

**AN INVESTIGATION INTO CHALLENGES  
TO  
IMPLEMENTATION OF BROADCAST  
IN  
ELECTRONIC COMMERCE STRATEGY IN SOUTH AFRICA**

**Submitted by**

**Preethma Govender**

**(Student Number : 200278331)**

**in partial fulfillment of the requirements for the degree of**

**MASTERS IN BUSINESS ADMINISTRATION (MBA)**

**in the**

**THE GRADUATE SCHOOL OF BUSINESS**

**University of Natal**

**January 2003**

## **ABSTRACT**

### **BRIDGE THE DIGITAL DIVIDE**

Broadcast, infrastructure and services play an essential role in both the modernization and social development of a nation. They have become indispensable to enabling countries to compete on equitable terms in an international community, which is now governed by interdependence and by the imperatives of a global economy. They are therefore critical to the achievement of Africa's recovery.

In Africa, the broadcast arena or region offer a diverse range of business opportunities and tremendous scope for expanding both basic and advanced telecommunication services.

This unique event will be the perfect meeting point for key players from industry and governments of the region. It will be a real opportunity for us to help bridge the Digital Divide and to bring modern communications services within reach of all of Africa's or sub-Saharan Africa or South Africa. The digital divide refers to the unequal distribution of access to information technology resources within or between countries. The digital divide is exacerbated by among other factors, income level, employment inequity, disparities in infrastructure development, racial discrimination, social status, gender inequalities lack of access to information , geographic location, an political influence . The divide creates an environment where disadvantaged groups are unable to contribute to and benefit from the information age and global communities created by the Internet in Sub-Saharan Africa ,efforts to bridge the digital divide mistakenly put great emphasis on

the digital imbalance between the rich North and the poor South, and often do not consider the gaps within individual countries. This narrow perception alienates the indigenous knowledge component from efforts to bridge the divide. (Scecsal 2002

The need to extend access to services to all South Africans, in order to integrate our country into the world economy, South Africa has made dramatic improvements in the development of a modern communication infrastructure previously denied to the majority.

This study will provide the ideal research opportunity to investigate and appraise new products and services and also to explore the possibilities of acquiring the very latest in broadcast technology. This will be the ultimate networking opportunity, which may give us all a clearer vision of the future. Together, let us add strength and speed to Africa's efforts to Bridge the Digital Divide.

## PREFACE

The research described in this thesis or dissertation was submitted in partial fulfillment of the degree of) in the Graduate School of Business, Department of Management Studies, University of Natal during 2000, 2001 and 2002 as part of a course –work Masters Business Administration Degree.

***SUPERVISOR: Advocate Lee Gibson of the University of Natal, Durban***

***DATE: 5 October 2002***

## DECLARATION

I, **PREETHMA GOVENDER**, *born (ROOPCHUND)*, declare that this research dissertation is my original work, which has not been submitted to any other university.

**NAME:** PREETHMA GOVENDER

**SIGNATURE:** 

**DATE:** 31/01/03

## ACKNOWLEDGEMENTS

This research report would not have been accomplished without the motivation, assistance and co-operation of a number of people. I would like to record my sincere appreciation to:

Advocate Lee Gibson (University of Natal) - my patient and understanding lecturer and supervisor for his support and expert academic guidance and for sharing his many years of research expertise with me. Working and studying under tutelage Advocate Lee Gibson was a real pleasure.

Swami Premananda Puri (Sri Ramakrishna Dham of Johannesburg) - my spiritual guru or teacher who has given me the strength and guidance to continue with my studies.

Swami Saradananda (Ramakrishna Centre of South Africa) for the motivation to pursue my postgraduate studies and the inspiration he has given me to continue with my Master's Degree.

My children Paksini and Nerisha and my husband, Inderan Govender, who spent many hours on their own whilst I did the research, and attended lectures over the past two and half years. Their patience, understanding and encouragement are deeply appreciated

Professor Doug Engelbrecht (University of Natal) for his assistance from the inception of the Masters programme and for motivating me with my studies. The other academic staff (Prof Kanti Bhowan, Elsa Thompson, Carol Hoskens, Abdul Ghani, Chris Maistry, Adriaan Saville, Bob Blair, Peter Olivier, Nick Wood, Jimmy Jefferies, Lou Epstein, Malcolm Haiden, C Cohen, Bill Harris, Colin of CB sol thee-marketing lecturer.

My fellow student colleagues Metz Nip, Catherine Nderi, Romita Chetty, and Tanya Chetty who helped me conduct the research and who spent many hours with me analysing and debating the course work and the research results extensively.

My very good friend and confidant Mrs. Umeshani Reddy, Natal University Librarian, who assisted with searches, information regarding the text on broadcasting and e-commerce, radio, television and information technology. Proof reading the text and the correction of language, spelling and also all the moral support she extended to me during my recent illness and my severe spinal conditions.

Julius Mdlaka, University Library; Supervisor. Natal University-Durban for assisting me with all the study materials and his guidance and support on a regular basis.

Mrs. Barbie Parker Wicks for arranging a comfortable zone for writing my exams and also assigning a scribe for the exams, due to severe spinal conditions, Roshni, Ishara, Kershwin and also Sharona Ramdin who informed me about the rules and regulations of special examination procedures and other conditions regarding writing my examinations.

## TABLE OF CONTENTS

<b>ABSTRACT</b>	<b>ii</b>
<b>PREFACE</b>	<b>iv</b>
<b>DECLARATION</b>	<b>v</b>
<b>ACKNOWLEDGEMENTS</b>	<b>vi</b>
<b>TABLE OF CONTENTS</b>	<b>vii</b>
<b>LIST OF TABLES</b>	<b>xii</b>
<b>LIST OF FIGURES</b>	<b>xii</b>
<b>EXECUTIVE SUMMARY</b>	<b>xiii</b>
<b>CHAPTER ONE</b>	
<b>1.1 INTRODUCTION</b>	<b>1</b>
1.1.1 Digital Divide	1
1.1.2 The Main Priorities of the Study undertaken by DoC.	3
1.1.3 Some of the Challenges facing DoC.	5
1.1.4 Some of the Functions of the DoC.	6
<b>1.2 PUBLIC INTERNET TERMINALS</b>	<b>6</b>
1.2.1 Objectives of PIT.	7
<b>1.3 MOTIVATION FOR CHOICE OF STUDY</b>	<b>8</b>
<b>1.4 AIM AND OBJECTIVES OF STUDY</b>	<b>11</b>
1.4.1 Aim of Study	11
1.4.2 Objectives of the Study	11
<b>1.5 STRUCTURE OF THE THESIS</b>	<b>12</b>

## **CHAPTER TWO**

### **LITERATURE REVIEW**

<b>2.1</b>	<b>BROAD VIEW &amp; DEFINITION OF E-COMMERCE</b>	<b>13</b>
<b>2.1.1</b>	<b>E-Commerce</b>	<b>13</b>
2.1.1.1	Definition of E-Commerce	13
2.1.1.2	Objectives of E-Commerce	13
2.1.1.3	Global Access to Information Technology	14
<b>2.1.2</b>	<b>Strategy</b>	<b>14</b>
2.1.2.1	Introduction	14
1.1.2.1	The Heritage of Strategy Concepts	15
<b>2.1.3</b>	<b>The Emerging Competitive Landscape</b>	<b>16</b>
<b>2.1.4</b>	<b>Structure of <i>Impact</i></b>	<b>18</b>
<b>2.1.5</b>	<b>Speed – a critical element</b>	<b>20</b>
<b>2.1.6</b>	<b>The Introduction of new Digital System – “DALET”</b>	<b>24</b>
<b>2.1.7</b>	<b>The New View of Strategy</b>	<b>26</b>
<b>2.2</b>	<b>THE SPECIFIC INFORMATION ON DIGITAL BROADCAST</b>	<b>28</b>
<b>2.2.1</b>	<b>The New Digital Outside Broadcast Unit</b>	<b>28</b>
<b>2.2.2</b>	<b>The ECT Act</b>	<b>29</b>
<b>2.2.3</b>	<b>The Cryptography &amp; Domain Register</b>	<b>31</b>
<b>2.2.4</b>	<b>E-Government will Accelerate Service Delivery</b>	<b>33</b>
<b>2.2.5</b>	<b>SABC &amp; Community Radio Stations</b>	<b>35</b>
<b>2.2.6</b>	<b>Role of the Post Office</b>	<b>36</b>
<b>2.3</b>	<b>GOVERNMENT INTERVENTIONS IN E-STRATEGY</b>	<b>37</b>

<b>2.4</b>	<b>MODERN ECONOMIES &amp; KNOWLEDGE OF E-STRATEGY</b>	<b>42</b>
<b>2.5</b>	<b>INFORMATION &amp; STRATEGY</b>	<b>44</b>
<b>2.6</b>	<b>THE VIRTUAL CHAIN</b>	<b>51</b>
<b>2.7</b>	<b>REALITIES OF E-COMMERCE</b>	<b>60</b>

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

<b>3.1</b>	<b>Introduction</b>	<b>63</b>
<b>3.2</b>	<b>Research Methods</b>	<b>63</b>
3.2.1	Population	65
3.2.2	Sample	65
3.2.3	Convenience sampling	66
3.2.4	Characteristics of the Sample	66
3.2.5	Data Gathering Techniques	66
3.2.6	Data Processing and Analysis	67
<b>3.3</b>	<b>Methodological Problems</b>	<b>68</b>
3.3.1	Sample Size	68
3.3.2	Generalisability of Findings	68
3.3.3	Data Processing and Analysis	69
3.3.4	Convenience sampling	69
<b>3.4</b>	<b>Conclusion</b>	<b>70</b>

## **CHAPTER FOUR**

### **FINDINGS**

<b>4.1</b>	<b>INTRODUCTION</b>	<b>71</b>
<b>4.2</b>	<b>THEME ANALYSIS</b>	<b>71</b>
4.2.1	Some of the Responses of Journalists	72

**CHAPTER FIVE**

**CONCLUSION** 74

**REFERNCES**

**A. INTERNET SITES** 79  
**B. REFERENCE BOOKS** 81  
**C. PERIODICALS, NEWSPAPERS & MAGAZINES** 84

**INTERVIEW QUSETIONAIRE** 88

**APPENDICES** 90

## LIST OF TABLES

<b>Table 1 :</b>	<b>Respondents (Journalists) by designation.</b>	<b>70</b>
------------------	--	-----------

## LIST OF FIGURES

<b>Figure 1 :</b>	<b>The New View of Strategy</b>	<b>27</b>
<b>Figure 2 :</b>	<b>The Information Age</b>	<b>45</b>
<b>Figure 3 :</b>	<b>Business Convergence</b>	<b>51</b>
<b>Figure 4 :</b>	<b>The New Value Chain</b>	<b>54</b>
<b>Figure 5 :</b>	<b>Every Business in an Information Business</b>	<b>54</b>
<b>Figure 6 :</b>	<b>Information Strategy Framework</b>	<b>57</b>
<b>Figure 7 :</b>	<b>From Data to Knowledge</b>	<b>59</b>

## **EXECUTIVE SUMMARY**

It is a known fact that as technology becomes an increasingly ubiquitous aspect of life throughout the world, the digital divide between the northern ‘haves’ and the southern ‘have-nots’ is a growing concern. The digital divide is caused by several factors that interact to bring about an unequal distribution of access to information technology resources by populations or communities, either within a country or between countries (the digital divide is often presumed to exist between the developed and the developing countries). In sub-Saharan Africa, efforts to bridge the digital divide are often hampered by the great emphasis that is placed on the digital imbalances between the ‘poor’ southern and ‘rich’ northern countries and on the technology gaps\* within individual countries. Due to this factor, indigenous information systems that could form an important component of the attempt to address the digital divide are often left out or only marginally addressed. Consequently and frequently, efforts to bridge this divide do not bear fruit. This dissertation discusses the ramifications of bridging the digital divide in order to revitalize indigenous information systems and create a preserve for them in sub-Saharan Africa. The study addresses the causes of the digital divide, current initiatives to stem the divide, challenges encountered in attempting to bridge it, the means to blend indigenous knowledge systems with modern systems using information technology, and ultimately gives a prognosis for bridging the digital divide and revitalizing information systems in sub-Saharan Africa.

This term needs to be more clearly defined.

Digital divide, this clearly means that broadcasting example radio is still by far the most dominant mass medium in sub-Saharan Africa. In 1995, for, example, the United Nations educational, scientific and cultural Organisation (UNESCO) estimated radio ownership at close to 18 per 100 inhabitants, compared with 3,5 television sets per 100 inhabitants. In addition, although community broadcasters are scare within the region, countries like Ghana, South Africa and Uganda have made notable progress in the number of new community radio licenses being issued. Similarly, satellite based broadcasting has witnessed major developments on the continent in the last few years (Jensen, 1999 ).

## CHAPTER ONE

### 1. INTRODUCTION

#### *1.1.1 The Digital Divide*

The digital divide is referred to as the unequal distribution of access to information technology resources between or within countries. It is taken into consideration or actually measured by such parameters as teledensity, accessibility to computing resources, number of internet hosts and the level of connectivity to the internet, computer penetration, the quantity of content that meets users' needs, the number or quality of technicians available to build infrastructure, positive attitudinal change, computer literacy, the availability of telecommunications networks and other forms of technology. The digital divide is exacerbated by, among other factors, income level, employment inequity, disparities in infrastructure development, racial discrimination, social status, lack of access to information, gender inequalities, geographic location and political influence. The divide creates an environment where disadvantaged groups are unable to contribute to global communities created by the Internet and benefit from the information age. In sub-Saharan Africa, efforts to bridge the digital divide have wrongly or inappropriately placed greater emphasis on the digital imbalances between the 'rich' North and the 'poor' South, and often do not consider the gaps within individual or between separate countries. This narrow perception alienates the indigenous knowledge component from efforts to bridge the divide. What is omitted makes it difficult for any efforts to produce the desired results.

The quick or rapid development in information technology (IT) and the convergence of telecommunications, computing and broadcasting have enhanced the globalization of information

systems but have also created concern about the survival of indigenous knowledge systems. The revolution in IT is best reflected in the growth of data on the internet, which has increased tremendously over the last decade.

During the year 2001 alone, the increase was 1 petabyte (i.e.  $2^{50}$  bytes, or 1 125 899 906 842 624 bytes or 1024 terabytes). By the year 2006, it is projected that the growth rate of data on the Net will reach 1 exabyte (i.e.  $2^{60}$  bytes, or 1 152 921 504 606 856 976 bytes, or 1024 petabytes) and, come 2010, the amount of data on the Internet will hit 1 zettabyte (i.e.  $2^{70}$  bytes, or  $10^{21}$  bytes, or 1 000 000 000 000 000 000 bytes, or 1024 exabytes). (<http://www.webopedia.com>). This development of IT will enable more people to spend more time on the Internet. Similarly, any organization could use the Internet to do business and create many jobs related to the technology.(Ssecsal ,2002 )

Despite this revolution, it is estimated that only 5% of the development that may be achieved on the Internet has taken place thus far. This actually means that there is tremendous potential for growth in terms of users, devices, speed, bandwidth, content and applications. Four years from now, it is estimated that about one billion people will be connected to the Internet. When the Internet is fully developed, i.e. the Next Generation Internet (NGI), it will be able to facilitate satellite, wireless and videoconferencing links, even in remote areas. NGI will be a fast broadband network, scalable, reliable, ubiquitous, with easy seamless integration, intelligent, secure and authentic (Nelson, 2001).

