

GHANA'S INFORMATION COMMUNICATION TECHNOLOGY SECTOR

1.0 INTRODUCTION

Ghana's Information and Communication Technology Sector has progressed over the past two decades. As one of the first countries to introduce widespread liberalization in basic telecommunications services, in 1994, Ghana took an important step forward in embracing the potential of competitive markets to generate growth and innovation in the sector.

The country's ICT Industry comprises telecommunications operators, internet service providers, VSAT data operators, software manufacturers, broadcast institutions, ICT education providers, internet cafés, etc. Generally, the Ministry of Communications and the National Communications Authority (NCA) oversee activities in the sector.

The infrastructural base of the sector includes licensed gateway operators, undersea cable connectivity, Private Licensed VSAT Systems, Fixed Wired Line Networks, Wireless Mobile Operators, Public telephones systems, Telecentres, Dedicated Transmission Networks, Public Distribution Networks (cable, TV, DSL, etc), Internet Backbone Connectivity throughout the Country and Public Access Point and Broadcasting Systems. As an initiative to support emerging technologies, the Ministry of Communications is also encouraging and facilitating the establishment of Science and Technology Parks.

Ghana remains a very safe and secure investment destination. It has established the necessary legal and regulatory framework which guarantees the safety of investments in the ICT industry.

2.0 SECTOR COMPOSITION

The Ministry of Communications (MOC) has the core responsibility of initiating and developing national policies aimed at achieving cost effective information and communications infrastructure and services, for the enhancement and promotion of economic competitiveness. In this connection, the Ministry is made up of the various agencies and bodies that assist with the implementation of policies related to operational and regulatory framework. These include:

- National Information Technology Agency (NITA)
- Data Protection Commission(DPC)

- Postal and Courier Services Regulatory Commission(PCSRC) □ Ghana-India Kofi Annan Centre of Excellence in ICT (AITI-KACE):
- Ghana Investment Fund for Electronic Communications (GIFEC) □ Ghana Broadcasting Corporation(GBC)

An allied agency, the National Communications Authority, is also responsible for licensing and regulating all businesses operating in the communications sub-sector. The National Communications Authority Act and the Electronic Communications and Transactions Act were passed in the spirit of strengthening the capacity of the regulator i.e. the National Communication Authority, since the existence of fair competition depends on the fairness of the regulator.

The sector also has various private sector players including telecommunications operators, internet service providers, VSAT data operators, software manufacturers, broadcast institutions, ICT education providers, internet cafés, etc.

There further exists the Ghana Association of Software and IT Services Companies (GASSCOM), launched in 2007, which is Ghana's premier trade association for the IT software and services industry. Member companies are basically engaged in the business of software development, software services, IT-enabled/BPO services and e-commerce.

GASSCOM was set up to facilitate business and trade in software and services and be a strong advocate in soliciting government and other public sector support and encourage the advancement of the industry as a key and strategic sector for the growth of the Ghanaian economy in the next millennium. Founding members include some of the most distinguished names in the ICT industry in Ghana: Persol Systems Ltd, IPMC, Exzeed Company Ltd, Somuah Info Systems Ltd, Platinum Technologies Co. Ltd, ACS BPS Ghana Ltd, e.Services Africa Ltd, The Softribe Ltd and H.I.M Solutions Ltd.

The table below presents a quick summary of the Operators and Service Providers in the sector (in terms of the numbers authorized and those in actual operation).

Fig 1.0 Summary of Operators and Service Providers

	Category	No. Authorized	No. Operating
1	National fixed network operators	3	2
2	National Mobile cellular operators	5	5
3	Direct to Home (DTH) Satellite Services	48	15
4	Internet Service Data Providers	52	52
5	VSAT Data Providers	67	48
6	FM Stations		
	<input type="checkbox"/> Public	31	31
	<input type="checkbox"/> Community	70	58
	<input type="checkbox"/> Campus	17	15
	<input type="checkbox"/> Commercial	329	243
7	TV Operators:		
	<input type="checkbox"/> Free on air TV Operators		
	✓ Analogue Terrestrial Television	21	15
	✓ Digital Terrestrial Free-to-Air TV Program Channel	7	0
	✓ Satellite TV Broadcasting (Free-to-Air Direct-To-Home Bouquet)	6	1
	✓ Satellite TV Broadcasting (Free-to-Air Direct-To-Home Single Channel)	35	11
	<input type="checkbox"/> Pay per view TV Operators		
	✓ Digital Terrestrial Pay Television (Service Only)	1	1
	✓ Digital Terrestrial Pay Television (Service and Frequency)	5	4
	✓ Satellite TV Broadcasting (Pay TV Direct-To-Home Bouquet)	7	3
	✓ Digital Cable Television	1	0

