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CHAIRMAN'S **MESSAGE**



Juma Kandie Chairman

In 2012, the Commonwealth Telecommunications Organisation (CTO) embarked on a new and exciting ICT4D journey. Supplementing its existing and long-established operations in capacity development, research and consultancy, and events and conferences, the CTO identified six ICT4D areas of critical importance to member countries: broadband access, regulatory environments, cybersecurity and cybercrime, skills and entrepreneurship, ICTs for people with disability, and youth and ICTs.

Each of these areas requires greater understanding, strong political attention, and effective international collaboration to address them effectively. This new focus on a small number of priority areas implied considerable internal transformation for the Organisation and, two years on, I note with excitement the impressive progress made so far, and the early positive results achieved.

The Secretariat has made commendable progress in each of its new strategic priority areas. For instance, through its various initiatives on cybersecurity, greater awareness of the issues at stake among member countries has been achieved, and although there is still some way to go, more concerted action and collaboration is starting to take place by and among members in preventing or tackling cybercrime. Likewise, through a wide range of specialist

THE SECRETARIAT HAS MADE COMMENDABLE PROGRESS IN EACH OF ITS NEW STRATEGIC PRIORITY AREAS.

training programmes, areas in need of improvement in member countries' ICT policies and regulatory environments are being addressed, from social inclusion and competition, to industry quality of service, mobile number portability and spectrum planning.

I am also pleased to note the CTO's participation in third-party youth and education initiatives such as the International Telecommunication Union's m-Powering programme and the European Union-funded we.learn. it initiative. From these activities, significant time- and cost-saving lessons will be learned and shared, and I am confident that taking part in such third-party initiatives with our partners also has many benefits for our members.

However, and perhaps most important of all, the holding of the highly successful first biennial Commonwealth ICT Ministers Forum held in collaboration with the Commonwealth Secretariat in March 2014 has put in place the foundations for the much-needed high-level political will and active backing required to take the Commonwealth agenda on ICTs forward most effectively. At this year's event, Commonwealth ICT ministers and senior representatives from some 30 countries focused their attention on broadband access, Cybergovernance, and e-inclusion.























































I AM ALSO PLEASED TO NOTE THE CTO'S PARTICIPATION IN THIRD-PARTY YOUTH AND EDUCATION INITIATIVES.

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This is an exciting beginning, and I very much look forward to an equally successful ministerial event in 2016 when other important issues will be addressed. Above all, though, such activities place the CTO in its rightful place at the heart of ICT and telecommunication agendas across the Commonwealth, using its expertise to help members develop common Commonwealth agendas on critical issues affecting our peoples.

Of course, despite these achievements, we should not lose sight of the broader picture. At present, two thirds of Commonwealth countries have an ICT Development Index below the current world average of 4.35, and over half of Commonwealth countries rank below the world Internet usage average of 43 per cent. Therefore, while a considerable number of Commonwealth countries are making more effective use of ICTs and the Internet, far too many Commonwealth citizens remain behind, preventing them from equally benefitting from the digital economy. This is a challenge that the CTO is tackling head-on, and we are determined to work with other cognate bodies with relevant expertise to make a real difference on the ground.

As an organisation focused on ICTs, equal access and use of ICTs by everyone in our societies remains our biggest challenge, and I am confident that the achievements



WE SHOULD NOT LOSE SIGHT THE BROADER PICTURE.

reported in this report, added to the growing and active support of our members for the Secretary-General, represent a positive contribution to the global effort to reduce this persistent digital divide.

Once again, on behalf of Kenya, I take this opportunity to thank all members, and especially members of the Executive Committee, for the trust and the endless support they have given me in my role as Chairman.

Junior

Juma Kandie Chairman



SECRETARY-**GENERAL'S** INTRODUCTION



Professor Tim Unwin Secretary-General

As I write this, we are now half way through the Commonwealth Telecommunications Organisation's (CTO) current strategic plan; much has been achieved, much remains to be done. The CTO is above all else a membership organisation, and I am delighted that we are now receiving many more requests from our members for activities and engagement than we were when I joined in 2011. This suggests that we are indeed doing many things right. However, as a relatively small organisation, I am very conscious that we now need to expand our staffing to deliver on the ambitious targets that Council has endorsed.

The last year has seen substantial changes to the staffing of the Organisation. Lasantha De Alwis was appointed to the position of Director and Head of the Operations Department, Rakesh Luchmun to Director and Head of the Finance and Administration Department, and Marcel Belingue to Head of Membership and Communications. This has also necessitated the appointment of new Managers across the Operations Divisions, and we now have a highly dedicated team committed to serving the needs of all of our members. It is appropriate to thank all of the staff of the CTO for their professionalism, energy and enthusiasm for our mission "to promote, facilitate and guide members in using ICTs to deliver effective development interventions". In this decade, more than ever we need to get used to constant change,

IT IS EXCELLENT TO BE ABLE TO REPORT THAT OUR FINANCIAL POSITION IS VERY MUCH BETTER THAN HAS BEEN THE CASE IN THE RECENT PAST.

in part fuelled by the new technologies that provide the core focus of the CTO's attention. However, this places new pressures on all staff, and I am very grateful to the ways in which everyone at the CTO has responded to the many changes that we have introduced together since I became Secretary-General.

2013-14 has been an exciting year for the CTO, and I would like to begin by recalling three particularly important achievements. First, it is excellent to be able to report that our financial position is very much better than has been the case in the recent past. We have turned round a deficit of £137,103 in 2012-13 into a surplus of £251,784 in 2013-14. This is a remarkable achievement, and reflects once again the determination of the staff at the CTO to ensure that we are delivering maximum value for money for all of our members.

Second, the CTO conceived and delivered, with the support of the Commonwealth Secretariat, the first ever Commonwealth ICT Ministers Forum in March 2014. Ministers and senior representatives from some 30 Commonwealth countries attended, and not only had the opportunity to get to know each other better and share experiences, but also agreed on three important documents:



SECRETARY-GENERAL'S INTRODUCTION

- A Commonwealth Cybergovernance framework;
- An enhanced position on ICTs and disability, following the Commonwealth e-Accessibility Summit convened by the CTO in 2012; and
- A shared commitment on the importance of ICTs in education, including a series of priority actions for all Commonwealth governments.

Reaching such agreements was a remarkable achievement, and reflected a spirit of cooperation and a commitment to wise consensus building that lies at the heart of the CTO's work. Perhaps more importantly than all of these in the longer term, was the Ministers' reaffirmation that the CTO should indeed be the lead organisation and coordinator of ICT activities across the Commonwealth, the task for which it was set up by our governments many years ago. The CTO has immediately risen to this challenge, and has already convened several meetings of Commonwealth representatives attending major international gatherings convened by bodies such as ICANN and the ITU, to share information and seek to reach consensus positions relating to their common interests.

Third, the termination of the lease on the ground floor of the CTO's Hammersmith headquarters has enabled us to embark on a significant restructuring of our offices, involving the creation of a state-of-the-art learning space on the ground floor, redesign of the Operations Department's working environment on the top floor, and a high quality Board Room that is available for a diversity of uses, including small group meetings and receptions. I look forward to being able to report on the completion of this project in my introduction to next year's annual report, and I hope that many more of our members will choose to use our headquarters building as their London home when they are visiting.

This annual report highlights the work of the CTO over the last year in all of its rich diversity. Our three operational

divisions (research and consultancy, capacity development and training, and events and conferences), all contribute to delivering on our mission in different ways, enabling us to fulfil our vision of being the preferred partner organisation for all those working on ICTs for development in the Commonwealth, and indeed beyond. We are deeply committed to working collaboratively and in partnership with like-minded organisations, and look forward to our membership continuing to increase in the years ahead. Our proactive priority areas are sixfold:

- Cybersecurity and cybercrime
- Regulatory environments
- Broadband, and especially mobile broadband
- ICTs and youth
- Skills and entrepreneurship
- ICTs and disability.

As well as delivering practical activities in these areas, our website is intended to provide up-to-date and highly relevant information on each of these areas, including the most important recent publications, the best web links and portals from which to gain further information, and mobile applications of direct use by stakeholders in these areas (http://www.cto.int/focus-themes/).

However, the CTO's work is not just restricted to these six areas , and we respond to requests from members, and indeed others, to work in any aspects of the use of ICTs in which they are interested, including research on open data, data analytics, cloud computing and future Internet. Exciting additional work has continued with our members and partners during 2013-14, for example, on ICTs and disasters (Mauritius), new modalities of e-learning (EU), m-governance (Vanuatu) and universal service and access funds in Liberia. These examples also indicate the CTO's work beyond the confines of the Commonwealth, and we look forward to welcoming other non-Commonwealth

countries and organisations as ICT Sector Members in the future.

On a more personal note, I have particularly appreciated the welcome that I have received from our members across the world over the last year. A key part of my job is to visit member countries across the Commonwealth, and I have been particularly eager to ensure that we are visible in all corners of the world. It has been especially good this year to find time to work in countries as diverse as Montserrat and Antigua and Barbuda in the Caribbean; Bangladesh, India, Singapore and Sri Lanka in Asia; and Cameroon, Nigeria, Rwanda and Tanzania in Africa. It has also been a real privilege to represent the CTO in many international conferences and events elsewhere, and I am grateful to the organisers of such gatherings for permitting me to share with them some of the successes of our members and partners, be they countries, companies or civil society organisations.

