MEET THE PRESS STATEMENT DELIVERED BY MRS. URSULA OWUSU EKUFUL, MP, MINISTER FOR COMMUNICATIONS IN THE CONFERENCE ROOM OF THE MINISTRY OF INFORMATION ON THURSDAY, 13TH DECEMBER, 2018

Mr. Chairman, the Hon. Minister for Information Hon. Deputy Ministers Heads of Department and Agencies Chief Directors And Directors and staff of the MoC and MOI, The Media here present Ladies and Gentlemen,

It's been a very long year and it is my pleasant duty to present the performance of the Ministry of Communications through you, to the good people of Ghana this morning.

The Ministry of Communications (MoC) is focused on utilizing Telecom/ICTs to improve the efficiency of service delivery with particular attention to rural and underserved communities, digital and financial inclusion, gender parity and opportunities for the youth through the nurturing of new businesses, improving efficiencies of existing businesses, creation of job opportunities, facilitation of ICT-based entrepreneurship and securing our cyber space for the realization of the SDGs. The Ministry therefore plays a strategic role within the national development agenda.

Our modest achievements have not gone unnoticed and in the field of cyber security, our example is being used as a model for other African countries, with the ECOWAS commission calling on Ghana to take the lead in the sub region. As the UN E-Government Survey 2018 clearly demonstrated, Ghana is the only African Country which transitioned from a medium to high E Governance Development Index (EGDI) out of 17 since 2016. There are only 6 African countries in the High EGDI group. We achieved this feat in 2017-2018 by streamlining our institutional and policy framework to capitalize on ICT innovations and invested in improving online service delivery. Our ICT strategy focuses on increased use of ICT across economic sectors, e government, implementing the national electronic security system and many other ICT related projects for public benefit. Various projects implemented by the Nationals Information technology Agency (NITA), the Ghana Investment Fund for Electronic Communications (GIFEC) and the National Communications Authority (NCA) among others, are encouraging increased use of ICTs and creating an enabling environment for further development, deployment and use of ICTs and e government initiatives. All of this is positioning us well on the way to attaining not just the SDGs but also H.E. The President, Nana Akufo-Addo's vision of a Ghana Beyond Aid. We will do it, with technology at the heart of all our efforts.

Mr. Chairman, this presentation gives an overview of developments in the following areas over the past year:

- 1. Policy and Regulation
- 2. ICT Infrastructure Development
- 3. Universal Access Initiatives
- 4. ICT Capacity Building
- 5. Postal and Courier Services Management/ Ghana Posts

- 6. Meteorological Services Management
- 7. Data Management
- 8. e-Governance
- 9. Cyber Security Awareness and Preparedness
- 10. Accra Digital Centre

POLICY AND REGULATION

The Ministry of Communications will continue to implement policies and through its agencies provide adequate regulatory oversight over service providers within the sector to ensure that expectations of stakeholders are met within the confines of the law. These expectations include revenue assurance and customer satisfaction. Initiatives undertaken during the period under review include:

1. Common Monitoring Platform

Mr. Chairman, Ladies and Gentlemen, the Ministry of Communications successfully implemented the Common Monitoring Platform (CMP) to bring into effect the provision in the Communications Service Tax (Amendment) Act, 2013 (Act 864) which specifically enjoins the Minister of Finance to collaborate with the Minister responsible for Communications to:

- a) "Establish a monitoring mechanism to verify the actual revenue that accrue to vendors for the purpose of computing taxes due the Government under this Act;
- b) Be given Physical access to the physical network nodes of the vendors' network at an equivalent point in the network where the network providers' billing systems are connected, and
- c) Ensure that a common platform is used for the purpose of monitoring revenues under the Act as well as revenues accruing from levies under the Electronic Communications Act 2009, (Act 775)."

As we speak, **Mr. Chairman**, all concerns raised by stakeholders have been addressed and all the MNOs have connected to the platform. The CMP provides the following services:

Traffic Monitoring, Revenue Assurance, Fraud Management and Mobile Money Monitoring

The CMP provides real-time accurate and independent monitoring of all voice traffic volumes and ensures the comprehensive billing verification and collection of all telecom-related taxes, levies and regulatory fees due government while promoting tax compliance. It monitors the amount of revenue generated by Service Providers across various revenue streams (Data, Voice, Value Added Services, mobile money, wholesale services etc.) for the purpose of computing the CST, VAT, NHIL and the 1% Universal access contributions.

