

## WRC-15 SEEKING CONSENSUS FOR FUTURE GENERATIONS

// CTO AND ITU  
PLEDGE CLOSER  
COLLABORATION

// SPECTRUM'S ROLE IN  
DIGITAL MARKETS



## //EDITORIAL

## Enhancing value for our membership



**Shola Taylor**  
Secretary-General

Dear Valued Members and Readers,

Welcome to the first issue of *e-Commonwealth*, the CTO's new monthly publication. Since I assumed office as Secretary-General in September, I have made enhancing value for our members the key driving idea behind my vision for the Organisation. I have been conscious of the role the Commonwealth of Nations can and should play in global efforts to advance access to information and communication technologies, and achieve the post-2015 Sustainable Development Goals (SDG). As we

embark on our new strategic plan for 2016 - 2020, four pillars will underpin this vision:

- // Cybersecurity, including child online protection;
- // Universal, affordable and high-quality broadband access;
- // Effective and conducive regulatory environments
- // ICT applications in member countries socio-economic development efforts (especially e-education, e-health, e-agriculture, and e-governance).
- // Coordination of Commonwealth views at international fora.

I consider the fifth pillar of my vision on coordination of Commonwealth views as critical to ensuring the the CTO and the wider Commonwealth network of sister agencies fully play their part in achieving the new SDGs. As reported in this inaugural issue, we started with the World Radiocommunication Conference (WRC-15) for which a Commonwealth preparatory

meeting was held last month in London, and regular Commonwealth WRC Coordination Meetings taking place during WRC-15 itself. I am also pleased to announce that a programme of post-WRC-15 activities will also be published very soon. I am also grateful to the management of the CTO who have given equal attention to our coordination needs in other areas, such as in Internet governance through the Commonwealth Internet Governance Forum and the Commonwealth Governmental Advisory Group. Of course, we will continue to update you on these initiatives and how you could participate.

Finally, since this new publication merges previously separated publications about news and activities at the CTO, we would like it to be as informative as possible, and we would greatly value your feedback to further improve it.

Thank you.

**Shola Taylor**, Secretary-General

## //RECENT DEVELOPMENTS

## COLLABORATION

## CTO and ITU pledge closer collaboration on key ICT initiatives

In the first of a series of meetings with international organisations, the Secretary-General of the CTO, Shola Taylor met with Houlin Zhao, his counterpart at the International Telecommunication Union (ITU) on 5 October. The secretaries-general pledged closer collaboration between the two organisations on ongoing initiatives, with Secretary-General Zhao committing the ITU's support for the CTO's forthcoming Caribbean Digital Switchover Forum and the Caribbean Broadband Forum, both events taking place next year.

"CTO has been a very engaged and active partner of ITU for many years, and we are delighted to have the opportunity to further strengthen this bond," said Secretary-General Zhao.

"The Commonwealth is an important and very diverse global group of countries, and we welcome the opportunity of ITU helping its members realise their connectivity goals", he said.



Secretaries-General Shola Taylor, CTO and Houlin Zhao, ITU (Geneva, October 2015)

Mr Taylor has pledged to ensure that the CTO plays a greater role in coordinating the views of all Commonwealth member countries at international meetings, including treaty meetings convened by the ITU.

"Coordinating the views of Commonwealth countries and agreeing on common objectives in advance of key international ICT decision-making meetings is an area where the CTO can do a lot more," said Mr Taylor.

"Deliberations at conferences

convened by the ITU, such as the World Radiocommunication Conference (WRC) and the World Summit on the Information Society (WSIS) can be made more effective with prior consultations among Commonwealth countries. The Commonwealth WRC-15



**An important and very diverse global group of countries which welcome the opportunity of ITU helping them realise their connectivity goals**



Preparatory Conference held on 7 - 9 October in London has demonstrated the value of cross-Commonwealth coordination and I look forward to strengthening the CTO's role at international decision-making fora in the future", Secretary-General Taylor added.



