Presidential tribute for regulatory excellence

TCRA in full ownership of tele traffic system

Usimamizi makini waipaisha TCRA

MAMLAKA YA MAWASILIANO TANZANIA

ISO 9001:2015 CERTIFIED

Mamlaka ya Mawasiliano Tanzania(TCRA) ni taasisi ya Serikali inayosimamia sekta ya mawasiliano. TCRA ilianzishwa chini ya Sheria ya Udhibiti wa Mawasiliano Tanzania Na 12 ya 2003. TCRA ina viwango vya ISO 9001:2015.

Maeneo yanayosimamiwa

Mitandao ya simu na intaneti, masafa ya mawasiliano, huduma za posta na usafirishaji wa vipeto katika Jamhuri ya Muungano wa Tanzania na huduma za utangazaji (kama vile redio na televisheni) kwa Tanzania Bara tu. Zanzibar ina Tume inayosimamia utangazaji.

Kazi za TCRA

- Kutoa leseni, kuongeza muda wa leseni na kufuta leseni.

- Kuweka viwango kwa bidhaa na huduma zinazosimamiwa.

- Kuweka viwango vya kanuni na masharti ya kusambaza bidhaa na huduma zinazosimamiwa

- Kudhibiti viwango na bei .

- Kufuatilia utendaji wa sekta ya mawasiliano kuhusiana na viwango vya uwekezaji; upatikanaji wa huduma, ubora na viwango vya huduma; gharama za huduma; ufanisi wa bidhaa na usambazaji wa huduma.

- Kufanikisha utatuzi wa malalamiko na migogoro baina ya watoa huduma na kati ya mtoa huduma na mtumiaji wa huduma.

- Kufanya kazi na kutekeleza majukumu mengine kwa mujibu wa sheria husika

- Kusambaza taarifa kuhusu mambo ambayo ni muhimu kwa ajili ya shughuli za Mamlaka.

TCRA na ustawi wa Watanzania

Katika kufanya kazi zake, Mamlaka inajitahidi kuendeleza ustawi wa jamii ya Tanzania kwa:-

- Kukuza ushindani unaofaa na ufanisi wa uchumi.

- Kuendeleza upatikanaji wa huduma zilizodhibitiwa kwa watumiaji wote ikiwa ni pamoja na wenye kipato kidogo, waliopo vijijini na wateja walio katika mazingira magumu.

- Kulinda maslahi ya watumiaji

- Kuendeleza elimu kwa wananchi kuhusu utambuzi na uelewa wa sekta zilizodhibitiwa ikiwa ni pamoja na haki na wajibu wa watumiaji; namna ambavyo malalamiko yanaweza kuwasilishwa na kutatuliwa na kuhusu majukumu, kazi na shughuli za Mamlaka.

Call for contributions

The Editor invites articles, contributions and comments in all areas of electronic and postal communications.

Contributors are invited to submit full-length articles, including figures and possible references, font size 12, single-spacing, up to four A4 pages. Photographs, with clear captions, should be submitted in JPEG format.

Articles should be submitted to:

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Letter from the Editor

Tanzania's Tele-Traffic Monitoring System (TTMS) supplied in 2013 under a public private partnership under build, operate and transfer (BOT) was handed over on January 18 this year in a ceremony officiated by President Dr John Pombe Joseph Magufuli.

The TTMS agreement was for the financing, designing, development, installation and management of a system to monitor traffic passing through telecommunications networks in Tanzania.

The system has seven modules covering local and international traffic monitoring, fraud management, quality of service monitoring, mobile money monitoring, device detection and identification, evaluation speech quality and telecommunications revenue assurance.

Acquisition of the system has made TCRA the first regulator in the world to use data technologies to monitor the financial performance of the telecommunications industry.

We have extensive coverage of the TTMS handing over ceremony; with a bumper Kiswahili supplement carrying full texts of the speeches by the President; the Minister for Works, Transport and Communications; Hon. Isack Kamwelwe, the Minister for Finance and Planning; Hon. Dr Philip Mpango and TCRA Director General, Eng. James M. Kilaba.

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President Dr John Pombe Magufuli speaking at the ceremony to hand over the tele-traffic monitoring system (TTMS) to TCRA on 18 January this year
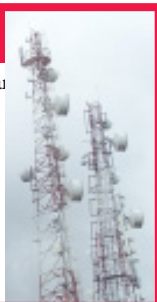
In the April -June edition...

- Reaching the underserved in Tanzania
- Infrastructure sharing
- Spotlight on TCRA zones

KISWAHILI SECTION
- Utapeli huduma za pesa mtandao

Enhancing Regulatory Compliance

A key regulatory tool; the teletraffic monitoring system (TTMS) was handed over to the Government through the Tanzania Communications Regulatory Authority on January 18 this year.

TCRA was honoured with the presence of the President of the Fifth Phase Government, H.E Dr. John Pombe Joseph Magufuli at the handing over ceremony.

It is worh noting that an important module in the TTMS; telecommunications revenue assurance, was installed during the Fifth Phase Government.

The system was introduced as a project under build, operate and transfer arrangements in which the consultants were obliged to design, finance, develop, install and manage it for five years before handing it over to the Government.

We thank the President of the United Republic of Tanzania for his inspiring and encouraging remarks as well as wise counsel at the ceremony. We pledge to implement his directives.

As we take full management of the system we pledge to improve its functionalities in view of developments in the sector. TCRA will continue working with other state organs to ensure the system's full protection.

We shall be relentless in our continuing work on safe and responsible use of communications services. The registration of SIM cards through biometric features will be enhanced.

The Authority will engage the relevant international bodies to address the problem of electronic waste.

ABOVE: President, Dr. John Pombe Joseph Magufuli witnesses as TCRA Director General, Eng. James Kilaba (second left) and CEO of Global Voice Group (CVG), James Claude sign and exchange documents for the TTMS handing over. The President is flanked by the Minister for Works, Transport and Communications; Eng. Isack Kamwelwe (to his left) and the Minister for Finance and Planning; Dr. Philip Mpango.

Tanzania for effective ICT use in disaster management

A recent workshop in Dar Es Salaam on the role of information and communications technologies in the management of natural disasters underlined the effectiveness of new and emerging technologies in saving lives during disasters.

Hosted by TCRA and organized by the International Telecommunication Union (ITU), the two-day workshop noted that the Internet of Things and Artificial Intelligence can provide key life saving information, including reliable weather forecast and early warning. Knowledge of upcoming hazardous weather can be detected earlier and mitigation measure taken.

"The possibilities of the use of ICTs are limitless. To be able to harness the potential of ICT it is very important that we plan and prepare well", remarked TCRA Director General, Eng. James M. Kilaba in his opening statement.

The workshop was convened to create a collective understanding on the role of ICTs in disaster management and risk reduction.

Tanzania has been implementing an action plan on the deployment and use of ICTs disaster management.

An ITU expert with wide real life experiences in disaster mitigation, Ms. Doris Maritza Delgado shared her experiences on the deployment of ICTs for disaster management in various countries.

Editor's note: *please see related articles on pages 5 and 6.*

Participants in a souvenir photograph

TCRA Director for ICT Applications and Services Ms Connie Francis (centre) with Ms. Doris Maritza Delgado of ITU's Telecommunications Development Office (left) and the Assistant Director, Disaster Management Division in the Prime Minister's Office Mr Bashiru Taratibu.

New applications for crises

Technologies such as Artificial Intelligence, the Internet of Things, Big Data, robotics and drones can be used for effective disaster management, according to a recent ITU study published in a report titled: "Disruptive technologies and their use in disaster risk reduction and management", released in March this year. We present some of its recommendations

Technological advancement and innovation have created new opportunities for enhancing disaster resiliency and risk reduction. Developments in disruptive technologies – such as artificial intelligence (AI), the Internet of Things (IoT), and Big Data – and innovations in such areas as robotics and drone technology are transforming many fields, including disaster risk reduction and management.

The rapid spread of supporting digital infrastructure and devices – such as wireless broadband networks, smartphones and cloud computing – has created the foundation for the application of disruptive technologies for disaster management.

An avalanche of data is being generated by sensors, closed-circuit television, smartphones, financial transactions and Internet activities, to name just a few. While many of these data are being mined by businesses for commercial purposes, Big Data analytics holds enormous potential for crisis management.

Application of disruptive technologies to disaster management vary in pace, scope and impact. Social media platforms such as Facebook and Twitter have been applied in a number of events, and aerial drones and IoT are increasing in use as experience is gained and costs fall. Older technologies such as satellite imagery and seismometers are still the most important methods for detecting, monitoring and accessing disasters, and text messaging has the widest reach for communicating with the public. Big data, robots and AI remain largely experimental, and large-scale impacts will require more time and investments in skills and research.

Several recommendations have been identified that governments, relief agencies, the private sector and assistance agencies can take to maximize benefits offered by disruptive technologies:

• Systemization and standardization are needed to improve the application of technology interventions. Open standards will help to lower costs, ensure interoperability and enhance scaling. The standardization should also extend to the use of Big Data, which is currently often shrouded in opaqueness. Clear and transparent sharing protocols should be implemented, including application programming interfaces. For social media, standardized hashtags should be employed to reduce confusion among the public and magnify impacts.

• Reach of digital technologies must be factored into disaster management strategies. In respect to communications among stakeholders, this includes considering the purpose and audience. While Twitter has proven useful in crisis situations, particularly among the relief community, its penetration is relatively low among the general public. It should also be considered that some people may not want to use proprietary platforms for a number of reasons, and therefore relying on only one method may not reach all intended recipients.

• A global repository featuring information on how digital technologies are being applied for disaster management would raise awareness and understanding. Hundreds of applications of disruptive technology are underway around the world, but experiences are often buried in news articles and research reports. An information base would be useful for identifying digital interventions that have worked, who the implementers were, and other material to increase understanding about which technologies are relevant for different country circumstances and types of disasters.

• Partnerships with the private sector and academia will be critical for understanding and applying digital technologies for disaster prediction, detection, response and relief. Numerous uses of disruptive technologies are being developed by the private sector. In addition, the private sector controls significant amounts of personal information in Big Data sets, which are of immense use for the disaster community. Similarly, considerable relevant research is being undertaken by the academic community.

• Scaling disruptive technologies for crisis is essential to have widespread impact and lower deployment costs. To date, many interventions are still pilots or carried out in an ad hoc informal manner. Processes should exist to identify relevant use cases and scale them. Given the vast potential of disruptive technologies for disaster management under a huge variety of different circumstances, there is a need to nurture innovation. This is particularly relevant given the wide country contexts around the world, different types of disasters and crisis phases. Examples from the start-up world are relevant where incubators, labs, competitions, and venture capital are used to discover,

mentor and scale up promising innovations.

• Training is indispensable for the disaster community to understand how to properly and responsibly deploy new and emerging digital technologies in crisis settings. Manuals are needed for different technologies. For example, in the case of social media, this would cover hashtag guidelines, usage by public and relief organizations, coping with fake information, etc. Exchanges should be arranged for disaster management personnel to gain experience using new tools.

• Legal ramifications of technological research and interventions for disasters need to be understood. This is fairly straightforward in respect to specific regulations, such as registration and regulation of drones, but more nebulous regarding data protection and privacy. One relevant dilemma is whether the lack of data protection and privacy laws inhibits or encourages technologies that make heavy use of personal information. Further, while Big Data may eventually be forthcoming, in the event of a disaster it is needed immediately, so it is essential to have data access and sharing protocols in place beforehand. The disaster community has developed codes of conduct in certain areas that can help when laws are vague.

• Adequate capacity remains fundamental for properly planning and deploying relevant digital technologies. While digital technologies show great promise for all phases of disasters, on the ground, planning, management and operations are critical to their success. Disaster agencies do not need to be experts in digital technologies, but they do need to understand enough about them to develop proactive blueprints for deploying them. Disaster agencies might also consider creating a chief technologist post to better understand how to apply disruptive technologies.

Reference

https://news.itu.int/key-recommendations-for-using-disruptive-technologies-to-manage-disasters/

Women and emergency telecommunications

This edition has coincided with the commemoration of the International Women's Day on March 8. This article discusses how to build gender equality into response to emergencies

International Women's Day

Women and children account for more than 75 per cent of the refugees and displaced persons at risk from war, famine, persecution and natural disasters, according to the United Nations Population Fund. But access to information and communication technologies (ICTs) has a major impact on people's ability to prepare for, survive and recover from disasters.

Data from the International Federation of Red Cross and Red Crescent Societies (IFRC) shows that improved access to technology can save lives in emergencies. However, women across the world are less likely to have access to mobile technologies, putting them at additional risk during times of emergencies.

According to ITU data, women are about 12 per cent less likely to use ICTs, and the gap is wider in the world's Least Developed Countries. GSMA's Mobile Gender Gap Report estimates there are 197 million fewer women than men who own a mobile phone in low- and middle-income countries. The mobile gender gap varies by region and country, but it is widest in South Asia, which presents additional challenges for reaching and supporting women in crises in that region.

In emergencies, the role of ICTs is critical. Both in prevention, through early warning systems, and in the coordination of life-saving services, ICT infrastructure forms the basis of all disaster relief efforts, and it is critical that gender analysis is included in the global response.

"We need to cultivate the reflex of integrating the special needs of women into national disaster response strategies. Including women in disaster planning teams and involving women in strategic consultations on disaster response would be an important first step in the right direction," said Doreen Bogdan-Martin, Director of ITU's Telecommunication Development Bureau.

Reference;

https://news.itu.int/women-and-emergency-telecommunications-building-gender-equality-into-the-global-response

Mobile money accounts up 6% in 3 months

A six per cent increase in mobile money accounts was recorded in the October-December quarter while mobile telephony subscriptions went up by 2 per cent in the period, according to latest statistics.

There were 43.62 million SIM cards in the market and 23.36 million mobile money accounts in December 2018; up from 42.83 million and 21.884 million in October respectively.

Fig. 1. Subscription market share by December 2018
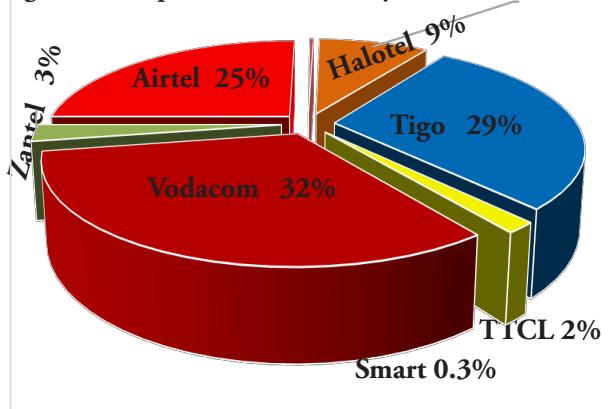
Fig.2. Mobile money subscriptions market share by December 2018
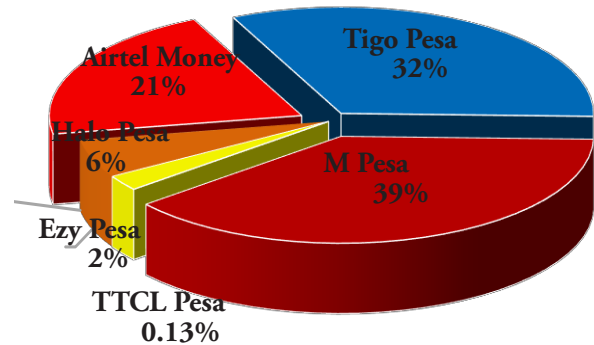
Table 1. Mobile Money Subscriptions (Mobile Money Accounts)			
Operator	OCTOBER	NOVEMBER	DECEMBER
M - Pesa	9,033,134	9,055,571	9,014,088
Tigo Pesa	7,416,770	7,545,235	7,586,240
Airtel Money	4,243,577	4,720,503	4,848,545
Halopesa	935,662	1,268,626	1,342,206
Ezy Pesa	331,248	344,501	546,353
T - PESA	33,655	33,781	30,394
TOTAL	21,994,046	22,968,217	23,367,826

Table 2. Number of Active Subscribers/Active Decorders for Pay TVs Services in Tanzania						
	2013	2014	2015	2016	2017	2018
DTT	449,941	715,339	717,824	837,461	1,508,229	1,626,023
Satellite	85,734	187,754	192,571	224,667	570,124	985,594
Cable	74,562	96,823	125,043	158,224	158,224	158,224
TOTAL	610,237	999,916	1,035,438	1,220,352	2,236,577	2,769,841

Table 3. Postal services customers						
Year	2013	2014	2015	2016	2017	2018
Corporate	718	694	158,467	16,425	80,307	51, 321
Individuals	190,418	187,602	364,458	364,953	364,853	302,421
TOTAL	191,136	168,297	522,945	381,376	445,160	353,742

Perfecting complian...