The system offers the technological means to detect, localize and eliminate fraudulent and unlicensed operators through the appropriate tracking of international inbound traffic. This will help reduce operations of SIM box operators as MNOs block SIM cards used for such fraudulent operations.

5000 daily calls are generated from about 57 countries to monitor how they are terminated in Ghana. When these international calls are terminated as local calls, it confirms the fraudulent use of SIM boxes to bypass the authorised international gateways. The numbers used to perpetrate SIM box fraud are sent to operators to block and to provide data to facilitate the geographical location (geolocation) and elimination of these SIM boxes.

We must emphasize that only the signaling information and data required by the NCA and GRA for their regulatory and compliance functions are received by the CMP. No customer voice or data communication is received by it.

2. NCA Telecommunications Industry Computer Emergency Response Team (CERT)

As part of measures to further strengthen regulatory operations of the NCA, an industry CERT has been established for the telecommunications ecosystem in view of the increased use of networks for provision of services to ensure the security and safety of networks and further lead to the creation of jobs as more Human Resources will be required to operate them. The NCA is currently in consultations with service providers on the need to have organizational CERTs to ensure the safety and security of their networks and protect subscriber information and transactions. This is part of measures being taken to promote cyber security.

3. Establishment of Bank of Ghana (BoG) Computer Emergency Response Team (CERT)

In view of the risks associated with Ghana's current digitalization, the Ministry collaborated with the Bank of Ghana to establish a Computer Emergency Response Teams (CERTs) to facilitate cyber security incident monitoring, response and cyber threat information sharing among players in the financial sector and with the National Cyber Security Centre

4. Auction of 800MHz Spectrum to propel broadband growth

Mr. Chairman, the Ministry, through the NCA has commenced the auction process for three (3) blocs of spectrum (each bloc consisting of 2x5Mhz of spectrum) in the 800MHz band to make valuable spectrum available for the provision of mobile data services to improve access and service quality whilst facilitating the diffusion of information and communications technologies in enhancing the socio-economic development of the country. Vodafone was the only successful applicant and the NCA is currently in negotiations with it to conclude the transaction.

5. Type Approval and Conformance Laboratories

Mr. Chairman, Ladies and Gentlemen, the Ministry has to ensure that electronic communications equipment manufactured or imported into the country for sale or use are in conformance to national and international standards for safety of users, networks and the environment as well as provide the requisite quality of service.

The National Communications Authority (NCA) has established 4 Type Approval Labs for Specific Absorption Rate (SAR), Electromagnetic Field (EMF), Radio Frequency (RF) and signalling testing, and DTT. These labs are the first in the sub-region and the ITU has expressed the desire to utilize them for its regional training programs.

The SAR Lab is a state-of-the-art testing laboratory provides in-country market surveillance and testing of ICT/Telecommunication equipment (i.e. mobile phones, laptops, tablets etc) imported, distributed and used in the country to ensure the required safe limits for human use are met.

The EMF Lab measures electromagnetic field levels of Mobile Base Stations, FM and TV transmitters, as well as devices and installations operating in the 100-600 MHz band to avoid public and occupational exposure.

The Radio Frequency (RF) and Signalling Lab measures RF and signals for wireless devices operating in the following technologies GSM, WCDMA, LTE, WI-FI, BLUETOOTH and their hand-offs.

The DTT test lab carries out tests on TV broadcasting receivers such as integrated TVs and Set Top Boxes for conformance with Ghana's Standards.

6. FM Broadcasting Audit

As part of measures to streamline the efficient use of the national spectrum resource and ensure value for the use of the spectrum, the NCA conducted an FM audit and sanctioned stations which did not meet KPIs and regulatory conditions. This has improved compliance among all licence authorisation holders.

ICT INFRASTRUCTURE DEVELOPMENT

Mr. Chairman, without a robust IT infrastructure in place, none of the planned initiatives will succeed. We are committed to providing the infrastructure to support government's digital agenda, working with the private sector. To this end, a number of initiatives are being implemented. These are

1. National Digital Terrestrial Television Project

Government is implementing the road map to migrate the country from analogue to digital television transmission. The 'As-Built' DTT platform has two multiplexes with a full capacity of 40 Standard Definition (SD) channels. This capacity has been fully exhausted by existing analogue broadcasters and new broadcasters who have been authorized by the National Communications Authority (NCA) to operate.