A Commonwealth coordination meeting during the World Radiocommunication Conference, (Geneva, November 2015)

## Commonwealth implements action plan for consensus at WRC-15

Commonwealth countries taking part in the group of nations' preparatory meeting held in October in London ahead of the World Radiocommunication Conference (WRC-15) are meeting weekly in Geneva throughout November as part of a coordination action plan to achieve consensus at the international conference in Geneva.

WRC-15, which allocates new spectrum for radio communications, including for

international mobile telecommunication (IMT) services, takes place from 2 to 27 November 2015 under the auspices of the International Telecommunication Union (ITU). Most regional groups—whose positions guide the WRC process—include Commonwealth countries among their members. The London meeting, which took place on 7 - 9 October 2015 was useful in helping members from different regional groups to better appreciate the views and

positions of other regions and help achieve greater consensus in Geneva. The London meeting had resulted in the adoption of an eight-point action plan (see below).

Sharing his satisfaction at the end of the first coordination meeting on 4 November, the CTO's Secretary-General Shola Taylor said he was satisfied that "member countries had embraced this process and we are grateful to the ITU for its contributions and support".

### Key elements of the Commonwealth WRC-15 action plan

- Strong support for identification of additional spectrum for IMT in most parts of the L band;
- Resolve to protect digital terrestrial television in the UHF band;
- Future studies on potential use of part of the S band for IMT;
- Mechanisms to achieve consensus on the lower part of the C band taking into account the growing demand for mobile broadband and the needs of countries like in the Pacific which depend heavily on satellites;
- Support for future studies for IMT above 6 GHz to accommodate 5G, excluding Ku and Ka satellite bands;
- A mechanism for further engagement with various regions on the possible use of FSS for unmanned aircraft, taking into account aviation safety concerns;
- Support for global harmonisation on Earth Stations on Mobile Platforms; and
- Recognition of the importance and urgent treatment of global flight tracking taking into account studies in the Director's report.

## "Spectrum crucial to integrating digital markets" says CTO at Telecom World

During a leadership panel discussion taking place at the recent ITU Telecom World 2015 in Budapest on 'integrating digital markets', the CTO's Secretary-General, Shola Taylor, took the opportunity to highlight the need for coordination of international opinions on spectrum challenges ahead of the World Radiocommunication Conference (WRC).

"The WRC benefits greatly from regional consensus," Mr Taylor told the audience. "Identifying spectrum bands for mobile broadband will be key for the future of digital markets and preparation meetings in advance of the WRC, held by the ITU regions and the CTO, will aid the WRC process."

Telecom World is the ITU's annual

innovation forum that brings together a high-level audience of ministers, regulators and private-sector leaders. Secretary-General Taylor also met with ministers and CEOs to discuss his new vision for the CTO to provide enhanced value for members and promote the use of ICTs in development across the five regions of the Commonwealth.

## //CAPACITY DEVELOPMENT

## Tariffs planning given strategic focus at Mauritius Telecom

Staff from Mauritius Telecom undertook a training course on costing in telecommunications and tariff planning and structuring in order to gain a comprehensive understanding of the essential concepts, methodologies and tools of tariff policies and cost models in the telecommunications sector.

The five-day programme took place on 12 - 16 October 2015 in Port Louis as part of the CTO's Programme for Development & Training (PDT). Commenting

on this course, Hilda Muchando, the CTO's deputy manager for capacity development and training said that "we designed this course in order to enable participants to gain a practical knowledge of tariffs determination and the ability to evaluate tariff structures from different telecom services.

"The PDT team are extremely pleased that by the end of the course, participants were able to demonstrate the ability to handle tariff, costing and competition-related issues

and the requirements pertaining to regulatory and legal aspects." Ms Muchando said.

**Handle tariffs, costing and competition-related issues is critical to the regulatory and legal environment**



A training session at the CTO headquarters' new training facility in London, October 2015.

