

# e-COMMONWEALTH

A NEWSLETTER OF THE COMMONWEALTH TELECOMMUNICATIONS ORGANISATION

//MAY 2017

//CAPACITY DEVELOPMENT  
PRIORITY TO INFORMATION SECURITY

//TONGA AND HUAWEI JOIN CTO

//CTO FORUM 2017  
DIGITAL NATIONS, DIGITAL WEALTH



## //EDITORIAL



**Shola Taylor**  
Secretary-General

Dear Readers,

This May issue of e-COMMONWEALTH focuses to a large extent on capacity development. Unsurprisingly, there is growing interest from our members in the area of cybersecurity and we are glad to be able to play a role in responding to their needs.

Cyberspace is ever growing, not least through the expansion of the DNS, and as a side note, we hope to see as many of you at ICANN59 in Johannesburg at the end of June and where another Commonwealth GAC meeting is set to ensure Commonwealth countries have every opportunity to have their voices heard.

Beyond cyberspace issues, we feature in this issue of e-COMMONWEALTH a number of courses from our new course catalogue, which I encourage you to download at [www.cto.int](http://www.cto.int)

Finally, as the final arrangements for the Commonwealth Broadband Pacific Forum to take place in Apia, Samoa in July are put in place, we review what is at stake for our annual Forum which takes place on 11 - 13 September in Maputo, to which I was particularly pleased to invite the ITU's secretary-general during their recent Council meeting.

Of course, as always, I look forward to welcoming you at these important events.//



Shola Taylor, Secretary-General, CTO and Zhao Houlin, Secretary-General, ITU.

## //RECENT DEVELOPMENTS

## Membership development

## Tonga and Huawei join CTO

On the occasion of Tonga joining the CTO, Secretary-General Shola Taylor welcomed a delegation from the Kingdom of Tonga, headed by Deputy Prime Minister The Honourable Siosaia Sovaleni, to the headquarters of the organisation on 10 May.

Membership of the CTO will assist Tonga with their ICT ambitions, which include expanding access to fibre optic broadband and the development of an e-governance programme. A draft membership action plan was presented to the Tonga delegation, outlining specific areas where the CTO can work with Tonga on ICTs to ensure they gain the maximum benefits of CTO membership, including support for cybersecurity, broadband rollout and development of ICT applications, and access to the CTO's knowledge sharing events and training courses.

*"The Kingdom of Tonga is making great strides in ICT development for its citizens," said Shola Taylor. "From expanding broadband access, to strengthening cybersecurity, Tonga is committed to ensuring that they make the best use of ICTs in order to progress their socio-economic development."*

*Indeed, Tonga is the first Pacific country to sign the Council of Europe's Convention on Cybercrime, and I would like to commend them on this progress."*

*"We are very happy to take part in the CTO's initiatives as a Full Member Country," said The Honourable Sovaleni. "We look forward to being part of Commonwealth common efforts to achieve greater impact in using ICTs in economic development and social inclusion in our respective countries."*

This month also saw the announcement that multinational networking and telecommunications equipment and services company, Huawei, has joined the CTO as ICT Sector Member – the organisation's membership category open to the private sector.

*"It gives me great pleasure to also welcome Huawei as one of our members," concluded Mr Taylor. "Members of the CTO greatly benefit from knowledge and experience sharing, and so Huawei's membership will help strengthen our organisation and its*

*contribution to the use of ICTs for development across the Commonwealth."//*



Shola Taylor, Secretary-General, CTO and The Honourable Siosaia Sovaleni, Deputy Prime Minister, Tonga.

//EVENTS &amp; CONFERENCES

# Digital Nations, Digital Wealth

Maputo, Mozambique

## CTO ICTForum'17

11 - 13 SEPTEMBER 2017, MAPUTO, MOZAMBIQUE

Since the liberalisation and privatisation of the '80's and '90's, the world has witnessed unprecedented, yet unbalanced access to ICTs. For most countries that have achieved near-universal access to basic fixed or mobile services, technology's overall impact on the economy and more generally on society has been hugely transformational. But, with over half the world population yet to use the Internet, let alone broadband Internet, liberalisation and privatisation alone may not be enough.