There are pending applications for digital terrestrial television broadcasting authorizations, existing regions and the new regions to be created will also require localized channels on the platform. Adequate capacity also has to be provided to accommodate broadcasters who have secured premium content rights (i.e. pay-per-view events) and want to transmit through the platform. International broadcast companies (i.e. France24, CNN, etc) have also expressed interest in localizing their content on the DTT platform when capacity is available.

In recognition of these challenges, an audit of the DTT infrastructure was conducted and an expansion of the infrastructure to include disaster recovery sites and additional sixty (60) channels with a mix of High Definition and Standard Definition Channels was recommended. The Ministry has completed the provision of dedicated power to thirty-seven (37) DTT transmission sites in eight (8) regions namely, Eastern, Central, Western, Volta, Northern, Brong Ahafo, Upper East and Upper West. A team of NEDCO Engineers and the Supplier, KNET Ltd, are currently provisioning the dedicated electricity power into the transmitters to ensure the availability of digital broadcasting signals in the Northern part of the country. All other sites have dedicated power. Testing is ongoing and the switchover is scheduled to commence in the first quarter of next year.

The Ministry is in the process of finalizing the DTT Policy and has received written comments on the draft DTT Policy by all key stakeholders. These comments are being reviewed to be incorporated into finalized document after the final round of stakeholder engagements.

2. Development of Regulations for NITA

Though the National Information Technology Agency Act (771) and the Electronic Transactions Act (Act 772) were passed in 2008, regulations guiding their operations do not exist. NITA is currently conducting a legal and regulatory gap analysis to develop regulations to give effect to Acts 771 and 772, taking into account current developments in the ICT space.

3. Establishment of Public Key Infrastructure (PKI)

The Ministry has deployed a highly secure, scalable, open source enterprise Public Key Infrastructure (PKI) to provide trusted cryptographic keys (certificates) to secure communications, SSL Document and Code signing, etc. The PKI system will provide the foundation to support future security initiatives like smartcard-based authentication, network access control technologies, and device-based authentication for all e-Governance initiatives and electronic transactions. It is currently being installed.

4. National Government Cloud Infrastructure (G-CLOUD)

The MOC is developing a Government Cloud Infrastructure to support both the Public and Private sector with cloud services i.e. computing services available via traditional internet connectivity. We intend to coordinate the acquisition of IT goods and services by various Government agencies and remove duplication of effort and waste of scarce resources in the procurement of IT infrastructure and services.

5. Emergency Upgrade Of E-Government Infrastructure

NITA through the assistance of the World Bank is upgrading the e-government infrastructure to support the growth of the digital economy. Upon completion, traffic from all MDAS will be channelled across the government Network instead of going through routing loops to its final destination. This will enhance the security of government data and promote the delivery of e-Services.

UNIVERSAL ACCESS INITIATIVES

Mr. Chairman, residents and businesses in many rural areas of the country have limited or no access to communication though their needs are similar to those of urban residents, ranging from basic voice telephony to broadband access. Due to their geographic location and sparse population distribution, MNOs do not consider them commercially viable and these areas are deemed unprofitable by MNOs become unserved or underserved. This creates a digital divide between the urban and rural centres of the country.

To bridge this gap, the Ministry, through the Ghana Investment Fund for Electronic Communications (GIFEC), is implementing the Rural Telephony Project, Smart Community Project, and the Satellite TV Project.

- Digital for inclusion (D4I) - Smart Community

The "Smart Community Project" is designed to provide affordable/free WIFI internet services to unserved and underserved communities across the country. The Smart Community will be a base/access point for providing all other broadband services to those communities including but not limited to Digital for Inclusion (D4I), e education, Content, entertainment, and e-services. GIFEC has piloted this project in four (4) communities namely, Goaso, Brekum, Asankragua and Asumura.

GIFEC in partnership with ZEEPAY (a FinTech Company) has established 90 transaction kiosks in Western, Brong-Ahafo and Eastern Regions to deliver a payment and cash transfer platform which is interoperable on all mobile networks. Other services provided include international remittances, cellular airtime top up and bill payments.

- Rural Telephony Project

The Telephony Project seeks to extend the coverage of mobile telephone services as far as possible into all areas of the country where access to such services are not adequately available, and where existing licensed operators have proven unwilling or unable to expand their networks, due to commercial or other constraints. The ultimate objective of this program is to achieve universal access to ICT throughout the country.

