**Commonwealth ICT & Telecommunications Forum'19
Dhaka, Bangladesh, 30 Sep – 02 Oct 2019**
                                                            Event report

Executive Summary

The Commonwealth ICT & Telecommunications Forum 2019 was held from 30 September to 02 October 2019 at the Intercontinental Hotel, in Dhaka, Bangladesh, hosted jointly by the Ministry of Posts, Telecommunications & Information Technology of Bangladesh and the Bangladesh Telecommunication Regulatory Commission in Dhaka, Bangladesh, under the theme "Towards a Digital Commonwealth". The objective of the Forum is to ensure the availability of basic and value-added services to all regardless of age, gender, affordability and ability while addressing of challenges of investment, digital economy and access to such. The 2019 Forum focused on key aspects of access and security of digital services including investment, infrastructure, connectivity, applications, value added services, data.

The main outcome of 2019 Forum was to educate and aware the stakeholders and innovators as well as the users of digital financing system, over the top applications, 5G and broadband services to avoid the threats and ensure security on those. ICTs play a pivotal role in socio-economic development and the need for equitable ICT access in terms of availability, affordability and accessibility, with particular attention paid to people with disabilities and socially-marginalised groups.

Over three days, 70 resource persons delivered 15 sessions organised into sessions entitled Towards a Digital Commonwealth, 5G & Broadband Employments, Universal Access, The Digital Economy & Entrepreneurship, Consumer Protection and Market Competition, Youth and ICT, Over-the-Top Services, Cybersecurity, Online Safety, Data Privacy and Protection, The Potential of Disruptive Technologies, Spectrum Allocation & WRC-19, Broadband for Sustainable Development, Local Innovation Competition Results, Disaster Preparedness and Management-Emergency Response Systems. This Forum was attended by around 102 participants representing 16 Countries.

2.   Opening Ceremony

Honourable Aiyaz Sayed-Khaiyum, Attorney General and Minister for Finance, Public Enterprises, Public Service and Communications, Ministry of Communications, Republic of Fiji and Chairman, Commonwealth Telecommunications Organization have delivered the welcome message. He speaks about the financial and medical Services, economic benificilization of 5G, enhancing the consumer protection, consistent policy and new invention. Mr. Peter Gwan Mbengie, Development Partners Representative and Executive Council Member, Commonwealth Telecommunications Organisation and Technical Advisor, Telecommunications Regulatory Board (TRB), Republic of Cameroon conveyed the goodwill message, Mr. MD. Jahurul Haque, Chairman, BTRC, has delivered the opening remarks on behalf of the host country and Ms. Gisa Fuatai Purcell, Secretary General, CTO, has delivered the opening remarks on behalf of the CTO. Mr. Ashoke Kumar Biswas, Secretary, Post & Telecommunication Division, Ministry of Posts, Telecommunications and Information Technology and Mr. A K M

Rahmatullah, Member of Parliament, chairman of standing committee on Ministry of Posts, Telecommunications and Information Technology have graced the event and delivered their special remarks. Honorable Mustafa Jabbar, Minister, Post & Telecommunication Division Ministry of Posts, Telecommunications and Information Technology has inaugurated the event.

3. Session 1: TOWARDS A DIGITAL COMMONWEALTH for All

A high-level panel discussed "Towards A Digital Commonwealth for All". The panel identified the necessity of digitalization for developing the human resources and transforming the Government procedure to make it accessible from anywhere to anyone. The panel identified the following as key aspects in which CTO can play an important role:
- Aggregate national experiences and benchmark to provide guidance
- Address cyber security issues while promoting regional cooperation and collaboration
- Assist in the development of Infrastructure
- Encourage cost-effective high-speed broadband
- Work in collaboration with policy makers to reconsider tax and tariffs to make broadband affordable.
- An Afro-Asian terrestrial information network could be established, which may be more cost effective than submarine cables

Question and Answer

Q1: How to share the common wealth data of the countries within it? Is there any Specific mechanism to share the Data?

