

**DTT (DIGITAL TERRESTRIAL TELEVISION)  
ACRONYMS,  
TERMS AND DEFINITIONS**

TERM	ACRONYM	DEFINITION
<b>1.DTT</b>	Digital Terrestrial Television	It refers to the broadcasting of terrestrial television in a digital format. The digital signals can be received using a standard aerial for TV.
<b>2.STB</b>	Set top box	A device that converts digital signals received either via a terrestrial means or via satellite or cable to normal analogue video and audio for presentation on a normal television set.
<b>3.ATM</b>	Asynchronous Transfer Mode	A network technology based on transferring data in packets
<b>4.DVB</b>	Digital Video Broadcasting	Consortium of more that 300 organisations and manufacturers committed to making global standards for delivery of digital television and data services.
<b>5.iDTV</b>	Integrated Digital Television	A TV set with a built- in receiver which carries out the functions of a set top box. Such a TV would not need a set top box to display the free to air services. Currently there are none in South Africa, They might however, be developed at a late stage.
<b>6.FTA</b>	Free To Air	A list of services or bouquet provided by terrestrial transmitter that does not require a person to pay a subscription to receive or view.
<b>7.MPEG</b>	Moving Picture Experts Group	A group of experts, whose task is to develop and formulate compression standards. South Africa still needs to adopt MPEG4 standards, in to the near future.
<b>8.EPG</b>	Electronic Program Guide	A guide showing programmes that can be displayed on a TV set using an STB. It displays the now and next programmes or TV schedule for a day or more at a time. It also include more

		advanced functionalities, such as the ability to search for programmes by genre.
<b>9.MUX</b>	Multiplex	A system that combines more than one service into a digital stream on a single frequency.
<b>10.RF</b>	Radio Frequency	A signal that is used to carry all the information through the air towards the receiver or the STB. The signal is normally in electromagnetic waves which can create a conductive path through the air.
<b>11.MHEG</b>	Multimedia and Hypermedia Expert Group	This is a group that defines the model for the presentation of multimedia applications to the STB. Used for interactive services and Teletext. SABC will, in the near future adopt MHEG-5.
<b>12.SDTV</b>	Standard Definition Television	Is the basic level of quality display, and resolution for both analogue and digital. Transmission of SDTV may be either the traditional (4.3) or widescreen (16.9) format. SDTV typically does produce better quality images than that of traditional analogue TV. However, its images are not nearly as sharp as the images from the ultimate form of digital television.
<b>13.BDM</b>	Broadcasting Digital Migration	It refers to the policy process currently underway by the Department of Communications. One of the outcomes of the BDM policy will be the introduction of DTT
<b>14.ICASA</b>	Independent Communications Authority of South Africa	This is the Telecommunications and broadcasting industries' regulatory body in South Africa.
<b>15.HDTV</b>	High Definition Television	HDTV in widescreen format (16.9) provides the highest resolution and picture quality of all digital broadcast formats. Combined with digitally enhanced sound technology, HDTV sets new standards for sound and picture quality in television.
<b>16.BSD</b>	Broadcast Signal Distribution	Broadcasting signals that are intended for general reception.

<b>17. DSNG</b>	Digital Satellite News Gathering	It is normally a mobile unit used to collect content and transmit via satellite. DSNG can also be used for receiving content. It is portable and cost effective for adhoc transmissions.
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## **FREQUENTLY ASKED QUESTIONS ( FAQ's)**

### **1. What is DTT?**

DTT stands for digital terrestrial television (or **digital terrestrial transmission**). It refers to the broadcasting of terrestrial television in a digital format. Currently, terrestrial broadcasting in South Africa is broadcast in an analogue format. The country is in the process of planning and implementing migration from analogue to digital broadcasting.

### **2. What is the difference between terrestrial television and satellite television?**

Terrestrial television uses a network of transmission towers to relay the signal across the country. Each transmission tower has a specific area of coverage, and it is the network of coverage that provides television signals across the country.

The broadcast signal is sent to the various towers and if you are within the area covered by a tower, then you will be able to receive the broadcast services via a terrestrial aerial which is usually placed on your roof or on your television set (depending on how strong the signal is that you are receiving).

