COMMONWEALTH
ICT MINISTERS
FORUM2016

14 JUNE 2016, **MARLBOROUGH HOUSE,** LONDON, UK
15 - 16 JUNE 2016, **INTERNATIONAL COFFEE ORGANISATION,** LONDON, UK

EVENT REPORT

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Summary

Convened by the Commonwealth Telecommunications Organisation, the **Commonwealth ICT Ministers Forum 2016** was held on 14 - 16 June in London, United Kingdom, under the theme '*Enhancing the Commonwealth through innovative ICTs'*. The three-day event consisted of a closed-door Ministerial meeting on the 14 June held at the Commonwealth Secretariat in London, followed by the two-day Open Forum also held in London.

During the closed-door session, the ministers received briefings with regards to the Commonwealth's progress on the areas of ICT regulation, broadband development, cybersecurity implementation and ICT applications. Furthermore, ministers were updated by the CTO on how they have delivered the mandate to lead the Commonwealth's engagement in global ICT agenda.

The Open Forum gave a platform for ministers to share views with policymakers, regulators and industry in areas such as policy and regulation, technology evolution, operations, investment and multilateral cooperation.

Over the three days the event was attended by 150 delegates from 29 countries. 27 institutions from outside UK were represented, listed in the table in Annex 1. The outcome of the closed-door meeting was released in the form of a Deceleration on the same day. This report summarises the outcomes of the Open Forum that followed on 15 - 16 June.

Enabling regulatory environments

- Competition is an important factor that must be allowed to flourish in order to drive innovation and creativity. The industry is moving into a new phase where companies are considering building brand new fibre access networks, which were considered prohibitive until now due to high costs. This has led to a change in the regulatory environment to take into consideration of managing that transition. The same is applicable when we take into consideration mobile networks transition from 4G to 5G.
- Consumers benefit from over-the-top services as long as there is market competition that is viable and sustainable. It should be the role of the regulator to protect such competition.
- Where there is very little chance of building new networks, the next best option for network operators is to share network investments.
- Bridging the digital divide is profoundly important if we are to transform our global economy to a digital economy. The Internet of Things will see 20 billion devices connected, possibly by the end of the decade.
- The digital divide remains, with 60% of the world population still without Internet access. The divide is visible within individual countries, between the rich and the poor, as well as between urban cities and rural villages.
- Changes in consumer needs and further convergence in the industry require more flexible regulatory systems.
- With crimes being committed at an alarming rate online, the need for accountability is fundamental. One way to achieve accountability is to install competition within the market.
- Due to the changing nature of the market, regulators need to invest more into research and must be able to facilitate the role of operators in the market rather than just being “police officers”.
- Taxation has the possibility to distorting markets.

Expanding the reach of broadband: Getting people online

- National digital divides need to be addressed too, not just the digital divide between East and the West or between rich and the poor countries. National digital divides can be dependant on geography, on gender, or on income levels. These divides exist not only in developing countries, but also in developed countries, hence the relevance of SDGs in all countries.
- The urban-rural divide exists due to issues on both the supply (coverage, market structure, price and tax) and the demand sides (population density, income, skills, literacy, and content).
- ITU predicts that 4G will achieve 50% population coverage by 2020.
- Market liberalisation, independent regulators, encouragement of new technologies, new financing models, making broadband access a legal right, are several key factors that can help reduce the urban-rural divide.
- South Africa expects to have 100% of their people to have access to broadband services at 2.5% of the average monthly income by 2020.

- Giving young people access to broadband technology is a key factor in driving forward the economic development of countries.
- Due to its decreasing cost of service, high performance, high reliability and capability to provide universal coverage satellite technology is a very viable option for delivering both fixed and mobile broadband services to rural and remote areas of a country.
- 5G technology will require large blocks of spectrum, therefore the C band, the Ka band and the Ku band will need to be protected due to the large investments that satellite companies have made in.
- In Africa, broadband Internet access is a necessary tool for enhancing teachers knowledge. It has the potential to provide real quality teaching to the most rural and inaccessible parts of a country where it is difficult to place quality teachers.
- In an educational environment, providing Internet access to teachers and children requires very careful regulation in order to provide a safe learning environment.
- In Africa, women are 50% less likely to use the internet than men. In India, 12% of women don't access the Internet due to the belief that it's inappropriate and more than 8% don't access the Internet due to family disapproval. In order to address this issue, governments should develop comprehensive national plans towards increasing broadband penetration that address gender-specific barriers to access and link this to the Commonwealth agenda. Governments should do more to encourage women to perform business, acquire knowledge and to connect with each other.
- The biggest wealth of any nation is their people, and 70% of the population of most Commonwealth countries is below the age 35. Young people present an opportunity to develop the economy and developing countries must take advantage of this opportunity and invest in capacity building.