With the rapid growth of digital services such as e-commerce, e-education, Fintech, Mobile Money and e-transactions coupled with the introduction of various Government e-services, the RTP project seeks to narrow the digital gap in the country.

Mr. Chairman, 400 rural telephony sites have been constructed under this project this year to provide voice and data connectivity. This has provided coverage for 2,000 communities with a population of 900,000. We intend to scale this up to cover all unserved and underserved communities by 2020.

Satellite TV Project for 300 Villages

Mr. Chairman, the Government of Ghana received a grant from the Government of the People's Republic of China to implement the 300 Village Satellite TV project and the Ministry, in collaboration with the Chinese Embassy in Ghana launched it on 26th September 2018. The project provides each village with two (2) set of solar powered projector TV systems in two public viewing stations and one (1) solar powered 32-inch digital TV integrated together. These 900 public viewing stations will enjoy free digital TV broadcasts. Additionally, twenty (20) households will also be supplied with Set-Top Boxes (STBs) each as part of Governments universal access policy. These 6000 homes will have 6 months free viewing. StarTimes is the contractor providing these services.

Mr. Chairman, Ladies and Gentlemen, I am happy to announce that the implementation team has installed and commissioned all the devices in 285 villages out of the targeted 300 villages.

ICT CAPACITY BUILDING

A Coding for Kids initiative has been launched under GIFEC as part of the overall ICT Education and Awareness program to give opportunity to kids and youth to explore the world of technology through the creation of websites, computer games, interactive arts, mobile apps and animation stories, using programming languages like JavaScript, Hypertext Mark-up Language (HTML) among others. As at November, 2018, 4, 500 students had been trained in 150 schools across the country.

- Cyber Laboratory Programme

This initiative aims at supporting full-service facilities, broad-band connectivity and ICT services to designated unserved and underserved communities. GIFEC has provided computers, printers, scanners and projectors to 819 educational institutions in 2017 and 300 JHS in 2018.

GIFEC has also provided a computer laboratory and laptops with assistive technology for vision impaired undergraduate students of the University of Cape Coast. It will be extended to other schools for the blind and Universities in the coming year to promote digital inclusion for Persons with Disability.

Mr. Chairman, the Ministry of Communications through the Ghana India Kofi Annan Centre of Excellence in ICT and the Accra Digital Centre continues to facilitate knowledge acquisition by individuals and institutions in the field of ICT. The provision of appropriate digital skills t90 our youth is vital for the development of our digital economy. The following activities have been carried out by these agencies during the period under review:

1. Integration of ICT in Teaching and Learning

The Centre, as part of the World Bank e-Education project has trained 700 out of the targeted 1,400 teachers nationwide in Senior High Schools on the use of ICT to effectively teach Science, Technology, Engineering, and Mathematics (STEM) programmes.

To enhance their research capabilities, KACE has also equipped and retooled its Research laboratories in collaboration with C-DAC India and established the following;

- ISO Certified Software Development Facility
- ISO Certified Software Quality Assurance Facility and
- Embedded systems and VLSI laboratories.

2. Accra Digital Centre

The Ministry through the Accra Digital Centre embarked on outreach programmes targeted at disadvantaged youth in the Greater Accra Region and four hundred and seventy-six (476) youth were trained in Digital Marketing. Additionally, one thousand (1000) digital and ancillary jobs have been created at the Accra Digital Centre for the youth and vulnerable persons from low income communities in Accra.

From vacant structures not connected to electricity or the internet at the beginning of 2017, the ADC is now fully equipped and has allocated 100% of its space and achieved an 80% occupancy rate. All blocks have been allocated and will be occupied by the end of 2018. 40 tech companies

are currently hosted there including BPO and IT ES companies. We will expand into other regions.

3. Implementation of Mobile Application Lab (mLab) and Innovation Hub (iHub) projects

The Ministry of Communications, through funding from the World Bank, has provided a total of \$2.6m to private sector Ghanaian entities involved in entrepreneurship and innovation to set up an Innovation Centre at the Accra Digital Centre, made up of and Innovation Hub (Ghana Innovation Hub) and a mobile Applications Lab (Ghana Tech Lab) under the Innovation module of the eTransform Ghana Project. These projects are to nurture Tech Start-ups to promote digital entrepreneurship and create digital jobs for the youth and bottom of the pyramid people. The innovation Centre will incubate 70 Digital businesses which will generate some 300 + jobs for the youth.