Satellite television broadcasts uses satellite in the sky. The broadcast signal is sent to the satellite and you receive a signal via a satellite dish. A single satellite

usually covers a large area (for example the PAS 10 satellite covers the whole of Africa).

### **3. What is the difference between analogue TV and digital TV?**

In analogue, one channel (such as SABC 1) uses a dedicated frequency to broadcast. This is because of the large amount of bandwidth the analogue signal requires. In digital, however, the signals can be compressed – this will therefore allow for more channels to be broadcast in the same bandwidth as one current analogue channel uses. SABC estimates that up to 8 new video channels can be provided in the same bandwidth as one analogue channel.

### **4. Why are we migrating from analogue to digital?**

The main reason for the migration is to release valuable spectrum which can be used for other services. Spectrum is scarce, and hence making more efficient use of the spectrum available is necessary if more telecommunications and broadcasting services are to be made available on a terrestrial basis.

South Africa also co-ordinates its frequency plans with other countries to ensure that there is no interference between various countries. Currently analogue broadcasting is protected from interference, but this protection will stop by 2015. It is therefore necessary to complete the migration before 2015.

### **5. Has this been done elsewhere around the world?**

Yes – all countries around the world will do the migration to ensure ongoing co-ordination and protection from interference. Examples of countries that are advanced in their migration process include United Kingdom, New Zealand, Sweden, United States, France and Mauritius.

## **6. What is a Set Top Box STB (decoder)?**

The set top box is a device that will decode the digital signal to enable the channels to be displayed on your television set. This set top box will plug-in to your TV set.

## **7. Why do I need a Set Top Box?**

Although you will be able to receive the signal through your aerial, without the set top box you will be unable to display the digital services on your television set. The set top box decodes the digital signal received via a standard aerial antenna and supplies the TV set with a video signal.

## **8. What will the Set Top Box cost?**

Estimated retail cost of the set-top box is in the region of R600 to R700

## **9. Will I need a satellite dish to receive DTT?**

No – you will not need a satellite dish to receive DTT. The satellite signal is not the same as the terrestrial signal which is received using a terrestrial TV aerial.

## **10. Will I need a new aerial to receive DTT?**

It is unlikely that most current viewers of SABC or eTV will require a new aerial to receive DTT. However, some viewers may require new aerials, or may need to upgrade existing aerials. In some instances aerials may have to be adjusted. At this stage it is unclear who will be affected by such adjustments, but the majority of viewers will not require any changes to their aerial installations.

**11. Will I need any other additional equipment to receive DTT?**

You will need to have a DTT set top box (also referred to as a decoder). This DTT set top box is not the same as the Multichoice satellite set top box or the current MNet set top box.

**12. Do you need a Set Top Box if you have a DSTV?**

Yes, DSTV uses a satellite dish to receive the signal and the DTT set top box uses a standard aerial to receive the signal. The satellite signal is different from the DTT signal and the two systems are not compatible.

**13. Where can the Set Top Box be purchased?**

At this stage the set top box is not available for purchase. It will most likely be available at most major retail outlets in the country once available.

**14. From what date can the Set Top Box be made accessible & available?**

It is expected that the set top box will be available for purchase only towards the middle of 2009. This is because the standard for the set top box is still in the process of being finalized, and the Department of Communications is still in the process of finalizing a set top box manufacturing strategy. Once these processes are complete (expected to be at the end of 2008 or early 2009), then the set top box will have to be manufactured and this will take approximately 6 months.

### **15. How is the Set Top Box installed?**

The set top box can be installed by a professional installer or one can connect the cable from the TV aerial to the set top box, normally RF-in at the back) and then follow the set top box installation menu using the supplied manual

### **16. If I have five TV sets in the house, will I need five Set Top Boxes?**

YES: If you want to each TV set to individually view different channels. Other models of set top boxes that have functionality that allows you to connect more than one TV to the set top box could be developed and made available at a later stage. This set top box model will however be more expensive.

### **17. Will I need to pay a subscription every month like DSTV?**

No – the purchase of the set top box is a once-off cost. There will be no monthly subscription cost to receive the free-to air services offered by SABC and eTV. However, you will still have to continue paying your TV license.