### Vodafone Ghana focuses on improving business processes

The essential knowledge and skills needed for the structure of telecommunication businesses in a globalised industry were examined in a five-day course on Telecommunications Business Process Re-engineering designed for delegates from Vodafone Ghana. The course also examined effective methods used to identify typical symptoms of business process dysfunctions, with emphasis on how business process re-engineering can help maximise service quality and customer satisfaction by matching process design to organisational objectives and customer needs.

### Liberia's regulator works with CTO on NGN trends

Under the CTO's Programme for Development and Training (PDT), staff from the Liberia Telecommunications Authority took part in a five-day training course on next-generation markets and technologies. This course was designed to enable participants to identify and explain technological trends and examine their impact on national regulation. "Delegates to this course were required to examine the development of a framework to enable innovative content." said Hilda Muchando, the CTO's deputy manager for capacity development and training. Participants were also required to explore the impact new technologies have on regulation policies, with a focus on the evolution to next generation markets. "We are extremely pleased to have delivered this course that is so relevant to the telecoms sector in this fast changing environment." said Ms Muchando.

## UPCOMING COURSES

### Introduction to IPTV

18 - 22 Jan 2016

Johannesburg, South Africa

This IPTV training will provide a detailed understanding of the IP-based technology used to deliver TV services.

### Commonwealth Transforming Telcos Workshop

28 - 29 January 2016

London, UK

A unique programme to feature the experiences of companies that have successfully managed the process of transition from PSTN operators to converged ICT operators. This workshop will provide delegates the opportunity to identify gaps in knowledge and learn from experts.

### Regulatory Boards Workshop

11 - 15 April 2016

London, UK

The CTO with its long history of capacity building, is ideally placed to equip senior decision-makers with the know-how to deliver on their core responsibilities as board members. This workshop will enable them to fully understand the complexities of ICT regulation in its wider context.

## //CAPACITY DEVELOPMENT

## CTO recognises the innovative potential of young professionals

In a youthful Commonwealth, the CTO is committed to ensuring that ICTs can assist in realising the potential of young people. Each year, the Organisation hosts up to eight professional fellows selected by the Commonwealth Scholarship Commission (CSC), as well as a growing number of interns.

The CSC awards over 900 scholarships and fellowships every year to Commonwealth citizens for postgraduate study and professional development, and the CTO is currently hosting four professional

strategies, open data, and national broadband strategies.

"This is an exciting opportunity for me to research national broadband strategies. I will have the chance to learn from the staff of the CTO and develop a model broadband strategy for my region, and I very much hope I will also contribute to the work of the CTO during my time here." said Sabina Islam.

Dennis Kandie, a Kenyan national, recently completed a six-week internship in the CTO's research division. During his internship, Dennis, who is currently pursuing an LLM in Oil & Gas Law and Policy at Dundee University in Scotland, UK was exposed to a number of challenging ICT research areas. At the end of his internship, Dennis thanked the CTO staff for the experience, especially for the intellectual engagement during his internship. "This has been a memorable work experience for me and I hope to further contribute to ICT research work at the CTO." he said.

"Here at the CTO we recognise the potential of youth in contributing innovative ideas in some of the most challenging ICT issues today." said Dr Martin Koyabe, Manager, Research and Consultancy. "The CTO is open to internships for students from Commonwealth countries as we gain greatly from the ideas they and the fellows generate. We very much hope they gain equally from the experience and look forward to hosting more interns and fellows in the future."

## "Broadband and Internet crucial to success of e-commerce," says Secretary-General Shola Taylor

During his official visits in Geneva last month, Secretary-General Shola Taylor met with the Secretary-General of the United Nations Conference on Trade & Development (UNCTAD), Dr Mukhisa Kituyi.

Mr Taylor introduced Dr Kituyi to the work of the CTO in advance of his contribution to the Global e-Commerce symposium convened in October by UNCTAD with The Centre for Global Equality and eNovation4D.

At the symposium, Mr Taylor emphasised that broadband and Internet connectivity act as major barriers to the adoption of e-commerce in emerging economies.