3.0 FOCUS ON VARIOUS SUB-SEGMENTS AND ALLIED SERVICES

Telecommunications

Ghana currently has 5 registered mobile operators, all of which functional. These are MTN, AirtelTigo, Vodafone Mobile, Expresso and Glo Mobile Ghana. Additionally, Vodafone and Airtel are the only two fixed-line operators.

The market continues to grow aggressively in all segments, since the enabling environment provided by government continues to promote competition. Increased competition, a key driver of growth in the industry, is witnessed in terms of:

- Rising sale of SIM cards and airtime
- Better and increased coverage
- Improved quality of service on most networks
- Introduction of cheap phones increasing the ability of more people to own phones □ More aggressive marketing promotions etc.

Market Shares (Telecom Voice Subscription)

At the end of May 2019, the total number of mobile voice subscriptions was 41,193,072. This represents a percentage decrease of 0.41% from April 2019's figure of 41,362,156.

The total penetration rate for the month under review was 138.37%.

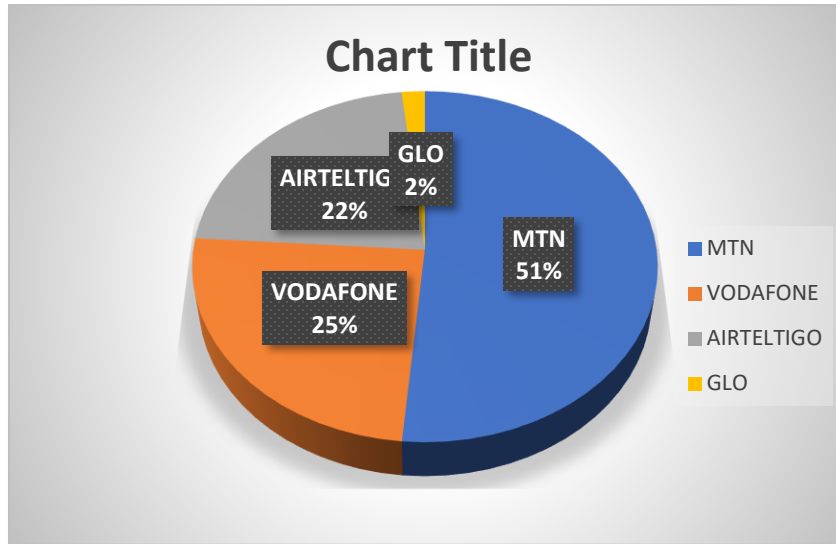
MTN's voice subscriptions for the period was 21,181,828 representing a percentage increase of 01.36% from April 2019's figure of 20,896,784. MTN's market share for the month under review was 51.42%.

Vodafone's mobile voice subscriptions decreased from 10,239,987 as at the end of April 2019 to 10,151,337 as at the end of May 2019. This represents a percentage of decrease of 0.87%. Vodafone's market share for May 2019 was 24.64%.

AirtelTigo's voice subscriptions decreased from 9,503,327 as at the end of April 2019 to 9,134,114 as at the end of May 2019 indicating a percentage decrease of 3.89%. their market share for the month under review was 22.17% as compared to 22.98% in April 2019.

Voice subscriptions of Glo increased from 722,058 as at the end of April 2019 to 725,793 at the end of May 2019. With a percentage increase of 0.52%, their total market share for the month under review was 1.76%.

Fig 4.0 Market Share (Mobile Voice)



Fixed Telephony for May 2019

There are two (2) operators providing fixed line services to the public in Ghana. These operators are Vodafone and AirtelTigo. At May 2019, the total subscriptions for the fixed operators was 283,954 representing a percentage increase of 1.75% from the previous month's subscription of 279,059. Vodafone recorded a total subscription of 273,915 with AirtelTigo ending the month with 10,039 subscriptions.

