



# JETcon

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TO: ICASA Chairman  
Chairperson of the Council Committee  
164 Katherine Street  
Block A Pinmill Farm, Sandton  
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## RE: DISCUSSION DOCUMENT ON DIGITAL SOUND BROADCASTING

Dear Chairperson

Jethro Consulting Solutions ("JetCon") will like to thank the Independent Communications Authority of South Africa ("ICASA") for the opportunity to participate in the ICASA's Discussion Document on Digital Sound Broadcasting.

This submission provides JetCon's views on the discussion document on Digital Sound Broadcasting.

JetCon would welcome the opportunity to participate in any public hearings, oral presentation on the finalisation of this Discussion Document on Digital Sound Broadcasting

I thank you in anticipation of your positive response and look forward to our constructive engagement.

With kindest regards,

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Mr Nhlanhla Jethro Tshabalala  
Executive Chairman and Managing Director.

# INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

Government Gazette No. 41534, General Notice 161 of 29 March 2018

## DISCUSSION DOCUMENT ON DIGITAL SOUND BROADCASTING.

29 MARCH 2018



**A Submission by**



**JETcon**

***Jethro Consulting Solutions Pty Ltd***

**7<sup>th</sup> JUNE 2018**

# **JETCON SUBMISSION TO ICASA'S DISCUSSION DOCUMENT ON DIGITAL SOUND BROADCASTING.**

## **1. BACKGROUND**

Jethro Consulting Solutions Pty Ltd aspires to be one of the leading consultancies for integrated ICT management and technology consultation. We are a strategic technology consulting firm in the areas of architecture, technology choice and implementation strategy. We advise telecommunications and broadcasting companies, governments, investors and regulatory bodies with innovative solutions developed from the application of modern information and telecommunications technologies. Our comprehensive service portfolio concentrates on strategy, training, marketing, processes, technologies, including the development and implementation of network architectures. JetCon's consultants have an extensive expertise in the mobile networks, fixed networks, and data networks sector.

Jethro Consulting Solutions ("JetCon") thanks the Independent Communications Authority of South Africa ("ICASA") for the opportunity to participate in the ICASA's Discussion Document on Digital Sound Broadcasting.

JetCon would welcome the opportunity to participate in any public hearings on the finalisation of this discussion document.

The publication of this discussion document is important as it takes South Africa one step closer to making available essential spectrum for mobile telecommunication technologies, a critical component in achieving the goal of 'broadband for all citizens' in South Africa.

JetCon recognises the important role that such spectrum will play in furthering the development of the ICT sector which will further the development of the economy as a whole.

## **2. GENERAL REMARKS**

JetCon notes that ICASA's purpose of this Discussion Document is to solicit views from the public and to conduct an inquiry with respect to the following:

- a) The prospects of implementation of DSB services in South Africa; and
- b) How the implementation of DSB services can improve radio frequency spectrum efficiency and management.

### **2. Discussion**

2.1 DSB is audio broadcasting technology intended to deliver superior quality sound using digital communications technology. It is a new, digital signal delivery system capable of delivering sound and data in all its forms.

2.2 DSB differs from the traditional analogue broadcasting as follows:

- (a) Digital signals are more robust than analogue and can be transmitted successfully at lower transmitter powers;
- (b) Digital systems, using coded multi-carrier modulation, offer much improved reception on mobile car radios and portable receivers;
- (c) Advanced digital compression techniques enable low bit-rates to be used successfully, while still producing the sound of near CD quality. This makes digital systems more spectrum-efficient;
- (d) The digital bit-stream can be used for transmitting both audio and data;
- (e) Digital radio is much easier to use/tune than an analogue radio (AM/FM). The data capability of digital radio can be used directly or, with some modification, for other related broadcasting activities such as Internet radio.

2.3 The digital migration process, albeit its focus being on television services, will be able to make radio frequency spectrum available, which is currently occupied by analogue services for other broadband and broadcasting services. There is currently a scarcity of FM frequencies which has led to the Authority publishing a moratorium on the licensing of class community sound broadcasting services on the 87.5 - 108 MHz broadcasting Band5. This development, amongst others, highlights the need for an alternative sound broadcasting system.