Transparency, accountability, compliance, fraud detection efficient revenue collection are some of the advantages of a telecommunications traffic monitoring system (TTMS) such as the one handed over to TCRA on January 18 this year. It was designed developed, financed, installed and managed under a build, operate and transfer (BOT) partnership agreement.

The concept of tele-traffic management encompasses a variety of processes and technologies, all of which are measures aimed at making more efficient monitoring of operators' tele-traffic. Such measures tackle a number of problems, including fraud in telecommunications, quality of service, etc.

After duly considering the need to acquire adequate regulatory tools, TCRA and a consortium of Societe Generale de Surveillance S.A (SGS) and Global Voice Group S.A (GVG) (SGS/GVG) signed an agreement on 22 March 2013 for the design, development, installation and management of a Tele-Traffic Monitoring System (TTMS) under public private partnership through build, operate and transfer (BOT) arrangement.

The consortium provided the financing, the designing, development, installation and management of the system including the related products, software and other resources.

The Agreement was to be in force for sixty (60) months from the date when the first payment of the monthly remuneration to SGS/GVG became due.

TTMS, which was developed to meet the requirement of the Authority with respect to monitoring and enforcement capabilities, features the following main modules: -

i) Local and International Traffic Monitoring System. This is responsible for monitoring both local (on-net and off-net calls) as well as international calls

ii) Fraud Management System;

iii) Quality of Service Monitoring Platform;

iv) Mobile Money Monitoring Platform.

Mobile Money is a mobile phone-based money transfer, financing and micro financing service that allows users to deposit, withdraw, transfer money and pay for goods and services easily with a mobile device. Mobile Money is a branchless banking service where customers can deposit and withdraw money from a network of agents; that includes airtime resellers and retail outlets acting as banking agents. Users are charged a fee for sending and withdrawing money as well as paying for goods and services using their mobile devices.

Mobile Money Monitoring (M3) System performs national and international monitoring of mobile money transactions, via an online system distributed among the operators for a centralized monitoring at the Regulator's premises. This system captures in real time and processes data for all types of transactions (M-Transfer, M-Financial services, M-Payments)

v) Device Detection and Identification System.

This enables TCRA to collect IMSI/MSISDN/IMEI triplets from all the mobile network operators in Tanzania in real time and to analyze the subscriber and handset populations. The main objective of this project is to create a Central Equipment Identity Register (CEIR).

vi) Perceptual Evaluation Speech Quality.

This provides accurate and repeatable estimates of speech quality degradation occurring through a telephony network. It compares the audio signal input to a network with the corresponding (degraded) audio signal output from the network.

vii) Telecommunications Revenue Assurance System. It facilitates collection of tax from telecommunications operators.

The main purposes of having TTMS are:

a) to introduce a recognized regulatory system in the communication sector of the United Republic of Tanzania for the promotion of quality of service standards, elimination of communications network traffic fraud and the creation and consolidation of a level playing field for the mutual benefit of all stakeholders;

b) to assist and facilitate the development and implementation of clear process for ensuring regulatory compliance in terms of revenue declaration, quality of service performance of the telecommunication traffic in the core networks and general standards for

compliance on the part of licensed operators with license terms and conditions; and

c) to enhance TCRA's capacity to collect, analyze and report on the communication sector's performance in the United Republic of Tanzania.

The main objectives of setting up TTMS are to:

i. Ensure international gateway monitoring through traffic verification and fraud controls within communication network traffic in the United Republic of Tanzania;

ii. Carry out surveillance of all international transit, roaming traffic and prevent refilling of traffic in order to ensure fair transit practice among operators;

iii. Promote accountability and transparency measures through an improvement in service delivery;

iv. Achieve accurate measurement of quality of service Key Performance Indicators (KPIs) at the Points of Interconnection (POI), for local and international calls;

v. Adopt an adequate interconnection traffic measurement regulation and standards, in accordance with the very recent ITU-recognized international standards, for the measurement of telephone traffic and the enforcement of fair international transit practices among licensed operators;

vi. Create efficiency in communication networks' operations;

vii. Instal equipment for measuring all local and international telephone traffic at the periphery of telephone networks and/or local and international points of interconnection;

viii. Effectively monitor telecommunication traffic in order to stabilize the destination termination tariff for the United Republic of Tanzania on the international market;

ix. Provide better security to both the state and the communications networks and service sector by identifying and shutting down all illegal international traffic termination platforms and/or grey traffic;

x. Create a level playing field for the licensed operators as the only legitimate carriers to terminate and/originate legal international and domestic traffic;

xi. Ensure the detection of SIM card profile and terminal equipment identification details;

xii. Enhance TCRA capacity to verify the accuracy of the operators billing systems for incoming international calls;

xiii. Ensure generation of reliable statistics and telecommunication traffic volume (local and international inbound/outbound);

xiv. Create a clear statistical record and profile of all international calls outgoing and incoming traffic and national traffic that enables the compilation of an independent database of local and international calls for regulatory purposes;

xv. Monitor all transactions of the mobile money operators in order to ensure accurate reporting of all mobile money transactions to the Authority;

xvi. Verify and validate the revenue generated by telephone operators from the telecommunication services they are providing.
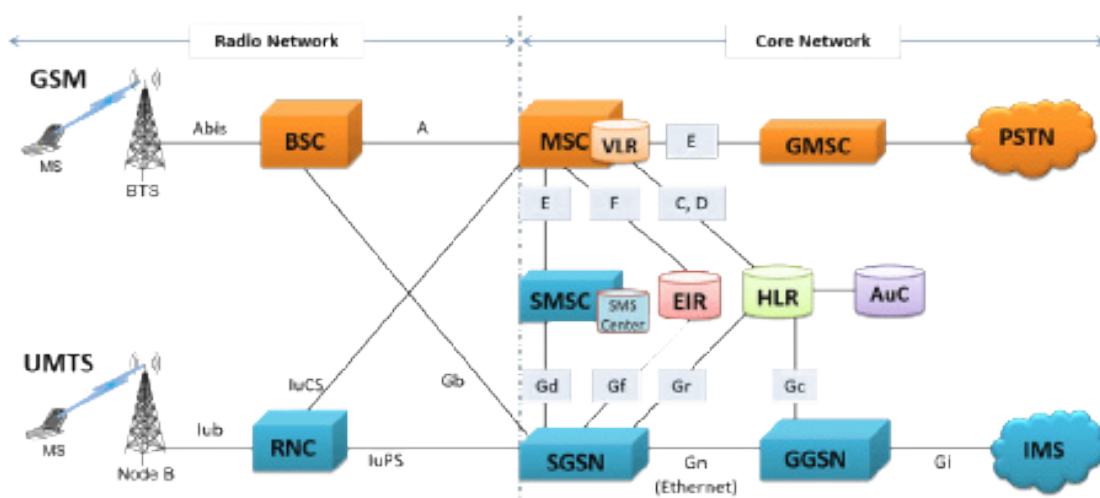
Telecommunications Network Architecture (Source: GL Communications)

Presidential tribute for regulatory excellence

President Dr. John Pombe Joseph Magufuli has commended TCRA for regulatory excellence, urging the Authority to be vigilant and to enforce regulations that promote safe and responsible use of communications services.

In his first visit to TCRA, in which he witnessed the handing over to the Government of a system installed in 2013 under a partnership agreement to monitor telecommunications traffic in Tanzania, the President paid tribute to the Authority for "the great work of regulating the communications sector in the country".

He recalled that when he assumed office in November 2015 he had reservations about TCRA due to non implementation of a key component of TTMS – telecommunications revenue assurance – but was now happy.

Parts the President's speech are paraphrased below:

On the state of communications in Tanzania

The communications sector, particularly telephony communications is a strategic and key sector which is currently developing at an exponential pace globally. Statistics show that worldwide at least five billion people are using mobile phones and data users have reached 3.9 billion.

The communications sector has a catalyctic effect on economic and social programmes worldwide including fostering industrial production and promoting commerce. Most industries are now digitized and retail trade is now conducted electronically as e-commerce.

According to available statistics, the volume of global e-commerce transacted in 2017 totalled at least 2.3 trillion US dollars, overtaking transactions through the traditional stores and super markets.

In addition, the communications sector has led to the availability of hitherto inexistent services; for example the delivery of education and health services electronically – e-education and e-health. Commuting has been transformed by Uber and Taxify and electronic financial transactions are on the increase. The number of mobile phone services subscribers with mobile money accounts has reached 20.85 million; making Tanzania the leader in financial and economic inclusion among countries in Southern Africa.

The communications sector has created 28.5 million direct jobs, according to 2016 figures; and it is expected that in 2017 the sector will generate revenue totalling two (2) trillion US dollars. This has led some analysts to declare the sector as a new oil field or a new mine.

On the TTMS

Governments the world over have established regulatory bodies or have developed policies, enacted laws, introduced regulations and developed infrastructure and systems to facilitate regulation and proper management of this sector.

We in Tanzania have done exactly that; we have established a regulatory Authority – TCRA, developed policies, enacted laws and introduced different regulations and built infrastructure and systems such as TTMS which is being handed over to the Government today. It has capabilities for monitoring local and international communications traffic, including voice, data and short messages.

The system has seven modules; namely monitoring of quality of communications services, monitoring local and international traffic, perceptual evaluation speech quality and the detection of fraudulent termination of international communications in the country (illegal routes).

Others are a mobile money monitoring platform, device and IMEI detection and identification to ensure that all mobile communication devices connected to mobile networks are compliant in terms of international standards; and telecommunications revenue assurance.

This system has helped to verify the revenue accruing from telecommunications services.

The system is a new source of revenue. So far the Government has received 93,665,645,344 shillings. Without the system, this amount – 93 billion shilings – would have been pocketed by individuals. Some 82 billion shillings have been reserved at the Treasury and 11.407 billion has gone to COSTECH. This is a new source of revenue.

Telecommunications services companies have benefitted by receiving 173,950,484,211 shillings. The consultant has received 53,523,225,911 shillings and TCRA 13,380,806,477 shillings from the termination of international calls.

The system has enabled Tanzania to identify the number of gadgets connected to telecommunications networks and by December 2018 they were 27,938,000.

It has also led to the identification of IMEIs of devices used in communications. This has led TCRA to block 27,938,000 IMEIs of substandard, lost or stolen devices.

The system has also enabled Tanzania to monitor different mobile financial transactions through networks; and we have been informed that transactions totalling 139.2 trillion shillings – a monthly average of 11.6 trillion – passed through the networks.

This has enabled the Central Bank, the regulator of the financial sector to have information on transactions over networks.

On the government electronic payments system

He noted that out of 667 eligible Government institutions only 339 have been connected to the Government Electronic Payment Gateway (GePG).

He directed the Ministry of Finance to ensure that all government institutions are connected to the GePG.

He said he would be sadly surprised if these institutions, which are governmental and belong to the people continue to operate without being connected to the GePG.

The President said he would fail to understand the Ministers and the Permanent Secretaries in the parent ministries of these institutions. If they continue operating without being connected to the system it would only mean that they are determined to operate 'in the dark', he said.

We want everything to be open, he added.

The GePG has many benefits. Besides improving revenue collection the way TTMS has, it cuts red tape in collection, it reduces collection costs and discourages corruption.

For example, before being connected to GePG, the power company, TANESCO used to pay 38 billion shillings annually to electricity sales agents but is no longer paying that amount after connecting to the system. They are currently not paying a cent and save 93 billion shillings annually.

On the safe and responsible use of communications

He appealed to Tanzanians to use communications services responsibly.

This sector can bring benefits of harm to the user. It is just like when one buys a machette, a hoe, a knife or a gun. These tools are designed to enable people to conduct their affairs and to pursue development but have the potential for serious harm when misused.

Inspite of its numerous benefits, this sector can cause serious harm if misused. Some of the negative effects are an increase in criminal activities worldwide. It has also contributed to the deterioration of societal norms and morals.

He directed TCRA to apply regulations to curb misuse and to enhance SIM card registration by using biometric features as a way of mitigating against crime.

On electronic waste

Tanzania has many electronic equipment connected to telecommunications networks – handsets, computers and other gadgets.

Since we now have a system with which we can identify equipment connected to telecommunications networks it is high time TCRA started following up with the respective manufacturers as to their obligations per international treaties when it comes to the disposal of the equipment.

TCRA first world regulator on mobile money data

The consortium of Societe Generale de Surveillance S.A (SGS) and Global Voice Group S.A (GVG) (SGS/GVG) supplied the Tele-Traffic Monitoring System (TTMS) which was handed over to TCRA on 18th January, 2019. The project was implemented under public private partnership through build, operate and transfer (BOT) arrangement. This is the full text of the statement by CVG CEO James Claude at the handing over ceremony.

This ceremony marks an important milestone in Tanzania's ICT agenda.

As Global Voice Group officially transfers ownership of the TTMS infrastructures and systems to TCRA, one should not forget that the TTMS project itself, the innovative vision behind it, has always belonged to the government of Tanzania from day one and even long before that. It has been envisioned and clearly defined by Tanzanians who truly understood the paramount importance of ICTs as a driver of socio-economic development in Tanzania and who strived to secure effective means to oversee, protect, and promote the telecom industry to the benefits of all Tanzanians.

Over the last five years, all my team mates at Global Voice Group and myself took a great deal of pride in being instrumental in the achievement of this Tanzanian vision of telecom governance supported by technologies of the digital age. Your innovative spirit inspired us. It resonated very much with our strong commitment and relentless efforts to bridge the technological gap between regulatory authorities and a technology-driven telecom sector in constant evolution.

About six years ago, when TCRA selected us to provide technologies and services for their TTMS, based on our proven expertise and track record in delivering similar systems, they came out with an ambitious list of deliverables. We could tell, from day one, that these Tanzanian authorities really meant business and were determined to tackle the challenges of telecom governance in Tanzania.

First, TCRA required a system that would accurately measure in real-time and keep track of the telecom traffic handled and exchanged by all telecom operators in Tanzania, including the traffic going through their international gateways. We delivered this traffic measurement capacity; along with a proven solution to fight against fraud on international traffic that adversely impacts on the operators' turnover and the government's revenues.

Secondly, they required a system to effectively oversee the fast-growing market of mobile money services in Tanzania, not based on periodic and partial reports, but through real-time data collected from mobile money providers. We delivered this platform to TCRA. The Authority thereby became the very first regulator in the world to use a mobile money data system to oversee these services that play such an important role in Tanzania as a driver of economic development and financial inclusion.

Thirdly, they were determined to address the safety, security and economic issues related to stolen, counterfeited and non-compliant mobile devices that flooded the Tanzanian market. In compliance with their very specific requirements, we delivered a centralized system enabling TCRA to effectively control the handset population in collaboration with the industry in order to better protect the consumers and the licensed operators.

Fourth, there was a consensus among the Tanzanian authorities, including TCRA, the Tanzania Revenue Authority, and the government, that the transparency prescribed by Tanzanian laws should be more than mere wishful thinking, particularly with respect to revenue and tax compliance. TCRA, as the regulator of this vital sector of the Tanzanian economy, was determined to improve transparency to the benefits of all stakeholders, by requiring us to provide a system that would effectively and independently verify the revenues generated by the telecom industry. We delivered this system to TCRA. That, once again, set TCRA apart by becoming the very first regulator in the world to use data technologies in order to closely monitor the financial performance of this industry.

It has been a great honor and a tremendous experience for us to bring our technological contribution to this remarkable achievement. This hand over is just another milestone for the TTMS project. Under TCRA's leadership, this project will continue to evolve and expand its capabilities. We leave it to TCRA to define these future capabilities, as they so brilliantly did for the ones I just summarized.

I am fairly sure of one thing, however: this cutting-edge platform represents a solid foundation on which to build new exciting capabilities, as telecom networks are increasingly being used as the backbone of a dynamic and truly inclusive digital economy in Tanzania.

