

ACTIVIST GUIDE TO Digital Terrestrial Television (DTT)

SOS PUBLISHED BY
**SUPPORT PUBLIC
BROADCASTING**
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PUBLISHED BY



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What does Go Digital mean?

South Africa is changing the way it transmits terrestrial television – by moving from analogue to digital terrestrial television (DTT). This process is called digital migration.

This means that South Africa's terrestrial TV broadcasters – SABC, e.TV, M-Net and community television stations – will move from transmitting signals in analogue format to digital format.

To help understand some of these issues better (especially since some of them are quite technical), this Activist Guide has been developed to explain the basics of tDTT.

- Section One explains why we are going through this process and what some of the benefits and problems are
- Section Two explains what the implications of digital migration are for citizens;
- Section Three explains the technology of digital migration and outlines who the key role-players are;
- Section Four explains the laws and policies governing digital migration
- Section Five looks at international trends and lessons learnt
- Section Six looks at civil society positions on digital migration

This publication is produced by:

The 'SOS: Support Public Broadcasting' Coalition

The “SOS: Support Public Broadcasting” Coalition is a membership-based coalition representing unions, NGOs, CBOs, community media, independent film and TV production sector organisations; academics, freedom of expression activists and concerned individuals.

The vision of the SOS Coalition is to create a public broadcasting system dedicated to the broadcasting of quality, diverse, citizen-orientated public programming committed to deepening South Africa's Constitution.

The Coalition's purpose is to lobby for the strengthening of public and community broadcasting in the public interest broadly, with the aim of ensuring excellent programming for South African audiences, particularly on the SABC.

The Coalition does this through:

- Lobbying for citizen friendly policy, regulatory and legislative changes in relation to public and community broadcasting
- Lobbying for appropriate public accountability and transparency from all institutions governing public and community broadcasting including: Parliament, the Independent Communications Authority of South Africa (ICASA), the Department and Ministry of Communications, the Media Development and Diversity Agency (MDDA) and the SABC and community broadcasters.
- Lobbying for quality public programming on the SABC and all community broadcasters.

The Right2Know (R2K) Campaign

While the Right2Know Campaign launched in August 2010 as an coalition of organisations and people responding to the Protection of State Information Bill (the Secrecy Bill), the Campaign quickly broadened its scope to tackle related issues because the Secrecy Bill is a symptom and symbol of much broader obstacles to the free flow of information.



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Let's get started.

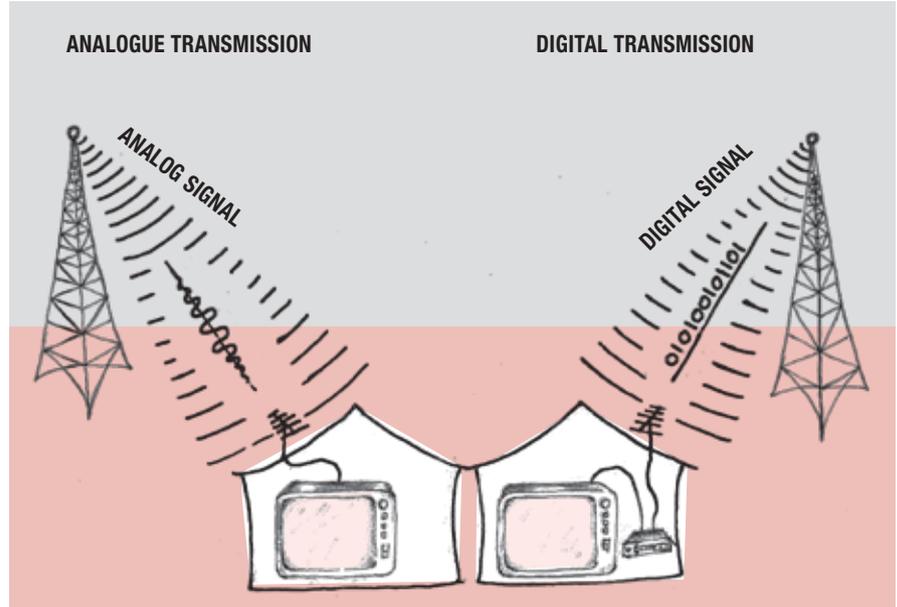
SECTION ONE: Why are we going digital?

South Africa is changing the way it transmits terrestrial television – by moving from analogue to digital terrestrial television (DTT). This process is called digital migration.

DTT only applies to terrestrial television, not television transmitted via satellite or cable. South Africa's terrestrial TV broadcasters – SABC, e.tv, M-Net and community television stations – will move from transmitting signals in analogue format to digital format.

DTT is about the way television is **transmitted** and not the **formats** High Definition (HD) or Standard Definition (SD) television is produced in.

There is a big push for terrestrial TV to be transmitted digitally to free up valuable spectrum space.



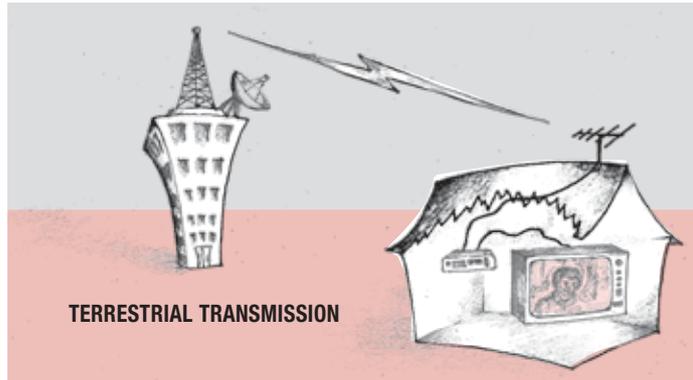
Various ways television signals are transmitted

Television signals are transmitted in different ways.

