed-telephone services | **R137,151,269** |
| Revenue from fixed-telephone subscription charges | **R6,103,435,777** |
| Revenue from fixed-telephone calls | **R4,413,373,568** |
| **Total Fixed Internet and data revenue** | **R26,790,096,707** |
| Fixed Internet revenue (R) | **R6,327,818,019** |
| Revenue from fixed (wired)-broadband services | **R13,918,376,242** |
| Other wireless-broadband services revenue | **R2,752,175,978** |
| Other telecommunication services revenue, including leased lines revenue and fixed value-added telecommunication services | **R3,791,726,468** |
| **Total mobile services revenue (Rm)** | **R98,071,800,081** |
| Revenue from voice services | **R36,247,358,086** |
| Revenue from outbound roaming (R) | **R651,091,629** |
| Revenue from mobile data services | **R40,124,141,859** |
| Revenue from text and multimedia messaging services | **R2,542,494,484** |
| Prepaid revenue mobile voice | **R38,889,588,361** |
| Prepaid revenue mobile data | **R15,985,529,092** |
| Prepaid revenue mobile messaging | **R693,488,985** |
| Other mobile services revenue | **R18,506,714,023** |
| **Total of any other revenue** | **R58,768,274,771** |
| Interconnection revenues | **R5,652,659,571** |
| Equipment revenue | **R26,986,319,107** |

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| Any other revenue | **R26,129,296,093** |
| **Total telecommunication investment** | **R38,902,355,901** |
| Annual investment in fixed-telephone services | **R2,436,474,465** |
| Annual investment in fixed (wired)-broadband services | **R2,293,524,458** |
| Annual investment in mobile communication services | **R18,493,420,009** |
| Infrastructure | **R4,760,714,815** |
| Expansion | **R7,265,057,850** |
| Maintenance | **R1,539,791,654** |
| Other annual investment in telecommunication services | **R2,113,372,650** |
| **Highlights subscription and take-up of ICT services** | |
| **Fixed line subscriptions** | **2,671,220** |
| Analogue fixed-telephone lines | **1,419,506** |
| VoIP subscriptions | **683,347** |
| Fixed wireless local loop subscriptions | **16,783** |
| ISDN voice-channel equivalents | **490,459** |
| Fixed public payphone | **61,125** |
| **Mobile cellular subscriptions** | **96,972,459** |
| **Prepaid mobile-cellular telephone subscriptions** | **82,323,854** |
| Prepaid mobile-cellular telephone subscriptions (Urban area) | **77,562,306** |
| Prepaid mobile-cellular telephone subscriptions (Rural area) | **4,761,548** |
| **Postpaid mobile-cellular telephone subscriptions** | **14,648,605** |
| Postpaid mobile-cellular telephone subscriptions (Urban area) | **13,763,219** |
| Postpaid mobile-cellular telephone subscriptions (Rural area) | **885,386** |

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|---|---|
| M2M mobile-network subscriptions | **7,893,326** |
| **Fixed broadband subscriptions** | **3,112,717** |
| DSL Internet subscriptions | **1,441,292** |
| Fibre-to-the-home/building Internet subscriptions | **1,647,419** |
| Other fixed (wired)-broadband subscriptions | **24,006** |
| **Wireless-broadband subscriptions** | **231,687** |
| Satellite broadband subscriptions | **22,093** |
| Terrestrial fixed wireless broadband subscriptions | **209,594** |
| Mobile data users | **78,197,287** |
| **Fixed line traffic** | **6,365,441,002** |
| Local fixed-to-fixed telephone traffic, in minutes | **3,833,825,566** |
| Long-distance fixed-to-fixed telephone traffic, in minutes | **2,531,615,436** |
| Fixed-to-mobile telephone traffic | **9,387,343,330** |
| **International incoming and outgoing fixed-telephone traffic** | **279,749,335** |
| International outgoing fixed-telephone traffic, in minutes | **99,377,389** |
| International incoming fixed-telephone traffic, in minutes | **180,371,946** |
| **Total national mobile traffic** | **89,555,648,731** |
| Outgoing mobile traffic to same mobile network | **69,394,028,733** |
| Mobile to other mobile networks | **17,683,606,977** |
| Mobile to fixed | **2,478,013,021** |
| International outgoing from mobile | **787,377,682** |
| International incoming to mobile | **499,618,565** |
| SMS traffic | **17,587,384,570** |