EPOCA Tele-traffic Regulations, 2018

As part of our coverage of the handing over of TTMS, we present the Teletraffic Regulations, under the Electronic and Postal Communications Act (EPOCA); published in March 2018. An electronic copy can be accessed on the TCRA website: www.tcra.go.tz

These Regulations shall apply to Network Facilities, Network Services and Application services licensees in respect of regulation of international and domestic tele-traffic revenue assurance.

In these Regulations, unless the context requires otherwise:-

"Act" means the Electronic and Postal Communications Act; Cap. 172;

"Authority" means the Tanzania Communications Regulatory Authority established under the Tanzania Communications Regulatory Authority Act;

"Call Detail Records in its acronym CDR" means information generated by telephone exchanges or any other telecommunication equipment which contain detailed information about the event originating from, terminating at or passing through the exchange or equipment;

"Calling Line Identity Presentation" or in its acronym

"CLIP" means a service that enables a person to view details of the calling party such as phone number, date and time on the subscriber's terminal equipment;

"data" means a representation of facts, concepts and instructions presented in a formalized manner suitable for communication, interpretation or processing by human beings or by automatic means;

"Director General" has the meaning ascribed to it by the Tanzania Communications Regulatory Authority Act;

"East African Community (EAC) Region" means the regional intergovernmental organisation of the Republics of Burundi, Kenya, Rwanda, South Sudan, the United Republic of Tanzania, and the Republic of Uganda and any other country granted membership under the EAC treaty;

"Gateway" means a switching system through which telecommunications traffic is sent and received with provisions for allowing physical monitoring of traffic flow;

"Interconnection Border Control System" or in its acronym "IBCS" means the traffic gate keeper installed at the domestic and international interconnect to record the traffic data entering into the networks; "international incoming tele-traffic" means all

successful and billed international incoming tele-traffic originating outside Tanzania and terminating in a national fixed and mobile telecommunications networks in Tanzania;

"monitoring" means observation and keeping records of teletraffic signalling for purposes of facilitating regulatory activities stipulated in these regulations;

"regional block" means East African Community (EAC) or Southern African Development Community (SADC);

"revenue assurance" means systems and processes in place to ensure that revenues for licensed service providers are declared with accuracy, completeness, and integrity;

"telecommunication" means any transmission, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems; "telecommunications traffic" means a profile of signs, signals, writing, images and sounds or intelligence of any nature flowing within a telecommunication network;

"Tele-traffic" means all kind of data communication traffic and telecommunication traffic;

"TTMS" means Tele-traffic Monitoring System.

Powers of the Authority

(1) For the purpose of monitoring Telecommunication, traffic the Authority shall establish a system for monitoring Tele-traffic.

(2) Notwithstanding the generality of sub regulation (1), the Authority shall:-

(a) initiate site surveys in order to determine and ascertain the aspects of feasibility or requirements for the inter-network connectivity;

(b) acquire, install, operate and maintain traffic monitoring and measurement devices at the licensees' premises;

(c) ensure transparent transit practices among licensees through gateways monitoring, billing system and service for all calls;

(d) verify the returns of licensees;

(e) establish procedures for billing and settlement;

(f) ensure and enhance tele-traffic revenue assurance

and analysis of the anti fraud test calls terminated in the country;

(g) conduct inspection at the licensee's premises to ensure compliance with these Regulations;

(h) request any data or information from the licensee pursuant to these Regulations;

(i) implement a monitoring system for mobile money transactions in compliance with the National Payment System Act;

(j) implement revenue assurance system for Electronic and Postal Communications (Tele-traffic) telecommunication services in the United Republic; and

(k) take actions against non-compliance with these Regulations.

(3) The data or information requested under these Regulations, shall be provided by the licensee within fourteen days.

(4) A licensee who fails to submit the requested data or information within the prescribed time without a reasonable cause commits an offence and upon conviction, shall be liable to pay a fine of not less than five million shillings per day for every day after the fourteen days up to the day the information or data is submitted to the Authority.

(5) In carrying out tele-traffic monitoring activities, the Authority shall ensure availability of adequate regulatory tools.

Disclosure of information.-

(1) The Authority or any person employed by the Authority shall not disclose any information received or obtained during the exercise of its powers or performing its duties under these Regulations.

(2) Sub-regulation (1) shall not apply where the information is required:-

(a) by any law enforcement agency, court of law or other lawfully constituted tribunal;

or (b) for purpose of national security:-

(3) Notwithstanding the provisions of this regulation, any authorized person who executes or assists in the execution of a directive and obtains knowledge of any information may:-

(a) disclose such information to another law enforcement officer to the extent that such disclosure is necessary for the proper performance of the official

duties of the authorized person or the law enforcement officer receiving the disclosure;

or (b) use such information to the extent that it is necessary for the proper performance of official duties.

Powers to collect revenue generated

6.-(1) The Authority shall collect from licensee revenue generated from the minimum rate of international incoming tele-traffic as specified in items 3 and 4 of the First Schedule,

(2)The Authority shall, in collecting revenue generated under sub regulation (1), issue an invoice with the following components:-

(a) the number of minutes;

(b) the amount owed based on the specified per minute fee; and

(c) the due date for payment.

(3) Every licensee shall honour invoices in their entirety and payment shall be made not later than thirty days from the date of issuance.

(4) Any query relating to an invoice shall be raised and communicated to the Authority within two-working days from the date of receipt and all such queries shall be addressed within seven working days.

(5) Where there is late payment to the Authority by a licensee, the Authority shall impose a penalty of 10% of the amount due and in the case of a delay of payment after seven days the Authority shall impose a further penalty of 2% for every day during which the payment is not made.

Fraudulent traffic

7.-(1) A person who uses telecommunication facilities or services:-

(a) with the intention of avoiding payment;

(b) without correct payment or with no payment; or

(c) by making someone else pay, or by using a wrongful or criminal deception in order to obtain a financial or personal gain from the use of those facilities or services, commits an offence of fraudulent traffic.

(2)Notwithstanding sub-regulation (1), international incoming telecommunication traffic is considered as fraudulent when:-

(a) it is managed by an entity without the licence

or authorisation required for the management of international telecommunications traffic issued by the Authority;

(b) it is managed by a licensee but not declared to the Authority;

(c) it is managed by a licensee but charged at a rate below the minimum rate as provided for in the Schedule to these Regulations;

(d) it is traffic by third parties or carriers that gets terminated to the United Republic of Tanzania where a network licensee is unable to bill or collect payment;

(e) there is a reasonable expectation that an end user is not likely to pay the telephone bill because the calls are disputed as not originating from the telephone line for which the respective end user is responsible; or

(f) any other fraudulent act as may be determined by the Authority.

(3) The Authority shall provide the necessary regulatory surveillance for detection and handling of fraudulent tele-traffic.

(4) Subject to sub regulation (3), the Authority shall, where there is fraudulent trafficking, direct or order the licensee to do any of the following:-

(a) effectively carry out or comply with any fraud surveillance obligations;

(b) disclose any fraud user SIM;

(c) deactivate any fraud user SIM;

(d) provide for a balance reporting on a fraud user SIM;

(e) sharing of any other fraud information and those related to the SIM;

(f) report any fraud or related criminal activity to the Authority and any other law enforcement institutions for further action.

(5) The delivery and termination of incoming teletraffic by licensee, shall be limited to the routing of calls to either customers of their own network or the customers of other licensees' with whom they have an interconnection agreement for the provision of transit services for the incoming teletraffic.

Function of Tele- traffic monitoring system

8. Without affecting quality of service of licensee, teletraffic monitoring system shall:-

(a) monitor quality of service;

(b) generate reliable statistics for both, local on-net and off-net within regional block and international teletraffic;

(c) provide terminal identification details;

(d) provide mobile money transaction information;

(e) provide fraudulent SIM card profile;

(f) track and detect fraud through an anti-fraud system and services within international gateway traffic and cause the bypass fraud to be blocked;

(g) collect CDR without any interception of contents of communications such as voice or SMS;

(h) detect new mobile devices that sign onto any licensee's network in the United Republic;

(i) monitor licensees' mobile money gateways and transactions in order to capture transaction information from the network licensee's USSD Centre; and

(j) Provide revenue statistics for telecommunication services.

PART III LICENSEE'S OBLIGATIONS
Obligation to provide information

9.-(1) Every licensee shall provide the Authority with the following information:-

(a) the CDR for all domestic on-net and off-net traffic and international inbound and outbound telecommunications traffic, including transit and international telecommunications traffic in a format prescribed by the Authority;

(b) statements by international carriers or licensee for the tele-traffic terminated in the United Republic or invoices sent to international carriers or licensee;

(c) the number of minutes and revenue for teletraffic terminated to each international carrier contracting the termination service with the licensee; and

(d) any other necessary information that related to the management of the licensee's networks for the provision of data, SMS, voice services, including the licensee's networks signalling data links, recorded tele-traffic, contracts and invoices with other carriers.

(2) The data and CDR referred to under this regulation shall be submitted to the Authority not later than the sixth calendar day after the end of each calendar month.

(3) The data and CDR under sub regulation (2) shall

portable device such as external memory or compact disc (CD).

Authority to conduct survey and inception

10 (1) A licensee shall permit the Authority or any person acting on the Authority's behalf to:-

 (a) conduct a survey in order to facilitate installation of the Traffic Monitoring System in accordance with these Regulations;

 (b) conduct site inspection in order to assure the compliance with these Regulations; and

 (c) conduct site inspection in order to assure the accurate reporting of all mobile money transactions for fiscal compliance purposes.

(2) Any site survey under sub-regulation (1), shall be conducted together with or in the presence of a licensee or his authorized representative.

Signalling data

11.-(1) A licensee shall keep signalling data necessary for the management of tele-traffic.

(2) The signalling data under sub regulation (1) shall include origin, destination, service information, time and path of the communication.

(3) Licensee shall notify the Authority in advance on any upgrades or changes of their signalling system with detailed timelines that may make the TTMS system to function properly.

Obligations on charging rates

12.-(1) A licensee shall:-

 (a) impose a higher premium tariff or block on all international inbound traffic without proper CLIP in order to encourage international carriers to comply with CLIP recommendations and standards;

 (b) apply the minimum rate for termination of international inbound voice tele-traffic in the United Republic as specified in the Schedule to these Regulations;

 (c) apply the minimum rate for termination of international inbound transit voice traffic in the United Republic as specified in the Schedule to these Regulations;

 (d) collect all revenues generated from the international incoming traffic transited through international gateways within United Republic of Tanzania which terminate on national networks and share the revenue equally between the gateway operators and the terminating networks;

 (e) comply with the transit traffic fee, that applies as per rate specified in the agreements between the licensee and international carriers;

 (f) comply with international inbound transit traffic terminated in the United Republic, as per rate specified in the agreements between licensees and submit it to the Authority;

 (g) not charge a lesser rate than that specified in the Schedules to these Regulations, failure to which, the licensee shall be liable to pay to the Authority a penalty of twice the difference between the specified rate and the rate actually charged;

 (h) not charge its customers a higher fee for its service because of its adoption and application of the minimum rates for tele-traffic as specified in the schedules; and

 (i) not increase the fees for its services resulted as a minimum rate for international incoming telecommunications traffic, and whoever increased the tariff shall be liable to pay a penalty twice the sum of the value of the increase to the Authority.

(2) The transit fees or charges for international incoming tele-traffic referred to under Sub-regulation (1)(b) and (c), shall be determined and agreed by the agreement made between the licensees and international carriers.

(3) Where a licensee transits an international incoming traffic from outside Tanzania through an international gateway within United Republic of Tanzania and terminates it on national networks, such traffic shall remain an international traffic up to its final destination, irrespective of its origin.

Monitoring process

13.-(1)-The Authority shall be responsible for monitoring licensees:-

 (a) monthly trend of tele-traffic international, domestic on-net and off-net in the United Republic; and

 (b) parameters relating to quality of service and fraud detection.

 (2) The Authority shall have the mandate to collect any information from the licensees in order to ascertain, inter alia, quality of service and volume of traffic carried over the network of the licensees.

 (3) In monitoring telecommunications traffic, the licensee shall:-

(a) allow the Authority or any entity acting on its behalf to install and maintain necessary equipment in, on, upon or under licensee's network;

(b) collaborate by providing all the required support and space for the installation of the monitoring system in their premises; and

(c) facilitate the installation of data transmission equipment between the Authority's monitoring system installed at their switch centres and the Authority's main operating centre.

(4) The Authority shall ensure that call detail records data are:-

(a) collected for the exclusive purpose of monitoring compliance with these regulations; and

(b) not transmitted or given to third parties either public or private, except as permitted by law.

Installation of devices and their safety

14.-(1) Where a device is installed in, on or under the licensee's network, the licensee shall be required to exercise due care on the safety of such device.

(2) Where a device installed under this regulation is tampered, destroyed, or damaged, the licensee shall be held liable to:-

(a) pay for the cost of replacement of the tampered, destroyed or damaged device; and

(b) pay the amount payable to the Authority as specified in the Schedules based on the previous highest returns plus 10% of the returns during the period the device remains tampered, destroyed or damaged.

(3) In case where the device is destroyed or damaged by natural calamity, the Authority shall take responsibility.

(4) Where a device interferes with the licensees network, all concerned parties shall, in good faith, take reasonable measures to resolve the problem.

Control of International VoIP

15. The Authority shall adopt measures for the control of International VoIP gateways in the United Republic of Tanzania.

Interference to the network

16.-(1) The International Border Control System and any co-location device, for the purposes of TTMS, shall not cause any interference to the network licensees' equipment, plant, facilities, networks and the equipment of any other licensee in the co-location space, including when installing the International Border Control System equipment.

(2) There shall be a transmission link between licensees and the Authority Network Operation Centre that which is managed and operated by the Authority or entity operating on its behalf.

(3) Subject to sub-regulation (1), where it occur any interferences; all concerned parties shall take, in good faith, reasonable measures to resolve the problem promptly.

Physical access to the colocation space and the inspection

17.-(1) Procedure regarding the physical access to the co-location space and the inspection of the co-location space and equipment by the Authority, representatives or its staff shall be determined by the Authority at the time of the installation of the IBCS or any related tele-traffic measurement equipment, anti-fraud software or equipment.

(2) In the event of any direct damage to the co-location plant, network equipment or facilities arising out of or during the course of installation, operation, maintenance, replacement or repair of the co-located facility or network in the premises of a licensee, the damage shall be reported to the Authority, its representative or staff and the network equipment or facility shall be, subject to any agreement, rectified without delay.

Operation or maintenance of colocation equipment

18.-(1) The Authority or its representative shall be responsible for the operation or maintenance of its co-location equipment.

(2) The Authority and licensees shall ensure that their staff observe and comply with all applicable or specified safety rules and conditions for the purposes of maintaining the installed equipment.

Licensees to comply with directives

19. Every licensee shall comply with the directives or orders of the Authority issued under these Regulations or matters affecting any of its provisions or the implementation.

PART IV MISCELLANEOUS PROVISIONS

Minimum rate for telecommunications traffic

20.-(1) A licensee shall charge the minimum rate for the teletraffic in the manner prescribed in the Schedule.

(2) The revenue collected from the minimum rate for the international inbound tele-traffic shall be distributed to the licensee, Authority and the Government in the manner prescribed in the Schedules.

Establishment of Committees

21.-(1) The Director General shall establish committees for the purpose of implementing these Regulations.

(2) The members of the committees shall be nominated by the Authority after consultation with the Ministry.

(3) In appointing members, consideration need to be taken to at least include to the committee:-

(a) a representative from the Ministry responsible for communications;

(b) a representative from the Ministry responsible for Finance;

(c) a representative from the Bank of Tanzania;

(d) a representative from the Revenue Authority;

(e) a representative from the national data Centre

(f) a representative from EGA;

(g) representatives of Chief Executive Officers of licensees connected to the traffic monitoring system; and

(h) three representatives from the Authority.

(4) The Committee shall work under the directive of the Authority and shall be responsible for:-

(a) providing advice to the Ministry and the Authority on the efficient operation of Tele-traffic Monitoring System; and

(b) carry out performance evaluation of the Tele-traffic Monitoring System.

Appeals

22. A person aggrieved by the decision of the Authority under these Regulations, may within thirty days appeal to the Fair Competition Tribunal.

Reviews

23. The rate and distribution in the schedule to these regulations may be reviewed from time to time depending on the development of the communication sector.

Offences and penalty

24.-(1) Any person, who contravenes the provisions of these Regulations, shall be liable on conviction to a fine of not less than five million shillings or to imprisonment for a term of not less than twelve months or to both.