4. 500 youth trained under the ADC's Impact Sourcing Program

Five hundred disadvantaged youth in the Greater Accra Region have been trained in Call Centre skills, basic IT training, Microsoft office suite, BPO skills and Digital marketing. This programme has afforded vulnerable people with potential from low income communities some opportunity in the basic digital and ancillary jobs available at the Accra Digital Centre and the wider Tech Ecosystem. We will replicate this in other regions.

5. Girls in ICT Celebration 2018

The Ministry commemorated this year's Girls-in-ICT event in the Ashanti Region. Six hundred (600) girls from selected public basic schools in six districts of the region were selected for a fourteen (14)-day capacity building training in coding and programming as well as an ICT mentorship programme. The mentorship programme motivated the girls to choose careers in Science, Technology Engineering and Mathematics as they interacted with female mentors with ICT career background. Two female mentors were engaged for this year's event.

Sixty-two (62) of the best girls in the Girls-in-ICT celebration took part in a 3 day "**Open Day**" Event hosted by the American Tower Company (ATC), the National Communications Authority (NCA), the National Information Technology Agency (NITA) and the Accra Digital Centre (ADC). The Open Day event gave the girls a practical appreciation of ICT in the workplace and hopefully, will reorient their minds towards exploring ICT career paths. The girls gained a better understanding of the ICT/engineering operations of the organizations visited whilst being mentored by the female engineers who took them through their daily work schedule.

POSTAL AND COURIER SERVICES

Mr. Chairman, ICT has taken up a lot of the core functions of postal and courier services that has left people wondering whether post offices have any use within the current global setting. We however believe that with the introduction of new business modules, ICT can be used as a tool to revamp the postal and courier services. Negotiations are ongoing to secure a PPP arrangement for the modernization of Ghana Post.

In the Ministry of Communications in collaboration with Ghana Post launched the National Digital Property Addressing System (NDPAS). The objective of the system is to generate digital addresses for individuals and commercial properties and also provide navigation capabilities that

help with ease of finding locations. The system has attained some milestones. There are 1,200,000 registered and verified addresses. The system has also recorded 7,787,899 address searches, 11,000 tagged properties and 20,000 digital address deliveries.

To encourage and promote the generation of the digital addresses nationwide, Ghana Post through its field agents have engaged in a house to house generation of the digital addresses for free and tagging of properties for a fee upon request by the property owner. The fees are GHs 50.00 for home and GHs 100.00 for commercial properties.

METEOROLOGICAL SERVICES

Mr. Chairman, aviation meteorology (MET) is one of the most important data streams for air traffic management (ATM) services due to its impact on air safety and efficiency. For this governments vision to make Kotoka International Airport the Aviation Hub of the sub region, optimum met services is even more critical.

To support government's efforts, the Ministry of Communications through the Ghana Meteorological Service (GMeT) has installed Synergy and Satellite Receiving Dish for effective climate analysis to ensure reliable public weather forecast and strengthen aeronautical weather reporting services to the aviation industry. This equipment has enabled the Agency to move its Central Analysis Forecast Office which used to be part of the Aeronautical Forecast Office at the Kotoka International Airport to the Head office.



Central Analysis Forecast Office



1. Establishment of Weather Forecast Production Studio

The Agency has established state-of-the-art weather forecast production studio to improve public weather delivery. The studio, which is fitted with modern studio equipment, is part of efforts to enhance transmission and dissemination of weather report to the general public.

2. <u>Automatic Weather Stations (AWS).</u>

Through the efforts of the Ministry, GMet has benefited from the world Bank e-transformation project and received financial support to procure and install Ten (10) Automatic Weather Stations. The AWS will aid in the provision and transmission of accurate and timely data and improve service delivery to clients of the Agency. The automation of GMeTs weather stations is part of the digitization drive of the Agency.



Automatic weather stations

3. <u>Installation Of Missir-Com (Message Switch System)</u>

The Agency has procured a Message Switching System for data communication from the Meteorological stations across the country to the headquarters and data transmission internationally. The device also produces satellite images and exclusive model charts to enhance forecasting as well as improve the accuracy of report by reducing human errors and by January 2019, data from all Stations of the Agency will be transmitted via this system to end users both locally and internationally.