Market Shares (Telecom Data Subscription)

2G/3G Mobile Data Figures for December 2018

At the end of December 2018, the total subscription for 2G/3G mobile data in the country were 26,184,235 with a penetration rate of 88.84%.

2G/3G Cellular Mobile Data Operators

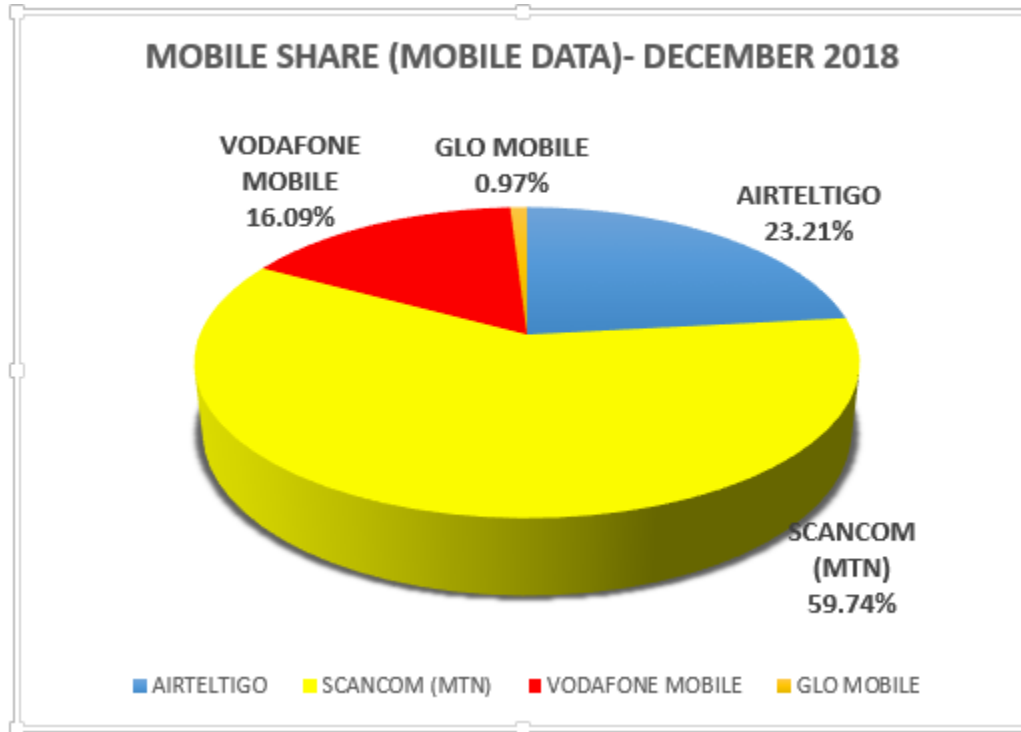
MTN ended the month of December with 15,641,800 2G/3G mobile data subscriptions. Their market share for the month under review was 59.74%.

The total number of subscriptions for Vodafone's 2G/3G mobile data in December 2018 was 4,213,054. This is reflected in their market share of 16.09%.

AirtelTigo's 2G/3G mobile data subscriptions for December 2018 was 6,076,649. Their market share for the month was 23.21%.

Glo recorded data subscriber figures of 252,732 at the end of December 2018. This reflects a market share of 0.97%.

