
Digital Radio Services: Asia Pacific Regional Update, Trends and Technologies

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ITU/NBTC Workshop on Digital Radio Broadcasting Trial
Bangkok, Thailand 13th December 2017

Outline

- Deployments and Services
- Trends
- Technologies

Regional Updates

ASEAN Digital Radio Workshop

Oceania

Capacity Building

ASEAN Digital Radio Workshop

- 15th and 16th of November 2017
- Bandar Seri Begawan, Brunei
- All ten members states participated
- Considerations led to four recommendations

Considerations

- Need for green technologies and concern for the environment
- Diversity among ASEAN member states in respect of the geography, population, social, political and economic situation
- ASEAN member states may introduce digital radio broadcasting at various points in time
- Possibility to explore economies of scale in digital radio receivers' pricing for ASEAN member states

ASEAN Delegates Recommended

- To adopt digital radio broadcasting technologies which are energy efficient and environment friendly
- Each ASEAN member state could consider either DAB+ digital radio broadcast technology or variant of DRM based on their respective needs
- Co-operation and coordination with respective ASEAN member state to enable their services complying to regulation beyond APT and ITU
- Design, manufacture and supply affordable digital radio receivers to enhance their availability and compatibility

Asia Pacific Activities

Nov 16 2016	3 rd AIBD/ABU/ASBU/WorldDAB/DAB+ Regional Workshop on DR, KL 27 delegates from 12 countries
March 2017	Digital Radio Workshop - DAB+
April 2017	RadioAsia-2017, Bangkok
Jun 2017	AIBD/ITU/ABU Regional Workshop on Digital Terrestrial Broadcasting TV and Radio Policy and Transition
July 2017	4 th AIBD/ABU/ASBU/WorldDAB/DAB+ Regional Workshop on DR, KL 32 delegates from 18 countries



Asia Pacific Activity

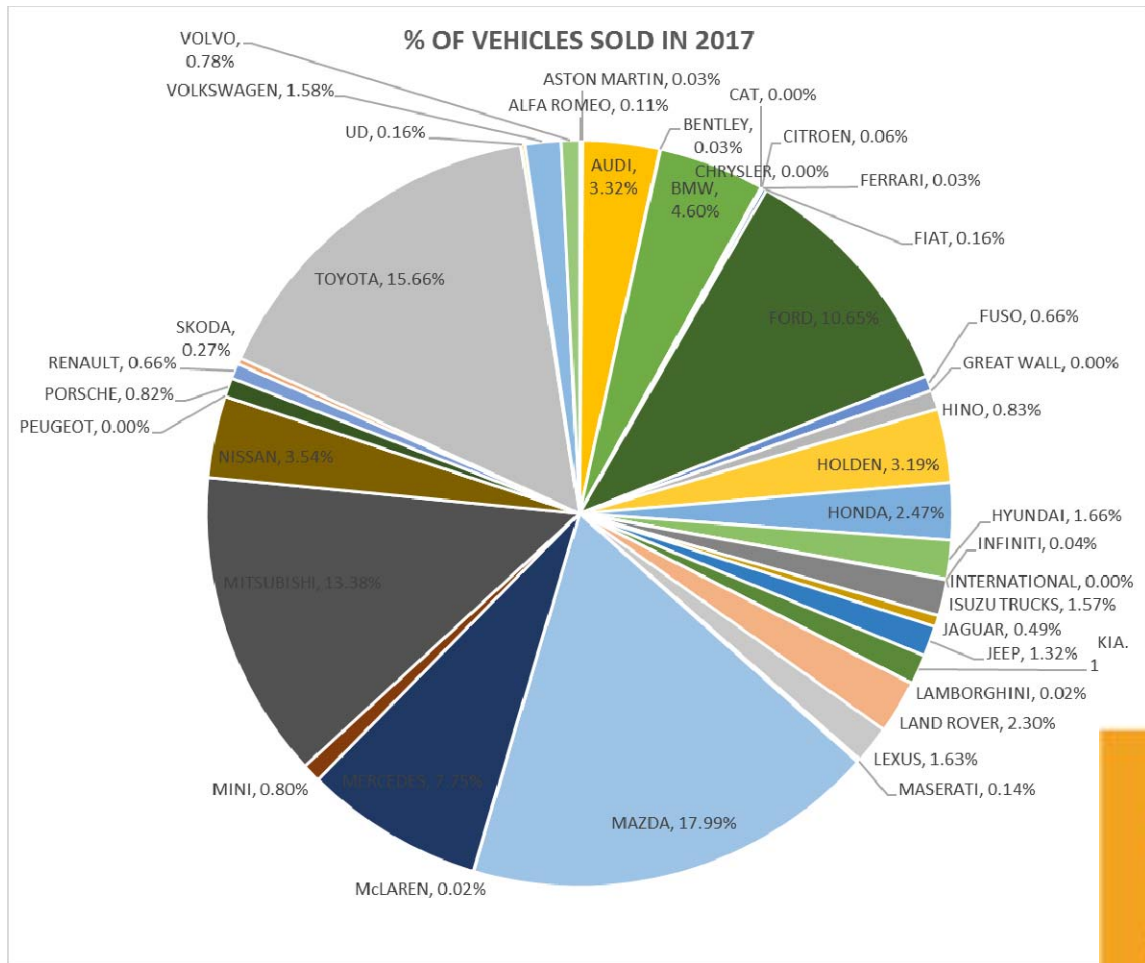
August 2017	Thai regulator NBTC visited in August to discuss their trial and roll out plans
October 2017	<ul style="list-style-type: none">• ABU General Assembly and Technical Committee, Chengdu, China• CRA hosted a Chinese delegation from Anhui Broadcasting Corporation – promoted benefits of DAB+• The ASEAN member states meeting in Brunei - 15-16 November on Digital Radio