(2) Notwithstanding sub regulation (1), where a person commits an offence under these Regulations, the Director General may, where such person admits in writing compound such offence by collecting from that person a sum of money not exceeding the amount of the fine prescribed for the offence.

SCHEDULE
(Made under Regulation 12 and 20)
MINIMUM RATE FOR INTERNATIONAL INBOUND TRAFFIC

No.	Subject Matter	Rate Per Minute [US Cents]	Percentage Rate [%]
1	Minimum Rate for termination in TANZANIA of all international inbound (incoming) telecommunications traffic	25	100
2	The licensees' share of per minute of incoming call	13	52
3	Revenue to be collected by TCRA and payable to the Treasury	7	28
4	TCRA's service fees including payment for managing and operating the system.	**5**	**20**

TTMS hand over album

One of TCRA's most important regulatory tools was handed over to the Authority on January 18, 2019 in a colourful ceremony at Mawasiliano Towers, Dar Es Salaam. The guest of honour was the President, Dr John Pombe Joseph Magufuli, who delivered a key note speech. This is a pictorial report.


The welcoming party. From right: Minister for Works, Transport and Communications; Hon. Isack Kamwelwe; Minister for Finance and Planning, Dr Philip Mpango, TCRA Board Chairman Dr Jones Killimbe, Director General Eng. James M. Kilaba and Kinondoni District Commissioner, Hon. Kisari Makori. BELOW: The President arrives at the event grounds.

ABOVE: The Speaker of the National Assembly, Hon. Job Ndugai in a jovial mood.
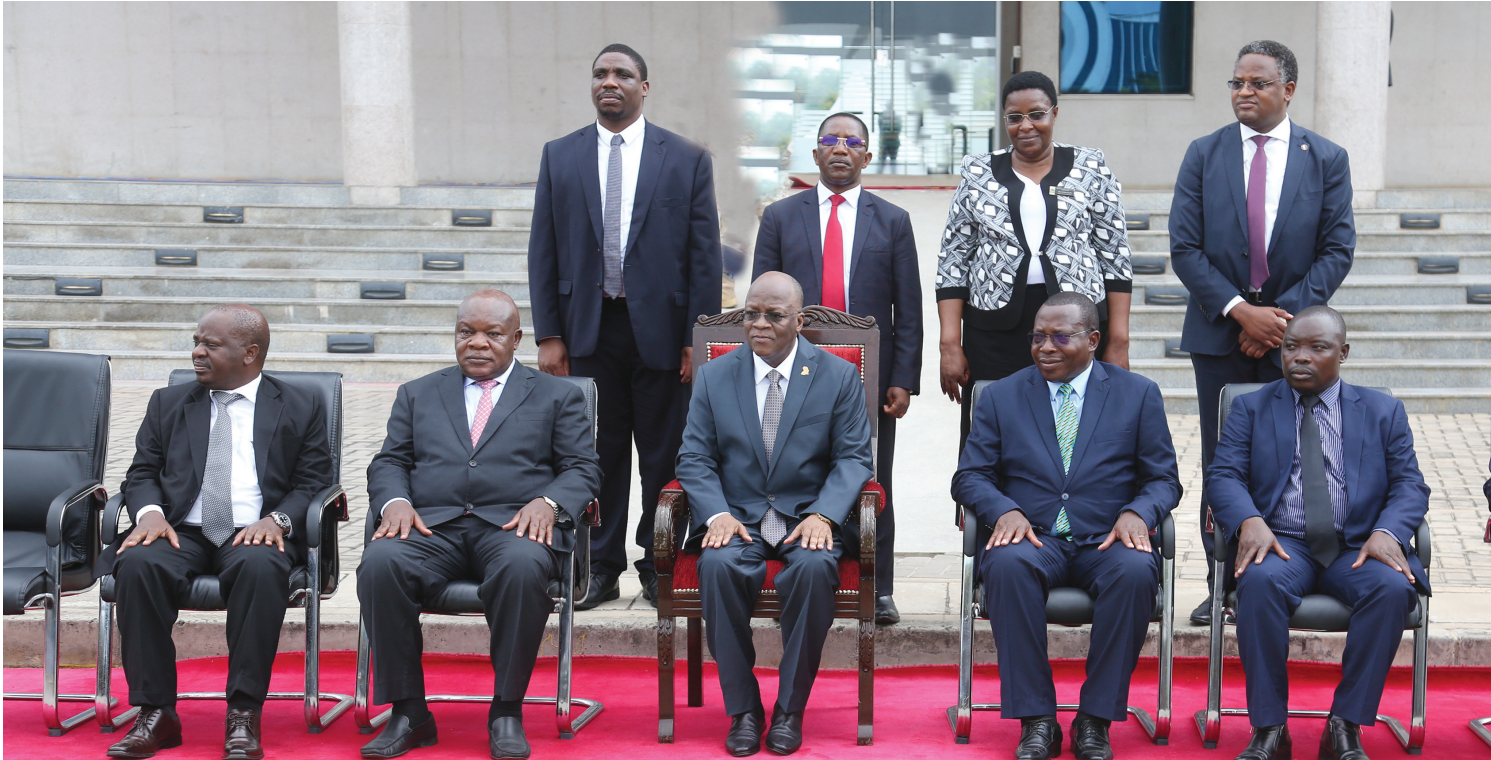
ABOVE: The President with the Speaker, Ministers and Permanent Secretaries. Seated, from left: Hon. Speaker Job Ndugai Kamwelwe (Minister for Works, Transport and Communications); The President; Hon Dr Philip Mpango (Minister for Fina Hon . Suleiman Kasoko (Chairman, Parliamentary Commitee on Infractructure) ans Hon Kisari Makori (Kinondoni Distr Standing, from left: Mr Dotto James (Permanent Secretry, Ministry of Finance and Planning); Dr. Bernard Kibesse (Bank Deputy Governor); Dr Maria Sasabo (Permanent Secretary Ministry of Works, Transport and Communications and Dr. Ji Permanent Secretary, Communications.

RIGHT: A group photograph with the TCRA management. Seated with the President are, from left, Eng. James M. Kilaba (TCRA Director General); Dr Jones Killimbe (Board Chairman); Hon. Speaker Job Ndugai; Hon Isack Kamwelwe (Minister for Works, Transport and Communications); Hon Dr Philip Mpango (Minister for Finance and Planning), Hon. Suleiman Kasoko (Chairman, Parliamentary Commitee on Infractructure) and Hon. Kisari Makori (Kinondoni District Commissioner).

Standing, from right, are: Dr Raynold Mfungahema (Director, Consumer and Industry Affairs); Mr John Daffa (Director, Enforcement and Compliance); Ms. Napalite Magingo (Head, Quality Assurance); Ms. Connie Francis (Director, ICT Applications and Services), Mr Alinanuswe Kabungo (Director, Corporate Resoures Management); Mr Boniface Shoo (Head of Systems); Mr Johannes Karungura (Director, Legal Services) and Mr Frederick Ntobi (Head, Corporate Communication).

ii; Hon Isack
ance and Planning),
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e of Tanzania
m Yonazi, Deputy

TCRA Board Chairman Dr Jones Killimbe (above) and Director General James M. Kilaba (below) welcome the President to Mawasiliano Towers grounds.

Representatives of Societe Generale de Surveillance S.A (SGS) and Global Voice Group S.A (GVG) (SGS/GVG), the consortium that partnered with TCRA in the TTMS project with the Authority's Director of Legal Services, Mr Johannes Karungura (first left)

Leaders of different religious denominations participated and offered prayers

Hili ni toleo la Kiswahili la jarida la The Regulator, linalotolewa mara nne kwa mwaka na Mamlaka ya Mawasiliano Tanzania (TCRA), taasisi ya serikali inayosimamia mawasiliano ya kielektroniki na posta nchini. Sekta ya mawasiliano inajumuisha simu, intaneti, mtandao wa kompyuta na kadhalika, huduma za posta na usafirishaji wa vipeto katika Jamhuri ya Muungano wa Tanzania na pamoja na huduma za utangazaji (kama vile redio na televisheni) kwa Tanzania Bara tu. Zanzibar ina Tume inayosimamia utangazaji. Kazi za TCRA zimefafanuliwa kwenye Sheria ya 2003 iliyoiunda Mamlaka na pia kwenye Sheria ya Mawasiliano ya Kielektroniki na Posta EPOCA) ya 2010.

Namna ya kuwasilisha makala, maoni na picha

Mhariri anakaribisha makala, maoni na picha kuhusu masuala ya mawasiliano ya kielektroniki na posta. Makala ziwe hazijachapishwa au kutolewa mahali pengine.

Zichapishwe kwa ukubwa wa herufi (font) 12; nafasi ya kawaida na ziwe na ukubwa usiozidi kurasa nne za A-4. Picha zihifadhiwe katika mfumo wa JPEG.

Makala zitumwe kwa Mhariri, Jarida la Regulator, TCRA, Mawasiliano Towers, Namba 20 Sam Nujoma, S.L.P 474, 14414 Dar es Salaam.

Barua pepe: regulator.magazine@tcra.go.tz.

Barua ya Mhariri

Kwa kiasi kikubwa, maudhui katika toleo hili yako kwenye lugha ya Kiswahili. Hii imetokana na kuwepo kwa tukio kubwa la kiusimamizi wa sekta: kukabidhiwa Serikalini, kupitia TCRA, kwa mfumo wa kusimamia na Kuratibu Mawasiliano ya Simu; yaani TTMS.

Pamoja na kuwa nyenzo muhimu katika shughuli za TCRA, mfumo wa TTMS umekuwa chanzo kipya cha kuaminika cha mapato; ambapo tangu ufungwe mwaka 2013, umeshawezesha serikali kupata shilingi bilioni 93.7 kutokana na ada za simu za kimataifa zinazoingia Tanzania. Aidha, makampuni yanayotoa huduma za simu yamepata jumla ya shilingi 173,950,484,211 ambazo zimelipiwa kodi stahiki Serikalini.

Sherehe za makabidhiano ya TTMS zilifanyika tarehe 18 Januari, 2019 na kusimamiwa na Mheshimiwa Rais wa Awamu ya Tano, Dkt. John Pombe Joseph Magufuli.

Toleo hii lina makala kuhusu TTMS; hotuba ya Mheshimiwa Rais na ya Waziri wa Ujenzi, Uchukuzi na Mawasiliano, Mh. Mhandisi Isack Kamwelwe na Waziri wa Fedha na Mipango, Mh. Dkt. Philip Mpango. Aidha kuna maelezo ya Mkurugenzi Mkuu wa TCRA, Mhandishi James M. Kilaba.

Uwazi wa takwimu mtandaoni

Muhtasari wa taarifa ya Mfumo wa Kusimamia na Kuratibu Mawasiliano ya Simu (Tele-Traffic Management System -TTMS)

Mfumo wa kusimamia na Kuratibu Mawasiliano ya Simu (Tele-Traffic Management System -TTMS) una uwezo wa kubaini takwimu mbalimbali zinazopita katika mitandao ya mawasiliano.

Serikali kupitia Mamlaka ya Mawasiliano Tanzania iliweka mfumo huo ambao umechangia kuongeza ufanisi katika uratibu wa utekelezaji wa Sheria na Kanuni zinazosimamia sekta ya mawasiliano ikiwa ni pamoja na kwenda sambamba na mabadiliko ya kasi yanayotokea katika sekta ya mawasiliano duniani kote.

Mifumo ambatishi (modules) ya TTMS

TTMS inajumuisha mifumo ambatishi (modules) mbalimbali ambayo inaiwezesha TCRA kusimamia majukumu yake ya kiudhibiti pamoja na kuwezesha uhakiki wa mapato ya watoa huduma za mawasiliano. Kupitia mifumo ambatishi hiyo ya TTMS, TCRA inaweza:

1.Kusimamia ubora wa huduma za mawasiliano ya simu (Quality of Service) kwa simu kutoka mtandao mmoja kwenda mtandao mwingine na hivyo kuboresha viwango vya huduma hizo;

2.Kupata takwimu za mawasiliano ya simu za ndani yaliyofanyika baina ya watoa huduma za mawasiliano ya simu (kutoka mtandao mmoja kwenda mwingine – off-net calls), simu za ndani ya mtandao mmoja (on-net calls), pamoja na simu za kimataifa zinazoingia na kutoka hapa nchini kwa mujibu wa Kanuni za Mawasiliano.

3. Kubaini mawasiliano ya simu za kimataifa zinazoingizwa kwa njia za ulaghai (illegal routes). Mawasiliano ya simu za kimataifa kwa njia ya ulaghai yameweza kupungua kutoka asilimia 65 mwaka 2013 hadi kufikia chini ya asilimia 10 mwaka 2018.

Upatikanaji wa mapato kwa mawasiliano ya simu za kimataifa zinazoingia na kuishia hapa nchini unachangiwa kwa kiasi kikubwa na kuwepo kwa mfumo ambatishi wa *antifraud management system*.

Mahakama imeshawatoza jumla ya shilingi bilioni nane (8) kama faini watu waliopatikana na hatia kwa kosa la kuingiza mawasiliano ya simu za kimataifa hapa nchini kwa njia zisizo rasmi.

Hakuna ulaghai kwa simu za ndani (on-net and off-net calls) kwa kuwa watoa huduma wana mifumo thabiti kusimamia mitandao yao.

4.Kufuatilia miamala ya kifedha inayopita kwenye mitandao ya watoa huduma na kutoa taarifa hizo Benki Kuu ya Tanzania (BoT) kama Mdhibiti wa huduma za kifedha, na Mamlaka ya Mapato Tanzania (TRA) kama Mkusanyaji wa kodi.

Mfumo ambatishi wa *mobile money* ndio unaotumika ambapo faida zake ni pamoja na: -

(i)Kurahisisha ukokotoaji wa kodi zinazotokana na miamala ya fedha inayopitia kwenye mitandao ya mawasiliano inayokusanywa na TRA,

(ii)Kuendelea kutoa takwimu mbalimbali za miamala, na hivyo kurahisisha usimamizi wa sekta ya fedha unaofanywa na Benki Kuu ya Tanzania (BOT).

BoT na TRA wamepewa uwezo wa kuingia katika Mfumo huu na kupata taarifa zote za mfumo huu wa TTMS.

5. Kutambua Namba Tambulishi (IMEI) za simu za kiganjani na kuhakikisha kuwa vifaa vyote vinavyounganishwa na mitandao ya watoa huduma vinakidhi viwango vya kimataifa na vina ubora na ni salama kwa watumiaji kwa mujibu wa Kanuni. Takwimu za mwezi Disemba 2018 zinaonesha idadi ya namba tambulishi za vifaa vilivyounganishwa na mitandao ya watoa huduma ni 27,938,574.

Mfumo ambatishi wa *Central Equipment Identification Register (CEIR)* unawezesha kutambua taarifa za laini za simu (SIM card profile) na namba tambulishi za vifaa vya mawasiliano. Aidha, mfumo ambatishi wa CEIR umewezesha kuzifungia simu 1,677,750 zilizokuwa zikitumika kwenye mitandao mbali mbali. Idadi hii inajumuisha simu zilizobainika kutokufikia viwango vinavyotakiwa, simu zilizonakiliwa namba tambulishi pamoja na zile zilizoripotiwa kuibwa au kupotea.

6. Kutoa takwimu zinazohusiana na matumizi ya huduma za mawasiliano (simu za sauti, matumizi ya data, na ujumbe mfupi).

7. Kuhakiki mapato yatokanayo na huduma za mawasiliano ya simu pamoja na huduma nyingine zinazotumia mitandao ya makampuni ya simu za mkononi kufanya miamala ya kifedha au kulipia huduma nyingine.

Mfumo ambatishi wa telecommunications *revenue assurance system (TRAS)* unatupatia takwimu mbalimbali zinazotoa taarifa halisi juu ya matumizi ya huduma za mawasiliano katika maeneo mbalimbali ya nchi yetu na hivyo kusaidia kuongeza ufanisi katika kupanga na kusimamia sekta ya mawasiliano.