"Broadband is a key focus area for the CTO and working with CTO members to promote broadband implementation is a priority for the organisation." Mr Taylor told the audience, as he reminded that "promoting the development of, and access to broadband and the Internet in emerging countries is crucial to the success of e-commerce."

Mr Taylor acknowledged that concerns about security also act as an impediment to the development of a successful e-commerce environment. "Collaborative work with both CTO members and international organisations such as UNCTAD is essential to tackle the challenges posed by cybersecurity risk." Secretary-General Taylor said.



**This has been a memorable work experience for me and I hope to come back again and contribute further to ICT research**



fellows looking to develop their careers and contribute not only to the work of the CTO and its members, but also to their employer in their home country. Jake France (Ghana), Vincent Ngundi (Kenya), Victor Biran (Trinidad & Tobago) and Sabina Islam (Bangladesh) represent three of the Commonwealth's regions and bring a wealth of experience to the CTO. They are working respectively on cybercrime, cybersecurity



**Jake Theodore France**  
Chief Technology Security  
Officer,  
Vodafone Ghana



**Sabina Islam**  
Deputy Director,  
Bangladesh  
Telecommunications Regulatory  
Commission



**Victor Ryan Biran**  
Team Lead,  
National Information and  
Communication Technology  
Company Ltd.  
Trinidad & Tobago



**Vincent Ikovo Ngundi**  
Assistant Director/E-Commerce  
Information Technology,  
Communications Authority of  
Kenya

## //MEMBERS' NEWS

### Fiji to work with CTO on cybersecurity

The CTO and the Republic of Fiji are working together for the development of a cybersecurity strategy for Fiji. Once adopted, the strategy will also serve as a model framework for other Pacific island nations.

In recent years, the growth of cyber criminality and cyberterrorism has become a major concern for the global community, and countries are adopting different strategies to

address these this. "Working with the CTO will assist us in establishing the right national frameworks and in allocating the right level of resources to address criminal activities in cyberspace that originate in our country and collaborate with the international community as needed." said The Honourable Aiyaz Sayed-Khaiyum, Attorney-General and Minister for Communications.

### Kenya Safaricom's Spark Fund invests in local package delivery start-up

Kenya's leading mobile operator Safaricom has announced through its Spark Fund an investment in Sendy, a Nairobi-based package delivery start-up. Sendy becomes the first start-up to benefit from the venture fund, which was launched by Safaricom in November last year. "We are very pleased to be investing in Sendy, a business with a young, vibrant, innovative and ambitious team. Through Sendy we believe we are investing in more than just a start-up; we're

investing in a business that will transform the lives of everyone it touches, from the customer, to the boda-boda operator to the techie building & maintain the platform," said Joe Ogutu, Safaricom's Director for Strategy & Innovation. Rather than offering grants the Safaricom Spark Fund invests in start-ups by purchasing minority equity stake or providing convertible debt, allowing young businesses to access the finances needed to grow their businesses.

### UK to double spending on cybersecurity by 2020

The UK government has announced that it will double its spending on cybersecurity over the next five years.

The announcement comes as a sign of the UK's commitment to tackling cybercrime. Speaking earlier this month about the threats of terrorism, UK Chancellor George Osborne said of the UK that "The stakes could hardly be higher. If our electricity supply, or our air traffic control, or our hospitals were successfully attacked online, the impact could be measured not just in terms of economic damage but of lives lost."

"The starting point must be that every British company is a target, that every British network will be attacked, and that cyber crime is not something that happens to other people." the Chancellor said.

Mr Osborne also announced the creation of a new National Cyber Centre to bring together the country's leading experts.

### Botswana operator BoFiNet connects schools and centre for the deaf

Backbone operator Botswana Fibre Networks (BoFiNet) has connected ten schools and educational centres in the country to the Internet via broadband as part of the company's Community Service Day. The handover of the facilities was officiated by Minister of Transport and Communications and MP Tshenolo Mabeo.

