PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

CLASSIC FM 1027

DISCUSSION DOCUMENT ON DIGITAL SOUND BROADCASTING

Presentation to ICASA
Council Committee
Friday 13 July 2018
Block C Presentation Room
Sandton

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

CLASSIC FM 1027

Contents

- Introduction
- Background and Context
- The need for Digital Sound Broadcasting
- Relevance and affordability of Digital Radio
- Advantages of DAB+
- Licensing
- Receivers
- Manufacturing
- Frequency Planning
- Questions

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

CLASSIC FM 1027

Introduction

- This presentation is in response to ICASA's discussion document on digital sound broadcasting.
- Although two standards are proposed this presentation will focus on the DAB+ standard and highlight the various key points to consider in its implementation in South Africa.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

CLASSIC FM 1027

Background and Context

- Introduced to DSB in 1999 through Classic FM UK plc.
- Classic FM participated in the 1st Gen. DAB trial
- Enthusiasm in first generation DAB was limited.
- New audio codec AAC+ would change the dynamics.
- In 2012 played active roll in the joint SADIBA/NAB digital radio DAB+ trial Work Group.
- In 2014 was one of the stations to broadcast on the DAB+ trail in Gauteng.
- Classic FM has participated in the DAB+ trial during all its phases and with this volume of experience wishes to participates in this very important process in moving terrestrial radio to the digital domain.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

The Need for Digital Sound Broadcasting

- The move to DSB is not seen as a full migration but an additional platform for radio broadcasters to reach their audiences. It is expected that FM will be around for many years to come.
- It takes considerable time and coordination to transition audiences to a digital radio platform. Should be considered a complementary technology, but dual illumination costs could speed the change.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

CLASSIC FM 1027

The Need for Digital Sound Broadcasting (cont.)

- FM spectrum congestion in the three major metropoles in South Africa makes it impossible for either existing broadcasters to improve their signal with the addition of gap fillers or extend their reach and importantly for new entrants to enter the market.
- None of the original Gauteng greenfield licenced commercial radio stations have in approx. 21 years been able to secure good coverage in and around their existing licence areas nor have they been able to extend their coverage north to Tshwane and environs where all have a poor FM signal but have developed sizable audiences due to the content offered .
- Digital Radio especially DAB+ can change this.

The Need for Digital Sound Broadcasting (cont.)

- Audiences want content, they want the content they want, when they want it and where they want it. It has become extremely difficult for broadcasters to deliver these needs on traditional analogue radio.
- Audiences are not static but on the move via various means. Traffic congestion in South Africa's metropoles contributes to higher radio listening in cars.
- The importance shown to morning and afternoon drive shows by broadcasters highlights the importance of this audience.
- Broadcasters must be able to deliver their programmes and audiences must be able to easily receive a full range of programmes especially during these peak driving times.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

CLASSIC FM 1027

The Relevance and Affordability of Digital Radio

- Naysayers will say that terrestrial digital radio is “too late.”
- IP on 5G is the future.
- SA cannot afford it. Receivers are too expensive.
- Some broadcasters will claim they don’t want it due to possible competition; want to protect their current turf.
- Existing radio broadcasters are under threat by IP audio services, Apple Music, Spotify ,Google plus a host of other international and local unregulated IP internet radio stations.
- All are eating into radios’ listening share.
- Terrestrial radio broadcasters need to protect and invest in their own digital future if they are to continue to be the most assessible ,open and local form of communication and remain free to air.

CLASSIC FM 1027

The Relevance and Affordability of Digital Radio (cont.)

- DAB+ offers additional capacity and services which can be used to reduce this trend and ensure a healthier local broadcast industry by offering additional services.
- Public Broadcasters reap benefits by offering more content types and higher quality programmes.
- Commercial and Community need to justify the cost which is very challenging due to increase competition from IP services.
- To overcome this challenge it is useful to provide incentives to ensure that existing broadcasters participate.
- Example of these incentives used in various countries are:-

CLASSIC FM 1027

The Relevance and Affordability of Digital Radio (cont.)

- Allocation of free digital spectrum.
- No new entrants for a period of time.
- Offer their audiences new niche formats and over time build these stations to have more inventory to sell.
- New niche specialist stations like for the visually impaired and education services be exempted from the waiting period.
- Affordability options:-
- Free or low cost access to digital spectrum.
- Shared transmission cost amongst broadcasters per site.
- Ensure a access agreement to protect broadcasters from profiteering by mux operator/signal distributor.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

The Relevance and Affordability of Digital Radio (cont.)

- Fair access fees for community broadcasters.
- Financial assistance for community broadcasters (MDDA).

Advantages of DAB+

Provides the following benefits:

- Efficient use of frequency spectrum, Multiple channel capability (up to 24 Channels).
- Economical - Lower transmitter power per audio service.
- Advanced Audio Quality.
- Consistent quality of Reception.
- All broadcasters on a mux have exactly the same coverage.
- Retains the FM capability of Portable and Mobile Coverage.
- Enhanced service offerings, including data (Visual radio with information displayed on screens) hybrid radio.

Advantages of DAB+ (cont.)

- DAB+ Uses Multipath Reception to improves it's signal stability.
- Capable of dynamically re-arranging the various services contained in a mux on the fly.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

Licensing

- Digital technology offers new capabilities not found in analogue.
- This requires a different approach to licensing to reap the benefits.
- Pop-up services need to be considered i.e. short term special events, sports language simulcasts. Should it be within existing broadcasters digital spectrum or separate reserved spectrum available to all on application.
- Incentives need to be considered and form part of the licensing process to encourage take-up.

CLASSIC FM 1027

Licensing (cont.)

- Protection should be offered to existing broadcasters but this should not prevent new specialist niche formats i.e. for the visually impaired, education services or the opportunity for medium wave broadcasters to dual illuminate on DAB+.
- National Commercial Radio becomes possible with initially niche formats and then opening up to others.

Licensing (cont.)

- There is no license provision for a Mux operator in EC Act.
- May need to consider a framework as to who can be a mux operator.
- One or more mux operators? Yes consider a mix.
- Network Operator i.e. Sentech provides mux and transmission services but doesn't generate content.
- Broadcasters own and operate mux and transmission services.
- MIXED Broadcasters own and operate mux but subcontract transmission services to a network operator.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

Licensing (cont.)

- DAB+ not limited to PBS and Commercial services.
- Low power DAB+ networks for Community Broadcasters are a reality.
- OFCOM have licensed many in the UK with excellent results.
- Open sourced software is freely available to build a mux.
- Can create many employment opportunities locally.

Receivers

- There are well over 400 different DAB+ receivers on the market at different price ranges.
- From USB dongles to high end.
- Most offer DAB+/FM plus Bluetooth connectivity.
- Designed in various countries throughout the world but majority are manufactured in China.
- Samsung/LG are currently developing a new chipset for mobile phones for DAB+.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

CLASSIC FM 1027

Manufacturing

- Classic FM supports any incentives to encourage local manufacture to provide meaningful work.
- Must be economically viable.
- Previous attempts at local radio manufacture were quiet comprehensive but eventually succumb to imports from the east.

CLASSIC FM 1027

Frequency Planning

- 2 frequency allotments for DAB+ is not enough for major metropoles.
- Free State and Eastern Cape are allotted same frequencies. Both have overlapping coverage in places.
- Unlikely that all services on the mux would be the same resulting in interference i.e. Springfontein/Aliwal North.
- DAB+ can be implemented now on Channel 13F in 7 metropoles without waiting for ASO.

PLAYING THE WORLD'S MOST BEAUTIFUL MUSIC...

CLASSIC FM 1027

Questions