Taarifa zinazopatikana ni pamoja na:-
i. Takwimu zinazohusiana na matumizi ya huduma za mawasiliano.
ii. Takwimu zinazohusiana na gharama (tozo) za huduma za mawasiliano.
iii. Takwimu zinazohusiana na nyongeza ya salio au muda wa maongezi.
iv. Takwimu zinazohusiana na huduma za ziada *(Value Added Services).*
v. Takwimu zinazohusiana na huduma za kupiga simu kwa namba ya nchini ukiwa nje ya Tanzania *(Roaming Services).*
vi. Takwimu zinazohusiana na mauzo ya mtoa huduma.

2.0 Utaratibu uliotumika kuweka mfumo
Mradi wa Mfumo huu wa TTMS umetekelezwa kwa kutumia utaratibu wa kujenga, kuendesha na kuhamisha umiliki (*build, operate and transfer* - BOT) na ulianza kufanya kazi rasmi tarehe 1 Oktoba 2013.

4.0 Mapato kupitia mfumo wa TTMS
4.1 Kupitia Simu za Kimataifa
Mfumo una uwezo wa kutambua idadi ya dakika zote za simu za kimataifa zinazoingia hapa nchini, hivyo kujua mapato halisi yatokanayo na simu hizo kulingana na tozo kwa kila dakika.

Kwa kipindi cha miaka mitano (Oktoba, 2013 hadi Septemba, 2018), kupitia mfumo huu jumla ya shilingi 334,520,161,944.23 zilikusanywa na watoa huduma kama mapato kwa simu za kimataifa zinazoingia na kuishia hapa nchini.

Mgawanyo wa fedha hiyo ulikuwa kama ifuatavyo:-

Na	Mnufaika	Kiasi (shilingi)
	Watoa Huduma wanane (8)	173,950,484,211.00
	Serikali	93,665,645,344.55
	Hazina	82,258,497,234.51
	COSTECH	11,407,148,110.04
	Mkandarasi	53,523,225,911.08 (Sawa na dola za Kimarekani 27,741,588.05)
	TCRA	13,380,806,477.69

4.2 Kupitia Miamala ya kifedha
Kuongezeka kwa huduma zinazotumia mitandao ya watoa huduma (kulipia bili za maji, umeme, malipo ya bidhaa mbalimbali pamoja na tiketi za usafiri), kumekuwa chachu ya ongezeko la miamala, fedha zinazopita kwenye mfumo huu pamoja na ada za miamala.

Katika kipindi cha mwezi Novemba, 2014 hadi Septemba 2018, idadi ya miamala ya kifedha 7,701,843,129 ilifanyika, ambayo ilizalisha TZS 2,182,337,995,500 kama ada ya miamala, na hivyo kuipatia Serikali kodi stahiki kutokana na ada za miamala hiyo.

5.0 Utayari katika usimamizi na uendeshaji wa TTMS
Utaratibu wa Mkandarasi kukabidhi mfumo wa TTMS kwa TCRA ni sehemu ya mkataba wa TTMS. Kwa mujibu wa mkataba, Mkandarasi na TCRA watasaini makubaliano ya kuhakikisha kuwa mfumo wa TTMS unaendelea kufanya kazi kama ilivyokusudiwa kwa miaka miwili (miezi 24) baada ya ukomo wa mkataba. Serikali kupitia TCRA imejijengea uwezo wa ndani na tayari uendeshaji wa mfumo huu kwa sasa unafanywa na wafanyakazi wa TCRA.

6.0 Uwezo wa TTMS na fursa mpya kupitia mfumo huo

Kukua kwa teknolojia ya mawasiliano pamoja na kuongezeka kwa simu zenye uwezo wa kutumia data, kumeongeza matumizi ya mitandao ya kijamii kama vile *Skype, Google Voice, Viber, Talktone, Whatsapp, Facebook* na mingine mingi na matumizi ya simu zinazopigwa kwa kutumia data.

TCRA itaendelea kufuatilia kwa makini changamoto zitokanazo na huduma hizi mpya, hususan zinazowezeshwa na matumizi ya intaneti/data zijulikanazo kama *over the top services – OTT* bila kuathiri ushindani, ubunifu na uwekezaji kwa nia ya kunufaika na fursa zinazotokana na teknolojia ya habari na mawasiliano.

Kwa kuzingatia kuwa teknolojia ya mawasiliano inabadilika kila mara, mfumo huu utaendelea kuboreshwa zaidi kwa kuongezewa wigo (*scope*) ili uweze kusimamia mawasiliano yanayotumia data kutoa huduma mbadala za simu za sauti na ujumbe mfupi kwa lengo la kuongeza mapato kwa Serikali.

Pia, mfumo unaweza kuongezewa uwezo ili utuwezeshe kutoza kiasi cha fedha kwa watengenezaji wa vifaa vya mawasiliano ya ki-elektroniki ili kutuwezesha kusimamia na kushughulikia vifaa hivyo vinapomaliza muda wake wa matumizi (*end-of-life management*). Kwa mfano, utaratibu unaweza kuwekwa kwa watengenezaji wa simu hizi kuchangia gharama za kuchakata taka zinazotokana na vifaa hivi vya kielektroniki pale vinapofikia ukomo wa kutumika.

Kwa kuwa mfumo wa TTMS unawezesha kutambua idadi ya simu zote zilizounganishwa pamoja na watengenezaji (*manufacturers*) wa simu hizo, utaratibu wa watengenezaji kulipia gharama utawezeshwa na takwimu kutoka kwenye mfumo huu.

7.0 Hitimisho

Mfumo wa TTMS unatuwezesha kupata takwimu mbalimbali za mawasiliano pamoja na gharama zinazotokana na huduma za mawasiliano. Serikali kupitia TCRA itaendelea kuangalia mahitaji mengine yanayoibuka kutokana na mabadiliko ya teknolojia na kutafuta njia mahsusi za usimamizi.

Rais Dkt John Pombe Joseph Magufuli kwenye picha na wakandarasi wa Societe Generale de Surveillance S.A (SGS) na Global Voice Group S.A (GVG) (SGS/GVG) waliofunga mfumo wa TTMS (waliosimama) katika sherehe ya kuukabidhi kwa Serikali. Waliokaa na Mh. Rais, kutoka kushoto, ni Dkt Jones Killimbe (Mwenyekiti wa Bodi ya TCRA); Spika, Mh. Job Ndugai; Mh. Mhandisi Isack Kamwelwe (Waziri wa Ujenzi, Uchukuzi na Mawasiliano); Mh. Dkt Philip Mpango (Waziri wa Fedha na Mipango), Mh. Suleiman Kasoko (Mwenyekiti , Kamati ya Bunge ya Miundombinu) na Mh. Kisari Makori (Mkuu wa Wilaya ya Kinondoni).

Tunu za uwazi, ufanisi, uaminifu

Hotuba ya Rais, Dkt John Pombe Joseph Magufuli katika sherehe za kukabidhi kwa Serikali mfumo wa kusimamia na kuratibu mawasiliano ya simu (TTMS))

Kwanza kabisa naomba kuanza kwa kumshukuru Mwenyezi Mungu aliyetuwezesha kukutana hapa leo. Lakini pia nawashukuru sana Waheshimiwa viongozi wa dini mlioko hapa kwa maombi mazuri mliyoyatoa kwa niaba ya Watanzania wote katika kumwomba Mwenyezi Mungu ili tuendelee kuwa chini ya ulinzi wa Mwenyezi Mungu katika shughuli hii na katika shughuli nyingine zijazo.

Aidha nawashukuru Wizara ya Ujenzi,Uchukuzi na Mawasiliano pamoja na uongozi wa TCRA kwa kuweza kunikaribisha ili niweze kushiriki nanyi katika hafla hii muhimu ya makabidhiano haya ya mfumo wa kusimamia na kuratibu mawasiliano ya simu (tele-traffic management system – TTMS kutoka kwa makandarasi kampuni ya SGS na GVG kwenda TCRA. Ninawashukuru sana.

Leo ndugu zangu ni mara yangu ya kwanza kushiriki shughuli iliyoandaliwa na Mamlaka hii tangu nimekuwa Rais. Kwa hiyo napenda kuchukua fursa hii kuwapongeza kwa kazi kubwa ya kusimamia sekta ya mawasiliano nchini.

Nakumbuka mwanzoni wakati ninaingia madarakani sikuridhishwa na utendaji kazi wa taasisi hii. Kama alivyozungumza Mheshimiwa Spika, kulikuwa na mchezo mbaya sana. Na kweli Tanzania tumeibiwa mno. Hakuna siri: tumechapwa kweli. Tumeliwa kweli. Tumia maneno yoyote ya kuonyesha kwamba tumedhulumiwa vya kutosha.

Kwa hiyo nilipoingia madarakani mwaka 2015 mwishoni niliamua kwa makusudi kuutafuta mkataba, hasa wa mkandarasi. Mkataba ambao ulikuwa *original* ulifutwa. Ukafichwa. Ukapotezwa. Kwa hiyo kipengele kilichohusu kukusanya fedha kwenye makampuni haya kilikuwa hakipo kwenye mkataba. Nikatumia mbinu zangu na vyombo vya ulinzi vya Tanzania ambavyo vinajua kuchokonoa vizuri sana; ule mkataba *original* ukapatikana.

Nilichofanya aliyekuwa Mkurugenzi Mkuu, Ndugu Ally Simba nikatengua uteuzi wake; tukamtoa kwanza.

Baadae tukapeleka *ammendment* kwenye Bunge Mheshimiwa Spika na Wabunge wakakiweka hicho kipengele ambacho kilikuwa kimefutwa kwa ujanja ujanja uliofanywa na baadhi ya viongozi wakiwemo viongozi wa serikalini.

Kiliporudishwa tukamwambia mkandarasi kurudi kutimiza yaliyoko kwenye mkataba wake.

Nawashukuru sana wakandarasi walielewa kwa sababu walijua nia yetu ni kwenda wapi. Wametimiza hivyo vipengele vyote na leo nashukuru wamekabidhi kazi iliyokamilika. Kwa hiyo TCRA oyee! Tanzania oyee!.

Ninawapongeza sana wote walioshiriki katika kazi hii.

Ndio maana leo nasema kwa uwazi kabisa; naipongeza Bodi ya TCRA ikiongozwa na Mwenyekiti hapa.Naipongeza Menejimenti pamoja na Watumishi wote wa TCRA wakiongozwa na Mkurugenzi Mkuu

Ndugu Kilaba kwa kazi kubwa.

Sekta ya mawasiliano na hasa mawasiliano ya simu ni sekta nyeti na muhimu ambayo hivi sasa inakuwa kwa kasi kubwa duniani. Takwimu zinaonyesha kuwa takriban watu bilioni tano duniani kote wanatumia simu za mkonni na wanaotumia huduma za data idadi yao inafikia bilioni 3.9.

Hapa nchini, kama alivyoeleza Waziri wa Mawasiliano, idadi ya laini za simu za mkononi imefikia 42,961,000 na wanaotumia data wamefikia 22,995,000. Idadi hii kubwa ya watumiaji wa simu za mikononi na data imeongeza kasi ya upashanaji wa habari duniani na leo hii jambo kubwa likitokea duniani muda huo huo unalipata kama sio kwa njia ya redio na luninga basi kwa njia ya mawasiliano ya kijamii kama vile *facebook, whatsapp twitter, instagram* na kadhalika.

Sambamba na hayo sekta ya mawasiliano inachochea shughuli za kiuchumi na kijamii duniani ikiwemo kuongeza uzalishaji viwandani na kukuza biashara. Kama mnavyofahamu siku hizi viwanda vingi vinaendeshwa kidijitali na biashara nyingi, hususan za rejareja zinafanyika kwa njia ya mtandao, yaani e-commerce.

Kwa mujibu wa takwimu zilizopo, mwaka 2017 peke yake biashara ya rejareja iliyofanyika kwa njia ya mtandao ilikuwa na thamani ya takriban dola za kimarekani trilioni 2.3 na hivyo kuzipiku biashara zinazofanyika kwenye maduka na super markets.

Zaidi ya hapo sekta ya mawasiliano imewezesha kupatikana kwa huduma mbalimbali ambazo aghalabu zamani hazikuwepo; kwa mfano huduma za elimu na afya kwa njia ya mtandao, yaani e-education na e-health. Huduma za usafiri kwa teksi kama vile Uber na Taxify; huduma za kibenki ambapo hapa nchini kwetu watu waliojisajili kwa huduma za kifedha kwenye simu wamefikia milioni 20.85; na hii ndiyo iliyochangia nchi yetu kuibuka kinara wa uchumi jumuishi kwa nchi zilizopo kusini mwa Bara la Afrika.

Hii pia imetoa ajira za moja kwa moja zipatazo milioni 28.5 duniani kote kwa mujibu wa takwimu za 2016; na inakadiriwa kwa mwaka 2017 iliingiza mapato ya zaidi ya dola za kimarekani trilioni 2; na hivyo kufanya baadhi ya watu watamke kwamba sekta ya mawasiliano ni kisima kipya cha mafuta na wengine wanasema ni mgodi mpya wa madini.

Haya ni baadhi tu ya manufaa yaliyoletwa na sekta ya mawasiliano. Yapo mambo mengine zaidi pia.

Sisi Waswahili tunasema hakuna kizuri kisichokuwa na kasoro. Ukiwa na jambo zuri zuri, ili liendeee kukuletea matunda mazuri uliyotarajia ni vyema uweke utaratibu na kulisimamia kwa karibu; na kwenye sekta ya mawasiliano ni hivyo hivyo.

Licha ya manufaa ambayo sekta hii imeleta, imesababisha baadhi ya changamoto zikiwemo matatizo ya uhalifu wa kimtandao na kuathirika kwa mila na desturi na kuwepo mmomonyoko wa maadili katika jamii.

Hivyo basi ili kukabiliana na changamoto hizi na kwa lengo la kuendelea kufaidi faida zitokanazo na kukua kwa sekta ya mawasiliano, serikali duniani kote zimekuwa zikianzisha Mamlaka au kutunga sera, sheria, kanuni pamoja na kujenga miundombinu na mifumo mbalimbali kwa ajili ya uthibiti na usimamizi mzuri katika sekta hii.

Sisi Tanzania pia tumefanya hivyo. Tumeanzisha Mamlaka ya Usimamizi, TCRA; tumetunga sera, sheria na kanuni mbalimbali na tumejenga miundombiniu ya usimamizi na uthibiti Moja ya mifumo hiyo ni huu wa TTMS ambao tunashuhudia leo ukikabidhiwa rasmi serikalini na ambao kazi yake kubwa ni kufuatilia takwimu za mawasiliano ya ndani, simu za kimataifa zinazofanyika nchini kwa njia ya sauti, matumizi ya data na ujumbe mfupi.

Kama mlivyosikia mfumo huu una *module,* au vipengele saba. Mwanzoni, kwa mkataba ule uliokuwa umepotea, tulikuwa tuwekewe vipengele vinne; na kipengele cha muhimu kabisa cha kukusanya pesa kilikuwa kimepotelea hewani.

Kwanza, ni kusimamia ubora wa mawasiliano yenyewe.

Pili, ni kupata takwimu sahihi za mawasiliano ya simu.

Tatu, ni kutoa takwimu za matumizi ya huduma za mawasiliano kwa njia ya sauti, matumizi ya data na ujumbe mfupi.

Nne, ni kubaini mawasiliano ya simu za kimataifa yanayofanyika kwa njia za udanganyifu, yaani i*llegal routes).*

Tano, ni kufuatilia miamala ya kifedha inayofanyika kwa njia ya mtandao.

Sita, ni kutambua namba tambulishi (IMEI) za simu za kiganjani na kuhakikisha vifaa vyote vilivyounganishwa na mitambo ya watoa huduma vinakidhi viwango vya kimataifa.

Saba, ni kuhakiki mapato yatokanayo na huduma za mawasiliano ya simu.

Bila kuwa na mtambo huu huwezi ukahakiki mapato yanayopatikana na simu. Bila mtambo huu TRA hawakuweza kukusanya kodi yao iliyokuwa inatakiwa. Walikuwa wanakusanya kwa wamilki wa

simu; kwa wenye huduma kusema 'nimekusanya kiasi fulani' badala ya wao kujua amekusanya kiasi fulani bila wao ku *declare*. Kwa hiyo walikuwa wana *under declare*.

Kwa hiyo mtambo huu unasaidia haya yote – kuhakiki mapato yatokanayo na huduma za mawasiliano ya simu.

Hivi punde tumeelezwa kwamba tangu mtambo huu uanze kufanya kazi umeleta faida nyingi kwa nchi yetu. Kwa upande wa kuweza kufahamu idadi ya watumiaji wa simu na data nchini kwa urahisi zaidi.