Terrestrial transmission – transmitted by a network of transmission towers (located at ground level) to relay the signal across the country. Each tower has a specific area of coverage and you will receive your signal from the tower closest to you.

This is the oldest form of TV transmission and the biggest advantage is that it does not rely on cables to cover vast areas. It was developed in 1927 and the BBC began broadcasting in 1929 as the first real terrestrial broadcaster.

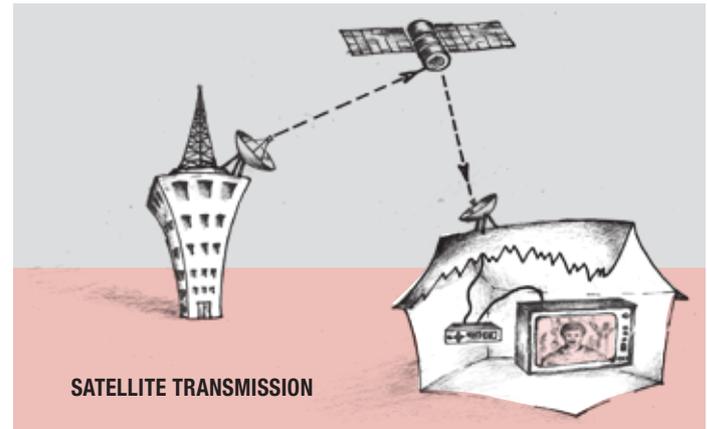
Problems include: signals could be affected by weather and topology; the costs of infrastructure are high and it is often inaccessible to very rural areas.



earth and can be accessed from anywhere as long as you have a satellite dish and receiver. This form of TV was developed in 1962 where a TV signal was relayed from Europe to North America.

Satellite TV signals can also be affected by the weather and because it is not controlled by national governments, there is a danger that the signal could be switched off by foreign governments that control the satellite.

Satellite TV is ideal for very rural areas where the geography of the land does not allow for terrestrial TV.



Cable TV is transmitted via radio frequency (RF) signals through cables dug into the ground. This form of TV was developed in 1948. Cable TV never developed in South Africa because of the expense of laying cables and is mainly a European and US phenomena.

Cable TV is generally stable and is ideal for urban areas like cities. It also allows for convergence – other fixed line services like phone and Internet can be combined with it.

Because of high infrastructure costs, there are fewer companies providing this service, which means that there are often monopolies.

Cable and satellite television have traditionally been transmitted in digital format and terrestrial TV has been transmitted in analogue format.

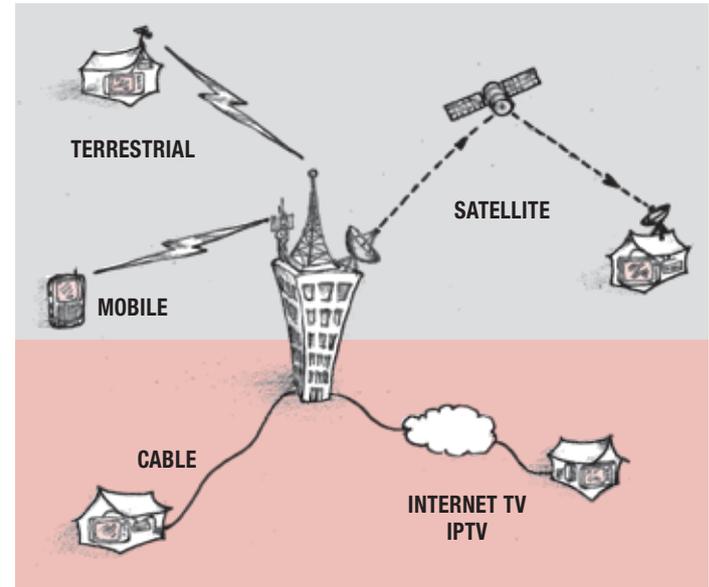
Now you also can watch television streamed via the Internet (**Internet Protocol TV or IPTV**) and on your cellphone – like Netflix. This is the latest system where television services are delivered through the Internet and has three main groups of services:

- **LiveTV:** which works like normal broadcast TV
- **Time-shifted TV:** where you can record a programme and then watch the content later – or PVR
- **Video-on-demand (VOD):** where you can browse a list of movies to pay for and watch (Dstv's Box Office service)

The South African television broadcasting landscape

South Africa has three tiers of broadcasting:

- **Public broadcasting**
- **Commercial broadcasting**
- **Community broadcasting**



How do they transmit their signal?

Free to air (FTA) TV

- SABC, the public broadcaster, is free-to-air (you only pay your annual TV licence fee)
- e.tv is a commercial station, but is also free and currently broadcasts in analogue terrestrial format.

(You only have to pay your annual TV licence – there are no subscription fee)

Commercial broadcasters

- M-Net is a pay channel that transmits in analogue terrestrial format.
- DStv is a pay-TV broadcaster that transmits in digital satellite format.
- StarSat (previously Top TV) is a pay-TV broadcaster that transmits in digital satellite format.

Free Satellite

- Freevision is a free Standard Definition (SD) satellite service offered by Sentech
- OpenView HD (OVHD) is a free High Definition (HD) satellite service offered by e.tv

You pay once-off costs for a decoder, dish and installation but no subscription fees.