The release of Nelson H. Mandela from prison and his election as one of South Africa's first democratically appointed presidents ushered in the beginning of the country's golden age. The

Department of Telecommunications was set up to address numerous problems relating to telecommunications and to bridge the digital divide. The Department of Telecommunications & Broadcast in South Africa / Africa embarked on an extensive policy process undertaken by the Department of Communication (DoC) to establish e-commerce policy, a process that will affect the way all people do business. In order to make ordinary people participate in e-commerce, there is a need to bring computer and Internet access to ordinary people. This process has been instituted with the aim of redressing the inequalities of the past.

***1.1.2 The main priorities of the study undertaken by the DoC were to:-***

- Give the community access to the Internet and computers
- Create awareness about the usage and benefits of the Internet
- Conduct computer literacy programmes

The DoC which aims to reduce poverty, diversify sources of income and allow people more control over their lives and their education, is expected to educate and train the workforce in information technology related skills.

The principle of sound educational management and educational sustainability are stated as being important to the Department of Communication (DoC). According, to the Minister of Communication that educational or literacy e.g. The Winnie Mandela Informal Settlement in Thembisa has been established and launched as a pilot centre. This initiative was launched by Winnie Mandela, who strives for the growth and development all the people of the country. This has been set up and it now up and running as a pilot project. The center is fully operational and it

has been a success thus far and many people are using this as a hub for development and social responsibility to the community. Centres like these are aimed at assisting people in informal settlements.

“According to the Minister of Communication, educational or literacy programmes have been established such as The Winnie Mandela Informal Settlement in Thembisa which launched a pilot centre is now fully operational.”

The Department of Communications is the public service arm of the Ministry of Communications. The Department is the centre of policy review for Post, Telecommunications, Broadcasting and ICTs, Information, Communication and Technology.

This includes policy-making that affects state-owned enterprises such as Telkom, SA South Africa, SABC, South African Broadcasting Corporation, South African Post office, Sentech, NEMISA, Universal Service Agency, as well as the regulator ICASA.

The Department aims to enable ordinary people to have access not only to traditional media but also to the convenience of Information Technology (IT). This will include services that will create a flourishing Information Society.

The vision of the Department of Communications is to improve the quality of life of all our people, to mould South Africa's future generations into a knowledge – based society and help create an information economy. This will be achieved by establishing a networked information

community to empower the way people work, live and play and to make South Africa globally competitive.

The mission is to strive towards a universal service to enable ordinary people to have access not only to traditional media but also the convenience of information technology. These will include services that will create a flourishing information society such as the internet, tele-medicine and other conveniences that will improve the quality of life of our people while contributing to the economic growth of our country.

### ***1.1.3 Some of the challenges facing the DoC are as follows:***

- To correct imbalances in the provision of communication services through a quality universal service at a reasonable cost.
- To prepare South Africa to take advantage of the convergence in communication technologies in the areas of postal, telecommunications, broadcasting, information technology and multimedia, the latter being the medium that faces the challenge of how to implement and also integrate broadcast in e-commerce strategy in South Africa.
- To increase the human resources capacity of the department and the industry as a whole.
- To make South Africa globally competitive by becoming a hub of multimedia development, particularly through opportunities for historically disadvantaged communities.
- To contribute towards an African communication strategy that will help build an information backbone that ensures the success of the African Renaissance.

#### ***1.1.4 These are some of the functions of the DoC:-***

- To administer legislation for portfolio organisations.
- To encourage and guide policy debate between all stakeholders.
- To assist all portfolio organisations in adhering to legislative processes.
- To conduct policy research and formulates new policies.
- To prepare budgets in conjunction with portfolio organisations.
- To liaise with parliamentary committees on communications.
- To represent the interests of the Republic of South Africa that are linked to the portfolio abroad.

#### **1.2 THE PUBLIC INTERNET TERMINAL (P.I.T.)**

This in actual fact means public internet terminal, literally, the public wherever, and whoever, they are able to access information from the public internet terminal. The public internet terminal, is like a public telephone, only this terminal can be utilized to access information electronically and thus enabling every citizen to benefit tremendously from the **P.I.T.**

The Public Internet Terminal (P.I.T.) is the initiative that brings electronic communications and a bright future to every citizen. P.I.T has already been tested as a pilot, proving acceptability of the concept and setting the pace for the future.

The P.I.T. services solution has two intended functions. Firstly, to provide a social benefit directly to all citizens, making information and technology accessible. To propose to South

African citizens on a one to one basis - in a direct, easy and conveniently accessible manner. Secondly, to provide a platform for e-commerce, ensuring that P.I.T. grows into a self-sustaining business.

*1.2.1 The objectives of the P.I.T. are:-*

- Direct access to government
- Access to information
- Access to educational services
- Access to communication via e-mail
- Access to goods and services
- Access and connection to the Internet and e-mail

### **1.3 MOTIVATION FOR CHOICE OF STUDY**

Working for the SABC and in a technological advanced arena, I found that broadcast in the electronic commerce strategy was far from being implemented as was the case in numerous other sectors of the commercial world. Thus the need to investigate what are some of the challenges to implementation of broadcast in electronic commerce in South Africa, whether it be radio, television, news, or any other packages.

This is an investigation into challenges to implementation of Broadcast in Electronic Commerce Strategy in South Africa, the challenges in the new South Africa, the digital divide and the use of the latest and the best technology for the purposes of broadcast. This project digital divide, the

definition that is fully explained in the introduction of the study. The Department of Communication was chosen for a number of reasons. Firstly, it lies in the heart of the Kwa-Zulu Natal, particularly the rural areas, where the information must reach. The infrastructure has to be put into place thereby fostering well-informed, well-educated and motivated individuals. This is a very well planned project that is run by the Minister of Communication Dr Ivy Matesebe-Cassaburi and is intended to curb the illiteracy and the poverty in these areas as time goes by. This will provide the opportunity, probably at a later stage, of allowing wireless, or cell phone usage to gain access to news and information in rural areas and on farms. It is the only way, apart from containers being set up as offices with terminals and a computer network, whereby, information can be received and training can take place in underprivileged areas in order to uplift these communities and also educate the masses. Furthermore, this area is “one of the most economically and politically marginalized regions in KZN and has been the stage of complex tensions, over land and other scarce resources for decades” (Turner 1997). An assessment in terms of its sustainability is therefore important, so that one may gauge whether the aim of digital divide, (term is explained in detail in the introduction) and an investigation into challenges of implementation of broadcast in electronic-commerce strategy in South Africa, in order to provide information that is successful or not. It is also an area that would be easily accessible once the correct infrastructure is put into place. Secondly, the Broadcast Hub, the 24 hour broadcast in 2001 was the most dynamic and far-reaching one thus far, like the case of the rural areas can be incorporated (Radio World, June 2002). There were broadcast hubs at the Radio Centre Ville in Montreal; at Orange FM in Vienna Austria; at the Center for Democratic Communication (CDC) in Johannesburg, South Africa and at FM Trinidad in Asuncion, Paraguay. Also in 2001 Void Sans Frontiers was present at the World Conference Against Racism, held in Durban, South Africa during August and September. This was a crucial time for the SABC where the servers

unfortunately played up and brought our normal programmes to a standstill, however, we, the operations staff, mainly the computer department and the staff members of the Media Library, who stood the test of time and managed to work despite the challenges and achieved success. The influx of visitors were housed in an area called the broadcast hub-park, and delegates also came to the SABC Broadcast House in Old Fort Road, Durban, (where I had the pleasure of meeting Jesse Jackson). A one hour long program went out each day via satellite to 35 communication radio stations in South Africa and to an international audience via the Web (members of the Tamil Militant Organization and also individuals from the Moslem Community, and interviewed and recorded them for the radio stations example SAFM and Lotus FM).

As usual, the programming was in a mixture of languages, on this occasion English, Swahili, French and Portuguese. It focused on such issues as race, ethnicity and gender, refugees and racism and the media. Anti-Racism Day has now become a worldwide event.

For the last two years, operations have centered around an “international hub “ in Johannesburg, South Africa. From here pan –African programming has been distributed along with material from other regions. I am absolutely certain that with this type of dedication the infrastructure can be implemented in order to overcome challenges of implementation of Broadcast in Electronic Commerce Strategy in South Africa. It is possible with the latest in broadcast and wireless technology to gain access to the rural areas. Furthermore, the Department of Communication, together with the Minister of Communications showed a willingness to participate in this project.

Many of the latest strategies like electronic- commerce, information systems, and information technology will be married off together in order to bring about this massive change. Many of the

disciplines will be utilized to the maximum in order to bring about the best results as compared to the best practices in USA. This factor will probably influence many of the practices. The rural area received comparatively good coverage of information through cell- phones and radios, and there are some television sets in taverns or bars where labourers converge in the afternoons and at the weekends in order to enjoy a game of football on the tube. They are therefore, exposed to information in the form of entertainment, while valuable information is disseminated in these broadcasts. The advertisements displayed around the sports fields play an important strategic role in information access to viewers or listeners. Finally, the development plans for this area of broadcast will reach a fairly advanced stage and will record positive feedback from the communities out there in the rural areas and eventually reach a fairly advanced stage after the implementation of broadcast in electronic Commerce in South Africa. The records and the background research available from the DoC (Department of Communication) will be readily available from the executive committee members and also from the government, namely Minister Of Telecommunications Dr Ivy Matsebe-Cassaburi.

The rural community will already be accustomed to the idea of having new technology and new information systems, and electronic-commerce in the container offices that were already established by Winnie Madikeza – Mandela, ex-wife of the former President Nelson H. Mandela.

## 1.4 AIM AND OBJECTIVES OF THIS STUDY

### 1.4.1 *The aim of the study*

The aim of the study was to access the challenges of implementation of Broadcast in Electronic Commerce Strategy in South Africa.

### 1.4.2 *The objectives were as follows:-*

- Access to information
- Access to educational services.
- Access to communication via e-mail.
- Access to goods and services.
- Access to and connection to the Internet and e-mail.
- Access to the latest technology /digital divide /digital broadcast
- Lastly to gain access and investigate the challenges of implementation of Broadcast in electronic Commerce Strategy in South Africa.

## 1.5 STRUCTURE OF THE THESIS

*Chapter One* outlines the motivation, aim and objectives of the study. The aim was to investigate challenges of implementation of Broadcast in electronic Commerce Strategy in South Africa. The hub of broadcasting in this particular region which is very small in comparison to the SABC newsroom in Johannesburg which is the central nervous system of Broadcasting.

**Chapter Two** examines the above aspect of broadcasting and contains the literature review and also the theoretical background of the study. It also covers the aims and processes of the investigation into the challenges faced in the implementation of Broadcast in electronic Commerce Strategy in South Africa, what these challenges to the implementation of broadcast are (and their implications with regard to Electronic Commerce Strategy in South Africa), and the key criteria and indicators (KC&I). The chapter further provides a description of the study area in respect to challenges faced against a backdrop of the present IT -Information technology and IS Information Systems and the existing infrastructure and broadcast practices.

**Chapter Three** outlines the research strategies utilized in this study, as well as some theory that guided the choice of the methodology. A description of, and motivation for the choice of the system of rating of the (KC&I) methodology is outlined. Some strengths and weaknesses of the methodology are also discussed. The results of the study (findings) and a discussion of relevant issues such as the journalists, editors, news-reporters, newsreaders, and compilers are included in **Chapter Four**.

**Chapter Five** concludes this research with a look at the latest technology and the advent of the digital divide and digital technology have contributed into the investigation to the challenges of implementation of Broadcast in Electronic Commerce Strategy in South Africa. The overall success of this new digital technology will bring about out fast, accurate and the best end results to the broadcast challenges after the infrastructure that will be put into place by the government and thus having the best and well educated and well informed rural community in the very near future

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 BROAD VIEW AND DEFINITION OF E-COMMERCE

##### 2.1.1 *ELECTRONIC COMMERCE*

###### 2.1.1.1 *Definition of Electronic Commerce*

E - Commerce can be formally defined as technology – mediated exchanges between parties (individuals, organizations, or both) as well as the electronically based intra- or inter-organizational activities that facilitate such exchanges.

###### 2.1.1.2 *Objective of Electronic Commerce*

To create a technological information technology framework for use by the private sector to enhance their capacity to engage in profitable commercial activities nationally and internationally. This is a private sector development, which will enhance policies and facilitate activities that have direct impact on labour market demands and opportunities for private sector entrepreneurship. Thus a cyber city, which is control by machines and also it can be the science of communications and automatic control systems is created, this is intended to establish a hub for high-tech development in Africa through the creation of centres for development of artificial intelligence software, video conferencing and virtual programmes, electronic commerce and trade. It will also focus on smart card development, virtual reality research, and development of electronic government applications and of multimedia universities.

This is the dawning of the new information age for South Africa, with Cyber Malls to create a link with the cyber city and distribute its advantages around the country by forming a hub for smart-card based electronic banking and shopping.

These centres will have global conferencing facilities, studios for broadcasting services, virtual libraries, virtual cinemas, ISDN, ATM access, interactive and participative access to tele-education, tele-medicine, and tele-democracy.

### ***2.1.1.3 Global Access to Information Technology (GAIT)***

This is to enhance telecommunications capacity through the construction of submarine cables and further satellite access links.

## **2.1.2 STRATEGY**

### ***2.1.2.1 INTRODUCTION***

Companies need to understand global forces and to react quickly when designing their own business models. The content of strategy looks at the emerging business environment shaping strategy, notably the newly competitive landscape of the last decade, the switch from 'production' to 'knowledge working' and growing public concern about sustainable development.

The challenge in all this, after years of downsizing, is to find new ways of encouraging and continuing growth. One way is to follow the “value innovators” who reject conventional practice, expand demand through strategic pricing and increase their profits by focussing on ‘target’ costs.

It is hardly surprising that the conceptual models and administrative processes used by managers often outlast their usefulness. It takes researchers time, after all to identify new problems and emerging solutions before they can produce theories about them. There is also a time lag between the development of these theories and their conversion into common business practice.

Where management concepts are concerned, this time lag - often a decade - brings with it an interesting puzzle to make sense together with the latest change. This is an era of rapid and disruptive change, as compared to slow and not a disruptive change in the economic, political, social, regulatory and technological environment. This is actually already taken place in some places, therefore, I believe it will really take about a decade to operate fully in an broadcast arena

#### ***2.1.2.2 THE HERITAGE OF STRATEGY CONCEPTS***

The most prevalent and widely used tools of strategy analysis are: strength, weakness, opportunities, and threats (SWOT) analysis, industry structure analysis (that is the five forces), this is Michael Porters Five forces example barriers to entry (You left out a bracket here and I don't know whether the five forces refer to industry structure analysis or are a type of analysis themselves), value chain analysis, generic strategies, strategic group analysis, barriers to entry, and others of the genre which are set out in Michael Porter's 1980 book, *Competitive strategy*:

Techniques for Analyzing Industries and Competitors, and also in his 1985 work, Competitive Advantage).