Spectrum management post-WRC-15

- With new services emerging all the time, spectrum management is becoming ever more difficult. Two of the major factors that influence spectrum management in any country are its topography and its demographics.
- It is important to have coordination between neighbouring countries to mitigate cross-border frequency spillover and avoid harmful interference from different services across borders.
- Re-farming the available frequency allocations dedicated to mobile broadband for 5G technology is a challenge as it will require not only microwave wave frequencies, but also lower frequencies which will require regulatory interventions.
- Mechanisms to promote efficient use of spectrum are: spectrum auctions, spectrum sharing, spectrum flexibility, spectrum trading, spectrum pricing and spectrum marketing.

Over-the-top services

- The Internet is an economic engine that fuels new markets, new industries and new businesses. Internet-based economic activities are expected to reach 4.2 trillion by 2016.
- It is important to recognise that operators did invest in infrastructure and that we are benefiting from that investment.
- Regulators should focus on creating an environment which generate the most value for consumers, encourage innovation and one that allows local players to enter the market. Internet platforms and OTTs contribute to economic growth and if regulations do not take that into consideration it may stifle innovation.
- Poor Internet regulation can have a significant negative impact on the local players.
- Different countries regulating in different ways will lead to fragmentation of the Internet. Therefore regulators need to take into consideration the small players and also the difference between operators and service providers.
- There is an enormous amount of abuse on the OTT infrastructure by large scale operators. OTT services such as Viber, which do not contribute to the network infrastructure, are capable of bypassing national policies and refuse to provide intercept data to local courts. OTT services which are not regulated properly can have dangerous consequences in the form of cyberthreats and cyberterrorism.
- There must be a regulatory response to the disruption caused by OTT services; however it must be up to each country to decide the extent to which they want to respond.

Data privacy

- Everyone has the right to privacy and the government of every nation has an obligation to protect itself and its people. This leads to a friction between privacy and security.
- Privacy could be defined as the right to be left alone, the right to choose whom one socialises with, the right to make one's own choices about how one's data is used and control which data one wants to keep confidential. In many countries these are regarded as human rights.
- There has to be a balance between privacy and security and this is a challenge for all organisations in the telecommunications sector. Without any security there is no privacy.
- Organisations continuously have to think about practices to be implemented that will achieve business objectives but at the same time protect and respect people's privacy, which has now become a brand differentiator between organisations.
- Within organisations, privacy and security must go hand in hand. If privacy compliance is done right, then it can reduce privacy related operational risks and also address cybersecurity problems.
- The main aim of a data protection act must be to ensure that personal data is accurate, kept up to date, used in a responsible and transparent way. It also

must maintain a balance between the rights of the data subjects and the needs of businesses and service providers.
- Data must be protected when it is collected and also it is important to be aware of who collects it.

Role of cybersecurity in Sustainable Development Goals

- As long as there is connectivity it is possible to harness talents and creativity to drive the economy forward. However with this increase in creativity there is also the growing threat of cybercrime and this threat is unlikely to disappear.
- Security must not be bolt on; security must be built in from the start. Protecting just end-user devices is not enough, the network and the services need to be protected too.
- When it comes to security, you cannot afford to make assumptions. Security must be transparent, working together collaboratively to share knowledge.
- Buyers have more power than regulators; therefore they must be educated to make sure they know what good security is to drive the industry forward and one of the ways to do this is to publish whitepapers on advancing technology.
- Advanced persistent threats (APT), which use advance techniques developed through well funded efforts mostly by government and military organisations has caused turmoil for both public and private enterprises.
- Over 1,600 data breaches have been reported in the last year and over 700 million data records compromised. Industries compromised due to data breaches include healthcare, education, retail, government and financial industries.
- The average total cost of a data breach is $3.79 million.
- Some of the national defence strategies to be cyber ready can include: Creation of a legally mandated incident response team; protection of critical infrastructure and government information systems through technical and compliance means; implementation of policies that include private sector; promoting various technologies and capacity building by providing education to create awareness of cybersecurity and cybercrime.

Digital society

- Wold Bank: 10% increase of investment in introduction of fast Internet broadband cause a 1.38% rise in GDP. Doubling broadband speed leads to a further 0.3% increase.
- Avanti utilises Ka band frequencies to deliver their services rather than the traditional C band and the Ku band. Ka band has the advantages of higher throughput and operating at higher frequencies means reduction of the aperture size of the ground-based equipment. This in return can lead to cost reductions of the equipment and can promote the uptake of broadband technology.
- One of the key challenges is the rollout of infrastructure in areas where it is hard to reach.
- Avanti is connecting 260 schools across Kenya which resulted in 150,000 students which have been connected through satellite technology. 50,000 of

these students are marginalised girls school children in areas where traditional broadband services are not able to reach.
- Avanti is connecting 222 libraries in areas very difficult to reach through terrestrial technology to promote e-education in South Africa.
- One of the key advantages of satellite technology is the ability to tailor the demand based on the population.