Understandably also, ICT policymaking has shown to be a more complex task, and rightly so. Over the past two decades alone, much-hyped technologies like ISDN or WAP quickly proved short-lived; others, such as e-mail, SMS or USSD, seen initially as of little use or impact, would become quasi-revolutions in their own merit. Many

lessons have been learned during this fascinating journey, but as history repeats itself, and as we resolutely enter the age of IoT, Cloud computing, Big Data, immersive and machine-to-machine technologies and always-on mobile broadband, predicting the next killer applications and making the right policy choices may prove once again a challenging task for governments.

The annual Forum of the CTO is designed to help policymakers and industry make sense of ICT evolution. Launched in 2003, it has become the ultimate Commonwealth annual ICT gathering where senior country representatives and specialised agency officials meet with opinion formers, private sector leaders and officials from development partners to discuss the future of ICTs in socio-economic development. Over three days, ideas, technology and market trends, policy and regulatory solutions, and country experiences are discussed to provide a better appreciation of what the future holds.

During last year's Forum which took place in Nadi, Fiji, participants reflected on ways to make ICTs more inclusive,

especially in relation to broadband, Internet governance and financial inclusion. Focusing on the theme of *Digital Nations, Digital Wealth*, this year's Forum, hosted by Autoridade Reguladora das Comunicações, Mozambique's communications and postal regulator, aims to go much further to explain emerging and future defining trends, the long-term stakes and prospects for all economies, and the opportunities governments have to embed ICTs more coherently into their national economic development plans.

Focused on building the foundations for competitive and sustainable national digital economies, the Maputo event will address the following issues:

- The digital future
- Infrastructure and investment
- Universal broadband
- Innovation
- Applications
- Internet and cyberspace
- Skills and entrepreneurship

To take part in this event, write to [events@cto.int](mailto:events@cto.int)

## commonwealth Broadband'17 Pacific

The ongoing increase in satellite and submarine cable links in the Pacific is paving the way to significantly greater access to the Internet. However, for the majority of people in the region, fixed access is still out of reach, and affordability of mobile broadband services remains a key barrier. Voice revenue from fixed operators in the region is also in decline, given the impact of over-the-top services and other market forces.

Following repeat success of the CTO's Broadband Forum, series in other regions, preparations for the first Commonwealth Broadband Forum Pacific show signs of a resolve by policymakers in the region to address barriers to broadband access for their citizens.

Taking place in Apia, Samoa on 25 - 27 July under the theme "*Broadband for Enhancing Pacific Lives*", the Commonwealth Broadband Pacific Forum 2017 will address the role broadband can play in the Pacific, with a leadership panel including ICT ministers from across the region discussing how their role in creating policy can leverage broadband to this end. The event will also

examine broadband access, innovation, the funding and regulation of broadband, the role of broadband in disaster management and safety in cyberspace.

Confirmed speakers include The Honourable Afamasaga Rico Tupa'i, Minister of Communication & Information Technology, Samoa, The Honourable Siaosi Sovaleni, Deputy Prime Minister and Minister for Information & Communications, Tonga, The Honourable Monise Laafai, Minister of Communication & Transport, Tuvalu and The Honourable Mark Brown, Minister for Telecommunications, Cook Islands.

To take part in this event, write to [events@cto.int](mailto:events@cto.int)

## //CAPACITY DEVELOPMENT

PROGRAMME FOR DEVELOPMENT & TRAINING

### Priority to security, quality of service and customer experience

Security, including cybersecurity, quality of service and customer experience, will be the focus of the first batch of training programmes to benefit around 670 telecom professionals over the next 10 months, as part of the Programme for Development & Training (PDT) for 2017-18.