There are many concepts and tools – many of them the staples of economists – adopted and simplified for the use of managers. The formalization of these concepts was instrumental in pushing strategy development from the realm of ‘intuitive genius of the founder or a top manager’ to that of being a logical process. Most of these concepts were developed during the late 1970’s and the 1980’s. During this period, underlying competitive conditions evolved but within a well understood paradigm. A major competitive disruption during this period, certainly for US- and European companies, was the spectacular success of Japanese manufacturing in industries as diverse as steel, consumer electronics, autos, and semiconductors. The sources of competitive advantage during this decade, accrued to those who could wrest significant efficiencies in operations through focus on quality, cycle time, re-engineering, and teamwork. Operational efficiencies within a relatively stable industry structure paradigm became the focus. In fact, this focus on wresting competitive advantage through operational efficiencies led some managers to believe that strategy was unimportant and management was all about implementation.

### **2.1.3 THE EMERGING COMPETITIVE LANDSCAPE**

The 1990’s witnessed significant and discontinuous change in the competitive environment. There is now an accelerating global trend to deregulate and privatize. Large and key industries such as telecoms, power, water, healthcare, and financial services are being deregulated. Countries as diverse as India, Russia, Brazil and China are at various stages of privatizing their

public sectors. Technological convergence – such as that between chemical and electronic companies, computing, communications, components, and consumer electronics, food and pharmaceuticals and cosmetics and pharmaceuticals – is disrupting traditional industry structures. Whether it is Eastman Kodak, the US photographic giant, Sony, the global electronics group, International Business Machines (IBM), Unilever, the Anglo-Dutch consumer giant, Revlon, the US cosmetics group, or Ford, the motor company), managers must come to terms with the nature of transformation that technological convergence and digitalization will have on their industries. This includes those in the broadcast arena and how they face the challenges that are coupled with the latest technology.

Further, the impact of the spread of the World Wide Web and the Internet is just beginning to be felt. Ecological sensitivities and the emergence of non-governmental organizations such as the ‘green’ movements are also new dimensions of the competitive landscape. Are these discontinuities changing the very nature of the industry structure, the relationship between consumers, competitors, collaborators, and investors? Are they challenging the established competitive positions of incumbents and allowing new types of competitors, and new bases for competition to emerge? (e.g. Barnesandnoble.com and Amazon.com are both internet-based retailers). Strategists have to make the transition from asking the question: How do I position my company (considering the challenges of broadcast) and thus gain a competitive advantage in a known ‘game’? (such as the known industry structure of the SABC, where the digital divide has taken the industry by storm and digital broadcasting is at the forefront), the SABC has eventually from normal broadcasting to the digital broadcasting , which is indeed a challenge , that is the transition from one thing to another in this context. This type of broadcasting is a eventually

going to be success, from 2000 , this type of new broadcast has been taking place and has proven to be successful .

According to the MD of SABC Technology, Sharoda Rapeti, the in-house magazine Intercom, and the latest update on Information Systems and Technology Strategy, the Broadcast Information Technology (BIT) Project reached the halfway mark. It is in the fifth week of a ten-week project status, thus enabling the project methodology which is called Impact Methodology leading to a Pragmatic architecture using Component Technology (IMPACT). This is a methodology for analyzing and structuring the major components that comprise business systems. In the context of Impact, Architecture is not just technical implementation but also the development, establishment, laying down of a complete set of technology standards, policies and procedures to support the business.

#### **2.1.4 STRUCTURE OF *IMPACT***

These are some the questions that are posed by leading technologists:

- Are we making optimal use of our IT applications and infrastructure?
- How do we implement the required architecture enhancements and what will it cost?
- What should our business look like from the IT perspective?
- How can we improve our IT architecture to bridge structural, technical and capability gaps?
- What is our high level IT roadmap and how does it meet our business drivers?

*Impact*, a patented and an integrated methodology, helps provide a clear roadmap to design an IT strategy for an organization and defines technical standards for the process. This sentence is once again mentioned in order to hi-light the above terminology . Business strategy forms the basis for an IT strategy. Business Architecture is the basis of understanding a business from an IT perspective. Thus from an Impact perspective, the existing business processes are grouped together into business components. These components are then layered (called Business Architecture) based on the business functions to which they cater.

Application Architecture provides a high view of applications and interfaces, while the technical architecture provides a high level of technology standards and systems. The existing technical and application architecture is used to identify gaps and, in turn, helps decide on the roadmap to fill the gaps

The Information Systems and Technology Strategy within the SABC, Broadcast Information Technology, the project in question gets off the ground and moves into a higher gear and is in the seventh week of the ten-week project. Which project are you referring to and how does “The Information Systems and Technology Strategy within the SABC” and BIT relate to it?) This is the broadcast and information Technology that is referred to in this context. The team has finalized the business architecture and application architecture and is currently looking into the technical architecture and the migration plan.

The suggested Application Architecture, which deals with the type of applications and their interplay as defined in the Impact, methodology, is based on Business Architecture, which was described in an earlier paragraph . We see that several of these applications have parallels in the

current portfolio of applications at SABC. The next step will be to see the migration path from the current set of applications to the recommended set, which could either be built, bought or enhanced, depending on, among other things, the technical and functional fit, cost, timeframes, skills availability etc.

These gaps in the technical and application architecture are then tied together into a roadmap for SABC. While the IT team is busy looking at the IT Application Strategy and BBC will be looking at Broadcast Technology, there will be a joint area of work in terms of IT and Broadcast Systems in the areas of Archives, New Media and Scheduling. The two teams will work jointly to arrive at the best technology approach

The forces of change – deregulation, the emergence of large developing countries such as India, China, and Brazil as major business opportunities – provide a new playing field. Simultaneously, forces of digitalization, the emergence of the internet, and the convergence of technologies provide untold new opportunities for strategists. However, global and local distinction will remain in products and services. Globalization may have as much to do with standards – quality, service levels, safety, environmental concerns, protection of intellectual property, and talent management. Needless to say, globalization will force strategists to come to terms with multiple geographic locations, new standards, capacity for adaptation to local needs, multiple cultures, and collaboration across national and regional boundaries in everything from manufacturing and product development to global account management and logistics.

### **2.1.5 SPEED WILL BE A CRITICAL ELEMENT**

Given the nature of competitive changes, speed of reaction will be a critical element of strategy. At a minimum, it will challenge the yearly planning cycle. For example, consider the traditional strategic planning process in a large company. The process of strategy discussion and commitments typically starts in October. It identifies the strategic issues for the next calendar year and for the three to four years hence. What is the use of such a process in an internet-based start-up? What is the use of this process for a General Motors, or a Ford, as it approaches internet - based selling? Or for Lucent technologies, the leading supplier of computer and telephone networking equipment? Technology is widely utilized in the broadcast environment, and due to the speed of technological changes the broadcast facilities need to be on par with the latest technologies thus allowing them to become the leaders in digital broadcasting. Technology changes so fast that broadcasters have to abreast with the latest and the most cost effective and efficient technology to broadcast. Speed of reaction not tied to a rigid corporate calendar, is of essence. Strategy must be a topic of discussion and debate all the time, not just during the planning sessions. Strategy making and thinking cannot be a 'corporate rain dance' during October.

Speed is also an element in how fast a company learns new technologies and integrates them with the old. As traditional companies are confronted with disruptive changes the capacity to act and learn fast is increasingly a major source of competitive advantage. The SABC has been through major change due to the digital divide in the digital broadcasting arena that is in and thus the challenges are such that they have to be tried and tested and there has to be an appropriate system to be analyzed and utilized to the best possible advantage of broadcast. My study, therefore, will be able to devise ways and means for the rural communities and the disadvantaged areas to gain

access to information. Given the dramatic changes taking place in the competitive landscape, I believe that both the concept of strategy and the process of strategy making will change. Older approaches will not suffice. According to my study, that is investigating the challenges of broadcast in the e-commerce strategy. This will eventually reach the masses that really deserve it, therefore managers will have to start with two clear premises:

First, that they can influence the competitive environment strategy, not by positioning the SABC in the broadcast space, but by increasingly influencing, shaping, and creating it. What managers do matters in how industries like the broadcast industries evolves. This issue is not just about the reactions of large, well-endowed companies like Citicorp, Merrill Lynch, Hilton Hotels, IBM or General Motors. Smaller companies can also have an impact on industry evolution. For example E-Trade, e-Bay, price.com and Amazon .com (all new commercial enterprises created as a result of the internet) have significantly influenced the dynamics of well-established and traditional industries.

Second, that it is not possible to influence the evolving industry environment if one does not start with a point of view about how the world could be, i.e. not how to improve what is available but how to radically alter it. Imagining a new competitive space and acting to influence the migration toward that future is critical. Strategy is therefore, not an extrapolation of the current situation, but an exercise in “imagining and then folding the future in”. Ambrosini, *-shaping ,Strategy text,*

This process needs a view – and identifying the best in this case the best broadcast of news , The saying goes “broadcast at its best “ The Mission Statement of the SABC RADIO NEWS .reads as follows:-

1. *This clearly states SABC RADIO NEWS is committed to providing fair, immediate and accurate news for all South Africans. For millions of the most disadvantaged, radio is the only source of information. But we aim to be the best source of news for everyone.*
  
2. *WE ARE JOURNALISTS., We commit ourselves to serving the public's right to know and to defending our editorial independence . We will question, investigate and challenge. . Above all, we will tell the story of South Africa. And the world in all its richness*
  
3. *WE WORK IN RADIO, It is the only medium that goes beyond the bounds of electricity, money and literacy. It is swift and personal. More than any other, it speaks to South Africans in their own languages. We will use radio to its fullest potential.*
  
4. *WE STRIVE FOR EXCELLENCE and we acknowledge that our journalists are our most valuable assets in achieving this.*
  
5. *WE WILL EARN THE RESPECT OF OUR LISTENERS .*

While a broad strategic direction (or strategic intent and strategic architecture) is critical to the process, it is equally important to recognize that dramatic changes arise due to new obstacles and unforeseen circumstances.

Tactical changes are difficult if there is no overarching point of view. The need to continually adjust resource configuration as competitive conditions change, is becoming recognized. A critical part of being strategic is the ability to adjust and adapt quickly within a given strategic direction. This may be described as “inventing new games within a sand box”, the sand box being the broad strategic direction.

#### **2.1.6 INTRODUCTION OF A NEW DIGITAL SYSTEM – “DALET”**

The most dramatic change in the process of strategy making is the breakdown in the traditional strategy hierarchy whereby top managers develop strategy and middle managers implement it. By its very nature, discontinuous change in the competitive environment is creating a whole new dynamic. There are people who are close to the new technologies (like the new system in the broadcast arena, the “DALET” for music and news broadcast, that is used to record the songs and the voice for further broadcast with a click of a button). This new technological computerized system is utilized to gather all the news items and to be recorded with various voices and happenings in and around the world and thereafter utilized to broadcast in that format after packaging the contents of the story

The "DALET", is a system that is similar to a recording machine, only this is a computerized version of , this can record and then play back , with a great deal of intricacies involved e.g. , record and play ,and thereafter it very gradually with the sound of the music going down with the volume and the tone and bar of the musical note , that or deleted from the system is neatly cut and patched together , so that it can flow from one song to another when required to playout on air . The beginning and the end are tailored made to suit the audience , and also to accommodate

the announcer . This DALET computerized system , which is equipped to, just let the beginning of the music as the interlude , with a click of a shift and control button , on the key board , thus a marker was pressed into place , so that the announcer can talk over the music interlude and be able to begin the start of the lyrics of the song , where the marker is initially put in . This is the new technology that made it possible ,is made possible with the advent of new technology, which is used widely in Canada and the USA for the purpose of broadcast, while competitors, and customers appear as managers in the middle. They have the information, urgency, and motivation to act. They are also the ones who have direct control over people and physical resources. Top managers, in the era of discontinuous change, are rather removed from the new and emerging competitive reality. The challenges of broadcast in the e-commerce strategy are many and with so many implementations in place, we should be very selective in our strategies in order to attain maximum benefit from the study.

For example, how many top managers have internet and or computer facilities and actually know how to utilize it and even actually switch the system on and off properly . they are just given these systems so that it looks good on their office table ,whereas these systems do not exist in the lower levels , where it can be utilized properly or effectively and efficiently in a work area. This kind of scenario exists in many corporations. This is based on a factual basis and not just an opinion. In the case of the broadcast environment the managers have little or no knowledge of the actual work that takes place on the ground level, very few people have the ability and the qualifications to actually do the work (in this case the actual use of technology and the know-how of broadcast. The people at the grass roots level only have the ability to actually do the work, therefore it is advisable to motivate and train and educate the ground level workers and also groom them to be future managers, but this does not happen.

There many top managers have personal experience of the internet, video games, fantasy football, and chat rooms. Middle managers must take more responsibility for developing a strategic direction and more importantly for making decentralized decisions consistent with the broad direction of the company. In the case of the SABC, the newsroom has a very crucial responsibility to actually deliver on time with speed, and the advent of the new technology makes it a bit easier and better for the latest information, communication technology

The involvement of middle managers is a critical element of the strategy process and thus embracing electronic – commerce. E-Commerce is the way businesses are going , therefore it is essential for all managers and middle managers to embrace electronic-commerce.

Last, but not least, creating the future is a task that involves more than the traditional stand – alone company. Managers have to make alliances and collaborate with suppliers, partners, and often competitors to develop new standards in digital versatile disc (DVD) technology for example. The infrastructure like broadband –(BB), or new operating systems (NOS) (like Java). Alliances and networks are an integral part of the total process and resources available to the company are dramatically enhanced through alliances and networks. This requirement is so well understood that it is hardly worth elaborating here.

### **2.1.7 THE NEW VIEW OF STRATEGY**

The emerging view of strategy contrasts dramatically with the traditional view. The difference is shown in Fig 1. the shift in emphasis in the concept of strategy and the process of strategy making is dramatic.

It is clear that the disruptive forces that have wrought this change are accelerating. It is time for managers to abandon the comfort of the traditional and tried –and –tested tools and concepts and embrace the new. Disruptive competitive changes will challenge the status quo. Those who take up the challenge and proactively change will create the future. The markets will decide the drivers, passengers and the rate of “road kill” soon enough.

**Figure 1 : THE NEW VIEW OF STRATEGY**

The emerging view of strategy contrasts dramatically with the traditional view. The difference is shown below:

<b>TRADITIONAL VIEW</b>	<b>EMERGING VIEW</b>
<b>Strategy as fit with resources</b>	<b>Strategy as stretch and leverage</b>
<b>Strategy as in positioning in existing industry space</b>	<b>Strategy as creating new industry space</b>
<b>Strategy as top management activity</b>	<b>Strategy as total organizational process</b>
<b>Strategy as an analytical exercise</b>	<b>Strategy as an analytical and organizational exercise</b>
<b>Strategy as extrapolating the past</b>	<b>Strategy as creating the future</b>

In conclusion, many of the concepts used in strategy were developed during the late 1970’s and the 1980’s when underlying competitive conditions evolved within a well-understood model. Japan’s manufacturing success, with its emphasis on operating efficiency, challenged some of the traditional assumptions – but it is only in the last decade that a new competitive landscape has emerged and the rules of the engagements has changed. While C. K. Prahalad, the canvas

available to today's strategists is large and new companies will need to understand, like the SABC global forces, react quickly, and innovate when defining their business models, and their CKP set out to define the new paradigm.