Australia

- 3,593,687 of DAB+ enabled devices sold
- Multimedia awareness campaign being planned for Q1/2018
- Total number of vehicles sold to date with DAB+ to 30 September 2017 is 1,278,687 - more than 520,000 new vehicles were sold with DAB+ factory fitted during the past year
- 44.13% of new vehicles sold were fitted were DAB+, up from 41.54% at the end of Q2.2017
- PwC forecasts 4m new vehicles fitted with DAB+ sold by end 2021

Australia



Source – Glass' Info Q3,17

42.8%
OF HOMES
HAVE ACCESS
TO A DAB+
DIGITAL RADIO

65%
DAB+ DIGITAL
RADIO
POPULATION
COVERAGE

15 regional markets being planned

NEW MARKETS SWITCHING ON



Thailand

- Col. Dr Natee provided an update later in the WorldDAB GA.
- CRA hosted a delegation from NBTC in August to discuss planning for DAB+
- CRA/WorldDAB organised a DAB+ workshop at RadioAsia 2017; over 90 high level attendees
- Frequency plan for digital radio trial has been prepared. Some proposed trial sites in Bangkok and in some provinces such as Chaingmai in the North, Konkaen in the North East, Songkhla in the South.
- Plan to deliver 80% population coverage
- DAB+ used to remove congestion and spurious emissions to aeronautical bands and plan for interference free network of licenced broadcasters.
- NBTC research shows that even before services switch on, 39% of radio listeners are willing to pay for a digital radio receiver
- Emergency warning capability of digital radio services is considered a significant benefit.
- Regarding survey result, willing to pay US\$32 for a basic portable and up to \$160 for colour screen receiver and twice that for a colour screen automotive receiver.