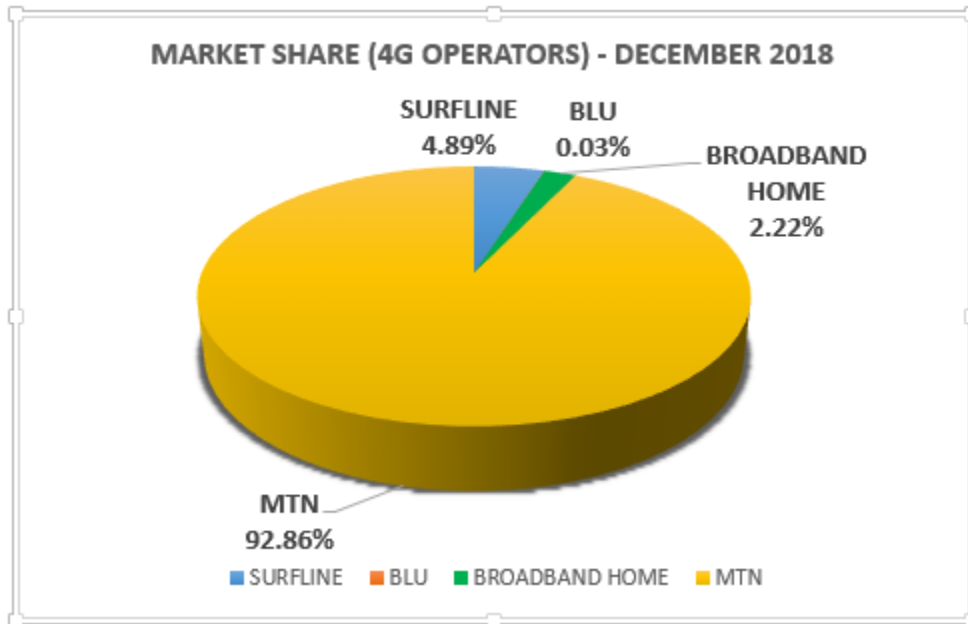
2G/3G Mobile Data Market Share for December 2018



4G Data Operators

The total number of subscriptions for 4G Data was 1,128,498 as at the end December 2018. Surfline recorded subscriptions of 55,134. Blu Ghana recorded a total subscription 347. Broadband Home recorded a total of 25,100 subscriptions with MTN recording a total of 1,047,917 subscriptions.

4G Data Market Share for December 2018



Broadband Wireless Access (BWA) Operators

As at the end of December 2016, the total number of subscription for Broadband Wireless Access data was 104,402. Surflin recorded subscriptions of 76,919. Blu Ghana recorded a total subscription of 1,081 and Broadband Home recorded a total of 26,402 subscriptions. (NCA).

Internet Service Providers

As a critical source of information, the internet is viewed as a significant development enabler. Although Ghana’s mobile market is quite saturated with over 120% penetration and keen competition between the 5 mobile service providers, there still exists room for progress when it comes to the provision of internet connections. Nevertheless, internet usage has improved tremendously over the years.

Together with the mobile cellular market, the internet market in Ghana presents an important potential for growth and development. The improvement in internet penetration has also been partly facilitated by the coming of Wimax technology and mobile broadband networks.

Fixed Broadband

Fig 6.0 Fixed broadband subscriptions

Year	2010	2011	2012	2013	2014	2015	2016
No. of Subscriptions	50,082	62,646	65,332	68,795	70,170	75,092	87,789

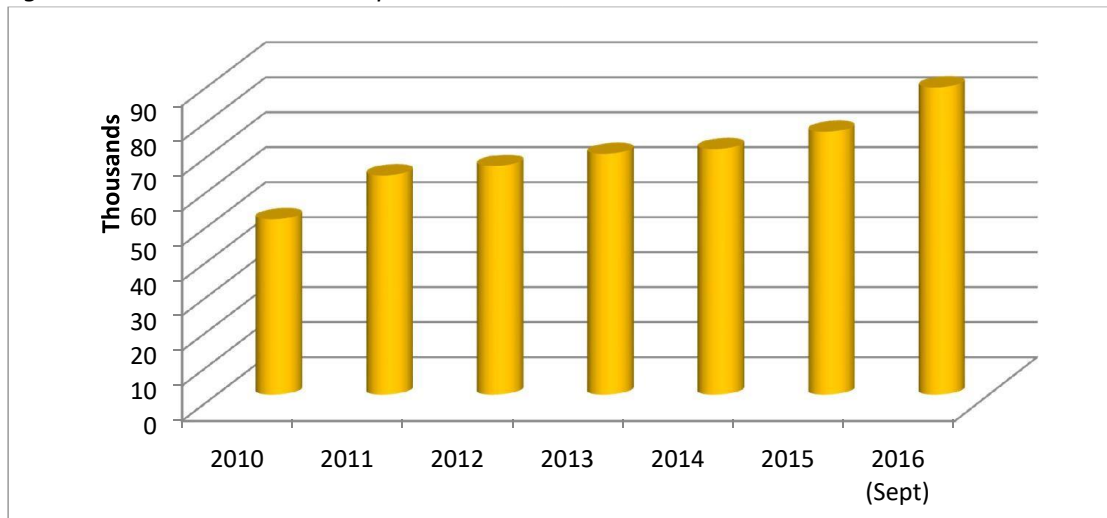
Per 100 Inhabitants	0.21	0.25	0.3	0.3	0.3	0.3	0.3
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Source: ITU, NCA (Ghana)