As this annual report indicates, much has been done over the last year, but that only encourages us to achieve much more together in the future. We have a wonderful commission, to craft solutions that can enable all of the people of the Commonwealth to use ICTs for the common good, supporting the development of their countries and societies in new and innovative ways. We welcome all who wish to journey with us in using ICTs to create a fairer, more peaceful and more prosperous Commonwealth.

Tim Unwig

Professor Tim Unwin Secretary-General



ABOUT THE CTO

Who we are

The CTO is the oldest and largest Commonwealth organisation engaged in multilateral collaboration in the field of ICTs. Using its experience and expertise, we support members in integrating ICTs to deliver effective development interventions that emancipate, enrich, equalise and empower people within the Commonwealth and beyond.

What we do

The work of the CTO goes back to the Organisation's creation in 1901 as the Pacific Cable Board. Since then, the CTO has been at the centre of continuous and extensive international communications development funding, cooperation and assistance programmes. Since 1985, the Organisation has delivered to its members in Europe, the Caribbean, the Americas, Africa and Asia-Pacific over 3,760 bilateral and multilateral telecommunications and ICT capacity building projects in the form of policy, operational and regulatory training, and expert assistance. Moreover, the CTO has been at the forefront of generating cutting-edge knowledge through its research and consultancy services, as well as sharing ideas through its conferences and workshops held around the world. This long history as a development facilitator provides the Organisation with a unique and growing delivery capacity for ICT4D programmes and services.

Our Mission

To promote, facilitate and guide members in using ICTs to deliver effective development interventions.

Our Vision

To be the preferred partner organisation for governments, the private sector and civil society in delivering effective ICTs for development in the Commonwealth and beyond.

Supporting ICT4D in the Commonwealth

The CTO seeks to work collaboratively with other Commonwealth bodies to build mutually beneficial synergies in the interests of its members. The CTO has a key role to play in leading ICT4D initiatives across the Commonwealth, and it is committed to working together with other Commonwealth entities to reduce overlap and replication of activities. The CTO welcomes the opportunity to offer secretariat support to any Commonwealth ICT initiatives that reflect the needs and interests of its members.





EXECUTIVE COMMITTEE

















- Chairman
 Juma Kandie, Director of Human Resources,
 Communications Authority of Kenya
- 2 1st Vice-Chair **Dr Eugene Juwah**, Executive Vice-Chairman, Nigerian

 Communications Commission
- 2nd Vice-Chair
 Cris Seecheran, Chief Executive Officer,
 Telecommunications Authority of Trinidad & Tobago
- 4 Immediate Past Chairman

 Anusha Palpita, Director General, Telecommunications
 Regulatory Commission, Sri Lanka

- Development Members Representative

 Jean-Louis Beh Mengue, General Manager,
 Telecommunications Regulatory Board of Cameroon
- 6 Industry Members Representatives

 Abigail Sono, International Key Account Manager,
 TelKom South Africa
- 7 Chairperson, Programme for Development & Training Halima Letamo, Head, Capability Development, Botswana Telecommunications Corporation
- Secretary-General

 Professor Tim Unwin, Commonwealth
 Telecommunications Organisation



MANAGEMENT TEAM

















- 1 Professor Tim Unwin, Secretary-General
- 2 Rakesh Luchmun, Director, Head of Finance & Administration
- 3 Lasantha De Alwis, Director, Head of Operations/ Corporate Secretary
- 4 Marcel Ambiana Belingue, Senior Manager, Head of Membership & Communications

- 5 Dr Martin Koyabe, Manager, Research & Consultancy
- 6 Robert Hayman, Manager, Events & Conferences
- 7 Marianette Violeta, Assistant Manager, Finance & Human Resources
- 8 **Hilda Muchando**, Assistant Manager, Capacity Development & Training



CTO AMBASSADORS

The role of Ambassadors is to strengthen the Organisation's stakeholder engagement in different regions of the world. Ambassadors are distinguished people in the field of ICTs for development who possess experience at a senior level in the public, private or civil society sectors, and through their engagement in wide networks of decision makers and thought leaders can help to ensure that the CTO is informed about, and contributes to ICT initiatives in their region.



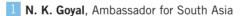












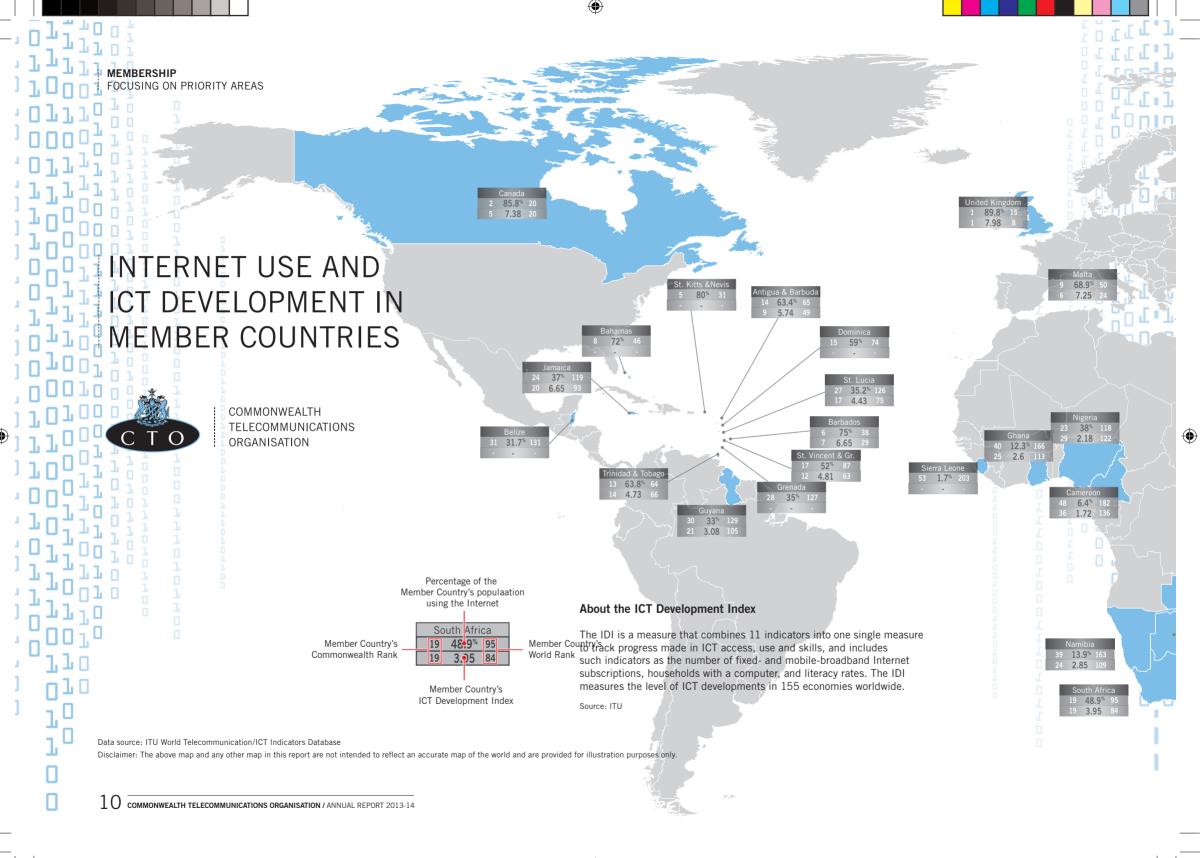
Bob Horton, Ambassador for Australia, New Zealand and the Pacific