Tumepunguza kiwango cha udanganyifu kwenye simu za kimataifa kutoka asilimia 65 hadi kufikia asilimia 10; hivyo kuwezesha kupata chanzo kipya cha mapato.

Tangu mfumo huu uanze, serikali imepata shilingi 93,665,645,344. Bila mfumo huu hizi bilioni 93 zingekuwa kwenye mifuko ya watu. Katika fedha hizi, shilingi bilioni 82 zimewekwa Hazina na bilioni 11.407 zimekwenda COSTECH. Hiki ni chanzo kipya kabisa ambacho zamani hakikuwepo.

Kampuni za kutoa huduma pia zimenufaika kwa kupata shilingi 173,950,484,211. Mkandarasi naye amepata shilingi 53,523,225,911 na TCRA imepata shilingi 13,380,806,477 kupitia simu hizo za kimataifa. Bila mfumo huu wa TTMS haya yote tusingeyajua. Haya yote tusingeyajua. Leo kila kitu kimekuwa wazi; na huu uwazi ndio tunaoutaka katika nchi yetu ili fedha hizi tujue ziko kwa nani. Fedha hizi zitaenda hospitalini, zitaenda kwenye mashule, zitaenda kutengeneza mabarabara, zitaenda kufanya shughuli na kutoa huduma kwa Watanzania, hasa Watanzania walio maskini.

Kwa hiyo nawapongeza sana tena TCRA na mkandarasi kwa kuhakikisha kwamba haya yote yamefanikiwa.

Pamoja na hayo, mfumo huu umeiwezesha nchi yetu kufahamu idadi ya vifaa vinavyounganishwa kwa mitandao nchini yaani *gadgets, computers* na kadhalika; ambapo hadi mwezi Desemba mwaka jana idadi ilikuwa 27,938,000.

Tumeweza pia kutambua taarifa za laini za simu na namba tambulishi za vifaa vya mawasiliano. Hii ndiyo imeifanya Mamlaka ya Mawasiliano iweze kuzifungia simu 1,677,750 zilizobainika kutokufikia viwango vinavyotakiwa; ama zilipotea, ama ziliiibwa na kadhalika.

Hali kadhalika mfumo huu umetusaidia kufahamu miamala mbalimbali ya kifedha inayofanyika kwa njia ya mitandao; ambamo tumesikia kwamba mwaka jana miamala yenye thamani ya shilingi trilioni 139.2; wastani wa trilioni 11.6 kwa mwezi

ilifanyika. Hii imeiwezesha Benki Kuu ambayo ndiyo msimamizi mkuu wa masuala ya fedha nchini – na nimeshukuru kumuona Naibu Gavana yupo hapa – kufahamu idadi ya miamala ya fedha inayofanyika kwa njia ya kimtandao.

Siku za nyuma miamala ya fedha ilikuwa haijulikani.

Hali kadhalika mfumo huu umeiwezesha Mamlaka yetu ya Mapato kukusanya mapato yake stahiki kutoka kwa watoa huduma, tofauti na zamani ambapo ilitegemea zaidi taarifa kutoka kwa watoa huduma.

Mradi huu umetekelezwa kwa ubia kati ya serikali na sekta binafsi, kwa utaratibu wa jenga, endesha na hamisha umilki, yaani *build, operate and transfer*. Kwa mujibu wa mkataba, mkandarasi akitakiwa kujenga mfumo huu, kisha auendeshe mwenyewe, baada ya miaka kadhaa aukabidhi serikali; na ndio maana leo amekabidhi serikali na unabaki kuwa mali ya serikali kwa asilimia mia moja. Hongereni sana.

Napenda kutumia fursa hii kuwapongeza wale wote waliobuni wazo la kutekeleza mradi huu. Aidha nampongeza mhandisi kwa kutekeleza mradi huu kwa mujibu wa mkataba.

Nafahamu kuwa kuna wakati tulivutana, kama nilivyoeleza, na tulivutana kidogo kidogo ingawaje kwa kuzingatia maslahi mapana ya serikali. Nafurahi hatimaye tulikubaliana na mkataba umekamilika; na hiki ni kielelezo kuwa nchi yetu iko tayari kushirikiana na sekta binafsi katika kutekeleza miradi mbalimbali ya maendeleo.

Tumekuja hapa kushuhudia makabidhiano ya mfumo na naomba mniruhusu niseme mambo machache ya mwisho.

Kwanza napenda kuwapongeza TCRA kwa kupata mfumo huu wa kisasa wa kusimamia mawasiliano ya simu. Ni imani yangu kuwa mfumo huu utawezesha kutekeleza majukumu yenu ipasavyo. Wito wangu kwenu: msiachie tu kuupokea mfumo huu; hakikisheni mnajijengea uwezo, sio tu katika kusimamia na kuendesha mfumo huu lakini pia katika kuuboresha, kuupanua mfumo wenyewe na kuulinda.

Yaliyotokea kwenye EFD nisingependa yatokee kwenu. Kwenye EFD mnafahamu kilichotokea na Kamishna wa TRA anafahamu kilichotokea. Walikuwa na mfumo lakini hawakuweza kuusimamia wao. *Server* haikuwa Tanzania.

Nilipofika hapa nikauliza: '*server* iko hapa?' Wakanionyesha *server* iko hapa hapa. Nikasema hapo ndipo sawasawa. Hongereni sana TCRA. Mmekuwa na akili.

Bila hivyo *server*, ingekuwa huko, *wanaoperate*

wanavyotaka, ninyi mnabaki na picha. Ndio ujanja wa kimataifa wa leo. EFD walichezewa hivyo hivyo. *Server* ilikuwa kwingine, nchi nyingine; wao wana EFD hapa. Lakini walijitahidi. Nampongeza Kamisha Mkuu wa TRA; wamebadilisha mfumo huo wa EFD umekuwa chini ya usimamizi wa Wizara ya Fedha yenyewe. Hongereni sana.

Saa nyingine tunajifunza kwa makosa lakini sio vizuri kurudia makosa kila mara.

Zaidi ya hapo umuhimu wa kujenga uwezo unakuja kwa sababu sekta ya mawasiliano inabadilika na kukua kwa kasi kubwa. Nimeeleza kuhusu biashara ya kimtandao, e-commerce, masuala ya usafiri, Uber na Taxify, upigaji simu kwa njia ya *whatsapp, skype, immo* na kadhalika. Sina uhakika kama mfumo wenu huu una uwezo wa kufuatilia takwimu kwenye maeneo hayo.

Hivyo basi natoa rai kwa TCRA ikishirikiana na mamlaka nyingine nchini ikiwemo Wakala wa Serikali Mtandao kujiimarisha kiutaalamu ili kuweza kushughulikia masuala hayo.

Pili, tumeona hapa kuwa moja ya manufaa yaliyoletwa na ukuaji wa sekta ya mawasiliano ni kuimarisha ukusanyaji wa mapato. Hivyo basi napenda kutumia fursa hii kurudia agizo langu kwa taasisi zote za serikali zenye kukusanya mapato kuhakikisha kwamba zinatengeneza mfumo wa kielektroniki katika kukusanya mapato.

Ninaiagiza pia Wizara ya Fedha – na bahati nzuri pia Waziri yuko hapa – kuhakikisha taasisi zote za serikali zinaunganishwa na mfumo mkuu wa ukusanyaji wa fedha za umma, government *e-payment system* na *gateway* ya GePG.

Nimeambiwa kuwa kati ya taasisi 667 zenye kustahili mpaka sasa zimeunganishwa taasisi 339 tu; nyingine bado.

Sasa Waziri yuko hapa; nitashangaa sana hizi taasisi ambazo ni mali ya serikali, ni mali ya wananchi ziendelee kukaa tu bila kuunganishwa kwenye mfumo huu.

Nitawashangaa mawaziri walioko kwenye wizara hizo wanazosimamia hizo taasisi na makatibu wakuu wa taasisi hizo. Kama wataendelea kutoziunganisha maana yake wana lengo la kufanya biashara gizani, iliyozungumzwa na Mheshimiwa Spika hapa; na mimi nisingependa kuona taasisi ninazoziongoza bado zinaendelea na biashara ya gizani. Tunataka tuwe na tochi; tujue wanachokifanya huko.

Kwa hiyo ni matumaini yangu Mheshimiwa Waziri wa Fedha utawaandikia barua, na hasa taasisi hizo zote, na nakala umpe Waziri Mkuu na unipe na

mimi ili niendelee kuchungulia pole pole.

Hakikisheni mnaziunganisha taasisi zote zilizobaki. Mfumo wa GePG unahusika na ukusanyaji wa fedha kwa njia ya kielektroniki na una faida nyingi. Pamoja na kuongeza mapato kama tulivyoona hapo kwa TTMS, unapunguza urasimu katika ukusanyaji, gharama za ufuatiliaji pamoja na kupunguza vitendo vya rushwa.

Nitatoa mfano mmoja. Kabla ya kujiunga na GePG, shirika la umeme, TANESCO lilikuwa kila mwaka likilipia zaidi ya shilingi bilioni 38 kwa wakala wa kuuza umeme. Baada ya kujiunga na mfumo wa GePG, sasa hawalipi hata senti moja; wanalipa ziro. Kwa hiyo wameokoa bilioni 38 kwa mwaka.

Hivyo basi narudia tena kutoa wito kwa taasisi za umma kukusanya mapato kwa njia ya kielektroniki na kujiunga kwenye GePG. Aidha tumieni tekinolojia ya mawasiliano katika kupata na kutunza taarifa zenu.

Tatu napenda kutoa wito kwa Watanzania kutumia vizuri sekta hii ya mawasiliano.

Sekta hii kama ilivyo mtu ananunua panga, au ananunua jembe au hata kisu au bunduki. Vifaa hivi vimetengenezwa ili kumuwezesha binadamu kuendesha shughuli zake na kujiletea maendeleo lakini ukivitumia vibaya vina uwezo wa kukuletea madhara makubwa; na sekta ya mawasiliano ni hivyo hivyo.

Licha ya manufaa yake mengi, sekta hii kama nilivyosema inaweza kuleta athari kubwa. Baadhi ya athari ni kuongezeka vitendo vya uhalifu duniani. Imechangia mmomonyoko wa maadili katika jamii. Sehemu nyingine mtu anajipiga picha yuko utupu halafu ana *post*.

Lakini pia imesababisha sehemu nyingine vurugu katika nchi. Mtu anaandika, anahamasisha vitendo vyovyote vya ajabu. Hivyo ninawasihi Watanzania wenzangu, tuepuke vitendo ambavyo vitaifanya sekta ya mawasiliano kuleta madhara kwenye nchi yetu.

Ni kama yule mtu aliyenunua panga kwa ajili ya kufyekea pori anajifyeka mwenyewe. Panga ni zuri kwa kufyekea, jembe ni zuri kwa ajili ya kulima na kupata mazao lakini ukilitumia kumkata mtu mwingine jembe hilo hilo linakuwa baya.

Nitoe rai kwa Mamlaka ya Mawasiliano: kuweni wakali dhidi ya watu wanaotumia vibaya huduma za mawasiliano. Msiwaonee huruma. Tumieni sheria katika kuhakikisha vitendo vya ovyo vinavyofanyika kupitia huduma ya mawasiliano vinakoma.

Katika hili nitoe pia wito kwa TCRA, kuharakisha

zoezi ya usajili wa laini za simu kwa njia ya ya biometria ili kudhibiti vitendo vya uhalifu.

Suala la nne na la mwisho, nafurahi Mkurugenzi Mkuu ameligusia kidogo: ni kwamba kama nilivyosema awali, nchi yetu ina vifaa vingi vinavyotumia mtandao – simu, kompyuta, *gadgets* na kadhalika na nafahamu kwa mujibu wa sheria na kanuni za kimataifa watengenezaji wa vifaa hivyo wana wajibu wa kutoa mchango pindi pale vifaa hivyo vinapofika ukomo wa kuvitumia; viweze kuharibiwa, kugeuzwa na kutumiwa kwa matumizi mengine.

Hivyo basi kwa kuwa kwa sasa tunao mfumo unaotuwezesha kutambua vifaa vyote vinavyotumia mtandao nchini ingefaa muanze kufuatilia kwenye kampuni zinazotengeneza vifaa hivyo ili ziweze kutekeleza majukumu yao kwa mujibu wa sheria za kimataifa.

Napenda kuhitimisha kwa kurudia tena kushukuru kwa kunialika kuja kwenye shughuli hii. Aidha naipongeza Mamlaka ya Mawasiliano kwa kazi kubwa na nzuri mnayoifanya na nasema mnafanya kazi nzuri sana. TCRA fanyeni kazi. Msiogope. Mtangulizeni Mungu katika kazi zenu. Msiogope vitisho; chapeni kazi kwa niaba ya Watanzania. TCRA iko pale kwa niaba ya Watanzania wote katika kushughulikia masuala ya mawasiliano.

Mwisho kabisa, narudia tena kuwashukuru sana makandarasi kwa kutekeleza wajibu wao na niwaombe kunapotokea matatizo yoyote katika mitambo hii wasisite kuja kushirikiana na TCRA katika kufanya marekebisho; na niwaombe TCRA kuhakikisha mnaitunza mitambo hii. Naomba vyombo vya ulinzi na usalama vihakikishe vinashirikiana na TCRA katika kuhakikisha TTMS inalindwa kikamilifu.

La mwisho kabisa, napenda kuwashukusu sana viongozi wa dini, niwashukuru sana. Endeleeni kuliweka Taifa hili kwenye mikono ya Mungu. Hii ni vita kama ilivyo vita nyingine.

Vita ya uchumi inahitaji maombi. Bila maombi kazi hii haiwezi ikafanyika. Hao wanaokaa gizani, huwezi kujua iwapo mtu ana panga, ana kisu, ameshikilia nyoka mfukoni au ana kitu gani. Lakini huko gizani huwa wanatolewa kwa maombi.

Ndio maana nasisitiza ndugu zangu viongozi wa dini wote kwa umoja wenu: endeleeni kuliweka taifa hili katika maombi ili sisi pamoja na serikali na watendaji wengine wote tuendelee kusimamia misingi ya uadilifu na upendo wa kweli wa Mungu katika kulitumia taifa hili.

Mungu ubariki mfumo huu wa TTMS, Mungu ibariki Mamlaka ya Mawasiliano Tanzania, Mungu ibariki Tanzania, Mungu wabariki wote waliohudhuria

Mkurugenzi Mkuu TCRA, Mhandisi James M.Kilaba akionyesha kitabu cha mwongozo wa mfumo wa TTMS baada ya kukipokea kutoka kwa Mkandarasi wa mradi huo. Kushoto ni Mkurugenzi wa Huduma za Sheria wa Mamlaka, Bw. Johannes Karungura

Usimamizi wa kimkakati

Maelezo ya Waziri wa Ujenzi, Uchukuzi na Mawasiliano, Mh. Mhandisi Isack Kamwelwe (MB)

Mfumo huu wa usimamizi wa Mawasiliano ya simu (TTMS) ambao leo tunashuhudia kukabidhiwa rasmi kwa Serikali ni sehemu ya utekelezaji wa Ilani ya Uchaguzi ya Chama cha Mapinduzi ya mwaka 2015 ambayo imetuelekeza kuboresha mawasiliano na sekta nzima ya mawasiliano ili sekta hii ichangie katika kuboresha maisha ya mwananchi mmoja mmoja na Taifa kwa ujumla kiuchumi na kijamii.

Mfumo huu wa usimamizi wa mawasiliano ya simu ni mojawapo ya miundombinu muhimu katika kuongeza ufanisi wa usimamizi wa sheria na kanuni zinazosimamia sekta ya mawasiliano. Usimikaji wa mfumo wa TTMS ulifanyika kwa mujibu wa Kanuni za Mawasiliano ya Kielekroniki na Posta (TTMS) ya mwaka 2013 na ambazo zilihuishwa mwaka 2018 pamoja na makubaliano yaliyoingiwa kati ya Serikali kupitia Mamlaka ya Mawasiliano na Mkandarasi SGS na GVG (*SGS, GVG consortium)* yaliyoingiwa tarehe 1 Oktoba, 2013.

Lengo la usimikaji wa mfumo huu ni kuhakikisha kuwa matumizi ya teknolojia ya habari na mawasiliano yanakuwa na manufaa kwa nchi kwa kuchangia ipasavyo katika mapato ya Serikali na kukuza uchumi.

