



ABU TECHNICAL COMMITTEE MEETING

#ABUTC2020

Doc T-20/20-2

STATUS REPORT

Organisation:	Radio Television Hong Kong (RTHK)		
Period:	Oct 2019 to Oct 2020	Date of Report:	11 Nov 2020

PART A

Technical Developments during the past year:

- System upgrades/changes to practices for improved quality/efficiency
 1. Completed the development and launched user trial of audio description service for communion of visually impaired people and visually healthy people to enjoy TV show simultaneously
 2. Completed the development soft-launched the Media Distribution System for automating the logistic processes from program production to different playout platforms and archiving systems
 3. Set up contingency facilities for remote editing, production and operation for service continuity in case of emergency staff evacuation due to Covid-19.
 4. Completed the construction of an AM antenna system consisting of an inverted-L type wire antenna and an outdoor 3-channel combiner to serve as backup system for the existing AM transmitting station.
 5. Replaced three pairs of aged 1+1 FM transmitter system at RTHK's two principal FM transmitting stations in order to maintain the reliability of RTHK's FM broadcasting services.
 6. Refurbished an existing Radio Studio serving classical music broadcast with completely new design to significantly enhance the acoustic effect
 7. Refurbished the existing Radio Continuity Control Room to enhance signal transmission quality and workflow efficiency in monitoring
 8. Replaced the legacy online storage for video news production to enhance the performance and expand the capacity
 9. Deployed IP-based video (SMPTE-2110) equipment to integrate with the existing baseband SDI video infrastructure to expand the capacity and increase flexibility in routing of video signals.
 10. Adopted H.265 codec for mobile video transmission to improve reliability and efficiency for signal transmission over 4G cellular network
 11. Completed the replacement of legacy Production Storage to ensure service continuity and reliability
 12. Completed the upgrade of video logger for newsroom for capacity expansion
 13. Completed the migration to virtual machines for physical backend servers of TV production to enhance service availability and operational efficiency.
- New Services/new projects initiated
 1. Use of Unreal Engine for Virtual Set Studio
 2. Relocation of DTT frequency from Ch.62 to Ch.27 to release spectrum for mobile communication

<ul style="list-style-type: none"> 3. Enhancement of the production workflow for Multi-media Asset Library in photos and audio archiving 4. Replacement of analogue audio production system to achieve high-resolution outside broadcast music recordings 5. Replacement of digital audio playout system to enhance features and operational efficiency
<ul style="list-style-type: none"> • Research projects <p>Commenced the proof of concept of adopting AI Immune System to autonomously detect and take action against cyber-threats.</p>
<ul style="list-style-type: none"> • Internet and Mobile Broadcasting Services <ul style="list-style-type: none"> 1. Enhanced the mobile applications (RTHK Memory/RTHK Chinese Culture Project) to ensure that the information and services are accessible to persons with visual disabilities 2. Implemented social media analytic tool to report on programme performance/ROI on market conversations and have a better understanding of RTHK's brand value on social media platforms

			Radio	Television
Coverage %			99% (AM/FM)	99% (DTT) 99% (Analogue TV)
Programme Channels			3 (FM) 4 (AM)	3 (DTT, High Definition) 2 (Analogue)
Studios	File-based Set-up	R/N/D	R	
	SDTV	R/N/D		N/A
	HDTV	R/N/D		R
	UHDTV			N/A
	IP Based Set-up	R/N/D		N
Transmitters	HF	R/N/D	N/A	
	MF	R/N/D	R	
	FM	R/N/D	R	
	TV	R/N/D	N/A	R
	OTT/IBB/Internet Services	R/N/D	R	R
	Mobile Services	R/N/D	R	R

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	Production ICT Infrastructure	Allow users to work from home during covid-19 pandemic	- Trade-off between convenience and security - Tight timeframe for implementation	- Enable two-factor authentication for VPN remote access via existing firewalls - Lease laptop computers to speed up deployment
		Production ICT Infrastructure	Relocate production data network infrastructure for new office	Maintain seamless network connection during relocation	- Source multiple network paths amongst different premises for route diversity - Enable routing protocols to achieve self-healing network restoration in case of path disconnection
2.	Participation in ABU Activities	Area	Level of Participation	Reasons for not participating (though interested)	
		ABU Digital Broadcasting Symposium	Exchanged ideas and experience of TV/Radio broadcasting development		
3.	Suggestions for New ABU Activities e.g.	Activity 1	Provide seminar/field demonstration to introduce	Lack of technical know-how	ABU to coordinate industry leaders in AI broadcast

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	study topic projects, workshops, symposiums etc, spectrum activities, new technology information flows		application of AI in broadcasting		technology to conduct the seminar and demonstration
		Activity 2			
		Activity 3			