#### Security and cybersecurity

Network managers at Mauritius Telecom will be among the beneficiaries of training in the design and roll out of enterprise security management programmes. Participants will gain an understanding of security as an on-going concern within the organisation, touching all elements of the organisation's function including operations, business continuity, disaster recovery, physical and environmental concerns. They will also be provided with practical tools to create and maintain strategically relevant security programmes based on international



standards.

Among other beneficiaries of security-related training will be the technical teams at Cameroon's national IT agency ANTIC, who will receive training in critical information infrastructure protection, cybersecurity and Cloud computing.

#### Quality of service monitoring

This programme equips participants with techniques used to monitor and enforce quality standards, from network transmission and interconnection to market intelligence gathering. All areas that affect quality of service at the access or transmission level are covered in detail. Recipients will include Botswana BoFiNet, as well as those to be enrolled in this year's Diploma in Telecommunications Management programme to take place in South Africa.

#### Transforming customer experience

With many operators undergoing transformation across The Commonwealth, training on customer experience is also a prominent feature of this year's PDT, with the first courses for this year planned to take place in Trinidad & Tobago, Ghana and Botswana.//

### Support for economic regulation in Africa and the Caribbean

Staff from Telkom South Africa attended a five-day course on ICT policy and regulation this month.

The course began with an examination of international ICT regulation and its impact on the national telecommunications and broadcast markets and went on to focus on national regulation issues, including convergence, spectrum management and the future evolution of the market. Telkom

staff also took part in a course on big data analysis, with other courses taking place on telecommunications finance in Trinidad & Tobago, traffic accounting and revenue assurance in Kenya and frequency planning and spectrum management in Nigeria.

All courses were developed as part of the CTO's Programme for Development & Training, the organisation's membership training programme.//



### Upcoming courses...

DATE	COURSE	LOCATION
5 - 9 June	Broadband Pricing	Abuja, Nigeria
12 - 14 June	Introduction to Cybersecurity	Yaounde, Cameroon
15 - 16 June	Critical Information Infrastructure Protection	Yaounde, Cameroon
17 - 21 July	Commonwealth ICT Round Table 2017	London, UK
19 - 21 June	Performing a Regulatory Impact Assessment	Abuja, Nigeria
19 - 23 June	Cloud Computing	Yaounde, Cameroon
19 - 23 June	Regulatory Master Class	Accra, Ghana
26 - 30 June	Interconnection and Next-Generation Networks	Accra, Ghana

For more information on courses, contact us at [programmes@cto.int](mailto:programmes@cto.int)

## //CAPACITY DEVELOPMENT

INFORMATION SECURITY

# Capacity development for the private sector



Capacity development for public-sector organisations is one mainstay of the CTO. Support is provided in key areas such as ICT policy development and regulatory reform, and in recent years, increasing effort has gone into working with member governments on the need for effective cybersecurity frameworks. The private sector, too, can turn to the CTO for advice and training, and we feature below for our readers three of the relevant courses available from the organisation's new course catalogue.

### **Building an Information Systems Security Policy**

Information held on computers and ICT systems is critical for businesses. If data is lost or compromised in any manner, it will not only lead to financial losses but may also create a legal liability on the holder of the data. An information system security policy is an essential requirement to secure data and to recover data, in case of loss. This course in depth into the following key areas:

- Enterprise security management framework, including information security policy, standards, guidelines and procedures.
- Internal and external threats such as environmental threats, organised crime

and civil disruptions, loss of utilities and services, equipment or system failure, serious information security incidents.

- Data loss prevention and data protection: information system backup, high-availability, recovery technique document recovery procedures, setting up an emergency operations centre, setting incidence response teams, testing and improving the plan, disaster recovery awareness by senior management and IT staff.
- Access control policies, including traffic control, device authentication (single-sign-on, automatic and manual sign on), user authentication, session authentication and bring-your-own-device policies.
- The course also provides links with key areas such as business continuity planning and disaster recovery.