Tangu kuanzishwa kwake mwezi Oktoba 2013, mfumo huu umesaidia katika kusimamia miamala ya fedha inayofanyika kupitia mitandao ya makampuni ya simu hapa nchini, kuzuia matumizi ya vifaa vya mawasiliano ya simu visivyo na ubora katika mtandao wowote wa simu hapa nchini, kubaini mawasiliano ya simu za ulaghai; na kupatikana kwa takwimu za mapato yatokanayo na huduma za mawasiliano zinazotolewa na kampuni za simu hapa nchini. Takwimu zinaonyesha ongezeko la laini za simu kutoka 39,808,419 mwaka 2015 hadi kufikia laini za simu 42,961,449 mwaka 2018.

Kwa taarifa zilizopo tangu mfumo huu uanze kufanya kazi mwezi Oktoba 2013 hadi kufikia mwezi Disemba 2018 mfumo huu umewezesha Serikali kukusanya jumla shilingi za Kitanzania 93,665,645,344.55. Pia umeweza kutoa taarifa mbalimbali zinazohusiana na biashara ya huduma ya mawasiliano kwa mamlaka husika.

Kabla sijakukaribisha ili uzungumze na hadhira hii, niruhusu nizungumze kwa ufupi mafanikio ya Sekta ya Mawasiliano tangu kuingia kwa Serikali hii ya Awamu ya Tano katika utekelezaji wa Ilani ya Uchaguzi ya Chama Cha Mapinduzi ya mwaka 2015 Ibara ya 47 (g), (i) na (j):

Ibara ya 47(g) inatuelekeza kuendelea kuweka mazingira bora ya ushindani kwenye sekta ya mawasiliano ili wananchi wengi waweze kumudu gharama za mawasiliano ya simu.

Serikali imeweka ukomo wa gharama za mwingiliano kwa huduma za mawasiliano (*inteconnection*) ambao unatakiwa uzingatiwe na watoa huduma wote wa mawasiliano kati ya mtandao mmoja na mwingine; ambapo gharama ya maunganisho ya mitandao imepungua kutoka shilingi 30.58 kwa dakika mwaka

2015 hadi kufikia 10.40 kwa dakika mwaka 2019 na itaendelea kupungua hadi shilingi 2.00 ifikapo mwaka 2022.

Ibara ya 47 (i) inatuelekeza kuwalinda watumiaji wa simu za mkononi dhidi ya dhuluma, wizi na uhalifu wa mitandao;

• Usimamizi wa Sheria ya Makosa ya Mtandao ya mwaka 2015 pamoja na Kanuni za Huduma za Ziada za mwaka 2015 umewezesha kwa kiasi kikubwa kudhibiti uhalifu wa mtandao, japokuwa mabadiliko ya mara kwa mara ya teknolojia yanaleta changamoto katika kudhibiti.

• Kukamilika kwa mfumo wa usajili kwa kutumia alama za vidole katika kuhakiki taarifa za watumiaji wapya wa laini za simu umezinduliwa, na unategemewa utakapokamilika utasaidia kupunguza matukio ya kihalifu na kurahisisha ufuatiliaji unaofanywa na vyombo vya usalama pale inapotokea changamoto za kiusalama au za jinai;

• Elimu inaendelea kutolewa kwa wananchi kuhusu uhalifu katika mtandao na namna ya kuubaini, kuchukua tahadhari na kutoa malalamiko au taarifa kwa vyombo vinavyohusika.

Ibara ya 47(j) inatuelekeza kuongeza idadi ya watumiaji mitandao ya intaneti kutoka milioni tisa (9)mwaka 2015 hadi kufikia milioni 20 mwaka 2020.

Idadi ya watumiaji wa mitandao ya intaneti imeongezeka kutoka watumiaji 9,312,272 mwaka 2015 hadi kufikia watumiaji 22,995,109 mwezi Desemba, 2018, hivyo kuvuka lengo lililokusudiwa.

Kuwepo kwako hapa leo hii, kunathibitisha nia ya Serikali ya Awamu ya Tano na wewe binafsi kuwa sekta ya mawasiliano ni muhimu katika kuinua maendeleo ya uchumi wa Taifa letu kwani inawezesha kuongeza ufanisi katika shughuli za kiuchumi na kijamii.

Nimalizie kwa kukushukuru tena kwa kuja kujumuika nasi katika tukio hili. Nawashukuru pia Bodi na Menejimenti ya TCRA kwa ushirikiano wenu katika kusimamia sekta ya mawasiliano nchini. Aidha naishukuru sana Kamati ya Katibu Mkuu Kiongozi ambayo imefanya kazi kubwa kuhakikisha maboresho ya mfumo wa TTMS yanafanyika kwa kuzingatia maelekezo uliyoyatoa.

Baada ya kusema hayo, nikuombe Mheshimiwa Rais ushuhudie kukabidhiwa rasmi Mfumo wa TTMS, ambapo TCRA itatoa Hati ya Kukamilika kwa Mradi na Mkandarasi atakabidhi kitabu cha mradi na mwisho nikuombe uongee na hadhira hii pamoja na wananchi wote wanaokusikiliza kupitia vyombo vya habari.

Idadi ya akaunti za pesa mtandao, 2018

Mtandao	Oktoba	Novemba	Desemba
M - Pesa	9,033,134	9,055,571	9,014,088
Tigo Pesa	7,416,770	7,545,235	7,586,240
Airtel Money	4,243,577	4,720,503	4,848,545
Halopesa	935,662	1,268,626	1,342,206
Ezy Pesa	331,248	344,501	546,353
T - PESA	33,655	33,781	30,394
Jumla	**21,994,046**	**22,968,217**	**23,367,826**

Nyenzo mpya ya uhakiki kodi

Hotuba ya Waziri wa Fedha na Mipango, Mh. Dkt Philip Mpango

Mfumo huu wa usimamizi wa mawasiliano ya simu (TTMS) ambao leo tunashuhudia kukabidhiwa kwa Serikali ni mojawapo ya miundombinu muhimu katika kuchochea uchumi na maendeleo ya Taifa.

Naipongeza Mamlaka ya Mawasiliano Tanzania kwa kuweka Mfumo ambao umewezesha kupatikana kwa chanzo kipya cha mapato yasiyo ya kodi kwa kila mwezi, ambapo hadi kufikia Disemba 2018 Serikali imepata jumla ya Shilingi za Kitanzania 93,665,645,344.55.

Aidha, mfumo wa TTMS umeisaidia Mamlaka ya Mapato Tanzania (TRA) kuhakiki mapato kutoka kampuni za simu na hivyo kutekeleza jukumu lake kuu na la msingi la ukusanyaji wa mapato ya Serikali.

Utaratibu wa kulipia kodi duniani kwa sasa na ambao pia unatumiwa na TRA ni mfumo wa mlipa kodi kujikadiria mwenyewe kiasi cha kodi anachostahili kulipa (*self-assessment*), na kisha mlipa kodi kuwakilisha makadirio yake kwa mamlaka za usimamizi wa kodi katika utaratibu wa ritani zinazowalishwa kwa mujibu wa sheria.

Kampuni za simu kama walivyo walipa kodi wengine, huwasilisha kwa wakati ritani zao za makadirio ya kodi na ushuru yanayotakana na vyanzo vyao vya mapato.

Kabla ya kuanza kwa mfumo huu wa TTMS, TRA haikuweza kuhakiki kwa ufanisi ritani mbalimbali zilizokuwa zinawasilishwa na kampuni za simu kutokana na wingi na ugumu wa taarifa za utendaji wao kifedha. Mara zote, TRA ililazimika kuzipokea na kuzihakiki ritani hizi bila kuwa na nyenzo zenye ubora na uhakika kama mfumo wa TTMS.

Mfumo wa TTMS kama nyenzo mpya ya ukaguzi unaiwezesha TRA kuhakiki taarifa za kodi za kampuni za simu kwenye matamshi yao (*self-declaration*) ya kiasi halisi cha mauzo yatokanayo na huduma na bidhaa za mawasiliano kama vile data, sauti, na ujumbe mfupi na mauzo yatokanayo na tozo kwenye miamala ya fedha zinazosafirishwa kwa njia ya mtandao.

Hakika, mfumo huu wa TTMS umekuwa nyongeza ya nyenzo muhimu ya kiukaguzi kwa TRA katika kuhakikisha kodi stahiki inalipwa na tena kwa wakati, na huku ikiongeza utii (*compliance*) wa matakwa ya sheria kwa wateja.

Kupitia mfumo wa TTMS Benki Kuu (BOT) imepata nyenzo nyingine ya kuhakiki taarifa za miamala ya fedha kupitia mitandao ya simu.

Taarifa hizi zinatumika katika kutekeleza majukumu yake ya usimamizi wa fedha na kutekeleza sera za fedha na uchumi zinazosaidia Taifa kufikia lengo lake la kuwa nchi ya uchumi wa kati kufikia mwaka 2025.

Kipindi cha kuanzia Januari hadi Disemba 2018, miamala ya fedha kupitia simu za mikononi ilifikia

thamani ya shilingi 139.2 trilioni ambalo ni ongezeko la asilimia 35.2 ikilinganishwa na mwaka 2017 kutokana na kuenea kwa mawasiliano ya simu katika maeneo mbalimbali nchini pamoja na upatikanaji wa huduma zinazolipiwa kwa kutumia simu za kiganjani.

Kwa mujibu wa utafiti uliofanywa na FinScope mwaka 2017, kufikia Disemba mwaka 2017, asilimia 72.3 ya Watanzania walikuwa na uwezo wa kutumia mifumo rasmi ya fedha.

Hili linaonesha mafanikio ya ushirikiano kati ya BOT na TCRA katika kuhakikisha kuwa wananchi wanapata huduma za kifedha nchini.

Uwepo wa Sheria ya Mifumo ya Malipo na TTMS, vinachangia uimarishwaji wa matumizi ya mifumo rasmi ya fedha, hivyo kuchangia katika kuongeza pato la Taifa. Mfumo wa TTMS unasaidia katika udhibiti wa huduma za fedha kwa njia ya mitandao ya simu ambazo zimesaidia kusogeza utoaji wa huduma za kifedha vijijini. Vile vile utasaidia kuongeza uwazi katika tozo za huduma za fedha kwa njia ya mitandao ya simu.

Sheria ya Mifumo ya Malipo ya mwaka 2015 inatoa fursa sawa kwa wadau mbalimbali kushiriki katika kutoa huduma za malipo maeneo yote nchini. Usimamizi thabiti wa Kanuni zake unasaidia kuendelea kwa usambazaji wa mifumo ya malipo katika maeneo mbalimbali hata yale yasiyo na huduma za kibenki.

Sheria hii inasaidia utekelezaji wa mkakati mahsusi wa kuwezesha ujumuishwaji wa Taifa katika masuala ya fedha wa mwaka 2018-2022 (*National Financial Inclusion Framework, 2018*). Huu mkakati umeainisha namna Serikali na vyombo vyake vitakavyoweza kukabiliana na changamoto mbalimbali zinazozuia huduma za kifedha kufikia maeneo mbalimbali ya nchi hususan vijijini.

Wizara ya Fedha na Mipango, pamoja na Taasisi zake za BOT na TRA tutaendelea kuutumia Mfumo huu katika utendaji wetu wa kila siku kwa manufaa

Baadhi ya watumishi wa TCRA na wadau wengine katika sherehe ya makabidhiano ya mfumo wa TTMS

Malengo saba ya ufanisi

Maelezo ya Mkurugenzi Mkuu
TCRA, Mhandisi James M. Kilaba

Chimbuko la usimikaji wa Mfumo huu wa kuratibu na kusimamia mawasiliano ya simu (Tele-Traffic Management System –TTMS) lilikuwa ni Bunge la Jamhuri ya Muungano wa Tanzania pamoja na Serikali yenyewe baada ya kushuhudia jinsi gharama kwa dakika kwa simu za kimataifa zilizokuwa zinaingia kwenye nchi yetu zilivyokuwa zinashuka kila leo. Hali hii ilikuwa inapunguza sana mapato kwa watoa huduma za mawasiliano nchini, ilikuwa inapunguza kodi kwa Serikali; na mchango katika uchumi wa nchi kwa ujumla ulipungua pia.

Kutokana na hali hiyo kulionekana mahitaji ya kuwepo mfumo wa kudhibiti changamoto hiyo.

Katika kutekeleza mahitaji ya uwepo wa mfumo huo, TCRA kwa kushirikiana na wadau wengine walisimamia taratibu za manunuzi ili kumpata mkandarasi ambaye alitokana na muungano, yaani *consortium* wa makampuni mawili ambayo ni Societe Generale de Surveillance S.A (SGS) na Global Voice Group S.A (GVG).

Mkataba kwa ajili ya usimikaji wa mfumo huo wa TTMS ulisainiwa tarehe 22 Machi, 2013 kati ya TCRA na muungano (*consortium*) wa SGS/GVG

kwa lengo la kutekeleza mradi huu. Hata hivyo Mkataba huo ulifanyiwa mapitio mara mbili na kuwekewa nyongeza (*addenda*) mbili zenye lengo la kuweka mkazo zaidi kwenye maeneo muhimu ya kiufundi na utekelezaji.

Utaratibu wa usimikaji wa mfumo huu wa TTMS ulikuwa wa kujenga, kuendesha na kuhamisha umiliki (*build, operate and transfer*) na ulianza kufanya kazi rasmi tarehe 1 Oktoba 2013.

Mkataba huo wa TTMS ulikuwa wa miaka mitano (yaani miezi sitini) na umemaliza muda wake tarehe 30 Septemba, 2018.

Kwa hatua hiyo, leo tunakabidhiwa rasmi Mfumo huo wa TTMS.

Serikali kupitia TCRA iliweka Mfumo huu ili kuongeza ufanisi katika usimamizi wa Sheria na Kanuni zinazosimamia sekta ya mawasiliano ikiwa ni pamoja na kwenda sambamba na mabadiliko ya kasi yanayotokea katika sekta ya mawasiliano duniani kote.

Mfumo huu baada ya kukamilika, umewezesha kubaini takwimu mbalimbali za mawasiliano yanayopita katika mitandao ya mawasiliano.

Mfumo huu unaundwa na moduli kuu (*modules*) ambazo pamoja na mambo mengine umewezesha TCRA kwa yafuatayo: -

1. Kupata takwimu za mawasiliano ya simu yanayofanyika ndani na nje ya nchi (local and international traffic);

2. Kuhakiki mapato yote ya watoa huduma za Mawasiliano nchini;

3. Kupata takwimu zinazohusiana na matumizi ya huduma za mawasiliano (simu za sauti, matumizi ya data, na ujumbe mfupi).

4. Kugundua mawasiliano ya simu za ulaghai (*fraudulent traffic*);

5. Kutambua takwimu za ada za miamala ya fedha mtandaoni (*mobile money transaction*);

6. Kusimamia kwa ufanisi ubora wa huduma za mawasiliano (q*uality of service)* na hivyo kuboresha viwango vya huduma hizo;

7. Kutambua taarifa za laini ya simu (*SIM card profile)* na namba tambulishi za kifaa cha mawasiliano;

8. Kubaini na kufungia simu zenye namba

tambulishi zilizonakiliwa (*duplicate IMEIs*);

9. Kuwasilisha kwa Serikali mapato yanayotokana na mawasiliano ya simu za kimataifa zinazoingia na kuishia hapa nchini.

Kuanzia Oktoba 2013 mfumo ulipoanza kufanya kazi mpaka Septemba 2018, Serikali imeweza kupata chanzo kipya cha mapato yanayotokana na mawasiliano ya simu za kimataifa zinazoingia na kuishia hapa nchini; na jumla ya shilingi za Kitanzania 93,665,645,344 ziliwasilishwa Serikalini.

Kabla ya kuwepo kwa TTMS, watoa huduma wetu walikuwa wakilipwa na makampuni ya nje senti nane hadi tisa za dola ya Kimarekani kwa kila dakika ya maongezi kwa simu zinazoingia na kuishia hapa nchini.

Baada ya kusimika TTMS sasa wanapata senti 13; ikiwa ongezeko la senti nne hadi tano, hivyo kuongezeka pia kwa mapato yao na kodi kwa Serikali yetu.