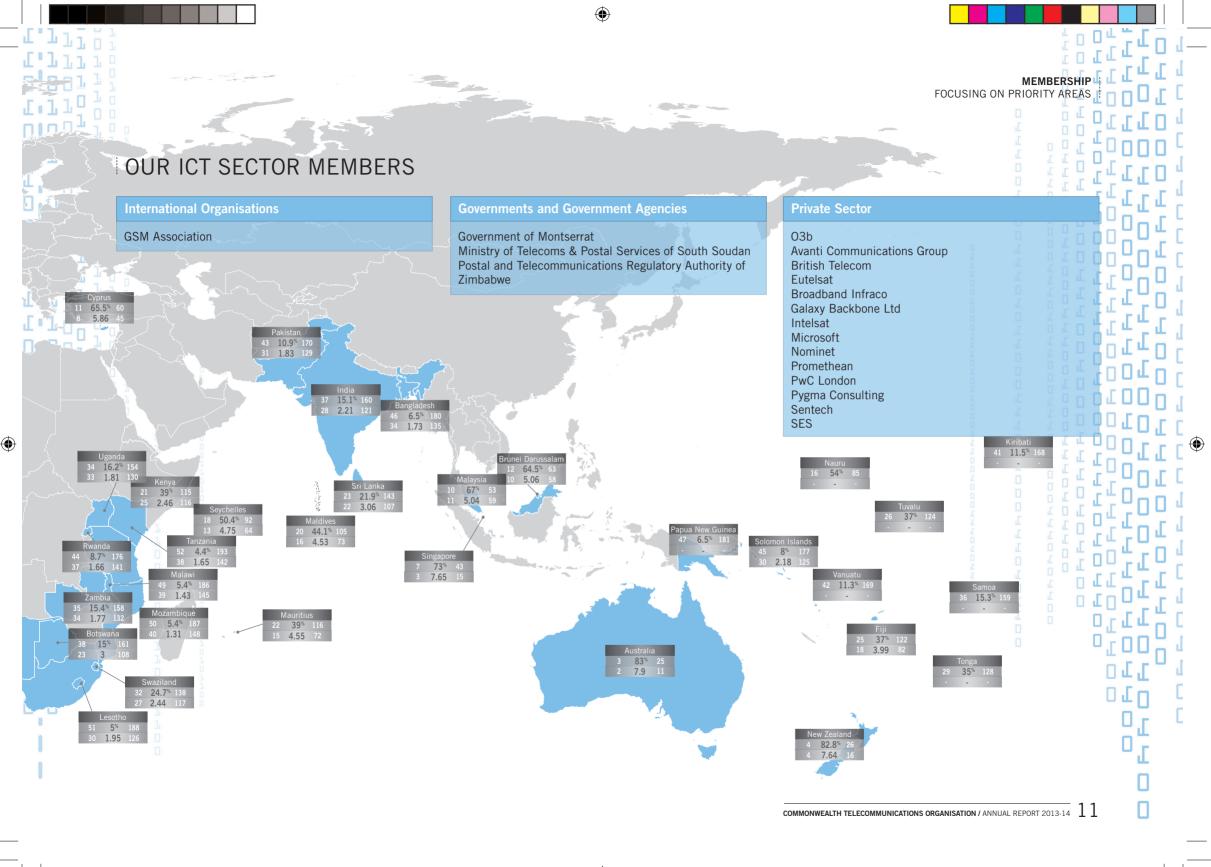
3 J. P. Morgan, Ambassador for the Caribbean

4 Bashir Patel, Ambassador for the Middle East

5 Richard Simpson, Ambassador for Canada

6 Marianne Treschow, Ambassador for Scandinavia



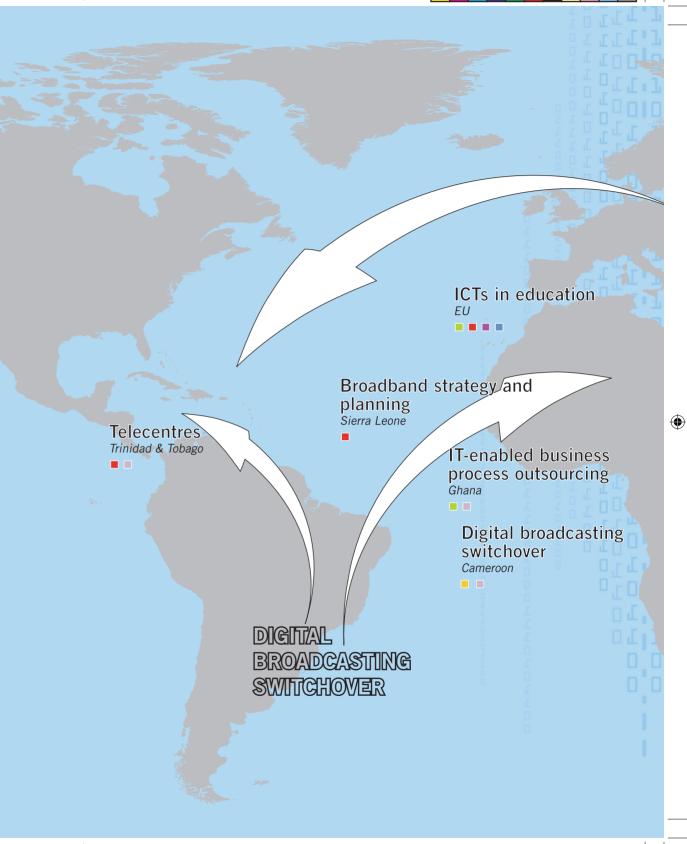




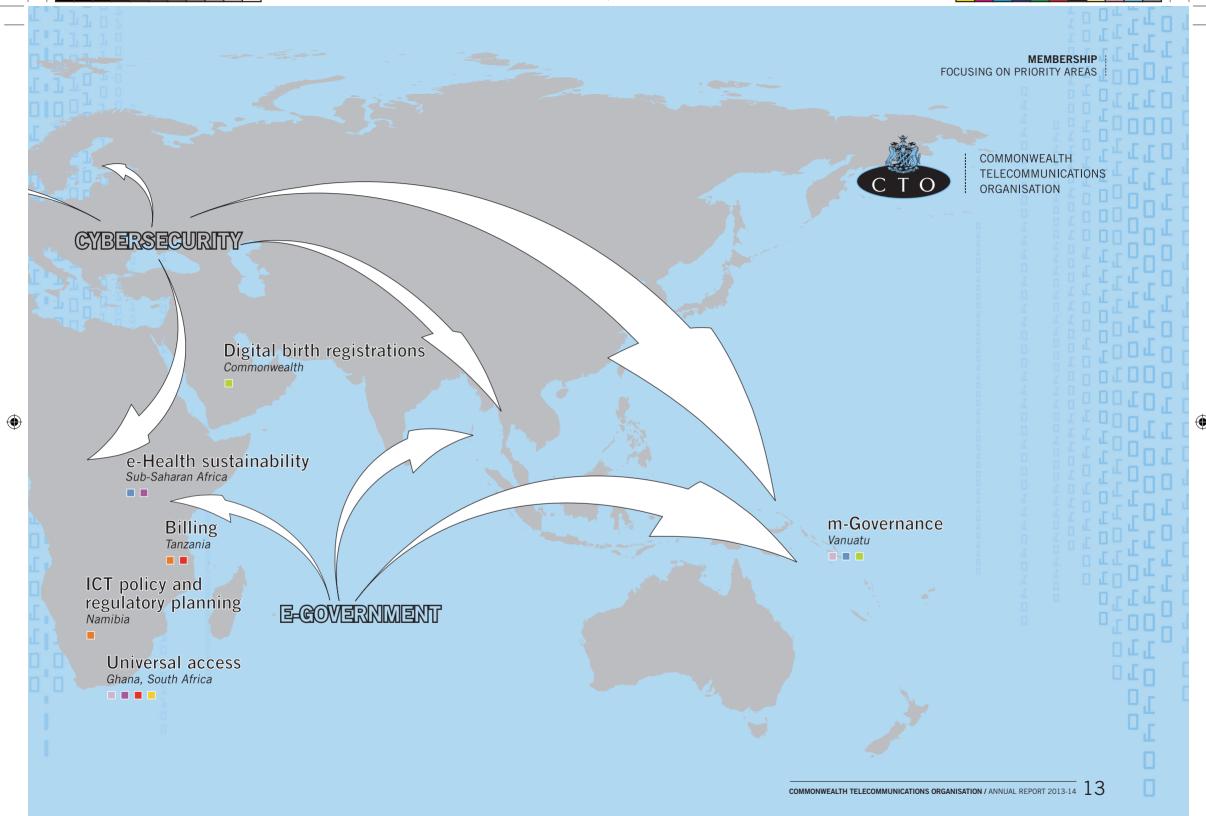
MEMBERSHIP FOCUSING ON PRIORITY AREAS

ACTIVE MEMBERSHIP ENGAGEMENT IN SIX PRIORITY AREAS

- Cybersecurity and cybercrime
- Regulatory environments
- Broadband, and especially mobile broadband
- ICTs and youth
- Skills and entrepreneurship
- ICTs and disability









COMMONWEALTH ICT MINISTERS FORUM

3 - 4 March 2014, London, United Kingdom

Driving the Commonwealth agenda on ICTs

THE INTERNET IS TAKING A
CENTRAL PLACE IN MANY OF
OUR COUNTRIES AND THERE
IS A NEED TO THINK ABOUT
HOW WE GOVERN THIS SPACE
IN TERMS OF CYBERCRIME AND
CYBER THREATS.
Honourable Omobola Johnson, Minister of

Communications Technology, Nigeria

Jointly organised by the Commonwealth Telecommunications Organisation and the Commonwealth Secretariat, the first biennial Commonwealth ICT Ministers Forum took place on 3 - 4 March 2014 in London. Chaired by The Honourable Dr Omobola Johnson, Minister of Communications Technology of Nigeria, the meeting followed endorsement in 2013 by Commonwealth Heads of Government of the initiative of the Commonwealth Secretariat, the Commonwealth Telecommunications Organisation, and the International Telecommunication Union to work together in a multistakeholder partnership to support the development of national broadband policies and strategies in those Commonwealth countries where they are yet to be developed.