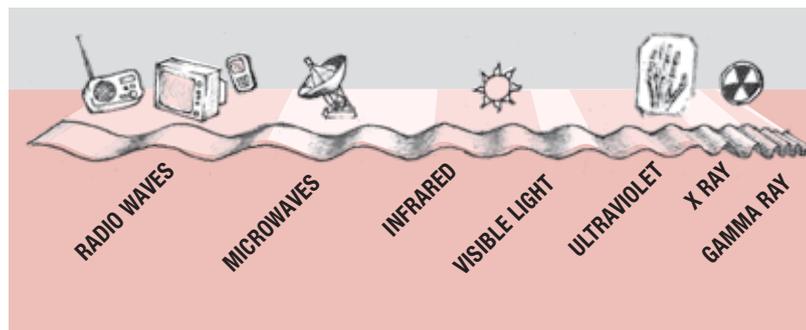
Why do we need to migrate?

The main reason for digital migration is to make valuable and scarce spectrum available for other services, especially for telecommunications (voice and data).

Spectrum is the limited electromagnetic frequency space on which signals are carried. Currently, broadcasting uses a lot of that spectrum limiting access for other ICT services.

Different parts of the electromagnetic spectrum are used for different purposes depending on their characteristics.

- Cable, satellite and terrestrial TV all take up space on the radio spectrum
- FM radio takes up space on the radio spectrum



Digital transmission is more efficient than analogue transmission. This is because the signal is compressed in digital format.

- In analogue, each channel uses a dedicated frequency to broadcast – because the analogue signal requires a large amount of bandwidth.
- For every one channel transmitted in analogue, up to 20 channels can be transmitted digitally.

This means the spectrum can be used more efficiently. The extra spectrum space that is freed up is called a ‘digital dividend’.

In theory, this means that if the spectrum is released, more service providers can access it and the cost of telecoms services will go down. This is good for the ICT and cellphone industry.

History of digital migration

In 2006 the International Telecommunications Union (ITU) took a decision that all the countries in Europe, Africa, Middle East should migrate from analogue to digital broadcasting services by 2015.

What are some of problems with DTT?

- There are huge costs involved – for government, broadcasters and for citizens
- Some households may be totally cut off from television when the analogue signal is switched off – if you have not bought a STB or decoder or do have a digital TV.

- If the digital signal is lost, you will not be able to see anything. In analogue, you can still see a blurry image.

What about radio?

There is no technical pressure for FM radio to be switched off because those frequencies are not needed. Sentech and radio broadcasters have already started testing the technology. In the future, we may also need to undertake a radio broadcast digital migration process

Digital radio promises:

- Better signal and audio quality
- All stations can be accessed from all parts of the country without listeners having to retune their radios when they move across regional boundaries
- No fading problems in cellphone environments
- Allows for additional datacasting services – you can see images and videos alongside audio for example. You will also be able to interact with the radio station through your listening device. The listening device can be any device with a radio receiver – from a standard digital radio set to your television.

Platforms that deliver digital sound broadcasts include:

- Satellite
- DTT
- Internet (wired and wireless)
- Cellphone technologies

There is no technical pressure for FM radio to be switched off because those frequencies are not needed.

Internationally, there has a slow transition to digital on the radio front.

The standard chosen by SA is DAB which allows for the most efficient and diverse use of the spectrum.

ICASA has put aside the 214-230MHz band for this

The National Association of Broadcasters (NAB) have started a trial of digital Radio DAB+ trial which will commence on the 13th October 2014.

It is envisaged that 18 stereo channels allowing 40 radio services from the Public, Commercial and Community sectors will participate. These 40 radio services will be rotated to give each broadcaster a chance to trial.

SECTION TWO: What does digital migration mean for me?

You will get:

- Free access to more channels – SABC will now have up to 18 channels. New free-to-air broadcasters will be licensed, adding to viewer choice.
- More choice and diversity as a result of more channels
- Better picture and sound quality (not necessarily HD)
- An electronic TV guide (also known as an electronic programming guide or EPG) that enables you to plan what to watch at a touch of a button
- Multi-language tracks, descriptive video for visually impaired and blind people, and closed captioning facilities for deaf and hard of hearing people.
- To listen to radio via your television set

Digital incentive channels are the channels that broadcasters are given as an incentive for taking on the burden of shifting from analogue to digital.

- Broadcasters are reluctant to shift because of the costs so they need incentives.
- Incentive channels will not be given to community broadcasters
- To ensure incumbent broadcasters give viewers good programming, they have to pass a public value test set by the Regulator.

It also means that you will have to:

- Buy a STB and an aerial (once-off cost). The final costs of STBs are not yet available. So far, the cost for the STB and aerial are estimated between R750 and R1200.
- Pay your annual television licence fee

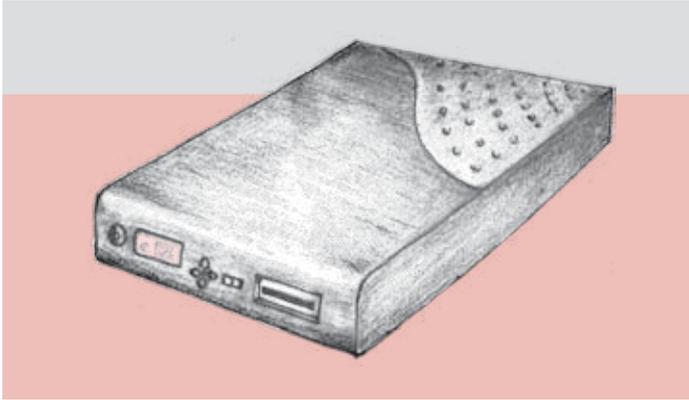
Set top boxes (STBs) or decoders

In order to watch digital television you will need a **set top box (STB)** or decoder.