ANS: Paul Blaker, Head of Global Internet Governance, Department for Digital, Culture, Media and Sport, United Kingdom: Huge amount data are generated in modern technology and there are 05(Five) common platforms' are using.

Honorable Mustafa Jabbar, Minister of Posts, Telecommunications and Information Technology, Ministry of Posts, Telecommunications and Information Technology, People's Republic of Bangladesh
ANS: Data is your asset. Protect your data and the security of your data is the main concern for the country. I don't know google; FB are using our data. We are framing our own law. Our law is too weak to keep the data secured. Commonwealth can be platform to protect and share data.

Honorable Aiyaz Sayed-Khaiyum, Attorney-General and Minister for Finance, Public Enterprises, Public Service and Communications, Ministry of Communications, Republic of Fiji
ANS: Credit card No hold by many multinational corporations. CTO can play digital role to manage the data from multinational organization. Every Country has to be willing to share the data.

4. Session 2: 5G & BROADBAND DEPLOYMENT

This session addressed the importance of national ICT broadband backbones for sustainable socio-economic development and preservation of diverse cultures, while ensuring good governance and enhancing the wellbeing and happiness of people. The panel agreed that the investment in ICTs has a

direct impact on socio-economic growth. Countries should have targeted policies to reap the potentials of broadband. The key challenges in improving access were identified as differences in geography, low literacy rates, scale of national development, different political priorities, policy and regulatory barriers, cost of international connectivity (particularly for landlocked countries), high cost of access in rural/remote areas and lack of access to long term funding. The session also examined the relevance of infrastructure sharing, which regulators could promote. Optimal use of infrastructure in the face of market liberalization is likely to reduce cost.

Key outcomes of the session:
- The objective of the information society is to create a society that learns how to learn, in which every person is empowered to reach their full potential.
- Innovation, entrepreneurship and multi-stakeholder engagement is needed to accelerate the transition to a connected and digital world.
- Investment, incentives and targeted policies are needed to promote broadband, with affordability being a key consideration. Among the range of measures available are multistakeholder partnerships, use of universal service funds, tax rebates, spectrum management and licensing.
- Policy and regulatory frameworks are needed to foster investments in ICT ecosystem.
- Bilateral, regional and international cooperation can play an important role to address the challenges of landlocked countries as well as small islands.
  Consideration should be given to promote cloud computing to develop platforms for creating multi-lingual local content and applications, taking into account the challenges of security, privacy, data protection, interoperability etc.

Question and Answer

Q1: Brigadier General Md. Shahidul Alam, DG,SM how much may be required to provide equivalent service? If I want achieve 10G BW What may be the ratio of the spectrum?

ANS: Mohosin Rob, Deputy Managing Director, ASIX Asia Satellite Internet Exchange Ltd, Hong Kong SAR You can take Giga hertz of Band Width from a Satellite or else you can Go for C band or K band.

5.   Session 3: UNIVERSAL ACCESS

Competition is increasing in ICT markets while technology is transforming the lives of everyone, which calls for effective regulations and enabling policy and regulatory frameworks, which takes into account related social issues such as climate change and digital lifestyles. A range of issues including laws and regulations that address new business process, guidelines on sharing of information amongst various public sector agencies and procurement regulations that recognise transaction based services are needed to implement effective e-Government applications. importantly there is an urgent need for regular and effective coordination between ICT regulators and industry.

Key outcomes of the session:
- Policies and regulations need focus on improving quality of service, affordability, rural penetration, effective competition and infrastructure rollout.
- Policies and regulations should based on the country's objectives and the states of the sector

- Policies and regulations must be implemented fairly, firmly and forthrightly.
- Global trends of ICT policies and regulation indicate the importance of market competition, private sector participation and independent regulation.

