

commonwealth
Digital Broadcasting'17

Caribbean

21 - 22 NOVEMBER 2017, TERRA NOVA ALL SUITE, KINGSTON, JAMAICA

**Reinventing broadcasting
for a new-generation**

Organised by



COMMONWEALTH
TELECOMMUNICATIONS
ORGANISATION

Hosted by



Report

Commonwealth Telecommunications Organisation

Commonwealth Digital Broadcasting Caribbean Forum 2017

21 – 22 November 2017

Knutsford Court Hotel, Kingston, Jamaica

By Philip CROSS

CTO Regional Advisor for the Americas

Executive Summary

The Commonwealth Digital Broadcasting Caribbean Forum 2017 was held in Kingston, Jamaica, from 21 to 22 November 2017. This Forum was organised by the Commonwealth Telecommunications Organisation (CTO) in conjunction with the Jamaica Broadcasting Commission. The theme for the event was “Reinventing broadcasting for a new generation”.

The main focus of the Forum was the examination of issues faced by Commonwealth countries in the transition from analogue to digital broadcasting. The Forum brought together participants from Commonwealth and non-Commonwealth countries as well as organisations and companies involved in digital transition, who shared experiences recommended best practices and provided information, advice and recommendations on the way forward.

The ITU and its members from ITU Region 1 (W. Europe and Africa) had agreed on a timetable for the transition from analogue to digital transmission, thus ending television broadcasting in the UHF band. UHF broadcasting transmissions would be phased out over a reasonable period of time and all countries are required to make the necessary effort to switch to digital television broadcasting within the agreed timeframe. For countries in ITU Region 2 (The Americas), no timetable was established. However, countries in the region are expected to transition to digital transmission at their earliest convenience. Some countries have already transitioned, but the vast majority have not. Technical support for analogue equipment is expected to be phased out.

Discussions have started in the Caribbean, but progress has so far been slow. Most countries have eliminated television broadcasting in the UHF band and spectrum in that band has been allocated to mobile operators to assist in the development of Long Term Evolution (LTE) networks in the region.

The aim of this CTO Forum was to bring together organisations involved in broadcasting and Caribbean countries as well as countries from other regions in order to discuss experiences related to the transition process and to start planning for Caribbean countries to end analogue television broadcasting and move to digital transmissions. The transition to digital transmission is inevitable, but for this to happen, countries will have the option of dual transmissions (simulcasts) until full transition is achieved.

Issues covered included the global situation regarding the Digital Switchover (DSO) international standards for digital broadcasting, frequency coordination, digital switchover case studies, over-the-top operators and their implications for broadcasting, innovations in broadcasting, spectrum policy options and the future of public broadcasting.

Although digital transmissions will provide higher quality services, consideration should be given to the cost implications. New methods of broadcasting will provide new and different revenue streams which broadcasters will be able to exploit. Suitable policies will be adopted and significant education programmes will be required.

This Forum was intended to provide important information to Caribbean players and assist them in the planning and implementation of digital television in the region.

Opening Ceremony

Opening remarks were made by the Master of Ceremonies, Mr. Cordel Green, Executive Director of the Broadcasting Commission, Jamaica, who welcomed participants to the event. Other participants at the Head Table for the Opening Ceremony were:

Senator the Hon. Ruel Reid, Minister of Education, Youth and Information (Jamaica)
Mr. Shola Taylor, Secretary-General, Commonwealth Telecommunications Organisation (CTO)
Mrs. Patricia Sinclair-McCalla, Commissioner, Broadcasting Commission, Jamaica
Ms. Ilham Ghazi, Radiocommunication Bureau (BR), International Telecommunication Union (ITU)
Mr. Ansord Hewitt, Director-General, Office of Utilities Regulation (OUR), Jamaica
Ms. Rochelle Cameron, Vice-Chairman and Director, Caribbean Association of National Telecommunications Organizations (CANTO)
Mr. Gary Allen, President, Caribbean Broadcasting Union (CBU)

Commissioner Sinclair-McCalla stated that the digital transition would be costly for broadcasters. Ms. Ghazi pointed out that 28% of countries had switched over and 35 % are in transition. Mr. Allen stated that the transition process had started in some countries in the Caribbean, but not in others. Mr. Taylor thanked participants for being present and gave the assurance that the CTO wants to work with all countries in the digital transition process. Minister Reid urged participants to take decisions which will allow the Caribbean to take full advantage of the benefits to be derived from the DSO. He also urged countries to work alongside broadcasters, design new business models, use informed technical decisions and take research-based approaches.