2.4 New, more spectrum-efficient digital technologies should be considered to accommodate more broadcasters in frequency bands such as the 240 MHz frequency band that has been allocated to digital sound broadcasting

### **3. JETCON'S SUBMISSION ON QUESTIONARES.**

**Question 1:** Is there a need for the introduction of DSB technologies in South Africa? Motivate your answer?

JetCon's view is Yes, in order for SA to remain commercially attractive, radio as a medium will have to deliver improved quality service, greater choice, interactivity and multi-media. Digital radio technologies must rise to the challenge and deliver the multimedia radio of the future.

And also because of digitisation programs to use spectrum efficiently and with new technologies opportunities. There are two main generations of DSB: digital audio broadcasting (DAB) and digital radio mondiale (DRM). As documents indicated that trials have been carried on both systems.

**Question 2:** Do you think the list of technical standards to which the DSB equipment must conform are exhaustive? Motivate your response and suggest other equipment technical standards?

Yes they are exhaustive and JetCon is of the view that there are sufficient for our environment.

#### **DAB+**

1. Transmit other types of information with the audio such as album covers, the name of the artist or the latest news headlines.
2. When the signal is weak, the listener still enjoys good sound quality.
3. DAB+'s compression technology offers up to 200 DAB+ radio broadcasters in a region.

#### **DRM+**

1. The flexibility to offer a wide range of subsidiary data services, multiplexed programming or single frequency networks.
2. Capable of operating in a compatibility mode in which the huge existing base of FM receivers in the home and cars can continue to be used until the audience and broadcasters can complete the changeover on the basis of mutual convenience and needs.
3. DRM+ has the flexibility to satisfy any coverage need in Band II ranging from national and regional networks to community stations.

**Question 3:** In the absence of a policy directive for providing standard for DSB, should the Authority provide licences for other DSB technologies? Please motivate your answer.

JetCon is of the view that ICASA must not provide licences for the DSB technologies in the absence of a policy directive. SA needs certainty on the policy and standards which will attract FDI Foreign direct investment on Manufacturing of mostly Receivers.

**Question 4:** South Africa through its international agreements at ITU and SADC level agreed on DAB+ and DRM systems. Please indicate which other digital sound broadcasting technology(ies) if any should be considered for South Africa? Please motivate.

JetCon is of the view that South Africa should continue to support commitments through its international agreements (at ITU and SADC level) agreed on DAB+ and DRM systems.

**Question 5:** To use the spectrum efficiently, the digital sound broadcasting network can be planned on a Single Frequency Network. Do you think that it would be applicable for purposes of digital sound broadcasting? Please motivate.

JetCon's view is that, YES it would be applicable for purposes of digital sound broadcasting. A single-frequency network or SFN is a broadcast network where several transmitters simultaneously send the same signal over the same frequency channel.

Analog AM and FM radio broadcast networks as well as digital broadcast networks can operate in this manner. SFNs are not generally compatible with analog television transmission, since the SFN results in ghosting due to echoes of the same signal.

A simplified form of SFN can be achieved by a low power co-channel repeater, booster or broadcast translator, which is utilized as gap filler transmitter.

**Question 6:**

6.1 Should the Authority consider one or more mux operator(s) for DSB? Please motivate.

JetCon is of the view that the Authority should consider more mux operators in order to be able to transform Audio Sound broadcasting sector in South Africa.

6.2 Would you propose a total switch – off of the traditional analogue AM and FM sound broadcasting? Please motivate.

JetCon is of the view that South Africa should maintain in parallel the traditional analogue AM and FM FOR TIME BEING, until the sector rolls out the DSB Technology across the country and prices are affordable.

**Question 7:** Should the Authority adopt the strategy used in other international markets of licensing DSB services in the primary markets first and then a nationwide rollout? Please motivate.

JetCon is of the view that immediate nationwide rollout strategy will be the best to fast track the transformation of the sector and also the technology has the flexibility to satisfy any coverage need in Band II ranging from national and regional networks to community stations

**Question 8:** Can the current sound broadcasting market afford new DSB licensees in community, commercial and public service? In your answer, explain your reasons and/or choice for any of your submission.