COMMONWEALTH ICT MINISTERS

14 commonwealth telecommunications organisation / annual report 2013-14





ICT MINISTERS FORUM



PARTICIPATING COUNTRIES

- Bangladesh
- Barbados
- Botswana
- British Virgin Islands
- Cameroon
- Ghana
- Gibraltar
- Grenada
- India
- Jamaica
- Kenya
- Kiribati
- Malawi
- IVIalaw
- Malaysia
- Mauritius

- Mozambique
- Namibia
- Nauru
- Nigeria
- Samoa
- Seychelles
- Sierra Leone
- St Vincent & the Grenadines
- Swaziland
- Tanzania
- Turks & Caicos Islands
- Tuvalu
- Uganda
- Zambia

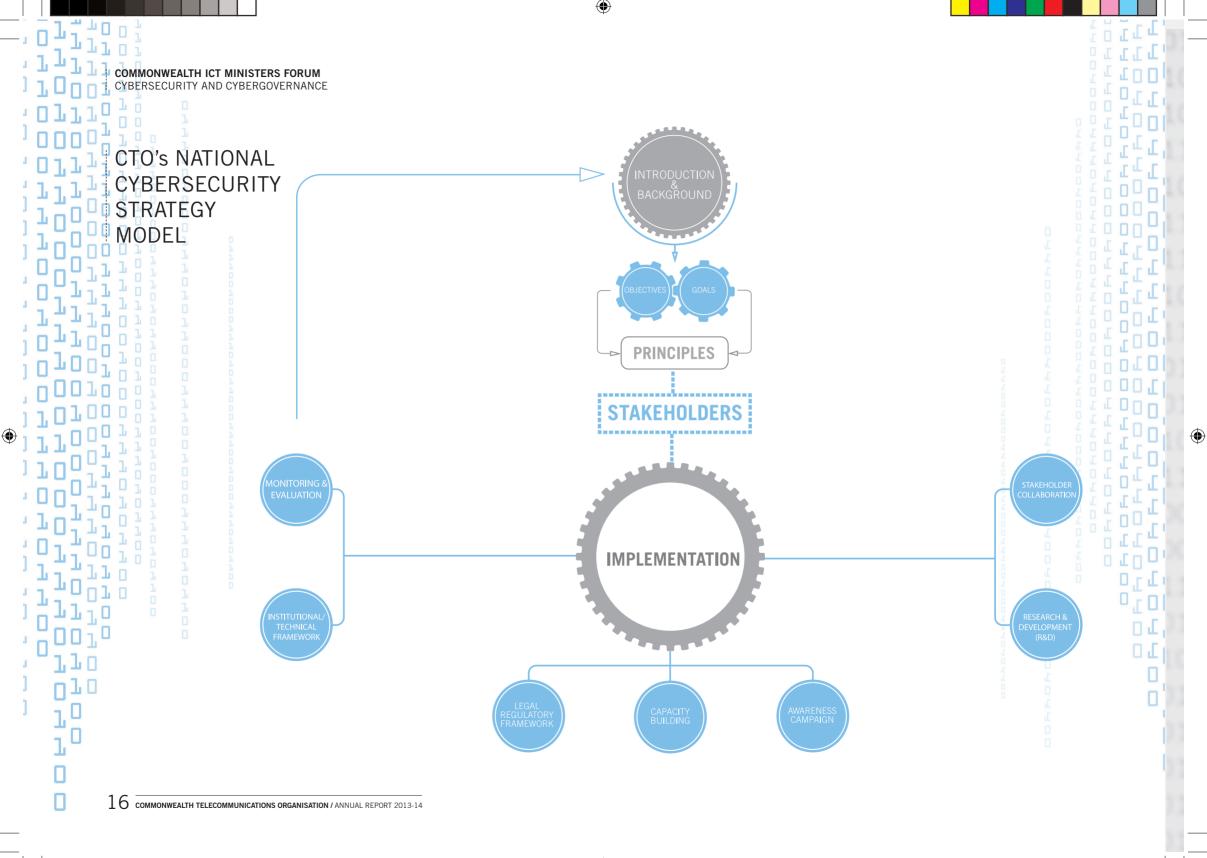
KEY OUTCOMES

- Adoption of the Commonwealth Cybergovernance Model;
- Adoption of a Commonwealth e-Inclusion Agenda on ICTs for People with Disabilities;
- Granting a mandate for the CTO to facilitate sharing good practices in ICTs in education among Commonwealth agencies in the four areas of content, infrastructure, capacity development and holistic government;
- Granting a mandate for the CTO to coordinate and lead the development of shared Commonwealth positions on matters of mutual interest at international meetings relating to ICTs and telecommunications;
- Agreement to pursue the Commonwealth National Broadband Initiative.

IN FOCUS: COMMONWEALTH CYBERGOVERNANCE MODEL

The Commonwealth Cybergovernance model is based on four key principles:

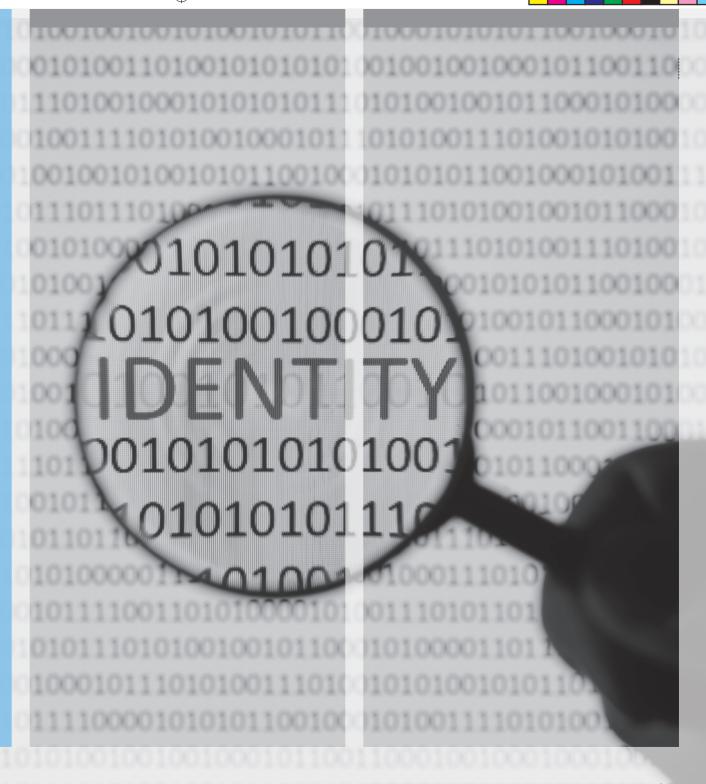
- Contributing to a safe and effective global cyberspace
- Acting in cyberspace to support broader economic and social development
- Acting individually and collectively to tackle cybercrime
- Exercising our rights and meeting our responsibilities in cyberspace.



OPERATIONS

Delivering high-value services to members and partners in three main areas:

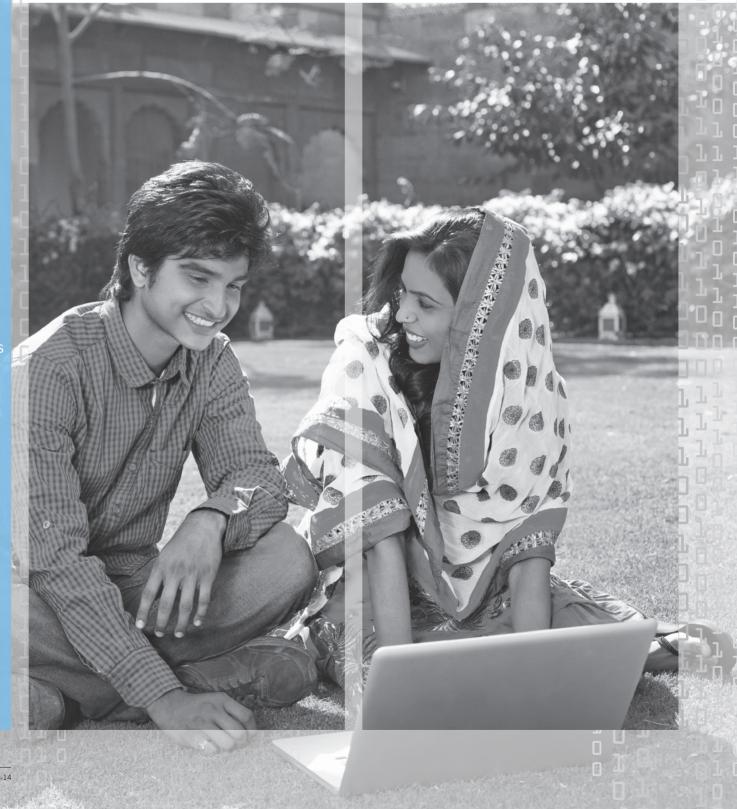
- Research and consultancy
- Events and conferences
- Capacity development and training



COMMONIMENTH TELECOMMUNICATIONS OPCANISATION / ANNUAL DEPORT 2012 14

RESEARCH & CONSULTANCY

During the 2013-14 operational year, the Research & Consultancy division has delivered 12 projects in various areas, from strategic planning for regulatory agencies and broadband to digital switchover and e/m-governance. While our research and consultancy partners played important roles in the delivery of these projects, the CTO has continued on its path to make greater use of internal resources, supplemented by a growing alumni network of Fellows from member institutions, thus helping to strengthen the Organisation's position in research and consulting.