Internet governance

- ICANN is best known for its role as the technical coordinator of the domain name system (DNS). They maintain and administer the registries containing unique addresses across the world, ensuring the security, stability and integrity on the Internet.
- Within ICANN, stakeholders include businesses, technical community, civil society, governments, researchers, academia and end-users.
- The multi-stakeholders model consists of three layers of digital governance: the infrastructure layer, the logical layer, and the economic and social layer. Solutions to issues in each layer include policies, best practices, standards and specifications which are developed through collaboration among stakeholders from businesses, governments, academia, technical groups and civil society.
- On 14 Match 2014, the US government announced its intent to transition its role of stewardship of IANA's functions to the global multi-stakeholder community and asked ICANN to convene global stakeholders to develop a proposal. ICANN calls for more representation and active participation from stakeholders from other regions, especially from Commonwealth nations, in this transition.
- Governance, policies and regulation of the Internet is essential for the growth and sustainability of the Internet; however it should not stifle productivity and innovation.
- ICANN needs to take into consideration that not all Commonwealth countries can participate and invest resources in taking part in its Government Advisory Committee (GAC) as they may not have a significant uptake of the Internet in their respective countries. Therefore ICANN needs to be careful when handing out domain names as there is a potential that it can affect future participation from other less developed countries before they are even ready.

Finance and investment opportunities

- It is expected that by 2020 smartphones penetration in India will rise significantly due to declining device prices resulting from Chinese manufacturers able to produce low-cost smartphones.
- The biggest consumer barrier to Internet adoption in many developing countries is not lack of network coverage, but lack of awareness and availability of localised content.
- ICT start-ups have been on the rise for several years, most from sub-Saharan Africa, India and South East Asia.

- The majority of the capital investment in India still comes from investors abroad.
- Most investors like to invest significant amount of money in growth stage and expanding companies. There is a lack of investment for most start-up companies which is looking for lower investments to promote their proof of product. There is a risk that a lot of high-potential innovations can be ignored.
- Though there is an appetite for investors to invest in start-up companies, the main reasons behind majority investors currently not wanting to commit are lack of scalability in business models and lack of business entrepreneurship and acumen among the founders of these businesses.

Annex One

Participating countries and organisations.

Country	Company
Botswana	Botswana Communications Regulatory Authority (BOCRA)
British Virgin Islands	Ministry of Communications and Works, Government of the Virgin Islands Telecommunications Regulatory Commission
Cameroon	Ministry of Post and Telecommunications Telecommunications Regulatory Board
Cyprus	Cyprus High Commission
Fiji	Ministry of Communications
Ghana	Ghana High Commission Ministry of Communications National Communications Authority (NCA) Vodafone
Gibraltar	Gibtelecom Ministry for Economic Development, Telecommunications & the GSB
Jamaica	Jamaican High Commission Ministry of Energy, Science and Technology Communications Authority
Kenya	Department of Broadcasting and Telecommunications Liquid Telecom Ministry of Information, Communications and Technology Communications Authority of Kenya
Malawi	Malawi High Commission
Malaysia	Malaysian Communications and Multimedia Commission
Malta	High Commission of the Republic of Malta Malta High Commission Ministry for Competitiveness and Digital, Maritime and Services Economy
Mauritius	Mauritius High Commission
Montserrat	Ministry of Communications, Works, Energy and Labour
Mozambique	Mozambique High Commission
Nigeria	Courteville Business Solutions Plc. DBI Ministry of CommunicationsNigerian Communications Commission (NCC)

	Nigerian-British Chamber of Commerce UK
Pakistan	Ministry of Information Technology and Telecom
Rwanda	Rwanda Utilities Regulatory Authority
Samoa	Ministry of Communications and Information Technology
Sierra Leone	House of Parliament Ministry of Information and Communications Sierra Leone High Commission National Telecommunications Commission (NATCOM)
South Africa	Department of Telecommunications and Postal Services Telkom South Africa
Sri Lanka	Ministry of Telecommunication and Information Technology Sri Lankan High Commission
Swaziland	Swaziland High Commission Swaziland Posts and Telecommunications Corporation (SPTC)
Tonga	High Commission of the Kingdom of Tonga
Trinidad and Tobago	Telecommunications Authority of Trinidad and Tobago Commonwealth Telecommunications Organisation
Uganda	Uganda Communications Commission
United Arab Emirates	Inmarsat
United Kingdom	ABI Research Avanti Communications Bitek Global Limited BT Global Services International Centre for Transformational Entrepreneurship (ICTE) Office of Communications (OFCOM) Department for Culture, Media and Sport eWorldwide Group Facebook Foreign & Commonwealth Office Huawei UK Liquid Telecom PCCW Global PWC Queen Mary University of London Wireless World Research Forum
International organisations	GSMA International Telecommunication Union Internet Corporation for Assigned Names and Numbers

Privacy International
Royal Commonwealth Society