## 6.	Session 4: THE DIGITAL ECONOMY & ENTREPRENEURSHIP

Although ICT Access is growing rapidly, challenges remain in broadband rollout, especially in geographically challenged areas such as landlocked countries and islands. Affordability, which is one of the key global broadband targets for 2015, is still an issue for developing countries. ICT infrastructure financing strategies include infrastructure sharing and the use of Universal Service Funds (USF). Mobile broadband (e.g. 3G, 4G, WiMAX) is a more viable option in developing countries. However Mobile broadband is not growing as expected, primarily in developing countries, due to high spectrum fees and investment cost.

Key outcomes of the session:
- Governments could offer targeted tax and import duty reductions to promote broadband as well as subsidies for end users, to facilitate broadband adoption
- Equipment approval policies should not be too onerous or restrictive;
- Transparent USFs policies could finance Broadband infrastructure as well as content and application development

Question and Answer

Q-1(Participant): As we r in practical field, we cash out the bit coin. IS there any common forum regarding this?

ANS: we are far away from Block chain. Leveraging the digital Infrastructures. You can transfer the money without any media or secondary media. It will be peer to peer communication. And it will less the price.

## 7.	Session 5: YOUTH AND ICTS

While there is migration from 2G to 3G there are challenges with affordability, network utilisaiton and lack of awareness. WiMAX can play an important role in reducing the Digital Divide. Apart from being very flexible and a standard technology which can be deployed faster and economically, WiMAX can provide long range data communications without interruption. Lack of adequate spectrum, competitive devices, a mobility management technology, and 'Economies of Scale' limit the proliferation of WiMAX. Expanding networks to rural and remote areas posse challenges due to lack of basic infrastructure, difficulty in maintenance due to rough geographical terrain, low return on investment and un-optimized network resources.

Key outcomes of the session:

- Using lower frequencies (i.e. 900/800/700MHz) would provide better coverage for mobile broadband through UMTS / LTE and would make mobile broadband affordable and accessible.
- Standardization of 4G LTE devices has not yet matured. The costs of customer devices are still not affordable compared to 3G devices.
- Though WiMAX hasn't met expectations, it could still contribute to providing services in underserved areas

8.   Session 6: CONSUMER PROTECTION AND MARKET COMPETITION

The session had a thorough discussion on capitalising the mobile-commerce, effective integration of mobile technology to boost profitability and latest mobile commerce innovations. Mobile Commerce is become bigger than E-Commerce. Banks, Telecom Operators and Retailers need to work together for spread to Mobile Commerce. M-commerce platforms can enable any business entity, i.e. shopping malls, real estate developers, hot el chains etc. to access information on products and services quickly and easily online by making m-commerce transaction. They can consolidate volume from smaller buyers, reducing purchasing costs. Property management companies can build online communities that connect residents of a particular development.

M-Commerce is a key enabler that will connect the formal and informal economies to create an all-inclusive ecosystem in developing countries. The biggest opportunity for mobile money market is to move beyond person-to-person (P2P) payments, which have comprised the majority of all transactions to date. Mobile operators and mobile financial service companies may work together to integrate mobile payments into daily life and help consumers understand how these services can enrich their lives. Creating a sustainable m-commerce ecosystem in developing countries will mean ensuring an interoperable and standardized ecosystem between mobile and financial service sectors that enables all stakeholders in the financial value chain to effectively monetize the mobile arena. Providing customers with reliable and carrier-grade mobile financial platforms is key to ensure they have a positive experience with these platforms and want to devote their time and money to m-commerce.

The panel discussed on overcoming the barriers to the successful adoption of mobile commerce. Governments and regulators must promote and encourage the creation of ecosystems with established players cross the value chain that share the vision and see the business benefits. The government must put in place frameworks to overcome the mistrust and assure mobile users that people's privacy is protected and their information will not be breached and/or sold to third parties. Government should take initiative to develop IT infrastructure in rural areas. Transparency is the most important issue in Mobile commerce. So, government should be monitoring this issue.