## **2.2 SPECIFIC INFORMATION ON DIGITAL BROADCASTING**

The challenges that the SABC moves into mobile digital broadcasting, yes this is a reality, this is not music to my ears but the music to your ears which will be right next to you and maybe in a rural area or in an International Convention in Amsterdam. This outside broadcast unit, the SABC had commissioned the construction of R42 million outside mobile production unit that will take the corporation into mobile digital broadcasting. This could be the answer to the challenges that we are faced with in the Sub-Saharan areas of Africa.

### ***2.2.1 SABC : NEW DIGITAL OUTSIDE BROADCAST UNIT***

This is the largest capital investment in the history of the SABC on a single project, "says SABC Managing Director of Technology, Sharoda Rapeti. "This fully digital unit will be used as a master control unit, which other outside broadcast units in the country will be able to link up to for broadcasting feeds. This is in line with the corporation's strategic objectives to improve the coverage of live sporting events," for example the World Cup Cricket , which will be the first to be utilized around the various venues .

The digital equipment will also be used to broadcast major music concerts and beauty pageants. This digital unit is flexible and will allow for more crew to work within the unit and with an additional 10 cameras of board, viewers will be able to get much more clarity on pictures. The

digital broadcast will improve on the quality of slow motion replays and will have more detail and clarity which will see dramatic improvements in soccer coverage, this will be because of the high level or concentration of the population that loves soccer and this is essential for a country like ours, where sport is of utmost importance than any other programmes as such, therefore making this a maximum pleasurable digital broadcast mobile unit, especially in the rural areas where on television is placed in a tavern or a shebeen, where the many viewers sit and enjoy this kind of sport.

The state of the art equipment will be exhibited at the International Broadcast Convention in Amsterdam. It will then be shipped to South Africa in November and the SABC will start its digital broadcast in December this year, 2002. According to our MD Technology: Sharoda Rapeti, this major step for the SABC would put us on top of the pack as having the biggest and most versatile digital unit in the country – a force to be reckoned with. given our combination of skills and technology .

### ***2.2.2 THE ELECTRONIC COMMUNICATION AND THE TRANSACTION ACT (ECT ACT)***

This together with the ECT Act, emphasis will be placed on secure payment systems. . The Act's emphasis on disadvantaged communities will go a long way. The Electronic Communication and the Transaction Act (ECT Act) has introduced a number of regulations to South Africa's E-Commerce world.

Many of the legal rules of trading, who in the hot seat Minister of communications, Ivy Matsepe-Cassaburi is positive about the Electronic Communication and transaction Act and believe the Act will enable people to conduct transactions in a safe environment, as read from an article, Business Report, Wednesday, September 11, 2002.

The rules of trading, which were developed in a paper-based society are inadequate for the new virtual, borderless, anonymous environment. Government, therefore, took the initiative of creating a legal framework, which addresses the legal uncertainties around e-commerce and facilitates electronic transactions in South Africa.

Therefore the complicated nature of the subject matter of the ECT Act and divergent views on the issue necessitated extensive consultation on the part of government.

We spent more than three years working on a policy that has a strong emphasis on getting the majority of disadvantaged South Africans into the information society”

As some of the legal implications of e-commerce include the facilitation of electronic contracts and the legal protection of consumer, the ECT Act allows contracts to be concluded by electronic means so that they are recognised in law, and provides for these contracts to be formed at the time and place where acceptance occurs. It also provides legal protection to consumers in the electronic environment by stipulating that certain information, including the price of the product or service, contact details and the right to withdraw from an electronic transaction before its completion, must be made available to consumers before the conclusion of an online transaction.

A cooling period, within which consumers may cancel transactions concluded on-line without incurring any penalty, provides additional protection. They also have the right not to be bound to

unsolicited communications offering goods or services. The ECT Act places the responsibility on businesses trading online to make use of sufficiently secure payment systems.

Advanced Electronic Signatures (AES) are a secure method for signing an electronic copy of a document because the signature is difficult to forge; and any tampering with the signature and or document is detectable. The Minister states that although the nature of e-commerce requires flexible legislation, the government believes it has a responsibility to ensure that transactions are conducted in a secure environment.

The ECT Act provides for the following mechanism to ensure security:

- An Accreditation Authority and Cryptography register, and
- Cyber inspectors who will be appointed to monitor computer or cyber crime.

### ***2.2.3 CRYPTOGRAPHY and DOMAIN REGISTERS***

The establishment of a cryptography register, which is an automated computer system that will allow providers to register their cryptographic technology, will enable us to deal with cyber squatters and computer hackers. In regard to the issue of domain name control, she says, “Our suggestion is that a board for a non-profit domain name agency should be representative, drawn from those knowledgeable with the task and recommended by interested stakeholders including Namespace itself.” The Minister alludes to the fact that the involvement of all stakeholders in the control and management of countries’ domain names is something that is being considered across the globe, and is not unique to South Africa.

In February 2002, Stuart Lynn, the president of the Internet Corporation for Assigned names and Numbers (ICANN), which is a global agency responsible for the management of the world's domain names, called for a complete review of the current system of domain name governance. According to Lynn, the current approach, which excludes governments and the other key players, is not working.

To reform the current system, Lynn proposed that a new model public-private partnership be adopted. In line with this thinking from ICANN, we have proposed that to ensure the effective management of the country's domain names we should establish a Section 21 Domain Name Agency. A board of directors comprising representatives of various stakeholders – governments, private sector, academia, community, etc – will be appointed to oversee the work of the agency, says the minister.

In response to criticism lodged in regard to the issue of domain registration and the fear of government control with regard to the domain name ownership, Matsepe –Casaburri sates that the mechanism which is going to be put in place will ensure that the very control that is feared does not remain with private individuals who are accountable to no one, and who can threaten us and move the zone file as has been purported. This statement was made in the context of revealing that upon being asked to check how many individuals or personal names and public places were registered as domain names by current, za administrator and whether these could be said to have been done in the public interest, a search showed that domains such as mbeki.co.za; mandela.co.za; thabombeki.co.za; sotho.co.za; and matsepecasaburri.co.za are all owned by individuals or companies.

The minister emphasises that all spheres of human endeavor today depend on ICT'S. The centrality of these technologies in all aspects of social, economic and political life means that without them, it would be difficult for poor countries to leapfrog decades of under development, she says. Government has an inalienable mandate to create the necessary conditions for the majority of our citizens, particularly the poorest of the poor to participate in e-commerce. well this can only be attained when these infrastructures that can be put in place in order to reach the masses and the poor of the poorest, that is so appropriate to my challenges that implemented in broadcast in the e-commerce strategy.

She regards this or the ECT Act as aiming to achieve exactly this by creating and enabling environment for the use of e-commerce to enhance growth in all other sectors of the economy.

She states that the ECT Act 's emphasis on disadvantaged communities will go along way in allowing rural producers to participate in international trade and commerce. This is exactly what my study tends to achieve in the long run with information to be disseminated to these parts of the world, which is the rural areas, and thus educating the masses and thus education will bring down or alleviate the rate of poverty and illiteracy in the rural areas. We envisage that e-commerce will bring a large majority of our people into the mainstream economy.

The department also envisions the ECT as accelerating the implementation of e- government, which will see government using the internet to provide many of its services such as tenders, identity documents, passports and license applications.

#### ***2.2.4 E-GOVERNMENT WILL HELP ACCELERATE SERVICE DELIVERY, AND IMPROVE ACCESS TO GOVERNMENT***

E-government will help accelerate service delivery, and improve access to government information that helps people to help themselves, thereby pushing back the frontiers of poverty, these people will become literate by being exposed to all these infrastructures to enable them to become au fait with technology and information will reach the remote of the remotest areas, thus bringing education, information, communication and technology, to them.

From the above study these are the global findings of the survey in relation to e-procurement include:

- 63% of high-performing companies have saved between ten and nearly 50 percent in procurement budgets, compared to three percent of low –performing companies which have achieved similar savings in the same range.
- 41% of high-performing companies have achieved cost reductions of between 10 and almost 50 percent in the area of purchase order management compared to four percent of low performing companies which have achieved similar savings in the same range.
- 40 % of high performing companies are making use of auctioning technology to source products and services compared to 12 percent of low performing companies.
- 36% of high-performing companies are using e-procurement to manage internal requests for purchase compared to 16 percent of low performers
- 27% of high-performers have e-procurement or e-trading solutions that can cope with transactions in several different currencies compared to 9 percent of low performers.
- 10 % of employees in high-performing companies request purchase online, via systems linked into a central purchasing department compared to 2 percent of employees from low performers.

The possibilities are endless ICT's for everyone: empowering people to cross the digital divide.

Business Review, dated the 11/9/2002

According to the Communications minister Dr Ivy Matsepe-Casaburri, she states, in her statement during the parliamentary media briefing on 14 February, presented an overview of the achievements of her portfolio during the financial year 2001/2002. She also raised the key issue for implementation during the 2002/2003 financial years. Some of these achievements and issues that concern the SABC include the SA Broadcast Production Advisory Body and the Digital Advisory Council have been established in terms of the white paper on broadcasting to advise the minister on local production content and digital technical matters.

#### ***2.2.5 SABC AND COMMUNITY RADIO STATIONS***

Since the Department of Communication started the community radio support programme in 2000, they have installed 41 stations, five of which were installed in 2001 about 1200 community radio programmes on women, HIV /AIDS, and people with disability have been produced and aired by 57 community radio stations countrywide. The SABC extended the signal of Ligwalagwala FM to reach some 400 000 people in Schoemansdal near Mbuzini in Mpumalanga (it was initially aimed at reaching 230 000 people) for the first time these people now have access to a FM signal.

The restructuring and corporatising process of channel Africa and Bop Broadcasting is under way. A restructured Channel Africa will offer a regional, national and continental service.

Sentech will be developed into a multimedia company, which will provide infrastructure for digital broadcasting in South Africa as well as an international telecommunications gateway.

Informed by technological changes and innovations. The department of communications is preparing a draft Convergence Bill to cater for the convergence of broadcasting, telecommunications and information technologies.

The broadcasting Amendment Bill is due to be tabled in cabinet in the next few weeks. Amongst others, the resultant legislation will facilitate the corporation of the SABC, diversify the pay TV and Online TV markets as well as provide for ICASA to regulate these services. To strengthen the regulator they will amend the ICASA Act.

In order to enhance access and diversity the Department of Communication will explore the establishment of two regional television stations to cater mainly for the African languages. Research will be conducted on location and coverage to ensure universal access across the country. Community radio stations will be established in all established in all nodal points such as Sekhukhune in the Limpopo Province. The SABC and community radio stations will develop content and provide special programmes on moral regeneration. Nine production hubs have been launched providing production equipment to the broadcast staff.

Arising from the telecommunications Act Dr Matsepe-Casaburri said that draft licenses for Sentech to provide a telecommunications multi-media infra -structure will contribute to Africa 's renewal by providing a bridge between the continent and the entire world.

### **2.2.6 THE ROLE OF THE POST OFFICE**

On the postal front the Post Office will continue with the rollout of citizen post offices and public information terminals. Pilot projects will be conducted to assist communities in the use of citizen post offices and communication centers as development tools. She also stated that in consultants with the Department of Education they have the establishment of EDU-NET, a system connecting all public schools to the internet.

”The Information and Communication Technology (ICT) sector is crucial for accelerated socio-economic development and delivery. Pivotal to the creation of a prosperous, dynamic and caring society lies an urgent need to maximize the benefits of the information and communication technologies.”

### **2.3 GOVERNMENT INTERVENTIONS IN E-STRATEGY**

Although the Electronic Communications and Transactions Act & RCT Act) will remove definitely removing many existing barriers to e-commerce, it will also introduce new challenges and risks for businesses - whether your business uses only e-mail or buys and sells goods and services over the internet or a corporate intranet,” says Reinhardt Buys, of Buys Inc. Attorneys, specialists in e-commerce, internet and IP Law.

“Both online merchants and online consumers will benefit from the ECT Act as the law now protects electronic transactions and data messages in the same way paper and ink are protected, says Buys. The e-business model is slowly but surely gaining credibility and the new ECT Act definitely adds impetus, “says Janine Hill, e-Bucks” head of marketing.

“One of the more interesting facets of this law is that hackers for the first time can be extradited to countries where they have perpetrated their crimes. If the law is applied correctly we could become one of the leading e-Solutions centers in world. Obviously concerns over management and lack of education in the enforcing bodies are prevalent.

Among others, the stated purpose of the ECT Act is to:-

- Promote understanding acceptance and growth of e-commerce in South Africa
- Promote more legal certainty in respect to e-transactions.
- Ensure that e-commerce in South Africa conforms to international best practice.
- Develop a safe, secure and effective environment for consumers and businesses to use e-commerce and
- Encourage investment in e-commerce

As part of the ECT Act, government is obliged to develop a national e-strategy, consisting of a five-year action plan to actually stimulate and promote the use of the Internet and e-commerce.

In its submission on the bill (now the ECT Act) Telkom regarded the development of an e-strategy for South Africa as of great importance given its potential to save time and resources.

“Success stories of entrepreneurs who have used the Internet to reach into global markets are well-known. Therefore a substantive strategy is however required to extend the benefits of e-commerce to as large a segment of the population as possible. Telkom also submitted that although the bill mentioned the issue of “universal services” it failed to establish how this

provision is going to be implemented. Buys admits that the ECT Act is a wonderful piece of legislation, but he highlights a few issues of concern, just like the challenges experienced with the broadcast arena and in the e-commerce strategy. The ECT Act creates ill defined and sweeping powers for the minister of communications without providing sufficient checks and balances.

He is of the opinion that the sections on electronic signatures and cryptography could have been drafted with more input from those industries, and the chapter on consumer protection did not take due regard of international precedent.

For example the ECT Act is a wonderful piece of legislation, but he highlights a few issues of concern.:-

- The ECT Act creates ill-defined and sweeping powers for the minister of communications without providing sufficient checks and balances.
- Sections on electronic signatures and cryptography could have drafted with more input from those industries, and the chapter on consumer protection did not take due regard of international precedent.

For example the ECT Act allows consumers to buy e-books, software and digital music, the digital music is the way to go and the output is very clear and crisp to the audiences ears, the people out there do not even know that we at the SABC gone digital since the 18 June 2001 and this was a very long and tiring or laborious task. The system initially failed due to some trials and tribulations with the computer administration and the servers and the overload of the sound bytes and also the lengthy songs in the eastern sections. The pilot broadcast went well for a while until the format and the times changed within the corporation. The digital technology used in this instant was very superior or advanced as in the case in the other countries like US and Canada, in

this case with the digital divide within the corporation, the broadcast was very critical, and the database was also very critical.

This database of digital broadcasting was critical just as the chapter on critical databases was drafted in such a way that basically any database could be defined as critical, which gives the state intrusive rights into the management of such a database thereby also creating serious constitutional problems.

The news room had the training in the year 2000 March, and in December 2000 the DALET machine was installed in the studios and the current affairs /newsbreak staff did the shows from the computer systems with direct recording of interviews, it was fast edited and implemented in the system and thereafter, the broadcast was digitally aligned with the systems via the lines to the listeners. The information is thereby disseminated in this manner and thus making the broadcast effective and efficient and also cost effective. The long and boring interviews done over the telephone and the manual editing machine to cut and or snip the following news items and this was very long and boring task to actually do. Now, with the advent of new technology and the DALET in place it simple to actually switch the news programme on and then click on record and play and then record the person that you are interviewing, if the interviewee is not clear and takes long to answer a question, those spaces are erased or cut off and easily replaced with the edited version of the interview, once again the dissemination of the information via the radio, television or mobile is readily accessible with the 082 152, Sabc and Vodacom in partnership is able to bring this about .