OPERATIONS

RESEARCH AND CONSULTANCY



SUPPORTING STRATEGIES FOR UNIVERSAL ACCESS IN GHANA AND SOUTH AFRICA

In 2011, Ghana invited the CTO to assist the country's Universal Service Fund, the Ghana Investment Fund for Electronic Communications, to develop a strategic plan relevant in Ghana. Delivered over two years, this assignment was successfully completed in December 2013. Separately, in March 2013, the CTO, in partnership with a consortium of consultancies, was commissioned by the Universal Service and Access Agency of South Africa to develop a national strategy for universal service and access. Before developing the strategy component, the consortium completed a situational analysis and an access gap study; these two deliverables were significant in ensuring that the new strategy recommended by the CTO was evidence-based. The project was successfully completed in January 2014.

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PREPARING GHANA AS AN IT-ENABLED BPO DESTINATION

In collaboration with India-based partners, the CTO was tasked in this World Bank-funded project to explore business process outsourcing (BPO) and help design an enabling policy environment for Ghana. Completed in March 2014, this assignment highlighted BPO opportunities and priority areas for the CTO West African Commonwealth country.



IMPROVING TELECOMMUNICATION BILLING AT TANZANIA TTCL

The selection and implementation of a new billing system for TTCL is one example of the roles the CTO can play in assisting member countries in critical and complex projects. Started in 2011 with the assistance of the CTO, the project was carried out over two years and the new system successfully went live in December 2013.

NAMIBIA'S ICT POLICY AND REGULATORY PLANNING: FOCUSING ON PERFORMANCE

In June 2013, the Communications Regulatory Authority of Namibia (CRAN) commissioned the CTO to assist in revising the country's ICT Policy and Implementation Plan and advise on strategic planning.

This project included the following work streams:

- Policy and regulatory planning, in collaboration with CRAN and Namibia's Ministry of ICT to revise the 2009 plan;
- 2012-14 Strategic Plan update and drafting of operational plans and performance agreements;
- 2014-16 Strategic Plan, operational plans, and performance agreements;
- Namibian Prototype Committee's terms of reference and guidelines for its operations.

WE.LEARN.IT: SUPPORTING EU EFFORTS TO PROMOTE ICTS IN EDUCATION

In October 2012, a consortium of organisations including the CTO received funding from the European Union for an initiative that aims to improve the use of ICTs for education. Called we.learn.it, the project works with schools and students across Europe to promote the use of ICTs in education. Significant progress was made during 2013-14, when the project held several learning expeditions across Europe and had an annual review with the European Commission to assess progress and deliverables after the first period. The project is expected to end in 2014-15.

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OPERATIONS

RESEARCH AND CONSULTANCY



In March 2013, the CTO received a grant from the Commonwealth Secretariat, as part of the Commonwealth Connects programme, to develop an m-governance strategy for Vanuatu and an m-governance strategy toolkit for other Commonwealth countries. Successfully completed in April 2014, the project involved the CTO working in collaboration with the Government of Vanuatu, the Commonwealth Secretariat, and the United Nations University's Centre for Electronic Governance to develop the m-governance strategy.



In March 2013, the CTO also received a grant from the Commonwealth Secretariat as part of the Commonwealth Connects programme to manage the setting up and financing of a multipurpose telecentre in Trinidad & Tobago. Working closely with the Telecommunications Authority of Trinidad & Tobago and the Commonwealth Secretariat, the project was successfully completed in April 2014.



In January 2014, the European Space Agency commissioned a consortium led by the CTO's ICT Sector Member Avanti Communications Group with support from the CTO, to undertake a study aimed at analysing and assessing the sustainability, viability and business aspects of satellite-enhanced telemedicine/e-health in sub-Saharan Africa. Currently in its implementation phase, this project is expected to identify suitable economic models for supporting the long-term sustainability of satellite-enhanced telemedicine and e-health infrastructure and services, and highlight factors and constraints likely to affect the sustainability of e-health services. The study is expected to be completed by December 2014.

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RESEARCH AND CONSULTANCY



ESTABLISHING A UNIVERSAL ACCESS FUND IN LIBERIA

In October 2013, the CTO and its partners were commissioned as part of the World Bank's West African Regional Communications Infrastructure Programme (WARCIP) to establish a universal access fund for Liberia. The project started in November 2013 and involves the CTO working with Liberia Telecommunications Authority and WARCIP Liberia. The project ran until June 2014.

SUPPORTING MIGRATION FROM ANALOGUE TO DIGITAL **BROADCASTING IN CAMEROON**

T.lo

In November 2013, the CTO joined a consortium to advise Cameroon's digital broadcasting switchover unit CAM-DTV, a government unit set up to oversee the switchover from analogue to digital terrestrial broadcasting for the country. The consortium is mandated to provide technical expertise and advice to enable the country to select the right technical partner and migrate to digital terrestrial broadcasting by 2015. The consortium will advise Cameroon until 2017.



DEVELOPING A BROADBAND STRATEGY FOR SIERRA LEONE

In December 2013, the CTO received funding from the German government through its development agency GIZ to assist Sierra Leone in developing a national broadband strategy. As part of the project, the CTO is working in consultation with key broadband stakeholders in Sierra Leone, including the Ministry of Information, Communications and Technology and telecommunications regulator the National Telecommunications Commission. Although the project was completed by June 2014, the CTO will continue to assist Sierra Leone to implement the strategy with its partners beyond this date.





In November 2013, Plan International commissioned Reboot, a social impact organisation focused on inclusive development and accountable governance, to develop a policy on digital birth registration. Reboot engaged the CTO for aspects of this work related to risks and issues around birth registration data. The Plan International policy was completed in February 2014, extending the CTO's experience in cybersecurity and child online protection to digital birth registration.



EVENTS AND CONFERENCES

Once again, our events and conferences have focused on pressing ICT challenges and solutions, reaching out to members in the Caribbean, Europe, Africa and Asia-Pacific.



THIS CONFERENCE WAS
WELL STRUCTURED AND
PRESENTED INSIGHTS INTO
MANY OPPORTUNITIES AND
CHALLENGES PERTAINING
TO THE OVERALL SECURITY
PLATFORM AND INITIATIVES.

Chirstopher John, Director-General, Central Intelligence & Security Unit, Sierra Leone at the Commonwealth Cybersecurity Forum 2014

































CYBERSECURITY FORUM



EVENTS AND CONFERENCES































COMMONWEALTH CYBERSECURITY **FORUM 2013**

Jointly hosted by the Ministry of Posts and Telecommunications and the Telecommunications Regulatory Board of Cameroon, the Forum attracted over 150 participants from 22 countries. Focused on safety, resilience and security in cyberspace, the Yaoundé event featured initiatives by global and regional stakeholders, including the ITU, UNCTAD, ICANN, AFRICACERT, AFRINIC, and the Council of Europe.

In addition to the plenary conference, the event included a series of workshops to finalise country plans for CTO member countries in which the initiative, a joint-initiative of the CTO and the ITU, is being implemented. Separately, in partnership with UNCTAD and the Commonwealth Parliamentarians Association, a highly successful session was devoted to parliamentarians from member countries to update them on electronic commerce and cyberlaws. Finally, event partners Microsoft and the Forum of Incident Response and Security Teams delivered a half-day workshop on critical information infrastructure protection.





INDIA GLOBAL ICT FORUM

With delegates from across the world including Bangladesh, Ghana, India, Italy, Japan, Mozambique, Ukraine, Sierra Leone, Singapore, South Korea, Thailand, Taiwan and the UK, the event provided insights into India's ICT innovations and the ways in which these technologies, products and services can be applied in other parts of the world. During the Forum, which was organised in collaboration with the Communication, Multimedia and Infrastructure Association of India and the ITU, Indian public sector officials, as well as leading figures from Indian industry and representatives from other Asian and African countries reflected on the opportunities in the ICT sector in their countries, and the potential to develop collaborative partnerships. We are grateful to our Ambassador for South Asia, N. K. Goyal, for his support and assistance in delivering this event.



COMMONWEALTH HUMAN RESOURCES FOR ICTs 2013

Human Resources for ICTs is a global annual conference intended for human resources management and talent management professionals in the ICT sector. The Johannesburg event was designed to prepare them for technology and market trends that will result in new talent, training, and business synergy needs, giving greater importance to human resources management and talent management in strategic business planning.





EVENTS AND CONFERENCES



DIGITAL BROADCASTING SWITCHOVER AFRICA FORUM 2014 11 - 13 February 2014, Arusha, Tanzania

African broadcasting policymakers and industry leaders met at this annual three-day event held for the first time in Arusha, Tanzania to discuss the region's progress to digital terrestrial broadcasting as the June 2015 deadline draws closer. The event was hosted by the Tanzania Communications Regulatory Authority and the Ministry of Communication, Science and Technology of the United Republic of Tanzania. It attracted over 200 delegates from 26 countries, including Tanzania, Nigeria, Mauritius, Botswana, South Africa, Sierra Leone, Namibia, Burundi, Rwanda, Ghana, Kenya, Swaziland, Malawi, Zambia, Uganda, Mozambique, Finland, Sweden, UK, UAE, USA, Japan, India, Comoros, Netherlands and Switzerland. Participants showcased successful migration stories from various African countries and discussed challenges faced by others. Emphasis was particularly placed on effective planning for inclusive access to digital terrestrial services by all, as well as solutions for local content production.



