

## Chapter 3

# Broadcast Digital Migration Policy in South Africa

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### **ABSTRACT**

*All countries in the world, are compelled to migrate their analogue terrestrial television systems to digital by the year 2015 as stipulated by the International Telecommunications Union. The old analogue transmission signals will be eventually switched off and so countries need to upgrade their television systems so that they can receive digital signals. This has necessitated government intervention in the form of policies or strategies to manage this transition process from analogue to digital. This chapter looks at the transition from analogue to digital terrestrial television migration in South Africa. It considers South Africa's Digital Migration Policy as a framework meant to advance the introduction of digital terrestrial television. Since the process is still in motion and we are looking at a start of a transition period towards the eventual cut-off date of analogue signals in 2015, there are therefore no definite conclusions about whether the South African case can be considered entirely successful. The effort of this chapter is merely to gauge the policy effort and rollout activities made thus far towards digital migration, highlighting potential drawbacks.*

### **INTRODUCTION**

The year 2015, as stipulated by the International Telecommunications, has been set as the cut-off date for all analogue television to switch over to the digital platform for Africa and Europe. This broadcasting digital migration process is as a result

of technological evolution from analogue terrestrial television, which uses a transmission system based on land-based aerial (terrestrial) analogue signals to a more advanced digital transmission system. The world over, countries are setting in motion analogue-to-digital migration plans, policies and strategies.

South Africa has also joined the fray in the global move towards digital terrestrial television.

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Whilst commendable strides are being made in the South African instance, there are potential concerns. One is whether the country will meet its self-imposed deadline of 2011. The other concern is about costs – the digital migration process is a costly exercise.

Since the process is still in motion, there are no definite conclusions about whether the South African case can be considered entirely successful. The true test case is whether South Africa indeed succeeds to meet its deadline and the roll-out of the set-top boxes (technical devices meant to convert analogue to digital signals). This paper documents the South African effort thus far as it tries to meet the 2015 deadline in which all analogue transmission systems are expected to have been switched-off and replaced by the digital variety. First, the discussion begins with a brief explanation of the drivers behind the process of analogue-to-digital migration. The key driver is largely a technical one, prompted by advanced broadcasting technologies which are increasingly becoming digital. The discussion then overviews policy issues raised by broadcast digital migration.

The South African case is then elaborated upon, looking at the country's existing plan in the form of a Digital Migration Policy. The discussion is largely a policy-related one and not so much a technological narrative.

## **BACKGROUND**

The discussion is layered on the key concepts of digital television and its one variety, referred to as Digital Terrestrial Television (DTT). With these main concepts in mind, let us further tread backwards slightly in reference to broadcasting.

Broadcasting transmission happens in two ways, that is, either digital or analogue.

Analogue television is the form that uses a constantly variable signal for transmission. Digital television uses sequences of 0s and 1s digits to convert television programming into a stream of binary on/off bits. These numerous on/off bits in

turn recombine together to reproduce images and sound transmitted.

The difference in analogue and digital means that instead of using a coding method that transforms images and sound into an electrical signal in a proportional way to their natural physical characteristics, a local binary digital code translates those characteristics into discrete values, which are used to build the radioelectrical wave afterwards (Candel, 2007).

Digital television is the latest preferred advance in broadcasting technology due to its better picture quality and sound as compared to analogue television.

Again, it is worth noting that digital television can be transmitted through various delivery platforms such as through cable networks or satellites. DTT transmits land based signals using an aerial or antenna for signal reception.

The discussion is in reference specifically to DTT which is predominantly analogue. On the contrary satellite transmission has always had the technical capacity to transmit digital signals.

When we talk about digital migration, we mean the global trend of moving from analogue to digital transmission, in the instance of DTT. The period in which this analogue-to-digital migration is taking place is often referred to as the digital switchover or analogue switchoff or simply the digital transition.

That DTT has triggered a need for the formulation of policy is intended to effectively manage this transition period. Again DTT, because it uses scarce Ultra High Frequency (UHF) radio spectrum for transmission, raises public policy concerns more so than cable and satellite (Adda & Ottaviani, 2005).

Emanating from literature is how the digital transition period is being managed in various countries with varying degrees of success. Thomas (2002) notes how drawbacks to its success include factors such as enormous expenses, being politicized and questionable policy intentions. A combination of these factors is advanced by Thomas as having led to the failure of DTT in Australia.

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