In 2005, the number of broadband subscribers stood roughly at 1904, representing 0.01 per hundred inhabitants. By 2010, the number of fixed subscribers increased by 2530.36% to 50,082 subscriptions with roughly 0.21 per hundred inhabitants having fixed broadband services. The rise continued with 75,092 and 87,789 broadband subscriptions being recorded in 2015 and 2016 respectively. Broadband penetration has also increased from 0.07 per 100 inhabitants to 0.3 lines per 100 inhabitants over the years.

It is significant to note that the internet subscriptions per 100 inhabitants are lower than the internet penetration per year since a majority of Ghanaians make use of internet cafés.

Fig 6.1 Fixed broadband subscriptions



Mobile broadband

According to the National Communications Authority, mobile broadband penetration rose from 65.3% in 2015 to 68.4% in 2016 with total Mobile Broadband Subscriptions rising from 18,031,188 to 19,331,239 in 2015 and 2016 respectively. Ghana is presently the country with the highest mobile broadband penetration in Sub-Saharan Africa.

Electronic Payment Systems

The payment system is the entire matrix of institutional infrastructure arrangements and processes in a country set up to enable economic agents (individuals, businesses, organisations and Government) initiate and transfer monetary claims in the form of commercial and central bank liabilities.

Ghana's payment system has improved significantly since 1997 when the MICR cheques were introduced, and continues to evolve to meet the developmental needs of the country.

The current trend in Ghana's payment systems development is being driven by economic, financial, public policy factors as well as a growing local ICT industry and global trends in payment systems development.

The development of payment and settlement systems in Ghana has been premised on the following key objectives, amongst others:

- To establish a robust oversight and regulatory regime for the payment and settlement systems
- To bring efficiency to fiscal operations of the Ghana Government
- To deepen financial intermediation
- To discourage the use of cash for transactions whilst encouraging the use of paperbased instruments for payments as part of the short-term development plan
- To develop an integrated electronic payment infrastructure that will enhance interoperability of payment and securities infrastructures (*Source: BOG*)

Mobile Financial Services

Mobile money is a way of transferring money, making payments and initiating other transactions using a mobile phone and other mobile devices. In Ghana, it has played an important role in extending financial services to the unbanked and underserved population.

Participants in this allied sub-segment include, telecommunication companies, partnering banks or financial institutions or any other duly registered e-money issuers, agents of these e-money issuers and users of the service.

In Ghana, the service is regulated by Bank of Ghana, exercising its powers under the Banking Act, 2004 (Act 673) and the Bank of Ghana Act, 2002 (Act 612) in line with BoG's mandate to promote and supervise electronic and other payments, funds transfer, clearing and settlement systems under the Payment System Act 2003 (Act 662). The National Communications Authority ("NCA"), the regulator of the telecoms sector also plays a key role.

The deep penetration of mobile technology in Ghana has made it a great medium for innovation around service delivery. Since the introduction of mobile money to the Ghanaian market in 2009, it has played a key role in the push for financial inclusion. According to a study conducted by the Consultative Group to Assist the Poor (CGAP), in 2010 a relatively large segment of the Ghanaian population (44.0%) was excluded from the financial services sector altogether. By 2015 however, the segment of the population excluded from the financial services fell to 25%, following the introduction of mobile money services.

The mobile money sub-sector is set to experience high growth in the years ahead on account of favourable regulatory environment and pro-financial inclusion policies. Interoperability of mobile payments is one of the key priorities of Ghana. The overall objective is to reduce transaction costs, engender competition and promote all inclusive financial growth. (BOG)

Business Processing Outsourcing

Ghana is ranked the **No. 1** destination in Sub-Saharan Africa (ahead of Mauritius and Kenya) and **No. 29** globally out of 51 countries by the 2016 A.T. Kearney Global Services Location Index™. The country was earlier ranked the **No. 1** destination in Sub-Saharan Africa (ahead of Mauritius and Senegal) and **No. 15** globally out of 50 countries by the 2009 A.T. Kearney Global Services Location Index (GSLI).