Key outcomes of the session:

- Mobile users are subject to additional threats such as identity theft, phishing, and loss of personal data. So, one of the most important requirement for payment systems, as well as e-government and e-health systems, including their mobile variations, is security. International recommendation needs to be complied regarding security and Governments needs to consider this issue through appropriate policies and regulations.
- Main focus needs to given primarily on creation of an enabling environment for increased availability and access to m-Commerce services as well as technical solutions for the safety of transactions.
- Necessary measures, in legislative and regulatory terms, needs to be taken to create an enabling environment for m-Commerce.

- Establishment of confidence and quality assurance for trading over the mobile is required.
- Human capacity development and improvement is required to make citizens aware and able to make use of m-Commerce services.

9. Session 7: Over-The-Top services strategies: remaining relevant to consumer and enterprise customers

Cloud computing facilitates innovation, productivity, mobility, cost effectiveness, better collaboration and transformative work practices. While BPOs used to focus on process efficiency, emergence of Cloud has enabled new dimensions in BPO applications such as self services and voice recognition. In the future social networking is likely to facilitate people share best practices and learning solutions. Developing countries are likely to benefit more from Cloud computing as it is cost effective, collaborative and transformative.

Key outcomes of the session:
- Although there are some security concerns about the cloud computing, it can be beneficial provided appropriate measures are put in place
- Cloud computing will enable access to the Internet from lightweight portable devices, including mobiles, instead of traditional desktop PCs, with data stored on the Cloud.
- Cloud computing provides access to large-scale remote resources in a very efficient and quick manner. It has the potential to dramatically change business models and the way people interact with one another.
- With Cloud computing as a new type of IT platform, there is possibility to narrow the gap between developed countries and developing countries.
- However, strategies and policies are needed to manage risks, ensure continuity of service, specify control, reduce piracy, and assure privacy
- Cloud computing will offer more opportunities to developing countries. More research is necessary in order to make individuals, businesses, and governments in developing countries understand how to benefit from mobile applications enabled via cloud computing.
- Consideration should be given to promote cloud computing to develop platforms for creating multi-lingual local content and applications

Question and Answer

Q-1: Tanzania is planning to implement about Taxation?

ANS: We are looking about the global context. User, Content Provider, Infrastructure Holder. (03 combination)

10. Session 8: Cybersecurity

Information is multiplying at an exponential rate, generated by sensors, social media, transactions, smart phones, and other sources. Technology has enabled information to be captured, stored and processed faster. This vast pool of data presents enormous business and technical potential.

Key outcomes of the session:
- Opportunities for commercializing data include generating insights and solve specific problems; improving core operating processes; faster and better decisions; new revenue channels and competitive advantages.
- The challenges in commercializing BIG data include data privacy (trust and transparency) and management adaptation.
- Specific skills should be developed and transparent policies put in place to derive the benefits of data

Question and Answer

Q-1: Adhoc Network is vulnerable so how can it may protect?
ANS: Make harder monitoring on the attacker. Critical rational Infrastructures Monitoring System.
Q-2: How different CIRT can work together with National CIRT?
ANS: National Sect oral CIRT can work in cyber threat. Coordination mechanism is required.
Q-3: when a fugitive lives in other countries, we facing problem?
ANS: We can take help from Interpol. If the criminal identified then we apply to Interpol for help.
There must be a political Willingness (Martin Koyabe)
We required the following things:
1. *Regulation need to imply.*
2. *Incentive is required for Public & Private.*
3. *Coordination mechanism is required.*
4. *Foster a local cyber security Team.*
5. *Training, Education on Cyber detection is required.*

11.   Session 9: ONLINE SAFETY

Women would benefit from increased inclusion in the digital society, thereby contributing to their social and economic empowerment. Reducing gender inequalities through the use of ICTs is a prime concern. There is a view that ICT should not be looked at from women's perspective, rather it should be looked at from people's perspective and made available irrespective of gender.