Research has proven that the rural areas or the communities at least have a cell phone and a radio so that they can retrieve any news and information. This was actually the focus with WSSD (World Summit on Sustainable Development). When all the planning and preparation for the WSSD which was taking place in Johannesburg from the 26 August until 24 September, this is when it all started, so is the reliance on technology to ensure the smooth running of this massive international event. It was eventually very successful, without technology the SABC's enormous and vital task of setting up and managing all the broadcast services and production facilities at the Broadcast village within the UN media Centre, before the conference started the President of the Conference dedicated handed the Village to the UN Government at Sandton Convention center, would have been almost impossible.

While South Africa, as a developing country, is technologically advanced, there are many developing countries and underdeveloped countries whose situation is not nearly as fortunate. Technology acquisition by developing countries is a necessary condition for development and this issue needs to be specifically addressed by the WSSD. The only way to achieve sustainable development is through the ancient African tradition of Ubuntu it actually means that people care. We need to ensure that the poverty stricken majorities of the world are empowered to improve their lives. An integral part of this is to give them access, both directly and indirectly to the digital world. This is actually the feeling of the Director General of the Department of Communications, Andile Ngcaba,

Information and communication technology (ICT) is an integral part of every aspect of society, including the provision of water, health and sanitation. Without ICT, the running of a hospital or clinic would be thrown into a state of chaos. Rural schools can benefit from city-based teachers,

through satellite teaching. Every competitive business must use ICT effectively. The actual point of discussion is that the ICT should not be seen as a luxury that must come after the basics. Sustainable integrated development has to close the digital divide. In today's modern society, one has no chance of success – or survival, if one is in the wrong side of the digital divide. The word has no need for ICT except to use it as tool to improve competitiveness in other fields.

## **2.4 MODERN ECONOMIES & SUSTAINABLE E-COMMERCE**

Modern economies are knowledge based. We are moving away from agricultural and industrial economies and today what counts is, who has the most knowledge. The digital divide is the divide between those who have access to knowledge and those who do not. The ability to source and apply technology and knowledge are clear differentiators of the prosperous and impoverished globally. All the evidence indicates that disparities will increase without decisive intervention. Sustainable development is not possible without the capacity to acquire, absorb, develop, modify and maintain technology and knowledge.

However, the provision of technology, in itself, is insufficient to achieve sustainable development constraints must be addressed simultaneously to permit technology to be effectively deployed and sustainable. Some of the key aspects that may be achieved from the WSSD could include the following:

- Shifting from a narrow definition of “technology transfer” to the concept of “technology and knowledge partnerships” ensuring that technology becomes self –sustaining within the receiving environment.
- A fairer global intellectual property regime which recognizes and protects indigenous technical knowledge, is accessible at reasonable cost, and does not place unreasonable barriers in the path of countries needing urgently to apply protected intellectual property in the interests of their citizens.
- Support for regional centers of excellence in technology, particularly in Africa.  
Focusing technology on the priority needs of the poor; food security, water and sanitation, habitation, communicable diseases, clean energy, transport and communication; and
- The development of clear timetables, indicators, responsibilities and resources to implement existing technology transfer commitments.

In the conclusion, sustainable development must be looked at in the context of the digital society.

If we look at it only in the context of health, education or housing, then we are setting ourselves up to remain a third world country for the foreseeable future.

The Department of Trade and Industry and not the Department of Communications should have drafted the information of law. It is a commercial law that has little or nothing to do with communications – the internet is only the medium says Buys. In Telkom’s submission it also stated that “electronic transactions relate to something of purely commercial nature to which electronic conveyance through communications forms merely an incidental component.” Despite Buy’s concerns, he states that the ECT Act compares favourably with international regulations concerning e-commerce. He recommends that the following legal policies be in place and

customized for organizations: “ specific online businesses: IP policy; IT security policy, e-evidence policy, e-communications policy, and privacy policy.

The companies like the SABC also has to comply with the King II Report on Corporate Governance and the Promotion of Access IT Information ACT in mind. Any company should also implement the above Act. Businesses should also ensure that their websites are complaint with Chapter XII. The advice that business selling goods or services over the internet should amend their online terms and conditions to incorporate the ECT Act ‘s consumer protection requirements. Businesses, which send unsolicited mail to consumers, must include the requirements to do so legally.

He also states that if a business in any manner whatsoever collects private information from consumers, the necessary agreements, disclaimers and terms and conditions should be in place to avoid legal liability.

“The ECT Act will change the legal landscape forever”, states Buys” Hopefully South Africa will soon be recognised as a country that empowers its citizen to use the Internet and e-commerce in a safe, secure and legally certain environment”. Therefore the government obliged to develop a national e-strategy consisting of a five-year plan. The caption reads, “Credible Janine Hill, the head of marketing ay e-Bucks, believes the e-business model is slowly gaining creditability in the E-Commerce Survey.

## 2.5 INFORMATION AND STRATEGY

Information being the most important and crucial aspect an investigation into challenges of implementation of Broadcast in the Electronic Commerce Strategy in South Africa. Therefore in the business world we say that every business is an information business, according to Michael J Earl.

Whether they call it “the post-industrial society”, “the third wave” or “knowledge era” most policy makers, academics and business leaders would agree that we have recently entered a new era. This is referred to as the “information age” – this has to still emerge and develop, after all, the industrial era evolved over two centuries or more. However we recognize the information age differs markedly from the industrial age in several important respects.

These differences are summarized in Figure 2. Over the past 40 years or so, many commentators have tried to determine what has been driving these changes. The consensus has shifted over time. At first it was thought to be the automating power of computers and computation. Then it was the ability to collapse time and space through telecommunications. More recently it has been seen as the value –creating power of information, resource, which can be reused, shared, distributed or exchanged without any inevitable loss of value; indeed, value is sometimes multiplied. And today’s fascination with competing on invisible assets means that people now see knowledge and its relationship with intellectual capital as the critical resource, because it underpins innovation and renewal.

**Figure 2 : THE INFORMATION AGE**

<b>FROM INDUSTRIAL AGE</b>		<b>TO INFORMATION AGE</b>
Marketplace	Doing Business	Marketspace
Hierarchies	Organizing Business	Networks
Scarce physical resources	Economics in business	Limitless digital resources
Machine/craft workers	Populating business	Knowledge /intellect workers
Real estate and plant	Infrastructure in business	Information technology

All these claims are valid in some ways and therefore there are diminishing returns to arguing which is the critical motive force. But we can recognize that today every business is an information business. The SABC, in this case, due to challenges and the digital divide is definitely an information business.

First, let us take the perspective of industry structure. We see the SABC as an information business, and thus this is the hive off all the content, the content is in a poll from all over the different regions as in the News net, this is a systems that is utilized by the SABC newsroom for the information, the news items and the happenings from all around the world. We have reporters everywhere; each regional manager and editor in charge manages this. The Managers and the Editors and the Senior Reporting Staff, meet and discuss the most crucial aspects or news items for the day and one or two reporters are on standby if there are anything current going to happen, like on the spot accident , The SABC newsreaders, Sheetal Maharaj has just read the news about a Cash Arms Heist in Upington Northern Cape, Jackie Selebi will; be investigating this Robbery

20 November 2002, time now is 11 o ' clock, this was actually surfed via the newsmnet from the SABC-KZN Newsroom in Durban , read on LotusFM .

This is an example of dissemination of news via a radio channel and only medium for some of the people out in the rural areas where there is no access to anything besides the radio, in the near future with the new government infrastructure in place and also the wireless access will be soon applicable to these remote areas in the near future.

We see battles in the marketplace all the time as 'content' companies try to acquire related content businesses, not only because of their thirst for information but also of the opportunities for synergy created by repackaging, reuse and navigation. More significantly, perhaps, content companies acquire or builds alliances with communication companies and vice versa. We at the SABC, we are a communication company, and the largest in South Africa. Both sides recognize that to command the airwaves is to command the distribution channels of the information age; and that the high value-added opportunities are likely to lie in selling content and repackaging and reusing it in the manifold ways. The film of the book of the television programmes is an established example of such repackaging opportunities.

Disney's marriage with ABC is a case in point. Even Sky's bid for Manchester United can be analyzed from this perspective. We also see regulators on the sidelines of these information wars stepping in to control market power. If they are steeped in industrial -age competitive logic, they may actually try to constrain the growth of corporations that could help build the information highways of our dreams.

But it is not just the obviously information –intensive companies that are playing out these new strategies. More “Traditional “ companies see some of the same logic. So when SABC, acquired a diversified Digital Recording System which is the called the DALET, from overseas, used in many American Broadcasting Corporation, which has proven to be a success, this strategy has been implemented here in South Africa. The services in 1999, was very new and a great deal of training and testing was required in order to implement in an accurate strategy for the purposes of broadcasting. The old editing machine with tapes to be snipped and patched together, no more exists.

The system has new and improved method of Record and Play Buttons, and this can also be edited by cutting the unwanted bit with the click of the mouse. The most interesting part of this system is also when example, Dr Desmond Tutu has to be recorded and he has the ah.... eh.ah. After each word can be erased with an erase button and thus eliminating the unwanted sounds and stops, in order to sound professional of the end product of the news broadcast / output. This new system was used by the SABC Newsroom in the year 2000, since then staff had to be trained and then full-scale use of the system was used in the studios e.g. in this case the LotusFM, UkhoziFM, current affairs studios and the live studios for the purpose of sound bytes etc.

There is a similar system in the studio, which was initially done by librarians, in the library and the music, and the data was captured for broadcasting on the 18 June 2001. Training took place in February and on the 20 February 2001, the initial recording of the music was done in the library, somewhat 2000 songs was recorded from February till June 2001, the music together with the artist and the title and the lyricist and the time had to be recorded and then each days programme had to be checked and run through the navigator before actually playing it live on air, there were

many hitches and then it was discussed by the management and myself (P. Govender), regarding this to a crucial issue and then the IT staff of Natal University came to my rescue, it was Advocate Lee Gibson, my lecturer then and now my supervisor, analyzed the problem and the SABC management did not adhere to it, it was in fact the server, because the songs for the Indian station was very long and the levels were also too high or too low, because of the recordings done in a library and not in a proper studio, majority of the work was done by me, initially, this was a very sensitive issue, when it was outsourced due to difference of opinion, indeed it was a great learning opportunity and had given myself experience of a different kind altogether, the negative disappeared and the positive remains, multimedia access, to the use of the studio, use of the studio facilities, recording songs, programmes, jingles and voices for adverts, was great fun and exciting, managed to learn a great deal in this respect, this was very, very strenuous and also merging of the programmes was challenging at first and then it became like second nature to me. One has to understand anything one does before implementing without any practice, practice makes perfect and now it works well after installing a new server and new methodology put in place.

The entire process has been handed to the compiler of the station has initially suggested and now, the system has the ability to merge the advertisements and the music together for the entire day and the clocks have been designed to accommodate this intricate system and once again with a click of the mouse you can listen to any program which is done by the announcers in the studio. Announcers had to undergo intensive training in order to implement this new technology in the studio for the purposes of broadcasting.

This is the digital broadcast and the digital divide. These are some of the challenges experienced in the broadcast arena. This is just the beginning of the digital broadcasting and the challenges

were enormous, these were development programmes and the computer management team together with the library are about more conventional synergies. The manager dictates not knowing the repercussions of the job done in haste just to complete without thinking of the consequences, when questioned how much work has been done and not how well the task has been done, the purpose of the manager is to guide you to do the work properly and not just to reach certain deadlines without realizing the consequences. This is exactly what happened during meeting our deadlines, this was a pilot project and obviously from the top to the bottom it was a task that had to be completed in order to meet goals. The actual aim of the exercise was fruitless.

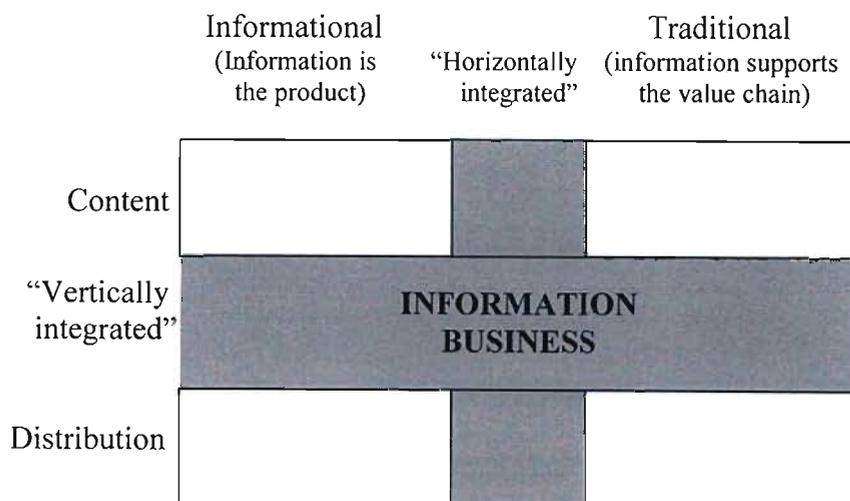
Likewise, when Johnson & Johnson acquired a diagnostics business previously owned by both Kodak and Amersham International, the sale soon turned out to have a similar information thread. So we need to rewrite, or at least re-examine the industrial economies rules of vertical integration and diversification. When Ralph Larsen, chairman of Johnson & Johnson, announces that “We are not in the product business, we are in the knowledge business ” we start to see different logics at work.

Indeed, it becomes difficult in the world of intangible assets and electronic distribution channels to be clear to define vertical or horizontal integration. Microsoft takes stakes in software, communications and information-providing businesses, and America Online acquires Netscape. Are these “horizontal “ or “vertical” manoeuvres? They should be one or the other in my opinion. In other words, if you choose to take an information perspective, businesses are converging on the middle of Figure 2, partly because of digital convergence in some cases this is happening because the product is information –based, as in the case of Disney and ABC.

In other cases it is simply because market understanding or decision-making is information – based, such as in our SABC examples. In still other cases it is simply because market understanding or decision –making is information –based. So retailers, financial services organizations and airlines will stitch together alliances because of the information (and sales) potential of customer cards, not like the SABC we have hard news and news only that is knowledge, and then becomes information and then it is news which is for anyone and everyone's comprehension.

Therefore, news is essential and the dissemination of this is essential, no matter how we are going to disseminate this, it has to happen and it will definitely happen with the new technologies and the information strategy put in place in order to combat the challenges broadcast in the e-commerce strategy.

**Figure 3 : BUSINESS CONVERGENCE**



098131

## 2.6 THE VIRTUAL VALUE CHAIN

One way of understanding the strategic opportunities and threats of information as digital technologies converge, is to think not just of the physical value chains of business popularized by Michael Porter but to consider the “virtual value chain” devised by Harvard academics Jeffery Rayport and John Sviokla.

Information can be captured at all stages of the physical value chain. Such information can be used to improve performance at each stage of the physical value chain and to co-ordinate across it. However, it can also be analyzed and repackaged to build content-based products or to create new lines of business. Thus insurance companies, for example are becoming adept at analyzing customer and claims information and then tele-selling both financial and physical products. A company can also use its information to reach out to other companies’ customers or operations, thereby rearranging the value system of an industry; if you like sectors become “value jigsaws” which can be rearranged so that traditional sector boundaries disappear. This is why analysts coin expressions such as “infotainment”.