COMMONWEALTH ICT MINISTERS **FORUM 2014**

At the initiative of the Commonwealth Telecommunications Organisation, the first Commonwealth ICT Ministers Forum was hosted together with the Commonwealth Secretariat in March 2014 as a biennial event, to provide Commonwealth telecommunications and ICT ministers with a framework to discuss matters of mutual interest and reach shared positions. The London event built on a meeting of Commonwealth ICT ministers and their representatives held in October 2013 in the margins of the Commonwealth Telecommunications Organisation Forum 2013 and Council Meeting in Abuja, Nigeria, where the principle of a biennial ministerial forum was first endorsed. The event was followed by the Commonwealth Cybersecurity Forum 2014 on 5 - 6 March 2014. For a detailed outcome of the event, see Commonwealth ICT Ministers Conference: Driving the Commonwealth Agenda on ICTs.



COMMONWEALTH CYBERSECURITY **FORUM 2014**

The annual Commonwealth Cybersecurity Forum is part of the CTO's contribution to the global challenge of the ever-rising levels of cybercrime and cyberthreats. Held immediately after the inaugural meeting of Commonwealth ICT ministers, the Commonwealth Cybersecurity Forum 2014 was an opportunity to gauge Commonwealth policymakers' progress in addressing cyberthreats, provide approaches to national cybersecurity, and learn from the private sector and other countries' efforts to increase safety in cyberspace.

"CTO's collaboration with Commonwealth states on ICT matters is commendable. It provided a synopsis of measures to tackle the abuse of the Internet and ICT gadgets."

The Honourable Alvin Dabreo, Minister of Information and Communication Technologies, Grenada

"In this forum, I had the opportunity to get knowledge of the cybersecurity areas which are relevant to my country." Senator The Honourable Darcy Boyce, Minister in the Office of the Prime Minister, Barbados











COMMONWEALTH
TELECOMMUNICATIONS
ORGANISATION



OUR REGIONAL EVENTS

DEALING WITH GLOBAL ISSUES AT THE REGIONAL LEVEL





BROADCASTING SWITCHOVER FORUM AFRICA - CARIBBEAN - PACIFIC







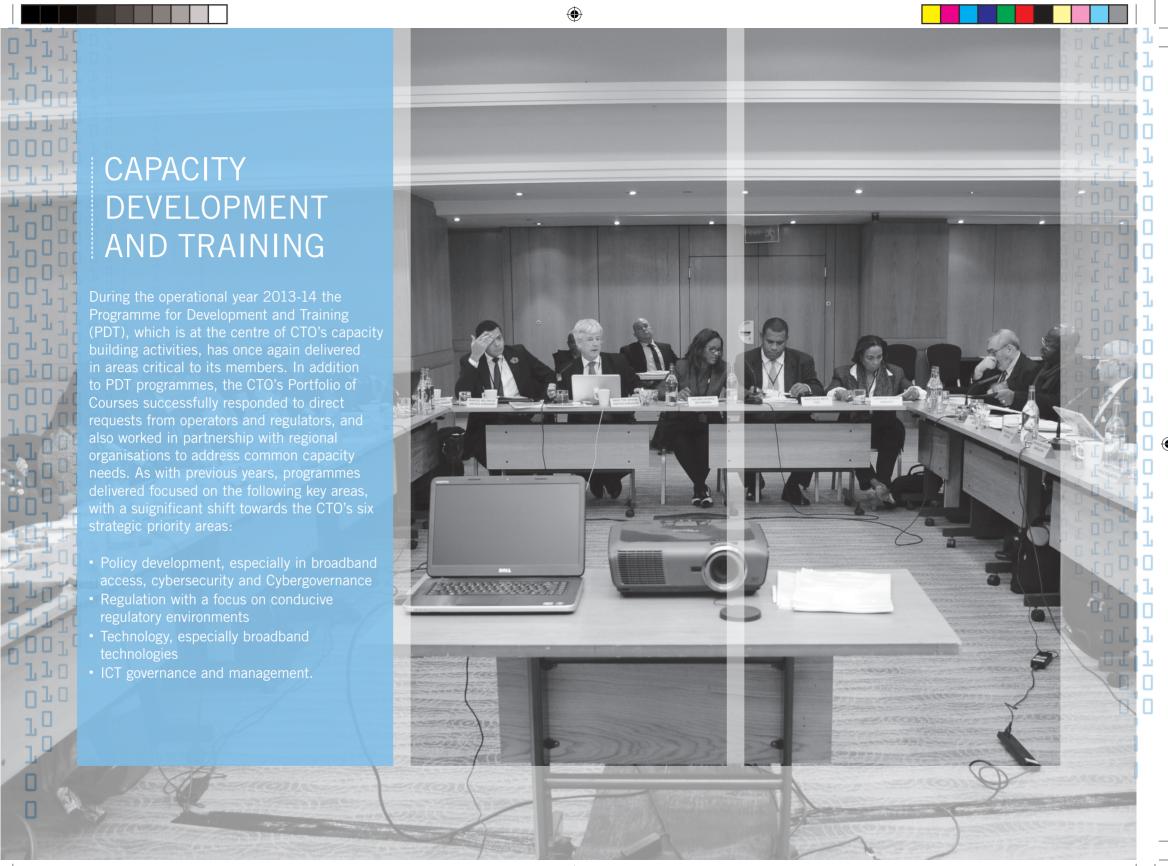
BROADBAND FORUM



EVENTS AND CONFERENCES







CAPACITY DEVELOPMENT AND TRAINING

COMMONWEALTH PROFESSIONAL FELLOWS 2013-14

Once again, thanks to our long-standing partnership with the Commonwealth Scholarship Commission, we were honoured to host seven Commonwealth Fellows from Member Countries who contributed significantly to our key prioriry areas.











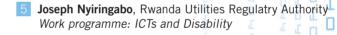


- Rhoda Gavor, Ministry of Communications of Ghana Work programme: Cybersecurity
- Vincent Museminali, Rwanda Utilities Regulatry Authority Work programme: Mobile Broadband
- 4 Siphiwo Christopher Ngeni, Department of Education of South Africa Work programme: Youth and ICTs









- 6 Nirmala Ramjhuria, Mauritius Telecom Work programme: ICT Capacity Building
- Solo Sima, Public Utilities Regulatory Authority of the Gambia Work programme: Child Online Protection



APRIL 2013

IP/MPLS

Port Moreshy Papua New Guinea

VoIP has quickly become an important model in network communications. It delivers lower operational costs, greater flexibility, and a variety of enhanced applications. The first section of this course focusing on VoIP fundamentals provided a thorough introduction to this technology to help voice and data professionals plan for new networks. The second part of this course, multi-protocol label switching (MPLS), is one of the central elements of next generation networks. It provides an IP-compatible, quality-of-service (QoS) capable infrastructure that enables the convergence of voice, IP, ATM, Ethernet, and Frame Relay onto the same backbone network. It is the key to scalable virtual private networks (VPN) and end-to-end QoS.

Mobile Number Portability

Chaguaramas, Trinidad & Tobago

This five-day course was designed to provide an understanding of the implications of mobile number portability (MNP) as well as the key concepts and dependencies which are crucial for the successful completion of an MNP project