DATA PROTECTION

The Data Protection Act, 2012 mandates the Data Protection Commission, to protect the privacy of the individual and personal data by regulating the processing of personal information, to provide the process to obtain, hold, use or disclose personal information and for related matters. The DPC has therefore created a regulatory framework that will ensure that the right and privacy of individuals are respected as a human right based on the following principles:

- 1. Accountability ability to demonstrate compliance with documentary evidence
- 2. Lawfulness of processing evidence of legitimate grounds, fairness and transparency
- 3. Compatibility of further process obtaining customer consent for changed purposes
- 4. Quality of information ensuring that data held is continuously accurate and up-to-date
- 5. Openness keeping Data Subjects fully informed about their personal data
- 6. Data Security Safeguards appropriateness of technology and organisational measures
- 7. Data Subject Participation empowering Data Subjects to exercise the Rights
- 8. Purpose of collection processing for clearly specified purposes.

DPC's role in Ghana's transformational agenda is critical. The Commission's regulatory and enforcement powers underpin the national digitization and ICT development effort with an emphasis on regulating Technology, Processes and People.

The Commission has relocated to new secure and accessible accommodation and scaled up its operations by building internal capacity with 5 fully trained Privacy Practitioners.

The software used by the commission in its work has been upgraded to enable renewal of registrations, improve revenue generation and support Data Controllers to commence the implementation of their internal privacy programs.

The Commission participated in five (5) awareness creation programmes at various institutions, developed a compliance template for Data Controllers who are due for renewal and invited key decision makers such as CEOs and Data Controllers to a meeting to increase awareness of their legal obligations and promote further engagement with the Commission. Several Data Controllers have been invited to nominate key staff to be trained for standardisation of practice nationally and compliance with the law.

In 2018, the DPC registered 1,264 data controllers and embarked on several awareness creation and training programs. A Data Protection Practitioner training with a full EU-GDPR compliance manual has been successfully piloted.

A **Youth Sensitization** model has been designed to target the youth who are technologically savvy and a National Youth Awareness Campaign will be implemented in 2019 as part of the youth sensitization initiative.

E-GOVERNANCE

Mr. Chairman, to provide more efficient delivery of government services, reduce corruption and enhance transparency, a number of e-services are being implemented under the e-Transform

project funded by the World Bank, to increase efficiency, accountability and responsiveness. The status of implementation is as follows;

1. e-Immigration

The integrated e-Immigration system being deployed by the Ghana Immigration Service will facilitate speedy processing of travellers entering and exiting Ghana, in a more efficient manner. It provides full immigration control system including – biometric identification of citizens and visitors, border management, issuance of visas, residence and work permits.

eGates have been installed at the airport and have been launched. The system since its installation has processed 92,000 travellers (27,000 entries and 65,000 exits) in total. Average passenger processing time is 1minute, 45 seconds. It is currently being installed in T3. Operational Acceptance has been achieved and full Roll-Out of this Secured Border Management System will continue till May 2019.

2. e-Parliament

The project aims at supporting Parliament of Ghana to electronically conduct parliamentary processes that will allow a paperless flow of information within parliament. Operational Acceptance is scheduled for January 2019. The System development has been completed and the e-Parliament module has been deployed in the cloud. Parliament technical staff have started trial testing of the cloud version prior to installation of the real version for Parliament.

3. e-Procurement

The e-Procurement system when fully implemented will help standardize government procurement processes, bring visibility and transparency into government procurement transactions, centralized the monitoring of procurement activities, eliminate physical storage of procurement documents as information will be stored digitally and ensure compliance with procurement laws, among others. It is currently being rolled out in 6 MDAs (VRA, Ghana Health Service, TMA, Dept of Feeder Roads, Koforisdua Technical University and COCOBOD) and is expected to go live in January 2019. It will be scaled up to cover 600 procurement entities by 2020.

4. e-Justice

The Ministry in collaboration with the Judicial Service is implementing the e-Justice integrated system to rollout electronic Case/Court Management and Administrative system at the 43 High Courts in Accra. The system has been fully developed and rolled out as of November 2018. Training of staff and lawyers is currently ongoing.

The e-Justice system has brought efficiency in the justice delivery system and Lawyers, Judges and court officials' access to case files and information is now faster than before to facilitate court processes. The era of missing dockets and court processes is hopefully over. Judges and parties also have easy access to information which ensures fast delivery of judgment. Time spent on the filing of cases has reduced significantly. It will be scaled up to cover all courts in all 10 regions. The electronic case management system has also reduced corruption and security of data is greatly enhanced as a result of the digitization of court records.