Ralph Larsen sees Johnson & Johnson as a knowledge Business, just like we at the SABC see it to be an information business, similarly, Toshifumi Suzuki, former president of retail chain Seven-Eleven Japan, saw his business as “not in the retail business but in the information business” He used information technology to address convenience, quality, service and customer needs by ensuring that shelves were replenished several times a day in response to orders from individual store managers.

This strategy is similar to the SABC 's the information technology and the use of the latest which is the digital technology is also to address convenience, quality and listeners needs. He also established a large field counselor organization to train store operators not only how to capture customer and sales information and how to use it, this is also the same when SABC staff were trained and people or staff with the appropriate skills in order to execute their jobs or tasks effectively and efficiently as possible. For Suzuki, systems, processes, information and people were integrated set of key resources, this is just the same with the SABC. the systems, processes, information and people were integrated of key resources. According to this view, then, a business to be smart information workers.

To be smart information workers that is what the journalists, researchers, librarians, reporters, producers, editors, are actually getting paid to put together the resources in order to execute or output the best news in the country at all times and at any given time, therefore the digital system in the SABC is effectively and efficiently utilized.

Used by all the personnel in the corporation, any journalist or compiler of the news bulletin, can retrieve information from the pool of resources that is already in the system with the corporation, any reporter or journalist, or newsreader has the ability to access the information from the Newsnet and able to disseminate the information as news to the listeners all over. There are no specific section which operate separately, these are a ripple effect or team effort or actually speaking it is a team effort, in the SABC, the information that one reads in the Newsroom or the information any Presenter delivers on air is the work right from the bottom of the ranks, example from the library, resource centre, compiler, editor and then to the news desk. Similarly the music has the same procedure, together with the information that goes with the programme, no programme is done by any one person only. There is always a team effort, therefore one cannot

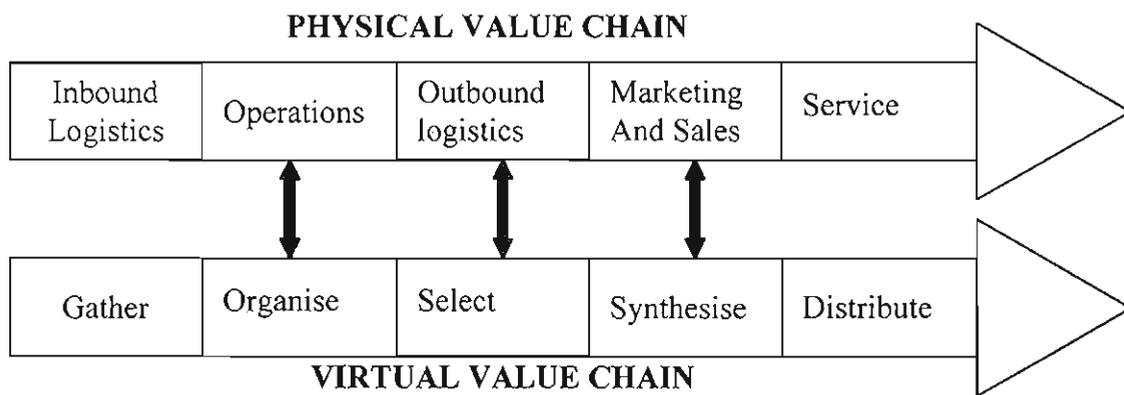
state that the financial aspects, are not only financial, like the Former chairman of the American Express, James Robinson, saw his company in the same light 20 years ago. "All the financial analysts keep saying in the financial services business. They're wrong. American Express is in the Information Business." We see this perspective in sector after sector today. Managers and staff have to be adept at information processing. Operations come to a halt when the systems break down. there is in actual fact more PCs and terminals than people.

However, even if we were still in the industrial age, some theorists would still suggest that every business is an information business, like the SABC. One reason for this is the way in which we design our organizations, which is often based on an information -processing goal. The SABC, after all is an information, communication, entertainment-processing centre. Or the hub of all the action, crime, music, comedy, news, together with the digital divide, which is the main focus.

We decentralise to allow managers to get their hands on the specialized information of specific environments and tasks and to reduce the information load of centralised organizations, but these criteria cannot work due to the nature of our tasks. the specialized information of specific environments and tasks has to be delivered to a centralized depot I order to get the maximum use of the information, for the purposes of dissemination, and also other regions will be able to retrieve the information. We centralize again when we want to gain control or improve co-ordination by bringing information flows back to the center. We deploy IT within the organization, to distribute information to those empowered in the regions, who then send back information for central planners and co-ordinators to process too. Or we use IT to enable networked or virtual organizations to work.

Likewise, some theorists will see the work of managers themselves as information processors, not only in the execution of daily tasks but also in the way they plan, co-ordinate, control and make decisions. Today, managers are also expected to be competent users of PCs, e-mail, decision support systems and executive information systems.

**Figure 4 : THE NEW VALUE CHAIN**



And while entrepreneurs are often adept at collecting and processing information about threats and opportunities – by networking, observing and getting about – many now look to information and IT as their source of new products and services. The entrepreneurs of the future are “infopreneurs”.

**Figure 5 : EVERY BUSINESS IS AN INFORMATION BUSINESS**

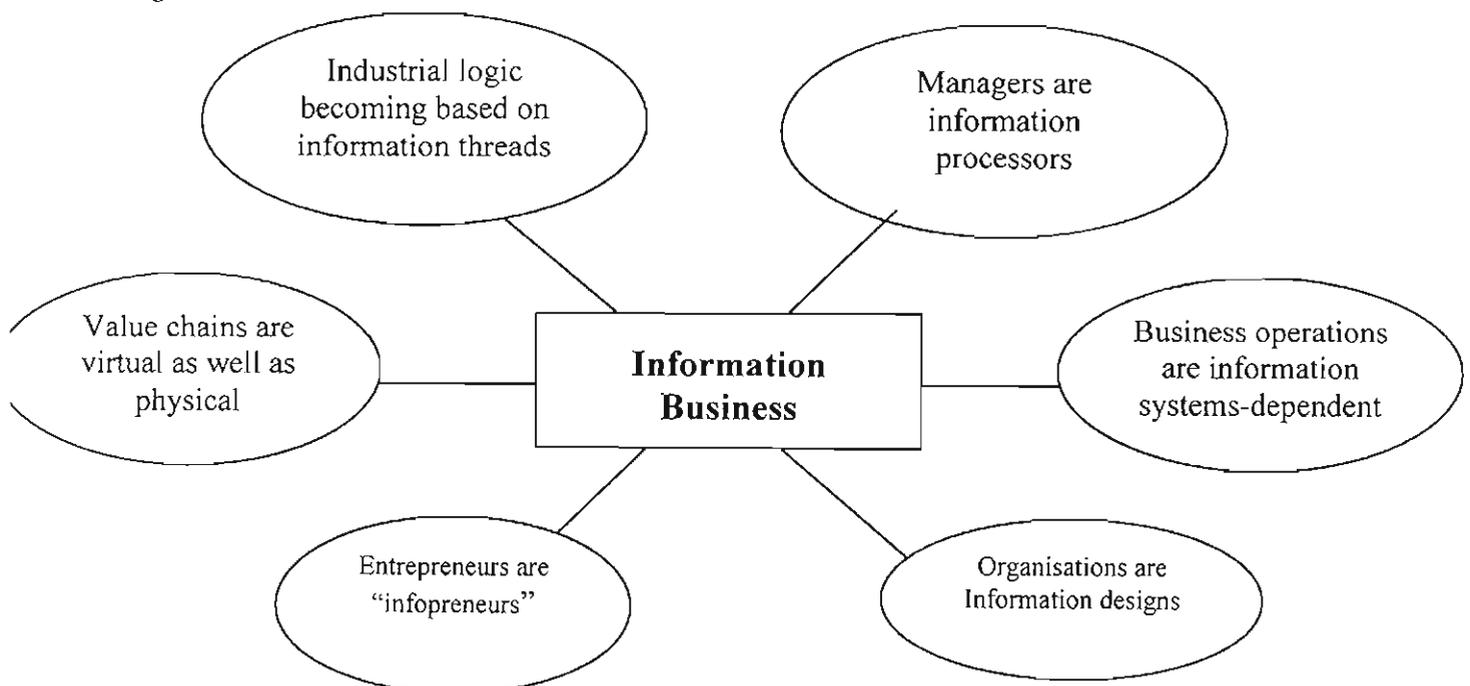


Figure 5 summarizes the discussion so far. From at least six perspectives branching from the information business as the main aspect, which is depicted in the rectangular diagram as compared to the circles from the top to the bottom from the left-hand side to the right hand side, the six perspectives are as follows:-

- Industrial logic becoming based on information threads.
- Value chains are virtual as well as physical
- Entrepreneurs are “infopreneurs”
- Managers are information processors
- Business operations are information systems dependent.
- Organizations are information designs

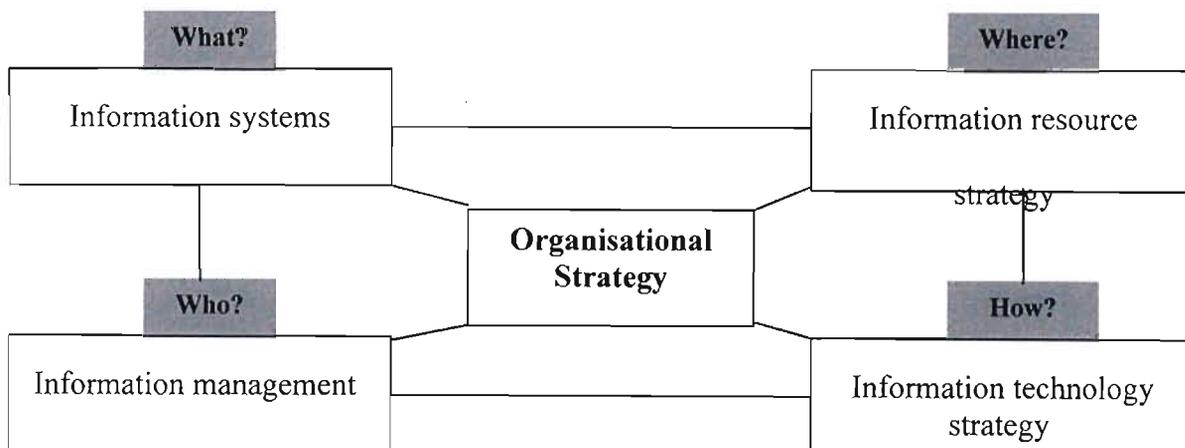
One consequence of this is that either no business strategy is complete without an information strategy or that business strategy and information strategy need to be integrated. IT, information systems and information as a resource no longer just support business strategy; they also help to determine it. But what does an information strategy look like?

Michael J Earl has developed a conceptual framework over 10 years ago that has had considerable influence on practice. It sought to distinguish information systems (IS) which was the “what” – the identification and prioritization of systems or applications for development.

Then Michael added information management strategy which was about the “who” - the all-important question of roles and responsibilities in the delivery, support and strategic development of IS and IT. All of these were influenced by – and influenced – the business or organizational strategy (the “Why”) which was concerned with strategic intent and organizational architecture. In a perfect world, corporations strove for a good fit between these four domains.

The fifth domain was missing, one we still find difficult to formalize but in which companies like the SABC increasingly have objectives, principles and policies. This is the domain of information as a resource, like the SABC 's Newsroom, or of information resource (IR) strategy. It is perhaps the “Where” question: where are we going? . The same strategy and the same questions are asked in the newsroom in order to get clarity of a story and more information can be added to the story. The questions form the skeleton of the story. Much value creation can come from information but it is not always clear what the end result will look like. The five-point framework is summarized in Figure 6.

**Figure 6: INFORMATION STRATEGY FRAMEWORK**



Chief Executive John Browne, from British Petroleum is trying to build a learning organization based on knowledge, the principle of information –sharing has driven many IT and IS strategy decisions. Another example, in Safeway, the supermarket retailer there is a policy of never throwing any data away. Electronic point-of-sale data and customer loyalty card data – like the

Clicks Club Card and the Woolworth's Card. The information is often shared with the suppliers- drive much of what it does and help it monitor and evaluate many of its strategic experiments.

The SABC has a signal device, or a data reading or capturing device whereby the information of all the users are read and the amps figures are regularly taken into considerations, like UkhoziFM has approximately 7 million listeners thus far . The supermarket and the SABC has applied the same principle in order to derive the same effects in the long run.

In a more traditional content companies, such as advertising agencies, broadcasters and movie companies, there is a policy about not giving away or releasing content that others can re-use. The SABC broadcasting company has the right to archive all the material, whether it is radio news or television news, if and when someone requires it from within the corporation then only it is released for reuse, otherwise there is a definitely a no/ no situation. This is how the corporation operates and it will remain like that for along time due to the rules and regulation of the corporation. Therefore, an investigation into the challenges of broadcasting to implementation of Broadcast in electronic commerce strategy in South Africa is enormous and there are limitations and careful considerations have to be taken in order to fulfil the criteria at all times.

Disney is the past master at this. The financial services companies you will find executives scratching their heads and saying "Why did we never collect critical data such as date of birth when our customers joined us" and "Why do information resellers make money out of our transaction data?" One aspect of IR strategy is an increasing interest in the distinction between data, information and knowledge. Some feel that conceptualizations such as that in Figure 6 offer at least three lessons:-

**Figure 7 : FROM DATA TO KNOWLEDGE**

	<b>DATA</b>	<b>INFORMATION</b> 	<b>KNOWLEDGE</b>
Content	Events	Trends	Expertise
Form	Transactions	Patterns	Learning's
Information tasks	Representation	Manipulation	Codification
Human element	Observation	Judgement	Experience
Organizational Intent	Automation	Decision-making	Action
Value test	Building block	Uncertainty Reduction	New understanding

To some degree, information is derived from data, and knowledge from information, and thereby or thus we are reminded that data has enormous potential – far beyond just being representative of a transaction. Information has characteristics, particularly of human interpretation, above and beyond data. Knowledge has something more than information, perhaps learning. Therefore, a logical test of the value of an additional piece of knowledge could be whether it provides new understanding.

Seeking and articulating to classify these intangible resources at least alerts people to their value and, more particularly, to the different sorts of investments they require. Technology is well suited to data processing; therefore it is an integral part of broadcasting. The SABC has taken a step forward with this new technology and thus making broadcasting technically and technologically viable in the broadcast arena, thus an investigation into implementation into the

challenges of broadcasting in an e-commerce strategy with IT and IS, is absolutely vital. Knowledge processing is much more of a human activity. Without staff, that is researchers, journalists, editors, librarians, reporters and newsreaders knowledge will be nothing or zero but if only processed by the human as it states become important and integral part of the SABC news and information for the public or listeners or viewers. On the nature of information, as a commodity or a process has relevance and value for the information age. There are also some old lessons to be learnt but some new rules are also required. This phenomenon can be tailored in the technologically and digitally broadcast challenges that can be utilized in the e-commerce strategy in South Africa. The world of information and intangible assets is very different from that of the industrial age and physical assets. That overlooked and in some ways abused term “paradigm shift” seems to be just right for once. We are all experiencing one in our information business. The paradigm shift in the broadcasting business is the digital divide and the digital broadcasting is the latest and the best, quick and easy way to inform, educate, goods, services and also the easy access to internet and even the e-mail. The entire investigation into the challenges of implementation of broadcast in the Electronic - Commerce Strategy in South Africa. The objectives of this study can be fulfilled by implementing the above strategy.