A set top box is a decoder that converts digital television signals back to analogue signals so that old television sets can still receive the signals – it is the ‘key’ that unlocks the signal.

The **aerial** is important to ensure that viewers can get a good signal. Most people will need to change their aerials because not all aerials (like the ‘bunny ears’ aerial) can receive the digital signal.

This is an example of what the South African set top box is likely to look like:



If you have more than 1 television in your house, you will need a separate 'standard issue' STB for each television.

Characteristics of set top boxes

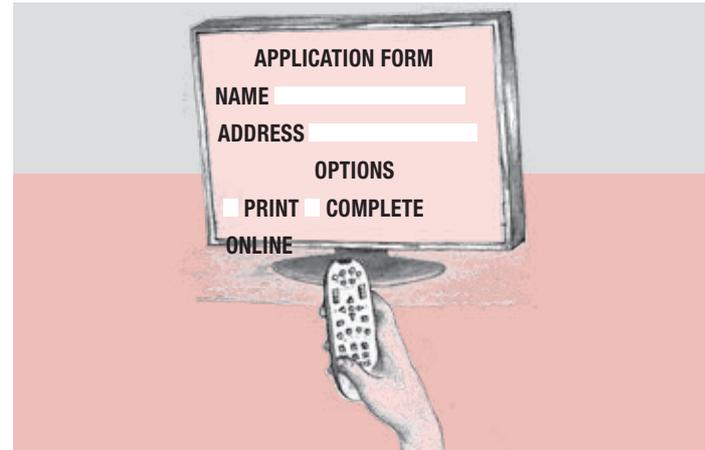
The characteristics of the STB are important because it determines what features the STB will have and also impacts on the cost of producing a STB.

There are several important debates about the characteristics of the STB.

Return path capability

Return path capability is important because it enables basic Internet access and will allow the viewer to communicate back – for example, you can fill in a government form without having to leave your home.

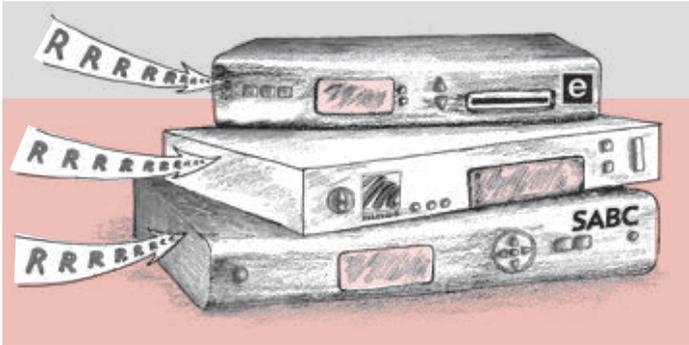
- This it will ensure the roll out of the internet to households throughout SA.
- It will add to the cost of the decoder and TVs are not ideal for internet access



Conditional access (CA)

Conditional access or or STB control is a system that is put into a STB to control access to content. M-Net and DStv currently use such a system to make sure that only those who pay can watch.

Conditional Access systems mean that broadcasters can ‘scramble’ or ‘encrypt’ the signal.



Some technical Information

The signal is coded or encrypted at the point of transmission.

The encrypted signal is ‘unlocked’ or decoded by the set top box.

The software used to encrypt the signal **must** be the same software used to decode the signal.

Government wants to protect its investment in subsidised STBs and for commercial broadcasters, this also means being able to locate subscribers and troubleshoot their problems as well as switch off unpaid subscribers.

The advantages of Conditional Access:

- ☑ The creation of ‘smart box’ so that citizens can access a number of benefits from their televisions like an electronic TV guide.
- ☑ Government will be able to deliver e-government services in a variety of languages
- ☑ Job creation through developing the local manufacturing sector – It will help develop the local manufacturing sector and create jobs. The South African Bureau of Standards will approve a set of standards for the manufacture of decoders. South African companies will be in better position to manufacture decoders because they will be authorized to support the conditional access software.

It will also prevent cheap, foreign imports from flooding the market because these STBs will not be able to unscramble the broadcast signals.

- ☑ Competition – Some argue that encryption is crucial for competition and that there is a need to create a broadcasting environment that supports both new and existing players. They say encryption is necessary to ensure a strong, uniform free-to-air platform that will be able to compete with pay-TV more effectively.
- ☑ Prevent theft – Conditional access will stop STBs from being stolen and exported outside South Africa's borders because the STB would only be able to work in South Africa – if taken over the border, it can be 'switched off'. Others argue that theft is a part of life and there is no need to add additional costs by installing a system to prevent it.
- ☑ Limit piracy of programming – this is a big problem, especially for High Definition (HD) content.

The disadvantages of including Conditional Access:

- ☒ Conditional Access will add to the costs of a STB as there are costs for the installation of encryption software and hardware in each STB. The manufacturers will pay the costs of the software and the consumer will have to carry the costs of the hardware. There will also be costs to encrypt the signal at the point of transmission – these costs are to be carried by the broadcasters.

Those who want encryption say that the costs of including conditional access have been over-stated and will only cost an additional R20-R30 per STB.

There are also software costs that manufacturers will have to carry – this is estimated to be around R85 000.

- ☒ Will enable broadcasters to switch viewers off
- ☒ Security and surveillance

International Experience

Conditional access has not traditionally been used in free-to-air broadcasting but this is changing – for example, Ukraine (also a developing country) is using conditional access to bring the benefits identified above to its television viewers.