Session One: The State of Play

Chair: Mr. Shola Taylor, CTO **Panellists:** Ms. Ilham Ghazi, ITU, Ms. Karlene Salmon, Asst. Executive Director, Broadcast Comm., Jamaica, Mr. Stephen Baily, Controller of Distribution Operations, BBC, UK, Mr. Tom Sullivan, Bureau Chief, Federal Communications Comm. (FCC), USA, Ms. Myra Moore, President, Digital Tech. Consulting Inc., USA

Important Outcomes

- Only 7% of countries in the Americas Region have completed the Digital Switchover (DSO) and in 9% of countries the process is ongoing. Digital transition is ongoing in 52% of countries in Africa.
- Caribbean countries need to register their stations with the ITU so that they can be recorded in the Master International Frequency Register (MIFR) and therefor receive international protection from other stations which may cause interference.
- Jamaica has started discussions on DSO and the ATSC 3.0 has emerged as the preferred standard.

- The majority of European countries completed the DSO by 2009, with DVB-T being the standard chosen.
- The USA completed its DSO in 2009, just after the deadline imposed by Congress.
- In countries which have completed DSO, significant sums were spent by the government and broadcasters on consumer outreach and assisting persons with consumer coupons to help defray cost.
- Caribbean countries need to set a timetable for the Digital Switchover (DSO). Consideration should be given to the adoption of similar dates by regional governments and CARICOM.
- DSO normally starts with a simulcast where both analogue and digital signals are transmitted for a limited period.
- Countries which had transitioned also had special information campaigns to assist the elderly, persons with disabilities and other special needs groups.
- Digital TV provides possibilities for new business, but the downside was the cost of new infrastructure.
- Regarding old television sets that would not be needed after the DSO, it was pointed out that they could be dealt with under e-Waste programmes.
- With respect to interference issues, these should be dealt with by regulators.
- Academia should be involved in all aspects of the DSO.
- There is no deadline for Caribbean countries to switch from analogue to digital transmissions, but it is in their interest to do so, since analogue equipment will no longer be supported. Countries should also take advantage of technological advances.
- Most countries have cleared broadcasters from the UHF bands and this band is now available for mobile telecommunications services, especially LTE networks.
- Some countries will benefit from the digital dividend, the spectrum released by broadcasters, which can be auctioned/sold/released to provide mobile services.
- Digital broadcasting provides improved picture and sound qualities as well as interactive capabilities.

Session 2: International Standards

Chair: Mr. Cordel Green, Broadcasting Comm., Jamaica, Panellists: Mr. Mark Richer, President, Advanced Television System Committee (ATSC), USA, Mr. Edward Idris Amana, Chairman, Digiteam, Federal Republic of Nigeria

Important Outcomes

- The ATSC 3.0 standard is a new IP-based standard which is not backward compatible, except with a converter. Efforts are being made to have it recognised in the ITU-T as an ITU digital TV standard.
- ATSC 3.0 is hybrid and interactive and can be delivered via broadcast transmissions (over-the-air) or via broadband over the Internet.
- South Korea will be completely covered by ATSC 3.0 in 2018.

- The 15 countries of the Economic Community of West African States (ECOWAS) region chose the DVB-T2 as their preferred standard. However, there were different approaches in different countries. - For ECOWAS countries, the digital dividend in the frequency range 470 – 862 MHz is an important issue. The band is also important for implementing LTE services in the region.
- The two main standards being considered for adoption by various countries are the American (ATSC 3.0) and the European (DVB-T2). There are not many differences regarding the capabilities of the two standards.
- Other standards exist, including the Chinese (DTMB) and ISDB (Japanese).
- Caribbean countries need to determine which standard will be adopted and this should preferably be the same for all countries of the region.
- Digital compression standards allow several broadcasting channels to be accommodated using the same spectrum that would accommodate a single analogue channel.
- Broadcasting should not be a silo in the technological world.