Government remains interested in making Ghana a competitive destination for Business Process Outsourcing having identified it as a focus area for development with much emphasis being placed on it as an economic driver. This galvanized the establishment of the IT Enabled Services (ITES) Secretariat, an implementing arm of the Ministry of Communication, to promote and develop the sub-sector to become a very large source of income and employment generation.

The preference for Ghana in connection with this industry is supported by its large pool of skilled and trainable English speaking labour, GMT time zone location, competitive labour costs etc. Currently, the IT Enabled Services sector provides approximately 3,000 jobs and Ghana's potential to become a significant player in this industry is recognized as enormous.

E-Business

Aside computers, there is increasing use of mobile phones to access internet services. Therefore, the use of services (e-commerce, advertising and marketing) provided through the internet is on the rise.

Following the introduction of up-to-the-minute networks in Ghana, people can surf the net anywhere at any time and mobile phone users can have easy and fast data exchange on the internet. More financial institutions and other businesses are undertaking internet banking and venturing into the use of electronic money transactions.

The Ghana Interbank Payment and Settlement Systems (GhIPSS), established by the Bank of Ghana to reform the country's payment system, has set up an e-commerce window which is scheduled to soon become operational. This infrastructure will make it possible for private sector businesses in Ghana to sell and receive payment online within and outside the country.

The infrastructural Sub-segment

The infrastructural base of the ICT sector includes licensed gateway operators, undersea cable links, private licensed VSAT systems, Fixed Centres, dedicated Transition networks, Public Distribution Networks, Wireless Mobile Operators, Public telephones Systems, Tele-internet Service Providers, the Ghana Interbank Payment and Settlement Systems (GhIPSS) e-commerce platform, Internet Backbone Connectivity throughout the country and Public Access Point and Broadcasting Systems.

As an initiative to support emerging technologies, the Ministry of Communication is also facilitating the establishment of Science and Technology Parks. The construction of an ICT park in Accra started mid-2012. Funds have also been secured to commence the construction of a second ICT park in Cape Coast.

Over the years, broadband connectivity has improved significantly and this is partly due to the arrival of undersea cable links. Their arrivals have subsequently improved internet speed and made prices more competitive. Presently, there exist five of them, namely, SAT-3, the West African Cable System (WACS), Main One Cable, Glo-1 and the African Coast to Europe (ACE) submarine cable.

SAT-3 is the first undersea cable to be brought into Ghana. It arrived in 2001 and presently has capacity of 340GB per second. The Main One undersea cable followed almost 10 years later (arrived in 2010) and has 5.12TB per second capacity. In 2011, Glo-1 arrived and has 2.5TB per second capacity. The WACS came on board in 2012 with capacity of 5.12TB per second. Early 2013, the ACE also came on board with 5.2TB.

4.0 GOVERNMENT'S POLICY DIRECTION

Presently in place is the ICT for Accelerated Development (ICT4AD) Policy which is a long-term strategy for developing the ICT Sector and expanding its role in the Ghanaian economy. The ICT4AD vision for Ghana is *“To improve the quality of life of the people of Ghana by significantly enriching their social, economic and cultural well-being through the rapid development and modernization of the economy and society using information and communication technologies as the main engine for accelerated and sustainable economic and social development”*

5.0 SECTORAL DEVELOPMENTS

1. National Fibre Communications Backbone Infrastructure

To complement the efforts of the private sector in the extension of affordable and efficient connectivity solutions, the National Fibre Communications Backbone Infrastructure Network aimed at providing open access broadband connectivity is being developed.

Following the successful completion of the southern loop, the 2nd phase of the National Communication Backbone from Tamale to the northern parts of the country and neighbouring countries is being pursued.

Thus far, 800 kilometres of fibre optic infrastructure which runs through 126 communities along the eastern corridor from Ho to Bawku with a link from Yendi to Tamale have successfully been deployed.