Connections provided range from 2MB to 5 MB. "When I was informed of BoFiNet's intention to support the education sector, I was very pleased and welcomed the gesture with open arms. This effort is in line with [Botswana's] Vision 2016 pillar of an 'Educated and informed nation'. This pillar, through the efforts of the government, the private sector

and civil society aims to deliver an informed, knowledgeable and an IT literate society. In scaling up internet connectivity we are spurring rapid broadband penetration to improve access to information and indeed to education platforms that can complement the effort of educators and learners so as to be the best they can be", said the Honourable Mabeo.

### Data protection and privacy and the Common Thread Network Avanti wins contract with Telkom

The Common Thread Network links the Data Protection and Privacy enforcement authorities across the Commonwealth. It provides a network for data protection authorities and government officials to share knowledge, experiences and good practices in order to contribute to the development of a global privacy framework and to foster capacity building. Its objectives include building member states' capacity to promote and apply data protection and privacy protection measures, foster knowledge sharing and good practices, and cooperate to promote data and privacy protection.

Following the formalisation of the Network in 2014, eleven members met in Amsterdam

for their 3rd annual meeting on the margins of the *International Conference for Data Protection and Privacy Commissioners*.

Co-chaired by Christopher Graham, the UK Information Commissioner and Daniel Therrien, Privacy Commissioner of Canada, the group charted its course for the coming year, including a proposal for building a Knowledge House for the exchange of relevant information amongst Common Thread members, including legislation, guidance documents and public research.

The meeting also considered the possibility of further analysing the principles of data protection and privacy common throughout the Commonwealth.

Avanti Communications, a leading provider of satellite data services in Europe, the Middle East and Africa has won a contract with South Africa's Telkom to provide national high-speed broadband coverage across South Africa. "It is of great importance for Avanti to secure the partnership of Telkom in our shared mission to bring broadband to all government sites, businesses and homes in South Africa", said Avanti's chief executive David Williams. Service will be supplied using Avanti's HYLAS 2 Ka-band satellite, which has 100% coverage of South Africa across five beams. Avanti expects the multi-year commitment to make a significant contribution to filling HYLAS 2 and HYLAS 4 South African capacity.

## //OPINION

# Using ICTs to enhance awareness on agricultural input supplies

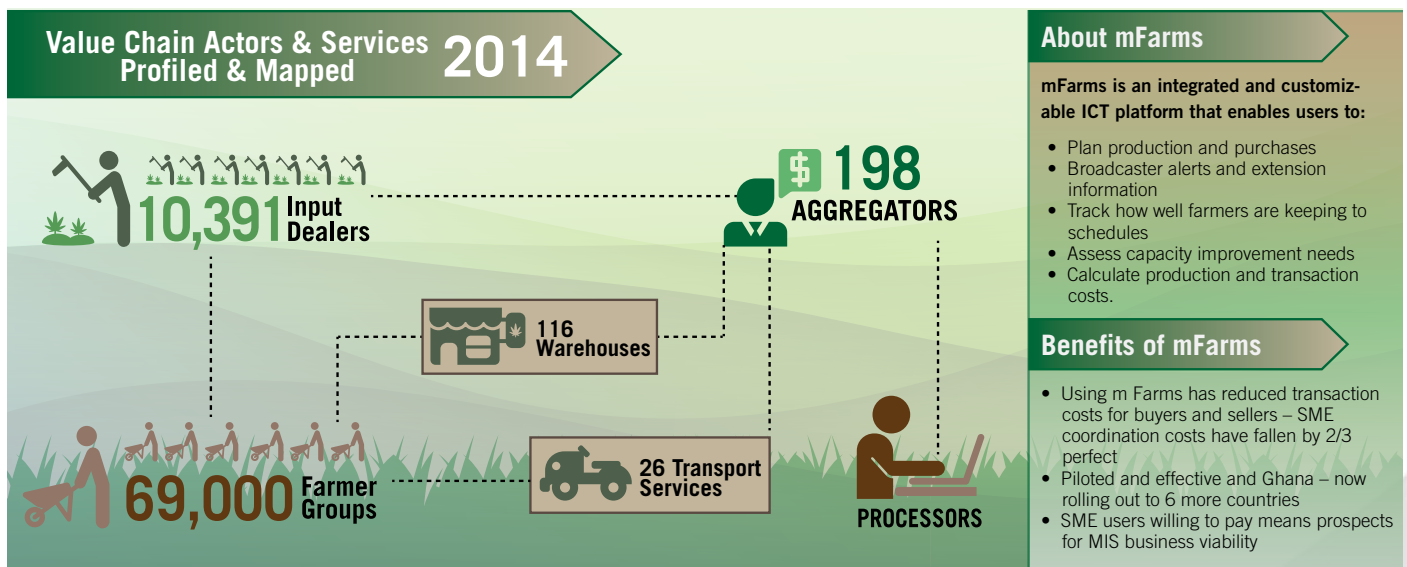
by Qureish Noordin, Programme Officer, Extension Support Function, Alliance for a Green Revolution in Africa (AGRA)