### **18. When will the Set Top Box - in terms of the services be available to me?**

It is anticipated that the service will be commercially available in the second half of 2009. However, there are a number of areas that still need to be resolved before the service is commercially available. This includes testing of the service to ensure that everything works as it should before consumers spend money on the purchase of the set top box.

It is also important to note that the digital network will be rolled out over a period of three years. Therefore, you will need to check when the digital signal will be available in your specific area. Information will be made available on exact areas of coverage and when these will be covered closer to the time of the public launch of the service. By the time of launch it is expected that more than 30% of

the population will have access to a digital signal, and this will progressively increase over time.

**19. I hear that the SABC is not ready for digital migration? What is the SABC doing to ensure I do not lose my television signal?**

The migration to digital is a process that is expected to take a minimum of three years. During this period of migration, viewers will still be able to receive the current analogue services of SABC 1, 2, 3 and eTV. However, if you don't have a set top box you will be unable to receive any new digital channels or services.

The process of switching off the analogue signal is expected to begin in November 2011. Once the analogue service is switched off, viewers will need to have a DTT set top box to receive free-to-air terrestrial television services, including SABC 1, 2,3 and eTV.

The SABC will also be conducting a trial with eTV and Sentech to test the new DTT services and technology to ensure that the service works once it is commercially available so that you do not lose access to all the great television programming you have been used to once you move to digital. This trial will begin on 1 November 2008.

**20. Will this migration only affect SABC?**

No – the migration will affect eTV and MNet as well.

**21. The deadline announced for digital TV switch-on is 1 November 2008. What exactly will happen on 1 November 2008?**

On 1 November 2008, the digital signal will be switched on by Sentech. This means that a digital signal will be available. However, this does not mean that you will be able to go out and purchase a set top box to receive the signal. The

SABC will also begin testing DTT services, together with eTV and Sentech on 1 November 2008. The SABC trial will be done with a small sample of viewers that will be selected by the SABC for the purposes of testing the service. Once the service has been tested adequately, and all other related processes are in place, set top boxes will be made available in retail stores for the SA public to purchase so that they can receive digital services. This is expected to be by the second half of 2009.

## **2. What are the benefits of digital TV?**

With digital TV you will have access to more channels on a free-to-air basis. This will be in addition to the current free-to air services offered by SABC and eTV. SABC intends to make available a range of new public services, including not only new TV channels, but also other interactive services such as games and information services. Other benefits include a better picture and sound quality, access to an Electronic Programme Guide (EPG) on your television screen which allows you to view your TV guide on your TV screen. You will also be able to receive additional information services and interactive services on your television set such as games, information services, weather services, etc.

## **23. Will I need to buy a new television set to receive DTT?**

No – most current analogue television sets will be able to receive DTT. The main consideration is that your TV must have an A/V input to ensure that your set top box can be plugged in to your TV. If you have this, you should be able to use your current TV set. You do not need a high definition (HD) TV, LCD TV or Plasma TV to receive DTT.

If you are purchasing a new television set, you could consider purchasing an LCD TV or an HD ready TV if you can afford it as this is the technology of the future. However, you will still need to purchase a set-top box to receive DTT. A TV that is “digital ready” or “HD ready”, does not mean that it can receive DTT without a DTT set top box. You should also be aware of purchasing old analogue

technology just because it is cheap as this technology is being phased out around the world, and you might find that in a few years time there will be no support for these old analogue TVs.

In the next few years, there could also be TVs with an integrated set top box (that means a set top box already built in with the TV). These are usually called idTVs. However, these are not yet available in South Africa.

#### **24. Will there be high definition TV on DTT?**

At this stage there is no plan for HD TV on DTT. However, this could be a possibility over the next few years.

#### **25. How does a person establish if his TV will be compatible to the Set Top Box?**

The TV set must have audio and video inputs or alternatively must have RF input.

#### **26. What if I cannot afford the Set Top Box? Does this mean that I will not be able to watch television after 2011?**

Government announced in August 2008 that a subsidy or incentive scheme will be established to assist households that cannot afford the set top boxes. The subsidy will be 70% of the price of a set top box, which was estimated by government to be R700-00). It is anticipated that approximately 5 million South African households will need the subsidy/incentive.