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|---|---|
| SMS international traffic | **44,497,080** |
| Mobile data traffic | **7,737,132** |
| **International Internet bandwidth (Mbps) capacity** | **1,178,700** |
| International outgoing Internet bandwidth | **527,701** |
| International incoming Internet bandwidth | **650,999** |
| **Smartphone subscriptions** | **53,380,748** |
| Smartphone subscriptions | **53,380,748** |
| **ICT Sector Black Economic Empowerment Measures** | |
| Telecommunication employment -Total | **33,782** |
| Telecommunication employment- female | **10,517** |
| Telecommunication employment- Disabled | **354** |
| Telecommunication employment- Unskilled | **558** |
| Telecommunication employment- Semi skilled | **2,863** |
| Telecommunication employment- skilled | **23,334** |
| Telecoms employment- Top Management(EXCO Members) | **287** |
| Telecoms employment- Black Top Management(EXCO Members) | **81** |
| Telecoms employment- Black Top Female Management(EXCO Members) | **28** |
| Procument Spend from all supplliers | **R153,709,327,406** |
| Procument Spend from all supplliers based on the B-BBEE Procument Recognition Levels | **R125,580,981,745** |
| Number of Schools connected based on obligations imposed by ICASA | **6,949** |

| BROADCASTING SECTOR 2019 | |
|---|---|
| **Total revenue** | **R38,325,761,969** |
| **Total broadcasting services revenue** | **R37,232,804,062** |
| Broadcasting Advertising Revenue | **R6,526,380,420** |
| Broadcasting Subscriptions Revenue | **R29,552,474,837** |
| Revenue from Broadcasting Promotions (with flighting code). | **R493,549,925** |
| Revenue from sponsorships | **R538,833,271** |
| Revenue from Government or State grant | **R92,217,049** |
| Revenue from donations | **R9,579,462** |
| Revenue from infomercials | **R17,211,421** |
| Revenue from membership fees | **R2,557,677** |
| **Balancing figure below** | |
| Total of any other revenue | **R1,092,957,907** |
| **Itemized expenditure** | **R12,554,111,040** |
| Program expenditure | **R12,554,111,040** |
| **Subscription and take-up of services** | |
| **Subscriber and registered viewership numbers** | **7,603,972** |
| Number of Pay TV subscribers | 7,603,972 |
| **ICT Sector Economic Empowerment Measures** | |
| Broadcasting employment -Total | 4,463 |
| Broadcasting employment- female | 2,336 |
| Broadcasting employment- Disabled | 131 |
| Broadcasting employment- Unskilled | 125 |
| Broadcasting employment- Semi skilled | 355 |
| Broadcasting employment- skilled | 3,353 |
| Broadcasting employment- Top Management (EXCO members) | 197 |
| Broadcasting employment- Black Top Management (EXCO members) | 160 |
| Broadcasting employment- Black Top Female Management (EXCO members) | 82 |
| Procurement Spend from all suppliers | **R12,966,834,308** |
| Procurement Spend from all suppliers based on the B-BBEE Procurement Recognition Levels | **R10,703,663,708** |
| **Total Number of Television (stations and distributors)** | 15,388,926 |

| | |
|---|---|
| Number of Digital Satellite Stations | 50 |
| Number of Digital Terrestrial Stations | 91 |
| Number of Analogue Terrestrial Stations | 6 |
| Number of Signal Distributors | 19 |
| Number of set-top boxes | 15,388,609 |
| Number of Content Distributors | 151 |
| **Investment** | **R34,894,240** |
| Infrastructure | **R15,291,330** |
| Expansion | **R607,000** |
| Maintenance | **R3,813,270** |
| Others | **R15,182,641** |
| Total Number of Local independent productions | 1,499 |
| Total Number of international independent productions | 487 |
| Total Number of productions by the broadcasters | 3,637 |
| Total expenditure on Local independent productions (In Rand) | **R305,655,109** |
| Total expenditure on international Independent productions (In Rand) | **R173,874,673** |
| Total expenditure on broadcaster productions (In Rand) | **R257,081,452** |

| **POSTAL SERVICE SECTOR 2019** | |
|---|---|
| **Total SAPO revenue** | **R5,741,345,721** |
| Postbank revenue | **R1,380,968,304** |
| Postbank interest revenue | **R422,776,597** |
| Retail products revenue | **R2,674,342** |
| Services rendered - Postal | **R2,782,677,149** |
| Services rendered - Agency and money transfer | **R610,794,499** |
| Services rendered - Courier | **R421,163,108** |
| **Balancing figure below** | |
| Total of any other revenue | **R120,291,722** |
| **Other information** | |
| Postal employment -Total | 18,464 |

| | |
|---|---|
| Postal employment- female | 8,985 |
| Postal employment- Disabled | 46 |
| Postal employment- Unskilled | 946 |
| Postal employment- Semi skilled | 13,715 |
| Postal employment- skilled | 3,138 |
| Postal employment- Top Management (EXCO members) | 39 |
| Postal employment- Black Top Management (EXCO members) | 21 |
| Postal employment- Black Top Female Management (EXCO members) | 5 |
| Procurement Spend from all suppliers | **R1,212,745,251** |
| Procurement Spend from all suppliers based on the B-BBEE Procurement Recognition Levels | **R1,092,692,234** |
| Letter delivery services (Registered letters) | **609,171,863** |
| Letters: Domestic service and international outbound (International Mail Centre Volumes) | 13,464,770 |
| Letters: Domestic service and international outbound (Local Volumes) | 595,707,093 |
| Number of PO Boxes | 3,806,972 |
| Number of PO Boxes rented | 1,974,445 |
| **Postal Service Products** | **400,670** |
| Total number of Virtual post users | 400,000 |

*Source:ICASA Telecommunications, TV Broadcasting and Postal Questionnaires, December 2019*