## **2.7 REALITIES OF E-COMMERCE**

This is actually a concept that teaches costly but valuable lessons. The whole concept of business- to-consumer e-commerce has fallen from favour in the wake of the dot bomb debacle. Retailers no longer blithely assume that the mere fact of having a Web Site means that consumers are going to beat a path to their door. But e-commerce is not ready to be written of as yet. The basic merits of taking the shop front to the customer’s desk or into his living room- at a fraction

of the cost of a physical presence- are still valid. This is the similar way to bring the digital broadcasting to the millions of consumers via the cellphone, websites, wireless.... etc. radio and television. And the failures of the past, like that one I had experience in the year 2001 from June still October and the new server and the new system was put together in November 2001 for the radio digital broadcast ,can help the companies contemplating an e-commerce presence to avoid costly mistakes and build systems that bring the promise to fruition.

Like the SABC, two radio stations are currently broadcasting in KwaZulu-Natal, Durban, that is LotusFM which has about half a million listeners and UkhoziFM which has about seven million listeners, this strategy was implemented in the year 2000, pilot project started in 2001 and now in the year 2002 it is fully operational without any problems has compared to the pilot projects.

Therefore, Mark Berman principle technology specialist at Microsoft SA's enterprise group is that the important thing for companies embarking on e-commerce initiative is to pay equal attention to all aspects of the project.

Apart from the frustration factor, although this is more applicable to South Africa with its slow and often –unreliable bandwidth issues. Delays in downloading and an almost –total inability to compare process and services can make Web surfing an exercise in frustration that drive may users to the mall and in the case of broadcasting back to the old industrial age and thus making it old fashioned and traditional once again.

The good news for consumers is that the unviable dotcom economic model finally fades off the radar screen; new and existing retailers can now approach their e-commerce projects in a more realistic way that holds out the promise of long-term success. This aspect can be also maintained

in the broadcasting perspective. Mark Berman explains that any e-commerce initiative is an evolution from the original idea, through to the business plan, funding, development, testing and implementation. The latest technology enables web access and broadcasting digitally via the Internet and also with the ISDN lines.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

In this chapter discussion will centre or focus around research design issues such as population and sample, data collection techniques, data analysis used in the study and the methodological problems encountered by the researcher.

#### **3.2 RESEARCH METHOD**

The aim of the study or research was to gain understanding and insight into the investigation into challenges of implementation of broadcast, media, and telecommunication and information systems in E-Commerce strategy in South Africa. A qualitative research method was chosen a thorough understanding of the respondents 'attitudes challenges of the e-commerce strategy is therefore required or necessary.

In order to gain insight into the challenges of e-commerce strategy we need to see the world through the eyes of the journalists and all the means of the data collected and researched It is hoped that the data collected will provide a detailed look at the challenges broadcast regarding the e-commerce strategy

Qualitative research can take many forms and has many definitions. One form consists of open-ended questions embedded questions in a structured interview or questionnaire, while other forms

may be through observation. For Van Manen, et al (1982: 32), qualitative research refers to the meaning, the definition of analogy or model or metaphor characterizing something. It, therefore, deals with the meaning of things and explains why something happens.

It seems that qualitative data are attractive for many reasons. Qualitative data can be described as being rich, full and holistic and they preserve the chronological flow of data where it is required.

Furthermore, qualitative data offers a far more precise way to determine the cause and effect relationships regarding organizational issues. Qualitative data reduces a researcher's trained incapacity, bias, narrowness and arrogance (Van Maanen, 1979:117). Finally according to Van Maanen (1979:118) there are many reasons to believe that qualitative data can be more useful than quantitative information from the same that is an investigation into the challenges to implementation of broadcast in electronic commerce strategy in South Africa.e-commerce strategy in South Africa in order to derive or produce a more powerful , argumentative and opinionated analysis

However, qualitative data does have its flaws or weaknesses and problems as well. Collecting and analyzing data is a very labour intensive operation that can cause much stress. Qualitative data can also become irresistible by force of numbers , influence and amount for the researcher, as the sheer range of phenomena to be observed, the recorded volume of notes, the time required for writing up, coding and analysis can become very time consuming. The most serious difficulty experienced by qualitative researchers is that methods of analysis are not well formulated. For quantitative data there are very clear guidelines or conventions that the researcher can use. However, the researcher faced with qualitative data has very few guidelines

or rules and regulations to follow and is often faced with the uncertainties as to whether the conclusions presented are unreliable or invalid.

### **3.2.1 Population**

The population consists of 20 journalists ,comprises 5 producers, 5 reporters, 5 newsreaders, 5 editors from the SABC , Newsroom Kwa-Zulu Natal region in Durban .

### **3.2.2 Sample**

A sample is a subset of a population (Sekaran, 1992:225 ) a sample size of 20 journalists who are producers, presenters , and newsreaders, editors who are also journalists by profession was chosen and a convenience sample of 5 was taken . The reason for convenience sampling of 5 journalists because these journalists were willing to provide the information I required from the SABC Newsroom resulting in a total of 5 journalists participating. From this listing, a sample of 20 respondents was chosen using the simple random sampling method. The reason for choosing journalist is because, regarding the challenges faced by broadcast in the e-commerce strategy is faced by them accordingly. therefore, the implementation of the challenges can be systematically formulated and recorded .

It is my opinion that a sample size of 20 journalists seemed adequate because the study is largely qualitative in nature. Journalists were interviewed individually and their responses quoted verbatim by the author.

### **3.2.3 Convenience Sampling**

Convenience sampling as the name implies involves collecting information from members of the population who are conveniently able to provide this information (Sekaran, 1992:235). The reason for choosing convenience sampling as a method of obtaining a sample, is due to the fact that it is quick, convenient and less expensive method of sampling. However, convenience sampling does have disadvantages. One of the main disadvantages being generalisability. Using this method of sampling, the researcher cannot generalize his/her findings to the rest of the population.

### **3.2.4 Characteristics of the Sample**

The respondents range between the ages of 25 and 55 years of age. The respondents were both males and females respondents belonged to four race groups namely Black, White, Coloured and Indian. The respondents were employed in the company for approximately twenty to about three years respectively.

### **3.2.5 Data Gathering Technique**

Structured interviews were conducted with each respondent. The reason for the choice of interviews as a data gathering technique was because the respondent's attitudes were explored. Therefore, the best possible way to do this through face-to-face interviews, where the respondent's answers were quoted verbatim.

The format of the questions were primarily open-ended as the author was interested in gaining attitudes and insight into the feelings of the respondents. Open-ended questions do not restrict the respondents to specific "Yes" or "No" answers as they are encouraged to explain "Why" and

“How”. However, while most of the questions were indeed open ended.,(four of the eight questions required “Yes? No” answers. These questions were scaled on a key that comprised of “yes (Y) , “No” (N) , “unsure” (U) . Very Comfortable” (VC), Comfortable (C ) and Very Uncomfortable (VU) .

This is in my opinion the reason to choose face-to-face interviews is because of its many advantages .The researcher can adapt the questions, doubts can be clarified and also ensuring that the responses are properly understood by either rephrasing or repeating the questions is an advantage. The researcher is also able to pick up non- verbal cues from he respondents. Any level of discomfort, problems or stress that the respondent experience can be detected through frowns, nervous tapping and other body language.

One of the main or the most disadvantageous aspect of the face-to-face interview is that respondents feel uneasy about the anonymity of their responses when talking to the interviewer.

However , one way of curbing this problem is to first speak to the respondent and ensure them that their names will be kept confidential and there will be no way of knowing which person gave which response (Sekaran, 1992:197)

### **3.2.6 Data Processing and Analysis**

Since, or because the study was largely or solely qualitative in nature, the respondent’s responses were transcribed onto computer. Thereafter, in order to make sense of the large amount or volume of data collected or gathered, common themes and trends were generated or derived from the respondents or candidate’s answers. This is called a method of coding.

### **3.3 METHODOLOGICAL PROBLEMS**

Methodological problems and shortcomings are bound to be experienced by researchers especially when the researcher is a student embarking on research for the first time. There is a discussion on some of the methodological problems experienced by the researcher.

#### **3.3.1 Sample Size**

20 respondents for a sample size may seem relatively small when compared to large sample sizes used in quantitative research. However, the dissertation had to be completed within a period of six months, due to time constraints, experienced by the researcher, a sample of only 20 respondents was chosen. Due to the fact a full-scale research dissertation should be done over a longer period of time to get the best possible results and output of the subject as effectively and as efficiently as possible. Nevertheless, the fact that a qualitative research approach was chosen encompassing tedious and long methods of coding and making absolute sense of the data, the small sample size seemed quite attractive at the time.

Some of the respondents were interviewed, thus, revealing to the researcher their feelings, emotions and attitudes. Therefore, a small sample size was used, the information extracted from the respondents carried more quality rather than quantity. Therefore, the results are both reliable and absolutely valid.

#### **3.3.2 Generalisability of Findings**

Due to company policies, rules and regulations within the corporation, i.e. SABC - KZN, in Durban proved to be very difficult and frustrating experience. Many journalists were skeptical

about the aim of the study, especially when it became known that the interview with the source of gathering the data or information, and thus access to the interview respondents was denied. SABC was in the midst of the organizational restructuring resulting in many contract and freelance journalists, resulting in large numbers of workers left without jobs. Thus, the “atmosphere” and “mood” of the corporation was not right to carry out a research project, which demanded respondent’s feelings and attitudes. Therefore, the manager that were willing to accommodate the fieldwork were sampled and respondents chosen from this newsroom. Due to the fact only 20 journalists were sampled, while the internal validity may be high, external validity may be low which makes generalisability of the findings of SABC Newsroom in Durban difficult. Generalisability claims of the findings should therefore be made with caution.

### **3.3.3 Data Processing and Analysis**

As mentioned earlier, the respondents’ answers to the questions were categorised into themes in order to make sense of the large amount or volume of data or information. While some of the challenges were present in the respondents’ answers, others were directly inferred from their answers. Therefore, due to the fact that some of the challenges of broadcast into the e-commerce strategy in South Africa , there is a likelihood of the results being affected. However, to guard against this problem, the respondents were asked for clarification of their answers at the end of each question. Results are therefore, and is absolutely reliable and valid.

### **3.3.4 Convenience Sampling**

As mentioned earlier, a convenience sampling method was used to choose the journalists to carry out the research, the main reason being that these journalists were willing to accommodate me. However, while convenience sampling may be an efficient and quick method of sampling, one is

not easily able to generalize the findings to the rest of the population. Thus, the findings of the research may have to be treated with caution.

**Table 1 : RESPONDENTS (JOURNALISTS) BY DESIGNATION AND GROUP**

DESIGNATION	AFRICAN	WHITE	INDIAN	COLOURED
A	2	1	1	1
B	2	1	2	0
C	3	1	1	0
D	2	1	1	1

### 3.4 Conclusion

In this chapter, the discussion or the main focus was centered around the research design issues such as population and sample, data collection techniques and methods used to analyze the information or data and the methodological problems experienced by the researcher.

## **CHAPTER FOUR**

### **FINDINGS**

#### **4.1 INTRODUCTION**

The aim of this chapter is to present the main findings of the study. The respondents' answers were divided into a total of sixteen themes (some of which were inferred from the respondent's answers and other themes directly stated by the respondents themselves). Under some of the themes, the respondent's attitudes and perceptions of the themes are presented. The broad themes represent how the respondents gave meaning to investigation into challenges of implementation of broadcast Electronic Commerce Strategy in South Africa.

#### **4.2 THEME ANALYSIS : GENERAL FINDINGS**

Following is a discussion of the investigation into challenges of implementation of Broadcast in electronic Commerce Strategy in South Africa, based on what the respondents interpreted them to mean. Opinions All the respondents (N=20) felt that the challenges of implementation related to the broadcast and strategies that different journalist and producers and editors have. People of different academic backgrounds and information background seeking skills, think differently and write stories differently and together with kind of phenomenon, they actually do think differently due to the experience and knowledge and the rules and regulation of the corporation which obviously demands the professional level of broadcasting and the new digital broadcasting and newstar and the newsnet system which can be compiled and eventually overseen by the editor in charge and then changes can be made in order the best and the most effective and

efficient way of disseminating the information , thus educating and informing , communicating and the connection to the internet and the e-mail. This makes broadcasting and dissemination of the news fast, quick and easily accessible , after-all this is the purpose of the study.

It would seem from the responses of the respondents that most of them associated different ways of deriving information and techniques to how they actually put their stories together to give this a new meaning to a different kind of broadcasting, digitally and electronically.

#### ***4.2.1 Some of the responses were as follows :***

Digital broadcasting and the challenges of implementation of Broadcast in Electronic Commerce Strategy in South Africa. In SA the vast and enormous areas were we can actually derive the news from , it is evident that everyone of these groups have there own unique way of deriving the information in order top collate and compile the information for he masses to be informed ,educated, and then the ability to communicate and also connect to the internet and the e-mail facilities .It is evident that everyone of these journalists and information workers have their own unique way of deriving their information , that is the way of broadcast and the way information workers work to the best of the ability to give the viewers and listeners.

Broadcast in the Electronic Commerce Strategy in South Africa, could be described as exactly what the customer requires because like the SABC the E-commerce sites also operates or functions 24-hours-a-day, to offer delivery only during office hours and also technology together with people work together in harmony in order to create a successful broadcast business. Eventually the aim and the objectives is to work together for a common purpose that is to combat

into the challenges of implementation of Broadcast in electronic-Commerce Strategy in South Africa.

Broadcast in Electronic-Commerce Strategy in SA entails differences in people's retrieval of information due to social and political and the affiliations of the information groups and associations and web- access.

The above findings are absolutely similar to that of the challenges that of broadcast in Electronic-commerce strategy in South Africa .The objective will be eventually met via the correct information , educational services , communication via e-mail and connection to the internet . According to Spescom CEO Carl Mostert points out that there are many e-commerce success stories and companies that are not implementing their own Web strategies may fail to compete in the future , however, he also advises caution when setting up an e- commerce presence . "Many companies are so intent on ' not missing the bandwagon ' that they are rushing into e-commerce without considering all elements needed to attain the desired efficiencies of their new technology.

"There is no substitute for normal, sound business practices, including maintaining good relationships with existing customers , making profit and keeping stakeholders happy"

## CHAPTER FIVE

### CONCLUSION

In a world of cut-throat competition where “ a radio station in South Africa sees every medium as competition “ in terms of ad share , be it television , print media or cinema , is it practical , in terms of long- term growth and survival , to function as a broadcaster with an investigation into challenges of implementation of Broadcast in Electronic Commerce Strategy in South Africa

The actual process here is to derive the maximum out of the e-commerce sites . It is a fact that many e- commerce sites are simply not consumer- friendly - - somewhere along the line they’ve missed the whole point. Companies like the SABC have got to find a balance . They need great ideas , but they also need sound implementation . The need to work with a stable site within the SABC is absolutely crucial in order to strategically fit into the digital broadcast arena within the corporation.