What does this mean for future technology?

Those who are against conditional access argue that such a system will have a negative impact on the adoption of new technology e.g. integrated digital televisions (IDTVs) that have built-in STBs.

Manufacturers may also not find it economically feasible to include certain features for the South African market.

There are also concerns that some advanced features of high technology televisions like gesture recognition (for those of us with smart TVs) may not work if STBs are used.

Others argue that television viewers are already used to STBs so there will be no serious impact on the adoption of new technology.

Public service

Those who support conditional access argue that it gives free-to-air broadcasters (like SABC and eTV) the ability to compete with pay broadcasters in terms of a common 'look and feel' of the platform.

It also gives free-to-air broadcasters the ability to show quality high-definition (HD) content – like the latest Hollywood movies – that might have strict copyright requirements like geographic limitations (i.e. only available in South Africa).

Lastly, it is important to make sure that South Africa does not have a two-tier broadcast system where resources and quality programming is concentrated in the pay broadcast sector and leaves the poor with limited channels and poor quality programming.

What is Government's position on Conditional Access?

The Department of Communications (DoC) has a compromise position on conditional access – government subsidised STBs will have a conditional access system built in but it will be up to the broadcasters to decide whether they want to use the system or not. The SABC will have to use the government-subsidised box.

This position is because the DoC believes:

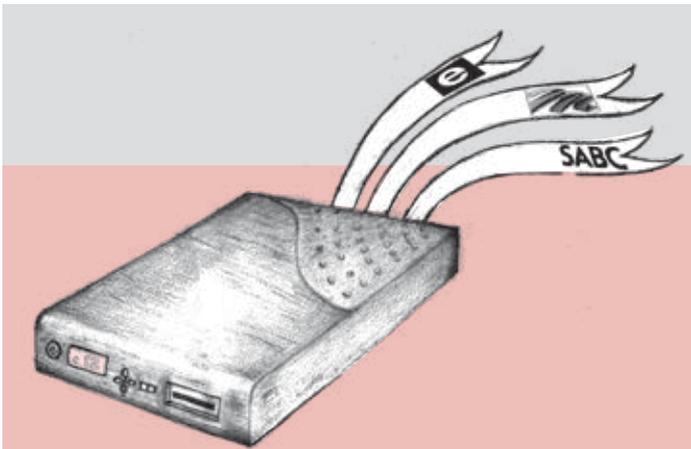
- Including a control system protects government's investments in subsidising the STB market and protects the local electronics-manufacturing sector.
- Changing the specifications will cause further delays

Interoperability

STBs should be **interoperable**. This means that all broadcasters can provide their services (possibly through a system of access cards) through a single STB so that viewers do not have to buy different STBs to access different services.

Interoperability means the ability of a system to work with or use the parts or equipment of another system.

This is another important issue because interoperable boxes means that people can buy a single STBs to access multiple services. If different operators use different encryption systems, then STBs available to the public must be able to 'read' all these different systems.



Some technical information

To deal with the issue of interoperability, STBs should have a plug-in common interface (CI). The CI should accept a conditional access module (CAM) to ensure that one STB can be used to receive various services. This means that viewers will only need to buy a single STB but still access multiple broadcasting services.

The original digital migration policy of 2008 talked about interoperability, however this principle has been left out of later versions of the policy and the current requirements for STBs do not include the principle of interoperability.

Where do I buy a decoder?

STBs will be available at most retailers and also at the South African Post Office.

What if I can't afford to pay for a decoder?

Government has made a commitment that people on social grants on poor households will not have to pay the full cost of a STB. The details of this are still under discussion.

There are no details yet on the subsidy application process but people will have to 'prove' they are poor and it is likely that you will need to submit your ID, bank account details, details of employer or financials, etc.

Government is subsidizing the cost of producing 5 million set top boxes. Those on social grants will pay 70% of the box (and not the full price).

Money for these subsidies will come from the Universal Service and Access Fund (USAF) and R940m has been set aside for subsidies.

What happens if I don't want a decoder?

If you do not have a 'standard issue' STB you will no longer be able to watch television produced by terrestrial broadcasters once the dual illumination period is over.

How is the set top box installed?

Again, the details of this have not been finalised.

Government and FTA broadcasters have said that call centers will need to be set up to assist.

Will I have to buy a new television set?

There is no need to buy a new TV set because the STB will decode the digital signal to make sure it is compatible with your existing set.

Technology for television sets is also changing. We now have:

- LCD or Liquid-crystal-display television set use LCD technology to produce images
- LED televisions are television sets that have light-emitting-diodes backlighting to create sharper contrasts in images is power-efficient.
- Plasma television sets use glass panels have plasma screens to enhance contrast and colour accuracy. Now you can get curved plasma screens too.
- Smart television sets is any television set that has Internet access built into it. If you have a smart television set you will probably still need a 'standard issue' STB.
- Integrated Digital Television (IDTV) sets come with a built in decoder. Many of these can interpret the new signal. These are already available, but it is not yet clear whether they will be able to interpret the new digital signal. You will probably need to get a STB.