Session Three: Frequency Coordination

Chair: Mr. Philip Cross, CTO Regional Advisor for the Americas, **Presenter:** Ms. Ilham Ghazi, BR, ITU

Important Outcomes

- There is a need for Caribbean countries to register with the ITU all stations for which spectrum assignments have been made and which require international protection.
- The ITU is willing to work with Caribbean countries in all areas in respect of the DSO.
- Caribbean countries, especially those sharing borders or in close proximity to each other need to properly coordinate spectrum usage and take the necessary measures to avoid harmful interference.
- The CTO was requested and has agreed to work with Caribbean countries, the ITU as well as the CTU and other regional countries and organisations in resolving spectrum management issues.
- The CTU has a committee on spectrum management and the work of this committee will be important in dealing with spectrum management matters in the region.

Session Four: Digital Switchover Case Studies

Chair: Mr. Ansord Hewitt, OUR, Jamaica, **Panellists:** Mr. Gary Allen, President CBU/CEO RJR-Gleaner Group, Jamaica, Mr. Ferdinand Redan, Deputy Director, Telecommunications Authority of Suriname, Mr. Stephen Baily, BBC, UK, Ms. Unutoa Auelua-Fonoti, Regulator, Telecommunications, Broadcasting, Electricity and Post, Office of the Regulator, Samoa

Important Outcomes

- A policy position was adopted by the CBU in 2014. Discussions have been taking place within the CBU regarding DSO, but no standard has been adopted as yet and so far progress has been slow.
- Significant financial challenges are inherent in the DSO process
- 17 of 24 countries examined by the CBU have not started any discussion on DSO. The CBU believes there is a need for regulators to be more decisive in their actions related to DSO.
- Suriname has adopted two digital standards – ATS 1.0 for free-to-air broadcasting and DVB-T2 for pay television. Suriname, however, suggests that it is better for countries to adopt one standard.
- In the UK, at the end of the deadline for DSO, 2012, the country was 98.5 % covered by digital transmissions. This was the single biggest infrastructure project in the history of broadcasting in the UK. Information campaigns were used, targeting the elderly and vulnerable groups.
- DSO in the UK was regarded as giving more TV rather than taking away TV.
- In Samoa, the DSO process has started and a strategy has been developed. The country hopes to see economic benefits and an improvement of broadcasting services. However, the government is unable to inject any funds in the project. The country expects to reap significant rewards from the DSO.
- In Jamaica the main thrust was not based on the digital dividend but on Quality of Service. The government will be requested to mandate a DSO date for television but not for radio.
- The CTO agreed to work with Caribbean countries as well as other Commonwealth countries in their efforts to switch from analogue to digital broadcasting.
- Pirate radio stations are still a problem in the UK, but many of these stations are now moving to the Internet.

Session Five: Over-The-Top (OTT) Services and Implications for Broadcasting

Chair: Ms. Wahkeen Murray, Chief Technical Director, ICT. Ministry of Science, Energy and Technology, Jamaica, Panellists: Professor Anthony Clayton, Chairman, Broadcasting Commission Jamaica, Mr. Stephen Baily, BBC, UK, Mr. Philip Cross, CTO Regional Advisor for the Americas, Ms. Melesia Sutherland, Director, CANTO

Important Outcomes

- the five stages of regulation were explained and these included control, liberalization, investment and innovation, national development and social inclusion and finally collaboration among partners.
- countries should have a free and strong media while efforts should be made to reduce the cost and burden of compliance. Traditional media have a shrinking media share.