Key outcomes of the session:
- Reducing gender inequalities require economic empowerment of women, ensuring education for women and affordable accessibility.
- Women-friendly capacity building is important in which role models play a significant role
- Share knowledge;
- Bring women into the sector;
- Government and stakeholder's intervention is required along with dedicated policies, regulation and strategies to empower women
- Challenges to empowering women include lack of availability, affordability, accessibility, awareness and confidence

12.   Session 10: DATA PRIVACY AND PROTECTION

Though rights of people with disabilities are guaranteed under various international and national policies, still their access to ICTs is limited. Sustained multi stakeholder partnerships are needed to translate into action the expectations of international conventions.

Key outcomes of the session:

- Specific investments, policies and regulations are required to ensure universal accessibility including for those with special needs.
- Coordinated efforts are required at the national, regional and international level for universal accessibility, including technical measures that assist people with special needs
- Awareness should raised about the rights of people with disabilities to encourage demand

13.   Session 11: THE POTENTIAL OF DISTRUPTIVE TECHNOLOGIES

Leveraging the power of ICTs helps improve the quality of education in an increasingly networked society by enabling personalized study, facilitating community-based education and improving access to educational resources.

Key outcomes of the session:

- ICTs need to be included in the educational curriculum and learning environment needs to be updated
- Content should be locally relevant
- Community radio/ television can play a strong role to provide information and entertainment

14.   Session 12: SPECTRUM ALLOCATION & WRC-19

Key outcomes of the session:

- Spectrum is the Fuel for network growth and development to meet the ever-increasing data demand.
- Policy makers should work in partnership with stakeholders to enable timely, fair and Effective awards.
- Top priority Spectrum Auction should Affordable high-quality mobile services.
- Digital revolution demands high speed broadband all over the country and that should be supported by Government.
- Regulators need to calculate the annual cost of spectrum to ensure that spectrum pricing is sustainable and does not slow down the 5G momentum.
- To utilize the unused spectrum Government along with the stakeholders, need to take initiatives and regulations.

15.   Session 13: BROADBAND FOR SUSTAINABLE DEVELOPMENT

Key outcomes of the session:

- e-Government is required for Transparency and Efficiency.
- Capacity building is required for skills transfer from vendor to Staff and the development of domestic private sector.

- Robust National ICT Policy is required for good Regulation and a suitable legislation can make champion Digital government.
- E-citizen platform can government can provide all kinds of Citizen service through the Broadband.
- Providing incentives like exemption of Taxes and policy guidelines by the Government can promote a development of smart cities.

16.   Session 14: LOCAL INNOVATION COMPETETION RESULTS

Key outcomes of the session:
- Health friendly Project is combined with Hardware and software to monitor the primary health status.
- Easy Tax App can calculate the Taxes and make life easy for the citizen. The App also connected to the NID card and bank Account which don't have the Connectivity.
- Connecting the consumer with Farmer, so that consumer can have the pure food as well as Farmer can get the Actual price of the product.
- Easy App for City corporation, that it will help the householders for managing their wastes and other issues.
- Science and Technology Based Education device which can help to learn Education.
- Training for Job, which firstly providing the training on basic IT or according to Study.
- Jute charcoal project is about burning the jute stick it can produce many Beauty product. And the jute charcoal is producing beauty product some developed country.
- Innovation hub Bangladesh Exclusive training program for the youth. Motivate the youth to be entrepreneur.
- Ideas of Solving Traffic Jam in Bangladesh, Put the parking sensors and get data from that drivers will know by their phone and they will be parking there.

17.   Session 15: DISASTER PREPAREDNESS AND MANAGEMENT-EMERGENCY RESPONSE SYSTEM

Key outcomes of the session:

- All countries should have a National Emergency Telecommunication plan as part of their National and local disaster risk reduction strategies.
- ICT/Telecoms for disaster Management can be summed up in four principles: Multi Hazard, Multi Technology, Multi phased and Multi stakeholders.
- Regulator can adopt Global Guideline to develop National Emergency Telecommunication plan for Disaster Management.
- Emergency communication can be maintaining by using Satellite during disaster.
- Disaster prone areas need to covered with redundancy connection and we need to work in co-ordinately so that we can save our life.
- Using Early warning system and ICT can mitigate the disaster loss.