SECTION THREE: Understanding the technology and key role-players

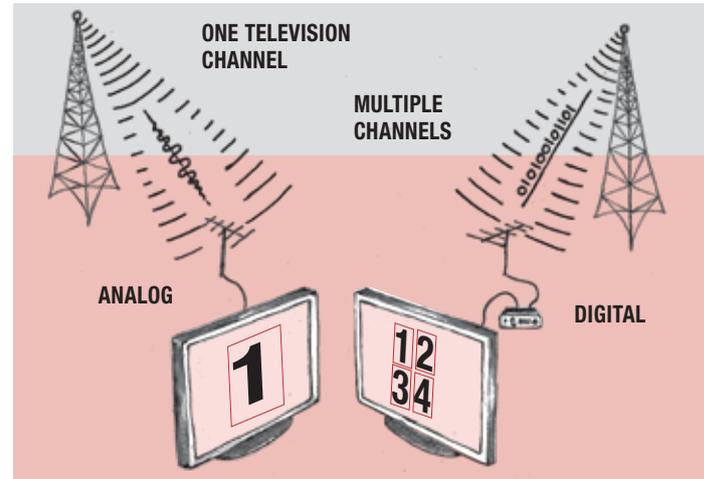
South Africa's digital migration technological specifications

South Africa has adopted the DVB-T2 & DVB-S2 standards with existing DTH continuing to use the MPEG-2 compression standard with the option to migrate to MPEG-4 on commercial availability;

South Africa has two multiplexes:

- Multiplex 1:
 - SABC – 85%
 - Community broadcasters – 15% (This adds up to 1 provincial channel and a number of local channels or 2 provincial channels)
- Multiplex 2
 - e.TV – 50% (over 2.5m viewers for primetime news)
 - Mnet – 40% (116 000 standalone decoders)
 - Tests and trials – 10%

Multiplexing (is a method by which multiple analog message signals or digital data streams are combined into one signal over a shared medium. The aim is to share an expensive resource



What about content?

Present local content quotas passed in 2006 include the following:

- 55% for public channels
- 35% for free-to-air commercial channels
- 10% for subscription channels

New regulations are going to be passed for the digital age. ICASA is beginning research in this area.

In terms of new channels:

SABC has promised additional channels including a 24hr News Channel, a 24hr Sport Channel, a Children's Channel, a Classics Channel.

eTV has promised:

- Broadcasting in HD;
- There has been discussion about e.tv and SABC planning a joint channel;
- E.tv particularly wants to establish a “Freeview” brand to strengthen the DTT brand and encourage migration.

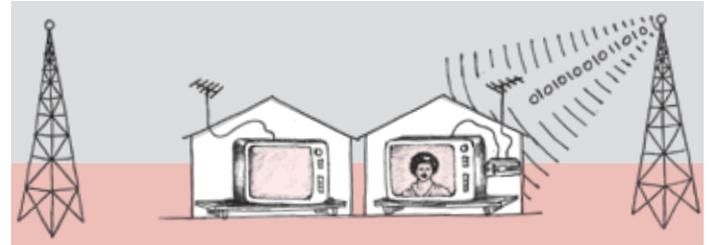
MNet has not made specific promises but has lots of DSTV material they can package.

The migration process

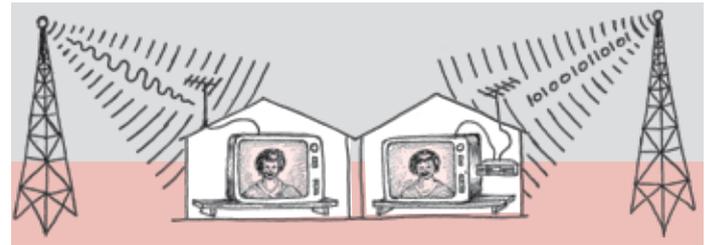
Digital switch-on:

- **Dual illumination period** is the period when broadcasters must transmit their signals in BOTH analogue and digital formats.

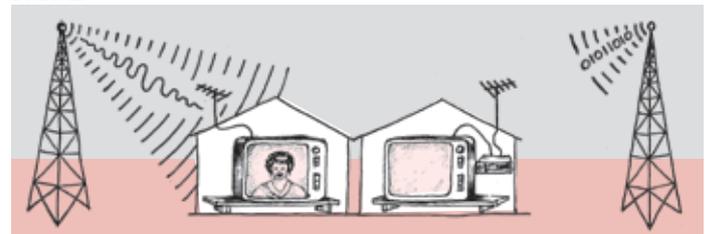
ANALOG



TRANSITIONAL



DIGITAL



Analogue signals cannot be switched off until viewers have bought a set top box.

This is a tricky period in terms of both the use of radio spectrum and cost as broadcasters will be using space for both analogue and digital signals.

This period therefore has to be as short as possible.

- **Digital switch-off** is the date from which there will no longer be any analogue transmissions.
- **Digital migration involves** installing the digital transmission network, STB subsidy costs, and communication costs.

Key players

The Department of Communications takes overall responsibility for the coordination of the DTT migration process and all stakeholders.

This includes ensuring that a comprehensive DTT policy is drafted and implemented, that DTT deadlines are met by all stakeholders so that announcements around “digital switch-on” dates can be met, that the tender process for STBs is efficiently and effectively managed, and that a comprehensive communications campaign is rolled out to inform citizens of the DTT process and in particular the need for citizens to purchase STBs and antennae.

To date the DOC has tabled a revised DTT policy. The first policy was tabled in 2008 and was then revised twice in 2012.

The DoC initially promised digital switch-on in 2011, since then the Department has made a number of promises but has not been able to keep these promises. DOC issued a tender for STBs in 2012. The process was then stalled by STB control issues.

The DOC has allocated funding towards the establishment of DoC call centers to provide information about DTT as the public information campaign picks up:

- As at June 2012, R3.5m had been put aside for the publicity campaign for the phase 1 launch;
- This year, R140m was set aside over the mid-term for a bigger public awareness campaign.

The SABC has also been allocated money to establish call centres to provide tech support, particularly where there problems on the receiving end of the broadcast.