- OTTs are considered by some, especially operators, as a big problem for the ICT sector. They are a disruptive technology and there are difficulties in dealing with them. OTTs (such as Netflix) also tend to have access to large amounts of capital. They also do not have a physical presence in a country.
- There is no high-level forum at the present time which is dealing substantially with OTTs, although there are discussions at the ITU. The CTO indicated its willingness to be more involved with Caribbean and other Commonwealth countries.
- The CTO has received a mandate from Commonwealth ICT Ministers to undertake a consultation on OTTs. A report will be submitted to the next Commonwealth Heads of Government Meeting in 2018.
- The CTO is willing to work with various countries in finding solutions to some of the OTT problems now being faced by countries.
- Net neutrality is considered to be a major issue in the Caribbean, although there is not yet a coordinated approach by governments and regulators. For net neutrality to be effective, many issues need to be considered and suitable safeguards put in place, especially in limiting access of consumers to undesirable sites such as those transmitting terrorism information or child pornography.
- Regulators also need to be aware of new technologies such as Transpositional Modulation, which has the capacity to double the capacity of an operator's network.
- In the Caribbean region there are three types of disasters – natural disasters, man-made disasters and fake news.
- Caribbean Operators do not want to see the demise of OTTs

Session Six: Innovations in Broadcasting

Chair: Mr. Shola Taylor, CTO Secretary-General, **Panellists:** Mr. Darren Meadows, Deputy General Manager, Broadcasting Corporation of the Bahamas, Mr. Stephen Baily, BBC, UK, Mr. Chris Dehring, CEO, ReadyTV, Jamaica, Ms. Kenia Mattis, Co-Founder, ListenMi Ltd, Jamaica, Ms. Aileen Corrigan, CEO, Trend Media, Jamaica

Important Outcomes

- It is the responsibility of governments, regulators, broadcasters and operators to ensure that citizens have access to suitable broadcasting reception and adequate Internet capacity.
- Broadcasters need to adapt to the changes taking place in the broadcasting sector and to take into consideration the financial, technical and other implications of the DSO
- In Jamaica ReadyTV is utilizing DVB-T2 for its subscription television service. It mainly uses the pre-paid concept.
- ListenMi, a Jamaican company, focuses mainly on content and it produces animated videos and kids' programmes.
- Content on-the-go is gaining traction, especially since this can be done over the Internet. Collaborative content is also being used in developing content.
- Companies must provide content in the way consumers want it and make it available on multiple platforms. Content must also be of good quality
- Many cable operators have personal capital in their businesses.

- New media should be able to provide new revenue streams; therefore broadcasting companies should make the necessary efforts to understand the changes taking place and plan their strategies in order to benefit from these developments.
- Generations Z and Alpha are important in the development process, since these are two groups which help to define the type of information that is disseminated and the manner in which this is done. 90% of GenZs are always connected to their telephones.
- The profession of journalism is becoming more difficult, since proper journalism requires verification before publication. Fake news is being propagated with impunity.

Session 7: Spectrum Policy Options and Approaches

Chair: Mr. Bennette Thomas, Director of Telecommunications, Ministry of Information, Science, Telecommunications, and Technology, Commonwealth of Dominica,

Panellists: Mr. Balchan Gunness, Telecommunications Engineer, Telecommunications Authority of Trinidad and Tobago (TATT), Mr. Trevor Forrest, Chairman, Spectrum Management Authority, Jamaica, Mr. Andre Lubin, Head of Broadcasting Unit, CONATEL, Haiti, Ms. Ilham Ghazi, BR, ITU