2. Ghana Investment Fund for Telecommunications (GIFTEL)

GIFTEL has been set up to facilitate the extension of communications services to underserved and un-served areas through the provision of common facilities. It has thus far completed a total of 39 Common Telecom Facilities and this has enabled telecommunications providers to extend their services to over 273 communities. For instance, GIFTEL has undertaken the common telecom tower service facility at Nandom (in the Upper West Region) which is now offering transmission coverage to over 10 towns including Lambushie, Boe, Burutu, Piiri, Basabli, Yipele, Naapal, Pofiem, Napaali, and Gengenkpe.

3. Business Process Outsourcing (BPO)

The Ministry of Communications in collaboration with the Ghana Telecommunications University College has trained several Call Centre and Data Entry Trainers.

Government has formally adopted and identified priority skills development areas within the BPO/ITES industry. Further, the BPO/ITES training curriculum has also been streamlined with the skill requirement of the industry.

To bridge the technological gap between the served and underserved areas, 20 enhanced Community Information Centres (eCICs) were constructed in selected areas in the Northern part of the country. In addition, the Ministry of Communications completed and commissioned the refurbishment of the Public Works Department (PWD) warehouses into a world class Business Process Out-Sourcing (BPO) facility.

4. Increased Availability of Broadband/Reduction in the Price of Bandwidth

The Government has the focus of developing e-Government Points of Presence through the development of broadband connectivity to link all district capitals to the national high speed broadband.

Over the past two years, owing to massive investments made by major industry players, the Ministry of Communications has commissioned major submarine fibre optic cables to increase bandwidth capacity.

Ghana has, cumulatively, approximately 7,160 Gigabytes (i.e. 7.16 Terabytes) of bandwidth capacity available. The country is thus well positioned as the potential ICT-enabled Services hub in the sub-region.

5. Mobile Number Portability (MNP)

Mobile Number Portability (MNP), a facility that permits a mobile phone subscriber to migrate from one telecommunication service provider to another whilst retaining the original mobile number, was launched by the National Communications Authority (NCA) on July 1, 2011. This makes Ghana the first country in West Africa to introduce the facility.

The introduction of MNP is intended to enhance competition, improve quality of service and offer mobile customers freedom of choice.

6. Last Mile Effect

To ensure the continuous development of infrastructure, Government has particular interest in the “last mile effect”, which encourages the extension of fibre optic networks by the last mile to enable all districts and communities get connected.

7. The Digital Terrestrial Television project

The first and second phases of the Digital Terrestrial Television project, covering Greater Accra, Ashanti, Volta, Northern, Upper West and Upper East Regions was completed, with the third phase to be completed in 2017. Education and awareness campaigns were also commenced. In 2017, the Ministry will monitor and intensify sensitisation of the digital television transmission service nationwide before the analogue switch-off.

8. The National Information Technology Agency (NITA)

The National Information Technology Agency (NITA) will begin the process of commercializing its infrastructure to raise enough revenue, maintain, expand and upgrade the infrastructure, sell off the excess capacity as well as expand and improve upon its business operations and modules for MDAs and MMDAs.

9. Public Key Infrastructure and Open Data Initiative

To improve internet connectivity for all MDAs and MMDAs, the Ministry of Communications completed the implementation of the e-Government Infrastructure Platform Project and will pursue the implementation of the Public Key Infrastructure and Open Data Initiative in 2017.

10. ICT Park

The Ministry monitored the implementation of the Mobile Virtual Network Operating License; Interconnect Clearing House License; International Wholesale Carrier License and Unified Telecom License. (In 2017, the Ministry will finalize a partnership agreement with the Republic of Mauritius to invest in the ICT Park in Dawa, Accra. - What is the status of this partnership agreement?)

6.0 INVESTMENT INCENTIVES/ GUARANTEES

Ghana is a safe investment destination. Guarantees against expropriation of private investments provided under law are buttressed by the Ghanaian Constitution. Some investment guarantees are detailed below:

- i. Free transferability of capital, profits and dividends
- ii. Insurance against non-commercial risks – Ghana is a signatory to the World Bank's Multilateral Investment Guarantee Agency (MIGA) Convention
- iii. Double Taxation Agreements (DTAs) – to rationalize tax obligations of investors in order to prevent double taxation. DTAs have been signed and ratified with several countries.