The Regulator, ICASA, needs to put regulations in place to regulate a number of key issues including:

- Multiplex distribution issues including the number of multiplexes, distribution of players on the multiplexes, the maintenance of the three tier broadcasting system on the multiplexes
- Licensing of new players

- Licensing of incentive channels for incumbents
- Local content regulations in the multi-channel environment
- Must carry regulations in the multi-channel environment

Further, the Regulator must ensure that an enabling environment is created for new broadcasters. It must thus regulate on premium content issues and interoperability of STBs.

To date the Regulator has finalised one set of DTT regulations (2012) and is finalising a second set on diversity and competition issues. ICASA has not yet undertaken a detailed study on local content issues and must-carry regulations. It has not licensed sufficient players. SABC dominates the public space, e.TV the free-to-air commercial space and DSTV the commercial subscription space.

Sentech, South Africa's signal distributor, is ensuring the roll-out of the DTT signal network across the country. Sentech's approach has been to ensure as wide a population coverage as possible using both the terrestrial and DTH satellite networks.

The latter can, theoretically be accessed from anywhere in the country, but has been specifically developed for deep rural areas where the topology does not allow for consistent and high quality terrestrial signal distribution as well as for near the SKA area.

As at April 2013, Sentech has completed putting up 80% of the terrestrial network and 100% of the DTH satellite network.

By June 2012, Sentech had been allocated R1.8bn for the DTT network rollout as well as to cover the cost of dual illumination.

In 2014, National Treasury allocated:

- an additional R277m for Sentech to continue with the roll-out. Sentech has divided this into R171m for digitisation and R106m for dual illumination,
- By 2015, the cost of dual illumination through Sentech will have come to R2.4bn.

The **Universal Service and Access Agency of South Africa (USASSA)** will be involved with the disbursement of the subsidy for subsidised STBs.

Broadcasters and content producers need to commission more programming for the new channels, launch new incentive channels, carry the costs of the dual illumination period, digitize their studios and equipment, and play a role in marketing the DTT process through their channels

The SABC was this year allocated R202.9m for the digital library and digital playout centre.

The post office will be involved with the distribution of subsidised STBs

Retailers need to sell and assist with the marketing of the STBs

Community installers need to assist with installation of STBs and aerials. The e-Skills institute has now developed an accredited curriculum for installers countrywide. It is still unclear exactly how many people and from where will be taken through the curriculum and be accredited as installers.

Both the FTA broadcasters and the DoC will be responsible for setting up and staffing call centres to provide further information about the process and the technology. The broadcasters will be specifically responsible for troubleshooting any issues users might have with the technology.

SECTION FOUR: Laws and policies governing the digital transition

Policies

South Africa's first DTT policy was passed in September 2008 by then Communications Minister, Ivy Matsepe-Casaburri. The policy set the framework for the DTT transition and in particular the dual illumination period.

The 2008 policy called for the following:

- The adoption of the DVB-T standard with the MPEG-4 compression standard;
- Digital switch-on date November 2011;
- Analogue switch-off date of November 2011;
- Expressly provides for the prioritisation of interoperability;
- A local STB manufacturing strategy;
- The creation of Digital Content Generation Hubs to promote the local content industry;
- The creation of a Digital Migration Working Group (Later the Digital Dzonga)
- The incorporation of a conditional access control system into the STBs

South Africa's DTT policy was then amended twice in 2012 by Communications Minister, Dina Pule. The policy set the framework for the DTT transition and also for the post dual illumination period.

The amended policy called for the following:

- The adoption of the DVB-T2 & DVB-S2 standards with existing DTH continuing to use the MPEG-2 compression standard with the option to migrate to MPEG-4 on commercial availability;
- Digital switch-on for the last quarter of 2012;
- An extension of the analogue switch-off date for a time to be determined by the Minister, Cabinet and Stakeholders. (Presumably before the 2015 ITU deadline)
- Establishing a Digital Migration Project Office to manage and monitor implementation;
- Enabling HD technology; and
- Handing over responsibility for the STB conditional access control system to Sentech. This was disputed

Regulations

The Independent Communications Authority of South Africa has passed a number of draft regulations. The first set of regulations was tabled in 2008.

- Provided for 2 Multiplexes.
 - Multiplex 1 for SABC and TBN;
 - Multiplex 2 for eTV and M-Net.

A final set of regulations was eventually passed in 2012. This set of regulations called for the following:

- Two multiplexes to be set aside – one for public and community broadcasting and one for commercial broadcasting
- The regulations set out principles around the launch of incentive channels, competition and diversity – These regulations were tabled at the end of 2012

The regulations look at issues around a third possible multiplex. ICASA proposes to use a mobile multiplex to free up space for new entrants.

In order to protect existing broadcasters, ICASA has proposed to only license new entrants after 2015.

Key debates

- Significant contestation about the entry of new players during the dual illumination period. Incumbents not wanting new players.
- Incumbents not wanting local content regulations
- Huge fights between e.TV and M-Net about amount of space on multiplex 2
- Huge fights about amount of space set aside for commercial players versus public players
- Significant discussions about HD versus SD

How does digital migration fit into the ICT policy review process?