Important Outcomes

- Spectrum management is extremely important for all countries. The radio frequency spectrum is a limited national resource and must be managed judiciously.
- Spectrum management matters are dealt with at the highest level by the ITU. The ITU and ITU World Radio Conferences make decisions with respect to the use and management of the radio frequency spectrum.
- There is a need for a common, unified and harmonious approach to spectrum management in the Caribbean.
- Trinidad and Tobago has developed policy options in respect of DTT authorizations.
- Trinidad and Tobago has assigned 700 MHz spectrum to LTE operators and they have also developed a framework for dealing with white space transmissions.
- Jamaica is interested in the prudent management of the radio frequency spectrum. They are also in support of anytime/anywhere devices and anytime/anywhere devices.
- Both Jamaica and Trinidad and Tobago will undertake spectrum re-farming exercises.
- The importance of the Internet of Things (IoT) should be taken into consideration in spectrum management activities, including unlicensed spectrum.
- New regulatory philosophies are needed when dealing with the regulation of the radio frequency spectrum. In addition, too much regulation could be detrimental to development
- Policies and strategies are needed for the use of unlicensed spectrum which is important for many activities including LTE development.
- The transition from analogue to digital transmission provides a good example of the efficient use of the radio spectrum.
- The CTO should provide assistance to Caribbean countries in the area of spectrum management. In this regard, the CTU should facilitate a regional approach to spectrum management, in conjunction with the CBU, CANTO, the CTO and other interested ICT partners.

Session Eight: The Future of Public Broadcasting Services – Policy Perspectives

Chair: Mr. Edward Idris Amana, Chairman, Digiteam, Nigeria, **Panellists:** Prof. Hopeton Dunn, Director, Caribbean School of Media and Comm./Prof. of Communications Policy and Digital Media, University of the West Indies, Mona, Jamaica, Ms. Palesa Kadi, Coordinator, Independent Communications Authority of South Africa

Important Outcomes

- Emerging technologies are transforming the broadcasting landscape. The same tools required by public broadcasting are the same tools being utilised by commercial broadcasters.
- The old methods founded by the BBC will now need to be re-visited in order to allow a new generation to engage with new forms of public broadcasting.
- The DSO will extend the reach of public broadcasting.
- Public policies, including policies related to broadcasting are needed for active citizenry.
- Regulations are also needed to promote nation-building and support social cohesion.
- In South Africa, terrestrial television is still preferred. High data cost is an issue. Digital is the future
- There is a need to review editorial policies globally and ensure that there is a suitable legislative framework for broadcasting.
- Where there is legislation regarding local content, local content needs to be defined. Should content which is developed in one African country and used in another African country be treated as local content?

Closing Ceremony

Master of Ceremonies: Mr. Cordel Green, Executive Director, Broadcasting Commission, Jamaica, Rapporteur's Report: Mr. Philip Cross, CTO Advisor for the Americas, Closing Address: Mr. Shola Taylor, CTO Secretary-General

The Forum ended with closing remarks by the Master of ceremonies Mr. Cordel Green and the CTO Secretary-General Mr. Shola Taylor. Mr. Taylor thanked participants for their presence at the meeting and

Conclusions

This important CTO Forum served to provide valuable information to Caribbean countries in respect of the Digital Switchover and related matters. Although many Caribbean countries have started discussion on the DSO, very few decisions have been made. Discussions in the CBU have shown that only seven of 24 countries in the region have started DSO discussions. No standard has been chosen but some countries seem to be in favour of the ATSC 3,0 standard.

No deadline has been set for the DSO in the Caribbean and it was suggested that it may be best for this decision to be made at government levels. The ITU has not established any dates for countries in the Americas Region to transition to digital television, but it would be in their interest to do so as soon as possible. This would allow those countries to take advantage of technological developments and start looking for ways of seeking new revenue streams.

The Forum provided information on the different digital television standards which are now available. Caribbean countries need to decide on dates for the DSO as well as the best standard for the region. Spectrum considerations are also important and some countries may benefit from the digital dividend. Caribbean countries need to register stations which require protection from interference with the ITU and in this regard the CTO has agreed to provide assistance.

Over-the-top operators are a disruptive technology and they are seen by some as a problem for the ICT sector. The CTO has received a mandate from the Commonwealth ICT Ministers to undertake a consultancy on OTTs. This has started and a report will be presented at the next Commonwealth Heads of Government meeting in 2018.

It is important for Caribbean countries to continue discussions on the way forward with digital broadcasting and set deadlines for the DSO. Suitable regulatory policies are needed and there are also financial considerations.

The Forum provided a framework within which Caribbean countries, Commonwealth countries and the CTO and all stakeholders will be able to collaborate in order to promote the transition from analogue to digital transition in the Caribbean.