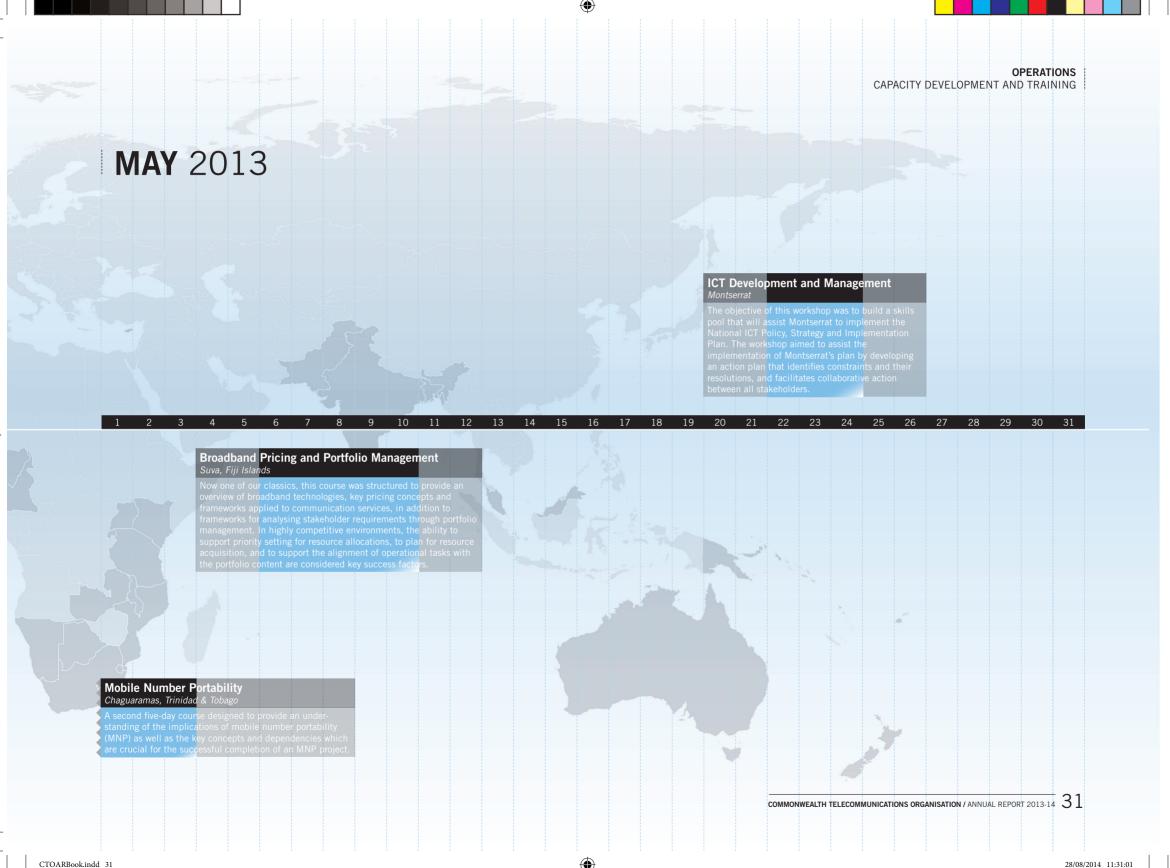
Ethics, Leadership and Professionalism

A four-day comprehensive workshop to provide the Communications Regulatory Authority of Namibia with an enhanced framework for considering the ethical, professional and leadership issues and challenges they face in the rapidly evolving ICT sector with the objective or enhancing the Authority's credibility as the catalyst for the effective development of Namibia's ICT sector.

Mobile Number Portability

Chaguaramas, Trinidad & Tobago

A second five-day course designed to provide an understanding of the implications of mobile number portability (MNP) as well as the key concepts and dependencies which are crucial for the successful completion of an MNP project





JUNE 2013

Introduction to Marketing and CRM

This course provided a framework for relevant customer engagement through the lens of customer relationship management. It provided strategies to approach engagement with a clearer view of how and who to engage with, what, where and when across the customer lifecycle. It also provided a backdrop to the importance of marketing in terms of what marketing is and how it is defined; in particular, it focused on its cross-functional importance and its contribution to business success. It also looked at the role of marketing as a service provider within the organisation

Diploma in Telecommunications Management Studies

This course provided participants with an in-depth knowledge of the essential principles, theories and frameworks that underpin technology deployment, regulation, competition and the challenge of value creation through entreprise and applied management. A blended learning approach involving lectures, case studies, group and role-play exercises of key concepts was used throughout the course to enhance the learning experience and outcomes.

Emerging Markets and Technology: IP and Mobile Broadband Suva, Fiji Islands

Until the late 2000s, Fintel's operations were limited to international connectivity. This course was designed to introduce its engineers to two key dimensions of networks: IP transmission and mobile broadband. The course covered topics dealing with both fixed and mobile networks, giving participants the opportunity to appreciate the interplay between these two platforms, as well as their market opportunities.

Introduction to Human Resource Management

Management and human resource practices, quality processes, and corporate culture are among the factors that can interplay to create serious performance issues. This course described and explained the various aspects of human resource management.



JULY 2013

Diploma in Telecommunications Management Studies

Mobile Number Portability

Introduction to Next Generation Networks Suva, Fiji Island

Competition and Convergence

keing place immediately after Introduction to ICT Policy and Regulation, is course explained the policy and regulatory options and models designed to dress the convergence of technologies, markets and services in the context of xt-generation networks and long-term evolution. The course provided a range examples of established and emerging best practices. Participants learned

Introduction to ICT Policy and Regulation



AUGUST 2013

Mobile Number Portability Yaoundé, Cameroon

Another five-day course were designed to provide an under standing of the implications of mobile number portability (MNP) as well as the key concepts and dependencies which are crucial for the successful completion of an MNP project

Certificate in Telecommunications Management Studies

The course aimed to enhance managers' decision-making skills and provide them with latest best practices in the areas of network administration, rural telecommunications, service development, and overall management of a telecommunications organisation in a competitive environment. Beyond an introduction to various new managerial tools, the course provided a forum to exchange ideas and experiences between managers with different backgrounds, roles and responsibilities.

Spectrum Planning and Coordination for Satellite-based Systems

This course introduced participants to the need for spectrum management in general, highlighting why spectrum is a limited national resource and the need for key and active spectrum management. Key spectrum management methods were discussed, including the traditional 'command and control' approach, unlicensed spectrum, spectrum trading and spectrum pricing and the role of the regulator. The course also covered the coordination of satellite-based network whose procedures, methodology, technical analysis calculation and determination of interferences remain a major preoccupation.

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Competition and Convergence

This course explained the policy and regulatory options and models to address the convergence of technologies, markets and services in the context of NGN and LTE. It provided of examples of emerging best practices. Participants learned how to identify anti-competitive risks or behaviours associated with mergers and acquisitions in the ICT sector, and the resulting significant market power. Practical exercises to develop mode regulatory safeguards for access, interconnection and pricing were provided.

Data Centre Management

This course covered client and server operations, security, tools and testers data quality control and data entry, including services and applications. Efficient data centre management enables efficient planning of updates, schedule changes and monitoring in line with the organisation's goals and business processes; this course was designed as a comprehensive user-friendly programme that explores and addresses all these associated algorithms.

Customer Relations and Consumer Protection

The level of customer service in many companies is sadly low and companies that can significantly improve their custome service levels will outshine their competitors. This course examined the skills required for customer service excellence, including professionalism, ethics, and communication skills. It equipped staff with skills to turn complaints into positive opportunities by handling complaints pro-actively, positively and efficiently to build better long-lasting customer relations.

Diploma in Telecommunications Management Studies

Port Moresby, Papua New Guinea

Once again, this course provided a new wave of Telikom PNG employees with an in-depth knowledge of the essential principles, theories and frameworks that underpin technology deployment, regulation, competition and the challenge of value creation through entreprise and applied management. A blended learning approach involving lectures, case studies, group and role-play exercises of key concepts was used throughout the course to enhance the learning experience and outcomes.



SEPTEMBER 2013

VoIP over MPLS

Port Louis, Mauritius

VoIP, which integrates voice and data transmission, has become an important factor in network communications. It brings lower operational costs, greater flexibility, and a variety of enhanced applications. This course provided a thorough introduction to VoIP transmissions over MPLS to help voice and data network experts plan for new networks.

Analogue to Digital Broadcasting Switchover

Port Louis, Mauritius

The course explored the four main digital TV standards, highlighting in each case the technological and economic advantages. Participants discussed the importance of developing a national transition plan and examined specific country case studies in the context of analogue to digital TV switchover. The course concluded with a review of second generation digital TV standards, exploring their advantages over the older first generation standards.

Space Communications Regulations Nairobi, Kenya

This popular and intensive course provided delegates with an in-depth background of satellite communications as well as an update on key emerging technologies and future systems. The course was ideal for engineers practising within the satellite communications field and those in allied fields who required an update in this area.

Cloud Computing Best Practices Nairobi, Kenya

A detailed course on how to deploy or source Cloud computing services, and how this growing IT service model is redefining the economics of IT and enabling new levels of agility and cost reduction.

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Regulatory Strategic Planning, Convergence, and Cybersecurity London, United Kingdom

An executive programme designed to provide an overview of three main areas: convergence, strategic planning for regulators, and cybersecurity.

Administrative Management and Finance Yaoundé, Cameroon

This course sought to develop a better understanding of financing among middle- and junior-level staff at Cameroon's Telecommunications Regulatory Board. It also aimed to provide participants with basic knowledge in budgeting, the role of OHADA in enterprise accounting, control mechanisms, and also to equip them with necessary skills to undertake financial analyses.

ICT for Disaster Management

ICTs play an enormous role in minimising the impact of disasters, across the entire disaster cycle, from preparedness and mitigation to relief, recovery and reconstruction. This workshop looked at the policy, regulatory and technical interventions which have been refined over the latwo decade and which have worked to help reduce the impact of natural disasters.

Next-generation Networks and IMS

Port Moresby, Papua New Guinea

The five-day course covered NGN technology and standards, strategy, high-level architecture, network infrastructure engineering, maintenance and support and products and services.

Diploma in Telecommunications Management Studies

Port Moresby, Papua New Guinea

Government Process Re-engineering

This workshop focused on e-enabling existing processes for public services such as birth registration and driving licences.

OCTOBER 2013 | NOVEMBER 2013

Diploma in Telecommunications Management Studies

phannesburg South Africa

Delivered as a regional programme for Sub-Saharan Africa, this course followed the set DTMS syllabus to provide participants with an in-depth knowledge of the essential principles, theories and frameworks that underpin technology deployment, regulation, competition and the challenge of value creation through entreprise and applied management. A blended learning approach involving lectures, case studies, group and role-play exercises of key concepts was used throughout the course, building on participants' country experiences to enhance the learning experience and outcomes.

Interconnection

Port Louis Mauritin

This course addressed the regulatory obligations of the dominant network operator to interconnect with competing networks. It covered the technical aspects of interconnection the commercial opportunities, as well as the regulatory requirements and their limitations.