Other e-governance initiatives being implemented include the digitization of the Registrar Generals Department and GRA, provision of smart workplace document management and email system in MDAs, the digitization of the records of the Births and Deaths Registry among others

A full briefing on the E Transform project will be organized in the new year.

CYBER SECURITY

Mr. Chairman, our digitization efforts and the introduction of a number of e-services has exposed the country and people to possible cyberattacks and vulnerabilities. To counter these potential threats certain deliberate measures have been put in place by the Ministry.

The MoC has established the National Cyber Security Centre to coordinate cyber security activities both in government and the private sector. It is responsible for national cyber security awareness creation and cyber security incident coordination. The NCA and the World Bank contributed to the establishment of the Centre.

In view of the escalating cyber-attacks targeting the financial sector, the Bank of Ghana working in collaboration with the Ministry of Communications and the Association of Bankers launched a Cyber and Information Security Directive for the Financial Industry to support cyber risk management in the financial sector.

Government of Ghana has acceded to two important treaties on cyber security.

- The African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention) and
- The Convention on Cybercrime (Budapest Convention).

These two international treaties are expected to enhance Ghana's cooperation with other countries at the policy, technical and operational levels in dealing with cybercrime and cyber security challenges.

The assessment conducted by the World Bank and the Global Cyber Security Capacity Centre of the Oxford University on Ghana's cyber security maturity level shows we have a long way to go. The MoC implemented a Cyber Security Awareness Month (NCSAM) programme dubbed "A Safer Digital Ghana" to educate the citizenry on the dangers associated with the use of technology and the need to take cyber security issues seriously. It was launched by the Vice President Alhaji Dr Mahamadu Bawumia on October 1, 2018. This initiative will be sustained to help consolidate our efforts at securing Ghana's digital journey by creating awareness on cyber risks and developing build a culture of cyber security among citizens.

Regional cybercrime sensitization workshops were organized for students of selected second cycle schools across the ten regions of the country and Ghana with the support of the World Bank, hosted about 50 delegates from West Africa to learn about Ghana's cyber security experiences and practices. Other capacity building programmes were organized including cyber for key government institutions in collaboration with the United States Security Governance Initiative (SGI). In addition, the NCSC, in collaboration with the Council of Europe, also organized workshops on cybercrime and electronic evidence for police prosecutors, State Attorneys, Supreme Court, Court of Appeal and High Court Judges. Capacity building programmes will continue to feature in the Ministry's efforts in addressing national cyber security challenges.

The MoC is currently reviewing the National Cyber Security Policy and Strategy for Cabinet's consideration and adoption early next year. As indicated in the 2019 Budget, the government will set up a National Cyber Security Authority (NCSA) to oversee Ghana's cyber security especially the protection of Critical National Information Infrastructures (CNIIs) in line with global trends and best practices. A Cyber Security Law is in the offing.

In view cyber security breaches suffered by some MDAs including the Data Protection Commission (DPC), the Tema Oil Refinery (TOR) and the Ministry of Finance, the Cyber Security Secretariat developed advisories to help MDAs improve their cyber security environment. NITA is currently working with the World Bank to deploy a secured network across government institutions and this is expected to help improve the general cyber security situation in the public sector.

Mr. Chairman, we have been busy and will continue working to help the public and private sector scale up the uptake of technology at all levels to help this country leapfrog development. The formalization of our economy is going on apace through the use of technology and we will continue to utilize it to help with revenue generation, collection and accountability. There is an indelible link between ICT and economic development and our President, Nana Akufo-Addo, being keenly aware of this, has directed the Economic Management Team led by Vice President Alhj. Dr. Mahamadu Bawumia, to explore its full potential. This governments digitization agenda is driven by the need to quickly modernize our processes, technology and right skill our people to drive economic growth. The National ID project, digital property address system, paperless port operations, mobile money interoperability and digital financial services, digitization of revenue collection and land administration are some of the deliberate steps being taken to strengthen the foundations of our economy and formalise it. Our efforts have been recognized and Mrs. Ursula Owusu-Ekuful has been invited to co-chair the EU-AU Digital Economy Task Force with Mr. Pierre Guislan, Vice President of the African Development Bank. It will be launched next week.

Mr. Chairman, Ladies and Gentlemen, I thank you all for your attention.