The role of ICT for enhancing food security and supporting rural livelihoods is increasingly recognised in Africa as one of the drivers in scaling up agricultural transformation. Increasing the efficiency, productivity, and sustainability of small-scale farms is an area where ICTs in their broader sense can make a significant contribution include the use of computers, the Internet, geographical information systems, mobile phones, as well as traditional media such as radio or TV. The use of ICTs in Africa (especially mobile phone and the Internet) has considerably increased in the last ten

tools and traditional extension methods such as demonstrations have greater impact at the farm level.

Mobile phones and Internet platforms offer the biggest opportunity in creating awareness on agricultural inputs and their use, including promoting good agronomic practices, and helping farmers find the best locations and prices for such inputs. A number of applications are available which show the type of seeds and fertilisers to be used in specific geographies and soil types. These applications are interactive and use both SMS and voicemail, and they can also

manage input orders and supplies and link them directly to input dealers. In Rwanda, Agritech is working with the government to profile all two million small holder farmers in all the 30 districts and promote linkages that will avail to them vital services. In the last 30 days of the project, we have so far managed to profile over 200,000 farmers and over 500 farmer groups (women and youth groups). It helps them manage input orders and supplies and link them directly to input dealers. In Nigeria, the government's e-wallet program, leverages farmers' access to mobile phones that enables them to obtain subsidised



year and by the end of 2014, mobile phone subscriptions had reached 69 per cent penetration (ITU, 2014).

There is diverse use of ICT applications along the value chain but the major applications are in the markets segment. However, ICTs have the potential to increase farm productivity by supporting the efficient use of, and enhancing access to critical inputs such as improved seed, appropriate fertilisers, lime, inoculum and agrochemicals. In 2015, ICTs have also been shown to create better governance of input supplies through government subsidy programmes. From experience in the field, an integration of ICT

be accessed through basic phones. Agro-dealers using ICT platforms have increased their business by reaching more farmers and increasing their efficiency of doing business. A good example is the Mfarms application currently dealing with 7,600 agro-dealers and replicated in seven countries.

With such applications, farmers can locate the nearest agro-dealers thus can travel with the assurance of getting inputs, unlike before where farmers would travel long distances and not find their input of choice, thus wasting time and money on transport. Another promising solution is eInputs by Agri tech Solutions Kenya that helps farmers

inputs on time with less bureaucracy (Iboma 2014). This enhances governance of subsidy programs making sure they reach the target groups.

AGRA was founded in 2006 through a partnership between the Rockefeller Foundation and the Bill & Melinda Gates Foundation. Today, AGRA also receives funding from other governments, agencies and international institutions. AGRA was singularly recognized as an effective public-private partnership for improving smallholder farming in the G8 in the years 2008 and 2009.



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