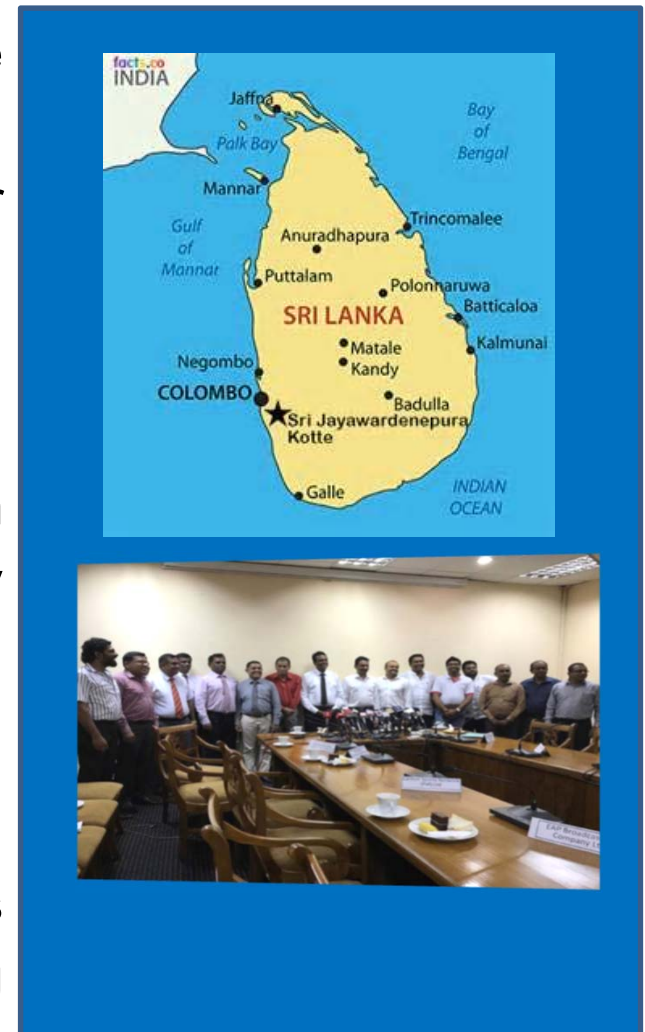
Malaysia

- MCMC continues to explore options for the deployment of DAB+ in Malaysia.
- ABU/RTM/WorldDAB 3-day digital radio workshop in March 2014
- Planning underway for two more workshop in 2018



Sri Lanka

- 1st Broadcaster Guild established Sept 17, private and state owned media organisations
- The new Lotus Tower transmission facility, built for consolidation of broadcasting transmissions, completed end March 2018.
- Telecommunications Regulatory Commission keen to demonstrate a DAB+ transmission from there. The owner of the project is TRC and they issue test licences.
- If WorldDAB propose a workshop and a localised demo, then simpler than full transmissions.
- Regulator is interested in how Australia & others have licenced DAB+ in Band III without interfering with TV.



Myanmar

- Myanmar National Broadcaster, MRTV continue the DAB pilot project they started in August 2016
- MRTV has keen interest in DAB+



Indonesia

- Dr Frederik Ndolu, Member of Executive Board, Radio Republik Indonesia (RRI) was in a panel discussion of Indonesia's digital radio strategy during the WorldDAB GA
- WorldDAB is working with Dr Ndolu, re timing for digital radio workshop in 2018 - *Revitalizing world public service broadcasting in the digital era.*



India

WorldDAB responded to the 2017 Telecom Regulatory Authority consultation including HD Radio.

The consultation on issues related to digital radio broadcasting

- there are at least 46 cities included in 53 agglomerations in India with more than 1M people where DAB+ most suitable
- follow the ITU R138 and focus on Band III, rather than Band II DR solutions
- have offered on air trial and workshops to assist India's broadcasters conduct technology assessments
- HD Radio to be introduced by AIR (ABU News). No receivers available.
- DRM about 40 transmitters in simulcast mode. Only 2.5% only for DRM. No receivers.

Trends and Technologies

Choice, Suitability, Wider adoption

EWS - Early Warning Signalling and
Broadcasting

Receivers

EUROPEANS & TELEVISION



PUBLIC SERVICE TV IS INDISPENSABLE

It reaches

60%



of the population
every week

and accounts for over

24%

of all TV
viewing



EBU Media Intelligence Service 2017

Source: EBU based on Eurodata TV Worldwide / Relevant partners and Members' data

Download the full infographic: www.ebu.ch/mis

Significance of Digital Transmission Standard

EBU



R138 recommends DAB+ for immediate deployment

8 | Technical Review | April-June 2016



How to Plan Digital Radio Broadcasting Services by Mitigating Barriers of Digital Migration



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Background

The final session of the DAB+ workshop held in Kuala Lumpur on 29th February 2016 ended with discussions by three groups, namely, Regulatory, Technical and Content. Each group discussed the barriers or challenges in planning digital radio migration. The following article summarises the key discussion points for ABU members to share as guidelines to planning digital radio broadcasting services. Dr Amal Punchihewa, Director Technology & Innovation, ABU presents a critical analysis and views based on his experience spanning thirty years and as a global ICT expert. The focus is on impediments to rolling-out digital radio services and how to plan such migration to achieve better results.