**27. How is the Government going to monitor & control the subsidy rollout?**

Government has only recently announced that a subsidy will be made available. It is unclear at this stage how this will be managed or be rolled out.

**28. What is the Digital Dzonga?**

The Digital Dzonga is a body that will be established to manage the digital migration process on behalf of the government. The Digital Dzonga Advisory Council is currently established and is made up of a wide range of representatives from government, broadcasters, manufacturers, labour and consumer groups which were appointed by the Minister of Communications. It is expected that the Digital Dzonga will establish a fully functional office with dedicated staff that will be appointed over the next few months.

**29. Who are the various role players in the process and what are their specific roles?**

**Dzonga** - Is a body established to manage the migration process for the country Broadcasters Terrestrial broadcasters need to migrate their services onto digital. The main affected broadcasters are SABC, eTV and MNet.

**The broadcasters.** They will be responsible for establishing new services, migrating existing services (SABC 1, 2, 3, eTV and MNet) onto digital, and will play a role in education and awareness. The broadcasters are the most affected parties in the process (apart from consumers) as they will have to manage analogue and digital services during the dual illumination transition period.

**Signal Distributors.** Signal distributors are responsible for rolling out the digital network infrastructure on behalf of broadcasters. The main signal distributor affected is Sentech, although other signal distributors (such as Orbicom) could also be involved.

**Government** is responsible for developing the policy for broadcasting digital migration. They are also responsible for ensuring that funding is available for the subsidy or incentive, and for the development of a manufacturing strategy. The Department of Communications is driving this process on behalf of government and will work with other government departments such as the National Treasury and Department of Trade and Industry.

**ICASA** is the regulator responsible for regulating the telecommunications and broadcasting sectors. ICASA will be ultimately responsible for the frequency planning and allocations and the issuing of licences for digital services. New digital services cannot be launched without a licence or authorization from ICASA.

**Manufacturers.** They will be responsible for manufacturing the set top boxes and to ensure that the boxes they develop are compliant with the standards set and do actually work.

**Retailers.** The retail industry will play a role in ensuring that the set top boxes are available for purchase by the public and to provide accurate information to consumers so that they can make the right choices when purchasing the set top boxes. This includes other organizations such as the South African Post Office which could also be used as a distribution outlet for the set-top boxes.

**Consumers** will be responsible for ensuring that they have the information they need to make informed choices and to ensure that they have the necessary set top boxes before the analogue signal is switched off.

## DTT – RADIO

### **30. What does DTT means to Radio**

DTT is not in anyway a replacement for the current FM broadcasting but adds great value if they are included in the service offering. DTT provides a plethora of Opportunities for Radio in terms of generating new revenue streams. DTT can be used to provide coverage of existing FM services where they cannot be extended due to frequency congestion. Through its capabilities DTT can provide value-add services (e.g. Interactive Services, Teletext, Graphics, Traffic Information, Weather, Stock Markets and more) to existing radio service offerings.

### **31. What are the implications of Digital Migration on Radio?**

Digital Migration only affects analogue television. There are currently no plans to replace FM services, which will still be around for quite some time. Digital Audio Broadcasting (DAB) and Digital Radio Mondiale (DRM) are digital radio offerings that can be deployed by broadcasters. The SABC is currently developing a digital radio strategy which will inform who the SABC will employ such services.

## 32. Acronyms

**FM (Frequency Modulation)**-Coveys the information from a transmitter station by varying the frequency of the carrier wave.

**AM (Amplitude Modulation)**-Conveys the information from a transmitter station by varying the amplitude of the carrier wave.

**DRM (Digital Radio Mondiale)**- is the universal digital radio system for short-wave, medium-wave and long-wave and uses frequencies below 30Mhz. DRM can fit in more channels at better quality than current analogue.

**DAB (Digital Audio Broadcasting)** - Is a method transmitting radio signals using terrestrial digital transmissions. It allows for efficient use of the frequency spectrum that traditional FM by fitting nine or more channels into a single frequency. The DAB eliminates the interference common on current FM transmissions as the receiver is clever to select the strongest signal.

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