### **IT Auditing and Systems Control**

This course focuses more specifically on IT issues to provide the participant with an overview of best practices for IT auditing, including how to evaluate and analyse current IT auditing systems and what controls need to be put in place to ensure an effective and efficient IT auditing process. Topics range from IT governance and risk management

to types of audit procedures, systems development and programming management controls, and evidence collection techniques and audit software.

### **Enterprise Security Management**

Organisations' dependency on the digital storage of information to maintain efficient business functions is becoming ever-more critical. Compromising data can have a devastating impact on an organisation's ability to function. This highlights the importance of understanding the systems and procedures for securing data as well as enabling data recovery. With a much broader take on the organisation beyond its information and IT systems, this course is a must-attend for network operators, data centres, Internet service providers (ISPs) and other organisations heavily dependent on customer data management. Aimed at information security management teams, data network managers and business continuity managers, the course addresses enterprise security management frameworks, regulatory requirements, security risks and threats, IT security and data protection and recovery planning.

For more information about these courses, write to [programmes@cto.int//](mailto:programmes@cto.int//)

## //TECHNICAL SUPPORT &amp; CONSULTANCY

## CTO members hard at work protecting their critical information infrastructure



The WannaCry/WannaCrypt ransomware attack of May 2017 has served to focus the attention of governments and industry worldwide on the need to protect and secure their critical ICT infrastructures.

The WannaCry ransomware attack started on 12 May and, alongside banks, hospitals, government services, global businesses and telecoms services, it is also known to have significantly affected more than 200,000 computers in 150 countries around the world.

The CTO and its members are acutely aware of the importance of Critical Information Infrastructure Protection (CIIP) and the need for CIIP to be a core component in the establishment of a national cybersecurity strategy. The CTO's work to

assist the development and implementation of national cybersecurity strategies all contain an element of promoting and developing CIIP capacity and capability.

Workshops scheduled for Rwanda and Malawi in June will, among other areas, train participants on how to identify critical information infrastructure, understand the challenges of protecting critical information infrastructure and the threat landscape, learn the critical role cloud computing plays in CIIP, formulate steps towards critical information protection and risk management of critical sectors.

*"Developing critical information infrastructure protection as part of the national cybersecurity strategy will enable*

*both Rwanda and Malawi develop a resilient and secure cyberspace for its own citizens and also complement the on-going efforts that have been achieved by the global community,"* said Dr Martin Koyabe, manager of Technical Support & Consultancy for the CTO. *"The WannaCry ransomware attack has brought the attention of CIIP to the world, and I am glad that CTO member countries are already working towards mitigating such attacks in future."*

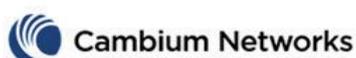
The CTO's bespoke approach to CIIP has already benefited Botswana and Cameroon. In addition to Rwanda and Malawi, work is also being planned to conduct CIIP workshops in Uganda, Tanzania and Mozambique.//

## commonwealth Broadband'17 Pacific

25 - 27 JULY 2017, TATTE CONVENTION CENTRE, SAMOA

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## //MEMBER NEWS

AFRICA

### Building Africa's smart cities

#### Rwanda spearheads Africa's smart cities blueprint

The Transform Africa Summit 2017 took place in Kigali, Rwanda on 10 - 12 May with a focus on developing smart cities and saw the unveiling by Rwanda of Smart Sustainable Cities: a Blueprint for Africa. The blueprint emphasises the role that technology plays in enhancing the delivery of services, both in the public and private sectors. It also provides an overview of smart and sustainable cities programmes designed to integrate available technologies at every level of urban management.

The smart cities blueprint was developed in conjunction with the Rwandan Smart Cities Masterplan, which offers a localised example of how African countries can make their cities smart, sustainable and resilient, and is part of the ongoing commitment by Rwanda to provide a model and the tools to help African cities advance digital transformation.