Incentives to the sector may apply under the following provisions:

- Listed companies enjoy corporate tax of 25% and newly listed companies enjoy 25% corporate tax for the first three years
- Location Incentives (tax rebate) for manufacturing industries located in the regional capitals

The Ghana Investment Promotion Centre Act (865), 2013, also provides for automatic incentives and benefits.

7.0 GHANA'S COMPETITIVE ADVANTAGE

Reputable surveys rate Ghana as one of the most attractive locations for doing business in Africa. However, in view of the Government's policy to make Ghana the Gateway to West Africa, serious efforts are still being made to make the business environment friendlier thereby reducing occupancy costs for commercial and industrial properties and the general cost of doing business in Ghana.

The Ministry of Communications (MOC) is facilitating the vision of government to develop policies and programmes to transform Ghana into a country with sufficient, efficient, cost effective and accessible communications infrastructure to propel appropriate technological applications and innovations to enhance socio-economic development.

8.0 GHANA'S UNIQUE ATTRACTION

Ghana offers many attractions to the foreign investor:

- a) A stable political environment: Ghana has enjoyed a stable political climate with smooth transition of government over the years.
- b) A sound macroeconomic policy: Government's macroeconomic policy is designed to accelerate the process of growth and transformation of the economy under competitive conditions. Monetary policy has been consistent and fiscal discipline is apparent from lower budget deficits. Inflation continues its downward course and access to foreign exchange is improving.
- c) 100% foreign ownership permitted, on-going privatization of programme.
- d) A large Economic Community of West African States (ECOWAS) market (250 million people).
- e) Good and ever improving physical infrastructure: Ghana has developed seaports, airports and roads network. Telecommunication facilities are available as are basic utilities like water and electricity.

- f) Availability of skilled and trainable labour.
- g) Competitive labour cost: Ghana also offers a large workforce of both skilled and unskilled labour at affordable and competitive rates. The current minimum wage rate is GH¢10.65.
- h) Quota-Free access to USA & European Union markets.
- i) Proximity to European Union (6 hrs flight time) and USA markets (9 hrs direct flight time).
- j) Fast developing financial infrastructure: With over 30 banks, insurance, and brokerage firms, and a stock exchange that allows companies to raise long term capital at low cost, Ghana's finance sector is one of the most developed in Africa
- k) High degree of personal safety.
- l) Warm and friendly people: Ghana is internationally recognized for her hospitality and warm affection for her investors.
- m) All investors interested in Ghana's ICT Sector are assured of a safe and secure investment environment which has the backing of a very encouraging legal and regulatory regime to protect their investments.

9.0 INVESTMENT OPPORTUNITIES

There are considerable investment opportunities in the ICT sector. The sector requires service providers in connecting international voice calls to the local public network. Internet Service Providers are also required to offer internet access to the public especially the rural areas at less cost and broadcasting operators to establish Radio and Television broadcasting in the country.

There is also a lack of ICT Facilities and Infrastructure on a broad scale across the nation. Investments are needed in the Provision of Software for the country, extension of the broadband network to reach the whole country and to provide computer access to rural students.

Technological and other support related services such as the supply of quality telecommunications equipment, ICT Equipment and Office and Network Equipment. There are also opportunities in the following areas:

- Education in the area of software development, networking, VSAT, telecommunication and IT Engineering
- Production of Business Solution (software and networking services)
- Business Processing Outsourcing
- Supply of High-Tech Telecommunication Equipment
- Back Office Operations (especially for the Financial Institutions)

- Provision of Broadband Facilities and Services
- Internet Service Provision Service
- Transaction Processing
- Manufacturing, assembling and supply of computers and accessories □ VSAT services
- E-commerce and Legal Database Services
- Logistics Management Services and Medical Transcription Services

10.0 POTENTIAL SOURCES OF FUNDING

Viable companies and projects can easily attract financing both on the local and international financial markets. The main sources of funding are (as at May 2019):

- 23 Universal Banks
- 21 rural banks
- The Ghana Stock Exchange – note that in the last four years, many issues of shares on the GSE have been oversubscribed by 100% - 300%, meaning that there is a lot of money for investment purposes
- Ghana Venture Capital Fund
- International development finance institutions based in Ghana, such as the International Finance Corporation (IFC) and the African Development Bank (AfDB)

A number of foreign financial institutions also provide off-shore financing directly to companies in Ghana.