Radio Broadcasting Industry

It has been observed that AM (Amplitude Modulated analogue radio services) is heavily compromised due to various factors. One of the dominant factors that leads to discontinuing, shutting down or scaling down AM services is the cost of energy (electricity) needed to operate high power transmitters. Non-availability of spare parts and devices also leads AM stations to go off air.

The other analogue service, FM (Frequency Modulated analogue radio services) gained popularity and penetration thanks to its better quality and affordable cost of ownership for broadcasters. However these benefits, along with poor licensing regimes led to the congestion of frequency bands used for FM

The only difference between the technology transition from AM to FM and the transition to digital radio, is that a broadcaster (preferably a country) has to select one of three technology standards. The three technologies are described in the latest Digital Radio Guide to be published by the World Broadcasting Union Technical Committee (WBU-TC) in October 2016. WBU-TC is a collection of eight broadcasting unions around the world, with one of its goals being to harmonise technologies for the broadcast industry.

As explained in a previous article, published in the first quarter 2016 Technical Review (TR-265), ABU takes a position of technology neutrality in the Asia-Pacific region. What does this technology neutrality mean to the ABU family? It is a principle that ABU leaves it to its members to select the digital radio standard they want. In contrast, in the European region, EBU, through its R138 gives preference to DAB/DAB+. On the 3rd page of the R138 document, it recommends the immediate deployment of digital radio using DAB transmission as defined in ETSI TS EN 300 401, with DAB+ services as defined in ETSI TS 102 563 for digital radio broadcasting in VHF Band III. In cases where DAB coverage is not possible it recommends using DRM, as defined in ETSI ES 201 980 for digital radio broadcasting in the frequency bands currently used for analogue radio broadcasting, (R138, p3).

Some Guidelines

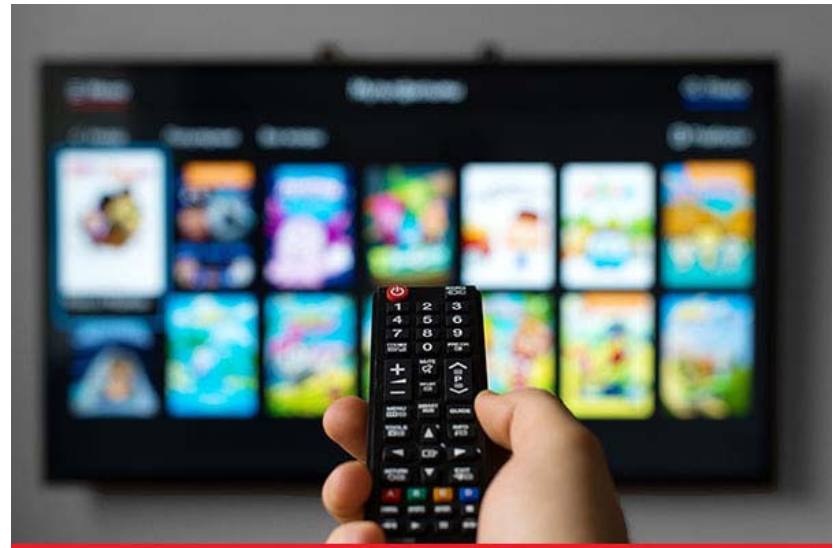
1. It is recommended that, after careful study and evaluation, each member select its own digital radio standard from

Receivers

- Sold over 3.5 million DAB+ receive devices in Australia
- In supermarkets (ALDI) receivers are available from 15 AUS \$
- No device availability for other technologies in APAC market

RadioDNS

- <https://www.broadbandtvnews.com/2017/11/22/hbbtv-application-discovery-service-launched/>
- Application Discovery over Broadband



Application Discovery over Broadband

- The technical approach of using DNS to provide access to online resources using information present in broadcast signals is similar to what is used by RadioDNS Hybrid Radio.

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- Thank you for your patience
 - Any comments, suggestions or questions