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Next-generation Networks and IMS Port Moresby, Papua New Guinea

The five-day course covered NGN technology and standards, strategy, high-level architecture, network infrastructure engineering, maintenance and suppor and products and services.

Broadband Pricing

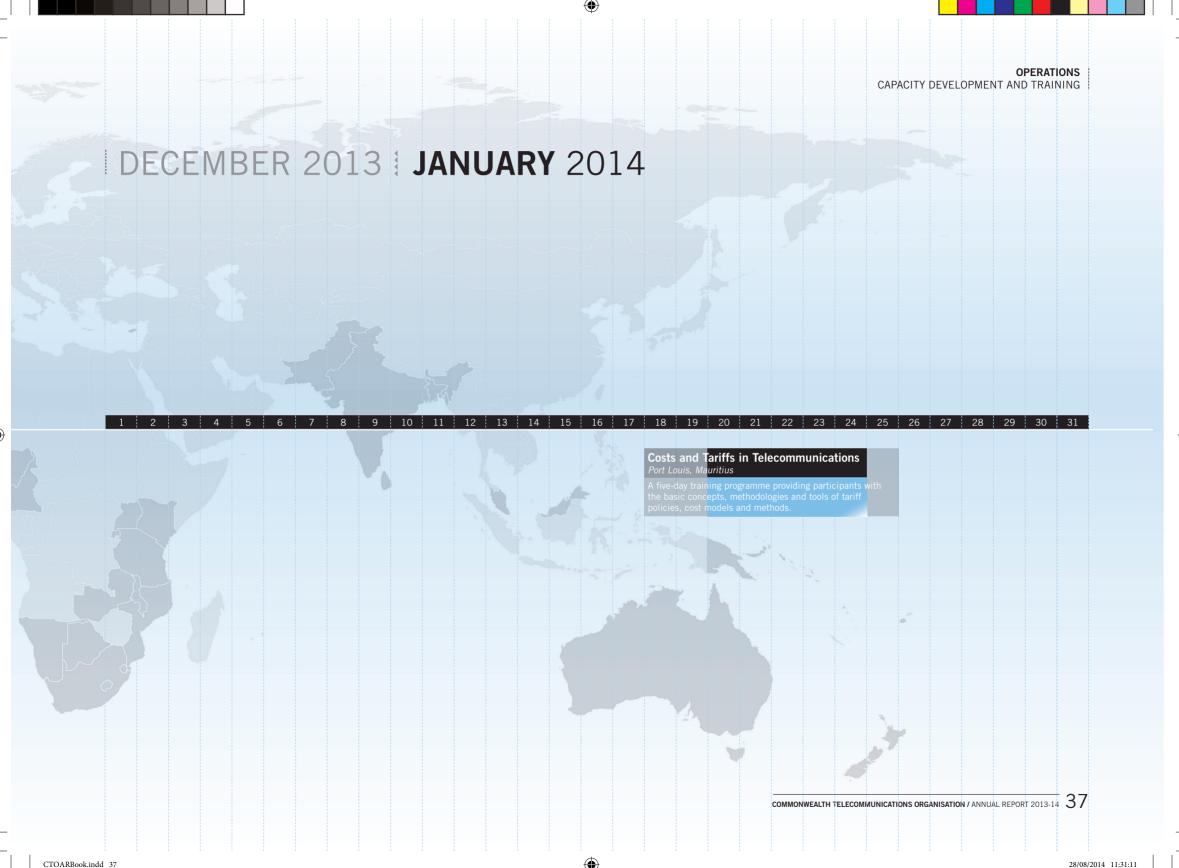
Accra, Gha

This course explained broadband technologies and their applications, including multimedia services, as key drivers of bandwidth demand. Broadband access and broadband service portfolio management were covered extensively, followed by discussions about competitive strategies and regulatory constraints. Pricing methodologies and scenarios were discussed throughout for various products and services, including application pricing and packet-based pricing.

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Telecommunications Business Process Re-engineering Mbabane, Swaziland

This course provided an overview of the structure of telecommunication businesses in a globalised industry, and effective methods to identify typical symptoms of business process hysfunctions. Discussions focused on the need for business process re-engineering and the role of automation, showing participants how to maximise service quality and customer satisfaction by natching process design to customer needs. Participants were required to construct a model for eengineering a business process.





FEBRUARY 2014

Quality of Service Monitoring

This course explained the various 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 were covered in detail.

Licensing in a Converged Environment Port of Spain, Trinidad & Tobago

This course provided a broad overview of convergence as well as the licensing framework in a converged environment.

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Frequency Planning and Spectrum Management Port Louis, Mauritius

As one of the CTO's most recognised classic, this course covered the various areas required to manage spectrum based on national requirements. Participants were introduced to technologies requiring spectrum, spectrum management principles, national spectrum planning, engineering analysis, and computer-aided techniques. In addition, the course covered technological and regulatory changes that affect spectrum management, such as digital broadcasting. Frequency assignment methods were emphasised and new market forces, such as auctions, as well as spectrum fees and charges were also explained.



MARCH 2014

Competition and Convergence

This course explained the policy and regulatory options and models designed to address the convergence of technologies, markets and services in the context of next-generation letworks and long-term evolution. The course provided a range of examples of established and emerging best practices. Participants learned how to identify anti-competitive risks on behaviours associated with new entrants, mergers or acquisitions in the ICT sector, and this of significant market power and market failure. Practical exercises to develop model egulatory safeguards for access, interconnection and pricing were discussed.

Network/IT Security

With this course, participants gained the knowledge and skills to effectively and accurately analyse the security risks to computer and network systems. They also learned how to view security from the standpoint of the attacker, enabling a more successful implementation of Internet and system defences. Emphasis was put on issues around authentication, confidentiality, integrity, and availability.

Next-generation Network Markets and Technologies Port Louis, Mauritius

The purpose of this course was to explore the technological and market trends in fixed networks, and to discuss regulatory implications. Based on these trends and regulatory implications a new regulatory paradigm and its constituent elements were discussed, focusing on interconnection, price regulation, and market forces, including horizontal and vertical integration

Carrier Ethernet

This five-day course on Carrier Ethernet was designed for technical employees who needed an in-depth understanding of Carrier Ethernet standards, terminology, concepts, and applications.

Data Centre Design and Management

Africa

budget concerns and improving productivity, while continuing from best-in-class data centres that deliver redundant power fficient cooling architectures, and robust interconnectivity.

Products Lifecycle Management for the ICT Fixed and Mobile Markets

The objective of the course was to enable participants to understand products lifecycle management as a concept, to analyse fixed and mobile products and services in detail, and to familiarize them with the ever changing competitive environment.

MEMBERSHIP BENEFITS

Although Commonwealth countries are at different levels of ICT access and use, they share, together with the wider international community, common and interrelated challenges that require individual as well as collective action. With our members comprised of government, the private sector and civil society, we are in a unique position to assist them in confronting these challenges. As a membership organisation, our focus on shared priority areas is intended to assist members in addressing specific challenges in the most effective ways, through a combination of best practices, capacity development and knowledge sharing, drawing the best resources from within and beyond the Commonwealth.

For more information, visit www.cto.int/membership

Full Country Membership

All Commonwealth nations are member countries of the CTO. Full Member Countries are those who make annual financial membership contributions to the CTO, which gives them access to our programmes and our wider membership network, along with the ability to engage in the governance of the Organisation. Full Member Country benefits include:

- Council membership with voting rights;
- eligibility to stand for Executive Committee membership, and to be elected as Chair or Vice-Chair;
- opportunity to raise national profile through CTO events and portal;
- access to the CTO's partnership brokering services with relevant ICT4D stakeholders (governments, private sector, civil society, international organisations);
- opportunities to support own national economic interests such as export potential and business process outsourcing (BPO) by participating in CTO activities;
- opportunities for developing shared Commonwealth positions on key issues;
- information sharing and networking through free registration of 3 participants at all CTO general conferences:
- tailored high-level meetings and summits with other governments and leading private sector, civil society and international organisations;
- quality consultancy on ICT4D at rates below market price;
- access to relevant research and information available through CTO portal;
- access to toolkits, models and templates available through CTO portal;
- high-quality training and capacity development through CDT (for an additional fee) at rates below market price;
- participation in peer-review benchmarking exercises with governments from other Full Member Countries.

ICT Sector Membership

Who is eligible?

- Non-Commonwealth countries
- ICT regulatory agencies in any country
- International and regional organisations
- Private sector companies
- Civil society organisations
- Academic institutions

What are the benefits?

Our ICT Sector Members are in a position to:

- contribute to ICT policymaking in member countries;
- help develop shared international positions on key ICT issues;
- network with governments, the private sector, civil society and international organisations;
- raise their country or organisation's profile through CTO conferences;
- participate in our Advisory Groups on priority areas e.g. broadband, regulatory environments, and cybersecurity;
- access the CTO's partnership brokering services with relevant ICT4D stakeholders;
- receive consultancy services in ICT4D at reduced rates:
- access our professional training programmes in ICT policy development, regulation, technology and management, at reduced rates;
- submit candidates on secondment opportunities at the CTO.

For more information, visit www.cto.int/membership