Kabla ya Mfumo huu wa TTMS, simu za kimataifa zilizokuwa zinaingia hapa nchini kwa njia za ulaghai (*illegal routes*) zilikuwa asilimia sitini na tano (65%) ya simu zote za kimataifa zilizokuwa zinaingia nchini, zilizofanyiwa majaribio. Hii ina maana mapato ya watoa huduma na kodi za Serikali zilikuwa zinapotea kwa asilimia hiyo pia.

Mfumo huu umeiwezesha TCRA kwa kushirikiana na vyombo vingine kuwabaini watu wenye mifumo ya ulaghai ya kuingiza mawasiliano ya simu kutoka nchi za nje, ambapo wahusika wa matukio hayo wamekuwa wakifikishwa kwenye vyombo vya sheria kwa ajili ya hatua stahiki.

Kwa sasa kiwango cha simu za kimataifa zinazoingia hapa nchini kwa njia za ulaghai (illegal routes) ni chini ya asilimia kumi (10%) ya simu zote za kimataifa zinazoingia nchini zilizofanyiwa majaribio.

Zoezi la kubaini simu hizo za ulaghai zinazoingia hapa nchini ni endelevu, kwa kuwa wahalifu hubuni njia mbalimbali kila wakati za namna ya kuingiza mawasiliano kwa njia za ulaghai ili wajipatie mapato hayo haramu.

Mfumo huu umeongeza usalama mtandaoni kwa watumiaji wa vifaa vya mawasiliano vyenye namba tambulishi (IMEI) halisi.

Kwa mfano mfumo huu umewezesha kubaini, kuchunguza na kuzifungia simu 1,675,277 zilizokuwa zikitumika kwenye mitandao mbalimbali zikiwa na IMEI bandia au zilizochakachuliwa. Idadi hii inajumuisha simu zilizoripotiwa kutokufikia viwango vinavyotakiwa, simu z i l i z o r i p o t i w a

kuibiwa pamoja na simu zilizoripotiwa kupotea.

Mfumo huu pia unawezesha kusimamia miamala ya kifedha inayopita kwenye mitandao ya watoa huduma (*mobile money transactions*); ambao umewezesha kupatikana takwimu za huduma za kifedha na kutoa taarifa hizo Benki Kuu ya Tanzania ambaye ni mdhibiti wa huduma za kifedha, na Mamlaka ya Mapato Tanzania (TRA) kama mkusanyaji mkuu wa kodi.

Takwimu za miamala ya fedha zimesaidia kujua kiwango cha fedha kwa njia ya mitandao ya simu na ukuaji wake. Kwa mfano, kiasi cha fedha zilizozungushwa kwenye mitandao ya Kampuni za simu hapa nchini kilikua kutoka wastani wa shilingi trillioni 8.5 kwa mwezi mwaka 2017 hadi wastani wa shilingi trilioni 11.6 kwa mwezi kwa mwaka 2018.

Mfumo huu pia unatupatia takwimu za mauzo ya huduma zote za mawasiliano (sauti, *data*, ujumbe mfupi) na yale ambayo hayana uhusiano na huduma za mawasiliano (*non telecommunications service revenue*) kama vile mauzo ya simu, *modem* na kukodisha eneo.

Mfumo wa TTMS umewezesha kutambua takwimu za mawasiliano ya simu za ndani ya mtandao mmoja (*on-net traffic*) na zile za kutoka katika mtandao mmoja kwenda mtandao mwingine wa mtoa huduma (*off-net traffic*).

Mfumo umewezesha kutambua vyanzo vyote vya mapato ya watoa huduma, pamoja na mapato yote ya mtoa huduma.

Mamlaka ya Mapato Tanzania wamepewa uwezo wa kuingia katika mfumo huu na kupata taarifa za mapato.

TCRA imeendelea kushirikiana na TRA na kufanya mawasiliano ya mara kwa mara juu ya kuboresha na kuimarisha mfumo huu ili kuhakikisha kuwa mfumo huu unawarahisishia majukumu yao ya kukokotoa, kukusanya na kuhakiki kodi stahiki zinazolipwa na kampuni za simu hapa nchini.

Kwa kuzingatia kuwa teknolojia ya mawasiliano inabadilika kila mara, mfumo huu utaendelea kuboreshwa zaidi kwa kuongezewa wigo (*scope*) ili uweze kusimamia mawasiliano yanayotumia *data* kutoa huduma mbadala za simu za sauti na ujumbe mfupi au *over the top technologies (OTT)*, suala ambalo limesababisha mjadala mkubwa kimataifa. Maboresho haya yataongeza pia mapato kwa Serikali.

Aidha, Mfumo unaweza kuongezewa uwezo ili watengenezaji (*manufacturers*) wa vifaa vya mawasiliano ya ki-elektroniki waweze kuchangia gharama za kusimamia na kushughulikia vifaa hivyo vinapomaliza muda wake wa matumizi (*end-of-life management)* hapa nchini. Kwa mfano, utaratibu unaweza kuwekwa kwa watengenezaji wa simu hizi kuchangia gharama za kuchakata taka zinazotokana na vifaa hivi vya kielektroniki pale vinapofikia ukomo wa kutumika. Kwa kuwa mfumo unawezesha kutambua idadi ya simu zote zilizounganishwa pamoja na watengenezaji wa simu hizo, utaratibu wa watengenezaji kuchangia gharama utawezeshwa na takwimu kutoka kwenye Mfumo huu.

Naomba nikuhakikishie kuwa, TCRA itautunza na kuusimamia mfumo wa usimamizi na ufuatiliaji wa mawasiliano ya simu (TTMS), kwa maslahi mapana ya Taifa na ustawi wa wananchi wake kwa uadilifu na weledi mkubwa.

Tutahakikisha TTMS inapanuliwa ili kupewa uwezo wa kuhakiki vyanzo vya mapato na mapato yatokanayo na huduma za mawasiliano kadri huduma zitakavyoongezeka.

Pia, TCRA itaendelea kuhakikisha kuwa raslimali adimu (masafa na namba za simu) zinatumika kwa umakini (*efficiently and effectively*) ili kukidhi mahitaji ya Taifa na kuharakisha maendeleo. Tunakushukuru kwa kutuamini kuendelea kulitumikia Taifa hili.

Naomba nihitimishe maelezo ya mfumo kwa kusema kuwa tangu mfumo wa TTMS ulipoanza kufanya kazi, mkandarasi alikuwa anafanya kazi pamoja na watumishi wa TCRA kwa lengo la kuwajengea uwezo wa kuujua na kuuendesha mfumo huo wa TTMS.

Tayari TCRA imefanya mafunzo kwa watumishi wake na wameshaanza kuendesha mfumo huu.

Mafunzo haya ni endelevu ili kuendana na kasi ya mabadiliko ya TEHAMA yanayotokea hapa nchini na duniani kote.

Baada ya kutoa maelezo juu ya Mfumo wetu wa TTMS naomba niseme machache kuhusu mambo mengine muhimu kwa wadau na watumiaji wa huduma za mawasiliano.

Kufuatia maendeleo na mwingiliano wa kiteknolojia (*technological convergence*), mnamo mwaka 2003, iliyokuwa Tume ya Mawasiliano (TCC) na iliyokuwa Tume ya Utangazaji (TBC) hapa nchini ziliunganishwa na kuanzishwa TCRA.

TCRA ilianzishwa chini ya Sheria ya Udhibiti wa Mawasiliano Tanzania Na 12 ya 2003 ikiwa na jukumu pana la kusimamia sekta ya mawasiliano nchini Tanzania kwa kutoa leseni kwa makampuni yote ya mawasiliano, ikiwemo ya huduma za simu, utangazaji, intaneti, posta na usafirishaji wa vifurushi.

TCRA inawasimamia watoa huduma za mawasiliano katika Jamhuri ya Muungano wa Tanzania na inawapa pia raslimali za masafa na namba ili kuwezesha utoaji wa huduma husika na kuhakikisha Sheria, Kanuni na masharti ya leseni vinafuatwa.

Majukumu ya TCRA yameainishwa zaidi kwenye Sheria ya Mamlaka ya Mawasiliano Na. 12 ya Mwaka 2003 na Sheria ya Mawasiliano ya Kielektroniki na Posta Na. 3 ya Mwaka 2010.

Uwekezaji katika sekta hii ni chachu kubwa ya maendeleo ya uchumi na kijamii kama ilivyo katika uwekezaji wa huduma (*utilities*) nyingine. Mawasiliano bora hupunguza gharama za uzalishaji, kuongeza mapato na kuongeza ajira. Hivyo mawasiliano yana athari za moja kwa moja au zisizo dhahiri (*direct and indirect effects*) katika ukuaji wa uchumi wa viwanda. Mawasiliano yanatoa fursa kubwa kwa wawekezaji kuweza kupata taarifa na mawasiliano yatakayoweza kufanyika kwa maamuzi ya haraka. Pia mawasiliano yanarahisisha mipango ya upatikanaji wa mali ghafi, uzalishaji na masoko.

Sekta ya mawasiliano ni sekta muhimu kiuchumi na ni sekta mtambuka kwa kuwa ni wezeshi ya sekta nyingine katika kuongeza ufanisi wa shughuli mbalimbali za uchumi.

Hapa nchini kwetu, tumeshuhudia ukuaji wa kasi kwa huduma za fedha mtandao ambao umechangiwa sana na kupanuka kwa mitandao ya watoa huduma za simu hapa nchini. Kila palipo na huduma za mawasiliano ya simu, wananchi wanaweza kupata huduma za fedha mtandao.

Aidha upatikanaji wa huduma za fedha-mtandao pamoja na huduma zingine za mawasiliano unahitaji usimamizi mzuri wa raslimali adimu za mawasiliano yaani masafa na namba za simu, jambo ambalo ni moja ya majukumu ya TCRA na hivyo kufanya masafa na namba kuwa vyanzo vikuu vya mapato ya Serikali kupitia TCRA.

TCRA ndio inayopangilia na kutoa masafa na namba fupi; yaani *short codes* zinazotumika katika kufanya miamala ya kifedha kupitia makampuni ya simu.

Kwa kutumia *short codes* zenye mfumo wa *150*(Utambulisho wa Mtoa Huduma)# miamala ya fedha, huduma za benki, michezo ya kubahatisha, uchangishaji wa fedha na huduma nyinginezo nyingi zinapatikana kupitia kwenye simu. Ni dhahiri sasa kwamba kupitia kwenye simu siyo tu ulimwengu wote upo kiganjani bali pia simu imekuwa chombo muhimu na wezeshi katika shughuli za kifedha, kijamii na kiuchumi.

Baadhi ya mafanikio mengine ni pamoja na kuimarishwa kwa usimamizi wa mfumo wa utangazaji wa dijitali ambapo sasa wananchi wanapata taarifa za habari pamoja na habari mbalimbali za kimaendeleo za nchi yetu kutoka kwenye televisheni bila kulipia (FTA) kwa mujibu wa sheria za nchi.

Pia tumeanzisha utaratibu wa usajili wa laini za simu kwa kutumia vitambulisho vya taifa vinavyotolewa na Mamlaka ya Vitambulisho vya Taifa (NIDA) kwa kutumia mfumo wa kuchukua alama za vidole (*biometric registration*).

Mfumo huu utachangia kupunguza uhalifu katika mitandao ya simu, usumbufu na mlolongo wa taratibu za kumsajili mteja.

Kanuni za Maudhui Mtandaoni zilizotolewa na Serikali mwezi Machi 2018 zimewezesha kutolewa kwa leseni kwa wamiliki na watoa huduma za maudhui mtandaoni. Kati ya Machi na Disemba 2018, leseni 224 zimetolewa. Kati ya hizi, za blogu ni 93, majukwaa ya majadiliano (*online forums*) mawili (2), redio mtandao 32 na televisheni mtandao 97. Utaratibu wa kutoa leseni za maudhui mtandaoni ni kutambua mchango mzuri wa huduma za maudhui mtandaoni kwa jamii na Taifa lakini pia ni katika kudhibiti matumizi mabaya ya huduma hizo.

TCRA haizuii matumizi ya mitandao ya kijamii au radio na televisheni za mitandaoni bali inalinda maslahi mapana na endelevu ya jamii inayotumia huduma hizo na hasa watoto na jamii kwa ujumla. Milango iko wazi kwa wanaotaka kuanzisha huduma hizi; lakini watatakiwa kuomba leseni.

Katika nyakati hizi na huko tunakoelekea tunashuhudia na tutashuhudia ongezeko kubwa la matumizi ya ama simu au kompyuta na intaneti na si hapa kwetu tu bali ulimwenguni kote.

Tayari tunazungumzia juu ya mifumo ya huduma inayoitwa *Internet of Things* na *Artificial Intelligence* ambayo iko katika hatua mbalimbali katika kila nchi na imeanza kuleta mapinduzi makubwa ya kiuchumi duniani. Hivyo masuala ya usalama wa mitandao hayahusu kuwalinda watumiaji tu, bali pia yana umuhimu mkubwa katika kulinda uchumi wa nchi na ulimwengu kwa ujumla hasa ukizingatia kuwa ulimwengu sasa ni kama kijiji kwa jinsi tulivyounganishwa kupitia mawasiliano.

Kwa kuzingatia hili, TCRA inasimamia kituo cha kitaifa (TZ-CERT) kilichoanzishwa mahsusi kwa kulinda mitandao yetu ikiwa ni pamoja na kubaini mashambulizi ya kimtandao (*cyber attacks*). Kupitia kituo hicho, tumeweza kujumuisha na kushirikisha taasisi zenye matumizi makubwa ya kompyuta kama vile vyuo, mabenki na hata taasisi za Serikali kuanzisha vituo vya aina hiyo ili wote kwa pamoja tuweze kushirikiana.

Mpaka sasa tumepata mafanikio makubwa na tutazidi kukiimarisha kituo hiki kimfumo na wataalam wenye ujuzi endelevu ili kwenda sambamba na mabadiliko yanayotokea.

TCRA itaendelea kushirikiana na vyombo na taasisi zingine katika kuboresha usalama mitandaoni na katika kusaidia kuwasaka na kuwanasa wale wote watakaotumia mitandao kwa nia ovu ili wafikishwe katika vyombo vya sheria.

Mheshimiwa Rais, nitumie fursa hii tena kukushukuru wewe binafsi kwa msukumo wako ulioutoa kuhakikisha kuwa TTMS inakuwa na mfumo wa kuhakiki vyanzo vya mapato yote ya watoa huduma na hivyo kurekebisha mapungufu yaliyokuwepo. Pia napenda niishukuru Kamati iliyoundwa na Katibu Mkuu Kiongozi kwa kufuatilia ukamilikaji wake.

Mwisho naushukuru uongozi wa Wizara ya Ujenzi, Uchukuzi na Mawasiliano pamoja na Bodi ya Wakurugenzi ya TCRA ambao walihakikisha utekelezaji wa TTMS unafanyika kwa umakini mkubwa; na kwa kuzingatia maelekezo ya Serikali na matakwa ya mkataba ili kukidhi matarajio yaliyokusudiwa.

Kwa upande wetu sisi watumishi wote wa TCRA tumetekeleza kwa nguvu zetu zote.

Tanzania Computer Emergency Response Team (TZ-CERT) is a team within the structure of the Tanzania Communication Regulatory Authority (TCRA), with national responsibility for coordinating responses to cyber security incidents at the national level. It cooperates with regional and international entities involved in the management of cyber security incidents. TZ-CERT was established under section 124 of the Electronic and Postal Communications Act (EPOCA) of 2010.

TZ-CERT provides the following services to its constituencies and the general public.

1. Alerts and Warnings

With the growth in cyber threats and vulnerabilities, TZ-CERT constantly monitors cyber security threats and vulnerabilities and advises both its constituencies and the general public.

2. Incidents Response

With expertise in cyber security, TZ-CERT can now work with constituency organizations to respond to all cyber security incidents in their respective networks. TZ-CERT provides step by step assistance to organizations facing cyber security attacks.

3. Cyber Security Awareness

With the mandate of improving cyber security posture in the country, TZ-CERT disseminates cyber security information to the public. This includes promoting cyber security best practices to users of information and communications technologies.

TZ-CERT will work on improving its services and focus on providing other cyber security services to the community including:

- Security audits and assessments
- Malware analysis
- Intrusion detection
- Risk analysis
- Security Consulting.

For more information and to report cyber security incidents please contact TZ-CERT:

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