JetCon is of the view that YES there is a market in South Africa for DSB licensees due to the past skewed policies of Apartheid. South Africans need more local relevant content which will be sufficient for our environment

## **ANNEXURE A: Additional Questions**

### **For Consumers**

1. What is your understanding and expectations of digital sound broadcasting?
2. What impact do you think DSB will have on your experience of radio?
3. What concerns do you have regarding the implementation of DSB?
4. Do you believe that the cost associated with acquiring DSB devices is worth it considering that you already utilize analogue radio?
5. What are your expectations from broadcasters and manufacturers?
6. Do you have any suggestions to provide to the Authority with respect to the implementation and regulation of DSB?
7. Please provide the Authority with any further information you deem necessary and asked herein.
8. Will you be willing to trade your traditional analogue radio receiver for a digital radio? Motivate your answer.

1. Migration from Analogue to Digital broadcasting and efficient use of Spectrum.
2. High quality radio signal and sound and low barrier to entry.
3. The choice of which standard to be adopted for South Africa.
4. Yes, I believe that the cost associated with acquiring DSB devices is worth it.
5. I expect development of local content by broadcaster and technology Innovation from Manufacturers.
6. I suggest immediate Policy directive and immediate National rollout.
7. Will the Authority allow private infrastructure developers to build independent networks of multiplexing centres and radio transmitter sites across South Africa that provides the infrastructure that delivers digital radio stations from broadcast studios to millions of listeners across the country?
8. Yes I will be willing to trade my traditional analogue radio receiver for a digital radio provided AM and FM is switched-off immediately or and the cost of digital radio is affordable.

## For Broadcasters

1. What is your understanding, expectations and concerns as broadcasters with respect to DSB?
2. How will DSB impact your sound broadcasting services business?
3. What are the projected financial implications associated with DSB, considering that Digital Terrestrial Television (DTT) is to be implemented prior to DSB?
4. What issues of concern should the Authority be wary of when implementing and planning for the regulation of DSB, with respect to competition, spectrum concerns, financial considerations etc.;
5. Do you believe DSB will encourage growth in your business or will it create unnecessary financial pressure on your business?
6. Have you conducted research on DSB and the implementation and regulation of same that you can share with the Authority?
7. Please provide the Authority with any further information you deem necessary and asked herein.
8. How would the introduction of digital sound broadcasting benefit the service providers?

JetCon has no comments for Broadcasters.
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## For Manufacturers

1. What is your understanding of DSB and the impact it will have on your business model and financial projections in South Africa once implemented?
2. What financial, competition, manufacturing etc. challenge do you anticipate having with respect to DSB?
3. Do you plan on building and manufacturing equipment for DSB in South Africa in partnership with state or regulatorily assigned Broad-Based Black-Economic Empowerment and Historically Disadvantaged Groups?
4. What is your business plan, if any with respect to preparing yourselves for manufacturing and selling DBS equipment for South African consumers?
5. What pricing negotiations are you open to discussing with relevant bodies, including the Authority, to make the said DSB equipment affordable for consumers?
6. Will the introduction of DSB create more jobs for South Africans in your sector? If not why, if yes, how will this impact the statistics on job levels in the South African economy?
7. What projected impact do you believe that DSB will have on your business in terms of growing same and enhancing operations in South Africa?
8. Would you be prepared to partner with the Authority or the state in ensuring the success and uptake of DSB in South Africa?
9. Have you conducted any studies or research with respect to the manufacturing, distribution and marketing of DSB internationally? If so can you same with the Authority?
10. Please provide the Authority with any further information you deem necessary and asked herein.
11. How would it impact the car and radio manufacturers business if the Authority had to develop regulations making it mandatory for radio receivers they manufacture to have at least one digital interface?

JetCon has no comments for Manufacturers
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#### **4. CONCLUSION**

As the Republic of South Africa's stakeholders deliberates on ICASA's discussion document on Digital Sound Broadcasting Policy and Regulatory Issues, JetCon strongly requests the ICASA to focus on resourcing and strengthening both the concerned raised by Policy Makers and Stakeholders so that they can urgently conclude all outstanding activities needed to allocate the invaluable radio frequency spectrum to existing and new ICT operators, so that they may build the modern ICT Infrastructures and deliver the services that will fuel South Africa's growth in all key national development domains, as outlined and specified in all South Africa's development plans, including the overriding NDP and the subordinate ICT related policies and regulatory provisions.

**JetCon would welcome the opportunity to participate in any public hearings on the finalisation of this Digital Sound Broadcasting processes.**

**END**

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