*"Urbanisation is a powerful driver of economic development and social mobility,"* HE Paul Kagame, President of Rwanda, said in the blueprint's foreword. *"It is also a catalyst for technological progress, as we see in cities globally. Africa is no exception. We are already home to the fastest growing cities. To get the cities we want, we must always keep the people we serve at the centre of our efforts."*

#### Nigeria plans smart cities summit for June

Also in attendance at the Transform Africa

Summit 2017 was Nigerian Minister of Communications, The Honourable Adebayo Shittu, who announced that Nigeria will hold a smart cities summit in June to take forward the initiatives spearheaded by Rwanda and outlined in the smart cities blueprint. The summit will aim to get the buy-in of stakeholders across Nigeria, and kick-start the country's smart city transformation.

#### Uganda's hackathon for solutions to safe, smart cities

Developing smart and sustainable transport systems was the challenge posed to participants in Uganda's Annual Communication Innovation Awards (ACIA 2017) hackathon. The summit took place on 24 - 26 May and the hackathon saw 35 teams compete to develop solutions aimed at solving the looming transport challenges of the nation and help to abate crimes committed by road users in Uganda, ultimately contributing to safe, smart cities and economic development. The winning project was from Team Sonnet with their hike a lift solution that helps users identify drivers on a similar route.

Organised by the Uganda Communications Commission, the ACIA summit is designed to recognise and promote outstanding ICT innovations in Uganda. Alongside the hackathon, the summit also held knowledge-sharing clinics, an exhibition of ICT innovations and presented awards in a variety of categories, including young innovators and ICT for development.

### Kenya cybersecurity bill approved by cabinet



President Uhuru Kenyatta of Kenya signing the bill.

Kenya's cabinet has approved the country's cybersecurity bill which will now go to the parliament for debate.

The bill provides for punitive penalties for people convicted of cybercrime and is part of a package of measures being implemented by the Ministry of Information, Communications & Technology, which also includes working with the security and legal sectors to inform them of the issue and putting in place a computer crime and response team to respond to cybersecurity issues and attacks in a bid to stem growing cyber threats.//

ASIA

### 5G coming to Malaysia

Telecommunications in Malaysia is set to evolve to a whole new level following Malaysia's first 5G trial on 18 May.

Deputy Minister of Communications and Multimedia, Datuk Jailani Johari, said the 5G technology was crucial for empowering the local industry across telecommunication, government, finance and industrial sectors, thus becoming the key to achieving the target to become a developed nation by 2020.

*"With the recent launch of the premier digital hub of the world's first Digital Free Trade Zone and Kuala Lumpur Internet City, Malaysia envisions to be the epicentre of Southeast Asia's Internet economy,"* said Datuk Johari.//

PACIFIC

### Vanuatu celebrates ICT the digital future at ICT Days Pacific 2017

As part of the World Telecommunication & Information Society Day (WTISD) celebrations, Vanuatu held their annual ICT Days Pacific conference on 17 - 18 May. Held under the WTISD theme of Big Data for Big Impact, included the role of big data in disaster response, big data for smart islands and the role of big data in disaster response.

The event culminated with the presentation of the Pacific ICT Awards

developed to recognise and promote outstanding ICT solutions and applications to encourage innovation and excellence among the Pacific's ICT talents and organisations. Awards were given for ICT solutions in the areas of innovation, digital inclusion and business solutions along with special awards for ICT entrepreneurship, digital leadership and best customer service.//

Conference  
&  
Exhibition

# CTO ICTForum'17

11 - 13 SEPTEMBER 2017, MAPUTO, MOZAMBIQUE

## Digital Nations, Digital Wealth

Sharing the ICT vision for the Commonwealth & beyond



**The digital future**  
**Infrastructure and investment**  
**Universal broadband**  
**Innovation and applications**  
**Internet and cyberspace**  
**Skills and entrepreneurship for digital economies**

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