



ABU TECHNICAL COMMITTEE MEETING

#ABUTC2020

Doc T-20/-7

STATUS REPORT

Organisation:	Television Broadcasts Limited		
Period:	September 2019 to October 2020	Date of Report:	November 19, 2020

PART A

Technical Developments during the past year:

- System upgrade / replacement to improve quality / efficiency
- Continue improvement of security measures for delivery, contribution, and ransomware threat.
- Continue Transcoding Facilities enhancement to support file based HD and 4K/UHD TV signal conversion.
- Continue Production / Programme deep archive medium migration from LTO-5 to LTO-7.
- Continue Enhancement of Sobey HDNLE Media Asset Management to a DOCKER platform.
- Sobey NLE System Enhancement by fine-tuning Database setting.
- Production Run Down System Development to streamline data exchange during Production.
- News Archival Library had been upgraded from LTO5 to LTO7 tape library system.
- IP - based signal router system over ST 2110 standard are being studied to replace the obsoleted HD SDI signal routing matrix system.
- Provide customized SCTE commands with program information to 3rd parties advertisement system for the implementation of advertisement insertion on OTT client side.
- Study OTT low latency solution, CMAF approach, that is to reduce OTT typical long video latency. Implementation proposals from different Suppliers are being studied for a best workable solution.

- New Services/new projects initiated

- Continue migration to enhance HD Production by using Cine Camera and 10-bit production, with color grading.
- Content Security, anti-piracy and anti-cyber-attack measures enhancement
- Launch of in-house developed program preview system which uses same logic as of Android STB and streaming technology. Information such as username, will be superimpose on screen after logged in. Moreover, on the fly scrambling is also applied to further enhance content security.
- Experiment on Next Generation Master Control Room which utilizes IP technology, Cloud (Public / Private) Storage and adopts latest operation workflow, has been initiated.

- Research projects

- Continue the study of transcoding and cross conversion between SDR and HDR material
- Continue SD HDR and 4K/UHD HDR study

- Internet and Mobile Broadcasting Services

- New DTTB Standard Study
- 5G HPHT TV study

			Radio	Television
Coverage %			NA	99%
Programme Channels			NA	5 HD
Studios	File-based Set-up	R/N/D		
	SDTV	R/N/D		
	HDTV	R/N/D		
	UHDTV			
	IP Based Set-up	R/N/D	NA	
Transmitters	HF	R/N/D	NA	
	MF	R/N/D	NA	
	FM	R/N/D	NA	
	TV	R/N/D	NA	69
	OTT/IBB/Internet Services	R/N/D	NA	
	Mobile Services	R/N/D	NA	

R = Replacement/upgrade N = New D = Discontinued

**PART B
CURRENT ACTIVITIES**

	Activities	Area	Brief Details: 1. Objectives 2. Progress to date	Challenges/Problems Faced: 1. Lack of resources 2. Lack of know-how 3. Others (e.g. up-skilling)	Solutions Implemented/Type of assistance requirement from ABU
1.	Development projects/Upgrading facilities/Training	Trial transmission for DTMB-A and DVB-T2 at 3 hill-top sites	<ul style="list-style-type: none"> - To form a small scale SFN network at Hong Kong - To evaluate reception permanence over LOS, NLOS, mobile and fast fading environment - Trial period: 1 month 	<ol style="list-style-type: none"> 1. Lack of free spectrum before ASO 2. Lack of commercial type measuring equipment 	Suggest ABU provides transmission major seminar talk / webinar for transmission engineer.
		UHD / 4K or higher TV production / Broadcasting / Delivery / Storage and Archival	<ul style="list-style-type: none"> - To understand the standard development progress for UHD/4K TV or production/Broadcasting/Delivery - Editing, network infrastructure, archival and retrieval, and Assets/Workflow management. 	<ol style="list-style-type: none"> 1. Lack of resources – the study demands great human and facilities resources 	Suggested ABU to set up a work group to explore what is the next standard after HD
		Audio Loudness Control	<ul style="list-style-type: none"> - Deployed Audio reference to Loudness, W.R.T. EBU standard. 	<ol style="list-style-type: none"> 1. Others – liaison of Government. 2. Educate user to adopt/adapt to new reference and workflow. 	Suggested ABU to set up a study working committee with members from Broadcasters, Production Houses and Government bodies for developing a standard for Asia
		HD HDR feasibility	<ul style="list-style-type: none"> - To understand the standard development and end-to-end infrastructure/workflow changes to adopt it. 	<ol style="list-style-type: none"> 1. Lack of resources – the study demands great human and facilities resources 	Suggested ABU to set up a work group to explore what is the is the best practice of applying HDR in HD
2.	Participation in ABU Activities	Area	Level of Participation	Reasons for not participating (though interested)	
		Frequency Planning for Digital Broadcasting T/FPDB	Co-Project Manager, update frequency planning in Hong Kong and surrounding regions, share professional knowledge and exchange ideas		
		Technical Bureau Mid-Year Meeting	On-line		

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3.	Suggestions for New ABU Activities e.g. study topic projects, workshops, symposiums etc, spectrum activities, new technology information flows	Activity 1			
		Activity 2			
		Activity 3			