14 principles of ICT Review process

- Freedom of expression at the heart of the system
- Access to a diverse range of content
- Access to a broad range of relevant info, opinion and news
- Access to quality infrastructure
- Access to the benefits of the comms sector to facilitate social development
- A framework that celebrates cultural heritage and promotes a diversity of languages
- Equal universal access to communication services and infrastructure
- All sectors of the population have a right to equally enjoy and benefit from communication services

- Comm services that reflect, respect and uphold constitutional and community standards and values
- The right to privacy and to protection of personal information
- Government has a responsibility to maximise the overall public benefit derived from the use of public services
- A quality comms system that facilitates innovation, fair competition and equitable treatment of all roleplayers
- Maximum transparency in how services are delivered and conditions under which they are delivered.
- The right to an environment that is not harmful to citizen's health or well-being.

Related digital processes

- SA's broadband strategy
- Digital production and storage of content
- Use of social networking tools for news-gathering

SECTION FIVE: International trends and lessons learnt

Broad International trends

The ultimate content goal:

- anything, anytime, anywhere.
- choice, mobility, interactivity, better quality (HD) and more realism (3D)

A new culture of interaction and user-generated content fundamentally altering relationships between the content provider and the audience.

Old paradigm

- Broadcasting transmitted into people's homes
- Airwaves are a public resource, frequency spectrum is limited, competitive bids for licenses
- Public broadcasting protected
- One to many communication

New paradigm

- Digital frees up spectrum
- Consumer choice, niche, fragmentation of audience
- Registration process for licences
- Public broadcasting under pressure
- Many to many, interactive communication

And,

- It is all about the public and audiences. There is no migration if the public don't buy STBs
- A central coordinating structure is required
- Clear regulatory and policy objectives
- Clear public purpose understood by all role players. Purpose must be audience driven. Audiences not interested in the digital dividend
- Sufficient, safe-guarded funding
- Clear time-table with a point of compulsion
- Government must work with the public
- A layered communication strategy reaching into marginalised/ deep rural areas
- Practical support for the most vulnerable
- Mobilise existing support networks
- New thoughts on broadcast licensing – licensing should be removed. No legal requirements for launching a station on the internet.

- However, continued government intervention is clearly justified at other levels. Intervention required:
 1. Media ownership (prevent concentration)
 2. Ensure media standards across all platforms
 3. Production and distribution of local content
 4. Public service obligations –
 - Serving the individual citizen
 - Sustaining and defending national culture and cultural diversity
 - Enhancing social, political and cultural cohesion

Key concepts in new digital age – “convergence”, “integration” and “re-regulation”

Convergence:

- The ability of different networks to carry similar kinds of services
- The ability to provide a range of services over a single network – triple play (internet, television, telephone), quadruple play (also includes mobility)

Integration:

- Horizontal integration – integration across different sections
- Vertical integration – integration across the value chain
- Advantages – reduces costs and boosts profits for media companies
- Disadvantages – reduces diversity of content, can ultimately increase cost to consumers – lack of competition

Regulation, de-regulation and re-regulation

- Originally very tight regulation – spectrum scarcity
- De-regulation – technology, economic and political shifts. Telecommunications traditionally less regulated, markets play a stronger role

Television across Europe – more channels, less independence.

Findings:

- Public service broadcasting under pressure – funding under pressure, mounting politicisation, disintegrating reputations
- Broadcasting regulators independence compromised – increased political and commercial pressure
- No boosting of public service content
- Transparency of commercial media ownership remains a major problem
- Civil society struggling to influence policy directions
- No concerted effort to improve media literacy

UK Case study

- UK was one of the front runners – launched DTT in 1998.
- Primarily a subscription service – ONDigital, only a few channels available free-to-air. Service failed.
- ONDigital teamed up with ITV – ITV Digital – launched in 2001 – service failed.
- Free View launched in 2002 – successful!
- By 2005 UK started switching off analogue, region by region
- Switchover to digital only broadcasting – 24 Oct 2012.
- 14 years to migrate!

Benchmarking South Africa

- Japan – analogue switch-off – 31 March 2012
- Australia – in progress, switch-off – December 2013
- United States – switch-off -12 June 2009
- United Kingdom – switch-off – 2012
- Sweden – switch-off – 2007
- Spain – switch-off – 2010
- Norway – switch-off – 2009

In Africa

- Front runner Mauritius – analogue switch-off end 2013.
- Worries however about commercial take-over of digital migration – MultiChoice via GoTV operating now in 8 sub Saharan countries
- GoTV using DVB-T2 technology – enables the offering to be regionalised.
- A service offering local and international channels – news, children's programmes, sport, movies, doccies

SECTION SIX: Civil society's position on digital migration

SOS's principles for STBs

- STBs should be cheap and affordable;
- STBs should be easy to operate;
- STBs should be easily available – viewers should be able to buy boxes easily from a number of retailers including the South African Post Office;
- STBs need to be easy to install – with support systems in place to assist with both installation and with faulty boxes;
- STBs need to be able to endure the rapid change of technology;
- They need to be able to operate well with all TVs and not diminish their capabilities (like the problems between Smart TVs and “dumb” decoders.
- STBs must be interoperable – all broadcasters should be able to provide their services (possibly through a system of access cards) through a single box so that viewers do not have to buy different boxes to access different services.

Right2Know's principles on STBs

- STBs must remain useful even when users eventually upgrade to digital TV, digital-to-analogue conversion being only one of their functions.
- STBs must have sufficient connection ports to become part of a low-cost internet access point (e.g. for USB keyboards).
- STBs must use free/open-source software to give users the right to modify it and the assurance that no surveillance is taking place.

Want to know more?

For copies of our guides or posters, please email info@soscoalition.org.za or admin@r2k.org.za

These sites have useful information related to DTT:

- SOS: Support Public Broadcasting Coalition
- Right2Know Campaign
- Department of Communications
- Go Digital



 SOSCoalition

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