With the consumer in mind, access information, and in fact many e-commerce sites are simply not consumer –friendly – somewhere along the line they have missed the whole point in the process of accessing information for the purposes of broadcast or just dissemination of information for the purpose of educational services. The latest technology that has been improvised as been very interesting in my opinion , one semester of my tuition was done online distant learning with no other way of communication that was the IT specialty course and electronic marketing due the use of the connection to the internet and even the exchange –mail . the latest technology or the newest technology which is the digital divide or the digital broadcast

in recent times within the SABC. By attaining this the access is gained by the challenges of implementation of broadcast Electronic commerce in South Africa.

The answer, in context to SABC an investigation into challenges of implementation of Broadcast in Electronic Commerce Strategy in South Africa., is in the negative for the simple reason that in accordance with Darwin's theory , it is a world of the survival of the fittest with response to that I think that it cannot happen in a confined or a box like shape which is rigid or operational stance , it has to be in a very strategic direction (...) take the best of everything . One cannot survive without direction and focus for long, without compromising on audience figures and the extensive use of the information from the actualities and on the scene reporting whether it is crime, accident, or murder, this can be the best form of reporting and getting the maximum out of a story.

This actually will in turn have an impact on the financial aspects of broadcasting as mentioned previously, that the most fit is the one with the biggest turnover, the greatest ad share, the biggest slice of the market share, further growth prospects and it is popular. The news department, as you know has the newscast after every hour, and on radio it is the same while television has different time slots in eleven different languages to broadcast. The further growth prospects and the most popular broadcaster in Africa. IT is therefore vital that SABC be focused and has a direction and vision that would be complemented by its strategy.

Ever since its inception, and prior to the surge of E -TV and M Net , DS TV , SABC held a monopolistic position in the market for broadcasting catered towards the African Continents in Africa . By the way prior to 1988, SABC was the only broadcaster catering to the needs and

tastes and also can be said to have been commanding a stable and loyal listener ship and viewer ship and can also be recognised as the best serving its community by providing a mix o programmes designed to meet the needs of its linguistic and culturally rich community the South Africans of all different ethnic groups. In a country having a population of approximately 40.6 million , the South African Indian component is a mere 2.6% of that . i.e. about one million .

There are various community radio stations that are catering to the different needs of the South African Community. In addition to the existing community radio stations, there are also access to satellite television, in terms of the Indian channels B4U, Sony and Zee TV, also offer the South African Indians a choice between listening to radio or watching television example, soaps, song, and movies. Further, with the strong Western influence manifesting itself with the different television offerings, this just not only a threat to the SABC , but also to ensure its survival and growth in the future. IT is vital that SABC investigation into challenges of implementation of Broadcast in Electronic Commerce strategy in South Africa. Therefore it is vital that SABC focuses its strategy and it's programming and become a full-spectrum broadcaster in the Electronic Commerce strategy in South Africa. SABC has to try to capture the bulk of the market by way of aggressive penetration into the market with variety of new ideas, strategies, and also to the implementation of Broadcast in an Electronic- Commerce Strategy in South Africa. SABC considers it to be the greatest strength, weakness, opportunity and threat. This is simply describing the SWOT analysis. If one could actually see the SABC advertisements , one could instantly observe the commercial element in it . Most of these advertisements seem to be targeting the youth market, because the youth is our future and our future is to attain to be the best service provider in the country with the implementation of Broadcast in Electronic Commerce Strategy In South Africa.

The author, therefore, concludes that after having been the sole provider to the South African Community for more than fifty years , and having sustained against the apartheid regime, time has come for SABC to focus its strategy in a commercial way and use many avenues to develop the different languages and become the best in the broadcast in Electronic-Commerce Strategy in South Africa. One of the biggest strengths is the skills base and technological and digital divide aspects that make the SABC a leader in the broadcasting, the best and fastest, quickest method of relaying news via the DALET systems and the newstar system with the corporations Intranet from one region to another within a split second by a click of a mouse or by just switching your computer on at a right time and the right place and obviously the right story. One of the biggest strengths is the archives and abundance of information, which is something no other Broadcaster has acquired, we have acquired these over years of being in the broadcast arena. E TV does not have an abundance of these archives and information like we do, within the SABC. News is something that everyone wants to hear about or see , this information is very vital in order to fulfil all the areas of our objectives which has been nearly complete with an exception of a few undisclosed facts and figures and some hidden skeleton in the closet and therefore SABC can use this to its advantage by becoming best in the world of information and dissemination of the facts and opinions example , Tim Modise the presenter of the talk show on SAFM which was the hottest show around South Africa. The one and only Tim Modise, also the Good Morning South Africa Show , this show is still one of the biggest and the best shows on air in the country , you get the news , views and weather and traffic at the tune f the channel or turn of the button . These shows have taken care of the specific needs of the South African Communities. SABC has to fight competition for audience share with DSTV.,MNET, etv, which are slowly but surely drawing the viewership. This can only be done by adopting an information and education, strategy in order to fulfil the requirements for the country. Commerce via e-mail, goods and

services, access to and connection to the internet and even exchange mail or e-mail and the latest and newest technology and the digital divide together with digital broadcast and lastly to gain access of implementation of Broadcast in Electronic- Commerce Strategy in South Africa.

This profile of which South Africans can proudly boast or be proud of being exclusively theirs and providing the best info-entertainment :SABC.

## REFERENCES

### **A. INTERNET SITES**

<http://www.Sabinet.co.za>

<http://www.library.und.ac.za>

<http://www.businessweek.com>

<http://www.businesSmonitor.com>

<http://www.bicontrats.com>

<http://www.disdata.com>

<http://www.electric marketing.co.uk>

<http://www.epnet.com>

<http://www.wmap.com>

<http://www.infotechrends.com>

<http://www.mediainfo.co.uk>

<http://www.ubmedia.com>

<http://www.stat-usa.com>

<http://www.variety.com>

<http://www.whitaker.co.uk>

<http://www.mediafinder.com>

<http://www.ovid.com>

<http://www.mediafinder.com>

<http://www.ratinal.com>

<http://www.ftmedia.com>

<http://www.europe.businessweek.com>

<http://www.bookprint.com>

<http://www.ulrichsweb.com>

<http://www.lisanet.co.uk>

<http://www.mbendi.com>

<http://www.news.com>

<http://www.sabcnews.com>

## REFERENCES

### B. REFERENCE BOOKS

Ackroy, S. and Hughes, J. (1983) : **Data Collection in Context**. Longman, Harlow, London.

Ambrosini, V., Johnson, G. and Scholes, K. (1998): **Exploring the Techniques of Analysis and Evaluation in Strategic Management** . Prentice-Hall, Inc. England.

Applegate, L.M., Mc Farlan, F.W., and McKenney, J.L. (1999): **Corporate Information Systems Management : Texts & Cases**. (Fifth Edition). Irwin / McGraw-Hill. New York.

Berger,A.A .(2000) : **Media and Communication Research Methods**. Sage. Thousand Oakes.

Bothma, T. and Kaniki, A. (ed.) (2002): **Progress in Library and Information Science in Southern Africa – Proceedings of the second biennial DISSAnet Conference. Infuse (for ProLISSA)**. South Africa.

Cooper, D.R. and Shindler, P. S. (1998) : **Business Research Methods. (Sixth edition)**. McGraw-Hill, Singapore

Ghuri, P ., Gronhaug,K., and Kristianslund, I., (1995) **Research Methods in Business Studies : A Practical Guide** , Prentice-Hall , London

Harvard Business School. (1999) : **Harvard Business Review on Managing High-Tech Industries** Harvard Business School Press. U.S.

Kotler, P. (2000): **Marketing Management (International Edition)**. Prentice-Hall, Inc. Upper Saddle River, New Jersey.

Hisrich, R.D. and Peters, M.P. (1998): **Entrepreneurship (Fourth Edition)**. Irwin / McGraw-Hill. Boston (Massachusetts).

Lynch, R. (2000): **Corporate Strategy (Second Edition)**. Pearson Education Limited, England and Prentice-Hall, Inc. ,Upper Saddle River, New Jersey.

Marchand, D. A., Davenport, T.H. and Dickson, T. (ed.) ( 2000): **Mastering Information Management**. Prentice-Hall, Inc. Great Britain.

Nelson, B. (1997) : **1001 Ways to energize employees**. Workman Publishing. New York.

Panko, R.R. (2001): **Business Data Communication and Networking (Third International Edition)**. Prentice-Hall, Inc. ,Upper Saddle River, New Jersey.

Price, S. (1996) : **Communication Studies**. Longman. Singapore

Rayport, J. F. and Jaworski, B.J. (2001) : **E – COMMERCE**. McGraw- Hill / Irwin. New York.

Robbins, S.P. , De Cenzo, D.A. (1998): **Fundamentals of Management – Essential Concepts and Applications ( Second International Edition)**. Prentice-Hall, Inc.,Upper Saddle River, New Jersey.

Snyman, R. (ed.) (2002): **From Africa to the World – the globalization of indigenous knowledge systems. Proceedings of the 15<sup>th</sup> Standing Conference of SCECSAL**. LIASA. Pretoria (SA)

Strauss, J. and Frost, R. (2001): **E- Marketing (Second Edition)**. Prentice-Hall, Inc. Upper Saddle River, New Jersey.

Strikland III, A.J., Thomas, Jr. A.A. and Gamble, J. (2001): **Cases in Strategic Management (Twelfth International Edition)**. Irvin / McGraw- Hill. Boston (Massachusetts).

Thomas, Jr. A.A. and Strikland, III, A.J. (1999): **Strategic Management – Concepts and Cases (Eleventh Edition)**. Irvin / McGraw- Hill. Boston (Massachusetts).

Thomas, Jr. A.A. and Strikland, III, A.J. (2001): **Crafting and Executing Strategy – Text and Readings ( Twelfth International Edition)**. Irvin / McGraw- Hill. Boston (Massachusetts).

White, B. (2000) : **Dissertation Skills for Business and Management Students**. Continuum. London.

White, T. (2001) : **Reinventing the IT Department**. Butterworth- Heinemann. Oxford.

Williams, F., Rice, R.E., and Rogers, E.M (1988) : **Research Methods and the New Media**. The Free Press. New York.

## REFERENCES

### C PERIODICALS, NEWSPAPERS AND MAGAZINES

Aldridge, M. (2001) : “ *Driving ahead with e-Commerce*” (PMR. africa) - **Professional Management Review**, December 2001, p.p. 55.

Bailey, M. (2001) : “ *Don’t buy smoke & mirrors*” (PMR. africa) - **Professional Management Review**, December 2001, p.p. 57.

Bidoli, M. (2002) : “ *Business – Broadcasting – Wanted : Fresh Ideas in a changed market – Icasa tables ownership and regulatory control proposals*” **Financial Mail** ,4 October 2002 p. 46

Bidoli, M. (2002) : “ *Digital Dreaming*” **Financial Mail** , 29 March 2002 p.p. 41-48 .

Blaauw, C , (2000) : “ *TV News has Lion’s share of viewers*” **SABC Intercom**, 7-20 September 2000, p.6

Burger R (2001) : “ *Digital Highway 2001*” **SABC Intercom** , 11-24 October 2001 p. 5.

Gondwe, C. (2002) : “ *SABC aims to develop an integrated Internet Strategy*” **SABC Intercom**, 11-25 September 2002 p.3.

Halberstadt, M. (2000) : “ *Hot Desking – How will mobile technology affect your future? working life*” **Vodaworld**, - worldwide cellular communications update, October / November 2000, p.p. 6-7.

Halberstadt, M. (2001) : “ *Boost for African bandwidth*” (PMR. africa) - **Professional Management Review**, December 2001, p.p. 56.

- Heerden, Y (2002) : “ ***SABC celebrates 66 years***” **SABC Intercom**, 1-14 August 2002 p 3-4
- Heerden, Y. (2003) : “ ***Massive OB Coup for SABC***” **SABC Intercom**, 6-19 February 2003  
p.p. 3-5.
- Judson L (2001) : “ ***Mobile madness on [www.5fm.co.za](http://www.5fm.co.za)***” **SABC Intercom** , 11-24 October 2001,  
p. 13.
- Kojoana, L., ( 2000) : “ ***SABC News launches online service***” **SABC Intercom**, 1-14 June  
2000, p. 10.
- Mark, B. (2002) : “ ***Realities of e-commerce***” **Business IT - Africa - Empowering Business  
Through Information Technology**, Gibson, K . (ed.) March 2002, Volume 2, No. 3. p.p. 2-3.
- Ngcaba, J. (2002) : “ ***Crossing the digital divide***” **SABC Intercom**, 15-28 August 2002 p 6
- Nickmans, J. (2001) : “ ***Back to Basics for IT Industry***” (PMR. africa) - **Professional  
Management Review**, December 2001, p.p. 56.
- Norton, A. (ed.) (2001) : “ ***Cellular around the World***” **Vodaworld - worldwide cellular  
Communications Update** , Summer 2001 / 2002, p.11.
- Phalatse, R M , (2000) : “ ***Radio continues its success story***” **SABC Intercom** , 7-20 September  
2000, p. 10.
- Phalatase, R M , (2000) : “ ***Cyber Journalism Course starts for SABCNews.com staff***” **SABC  
Intercom**, 12-25 April 2001, p.18.

Phalatse R.M., (2000) : ***“CAJ tutors to train new trainers”*** SABC Intercom , 12-25 April 2001, p. 18.

Phillips, C. (2001) : ***“Radiocracy conference – an historic event”*** SABC Intercom, 11-24 October 2001 p.p. 6 –7.

Phillips, C. (2001) : ***“FM Radio transmitter project on line”*** SABC Intercom, 11-24 October 2001 p. 8.

Planting, S. (2002) : ***“Technology and Communications – Electronic business . M-Web Bucks the Trend”*** Financial Mail, 4 October 2002 p. 36.

Planting, S. (2002) : ***“Companies – IT Industry – No Relief in Sight - Further trading squeeze expected for Datatec, Didata and Comparex”*** Financial Mail , 4 October 2002 p. 52.

Rapeti, S. (2002) : ***“Broadcast Technology Strategy”*** SABC Intercom, 21 November - 4 December 2002 p.p. 10 –12.

Rapeti, S. (2002) : ***“Information Systems and technology strategy”*** SABC Intercom, 5-18 December 2002 p. 12.

Rapeti, S. (2002) : ***“ Broadcast Technology Strategy”*** SABC Intercom , 5-18 December 2002 p. 13.

Smith, J.S., (ed.) (2001) : ***“ Win with bluebean.com”*** The Money - Standard Bank, Issue Ten, November / December 2001, p.p. 28-29.

Vollenhoven, S., (2002) : ***“Morning Live takes to the skies again”*** SABC , Intercom, 4-17 July 2002 p. 3.

Williamson, J. (ed.) (2002) : ***“Tel.Com Africa 2002: Africa’s premier telecommunications event”*** **Dataweek - Electronics & Communications Technology**, 10 September 2002, p.4.

Williamson, J. (ed.) (2002) : “Data communication is simple with wireless modems” **Dataweek - Electronics & Communications technology** , 23 October 2002, p.p. 26-27.

Wolmarans, T. (2002) : ***“Meet BIT’s Computer Help Desk”*** **SABC Intercom**, 15-28 August 2002 p.18.

World Internet Project (ed.) (2001) : ***“What is the World Internet Project”*** **Mapping the Digital Future - WIP 2001 – 2010 . ITTK –TARKI** , 2001 December 2001 – Hungarian Society and the Internet, UCLA, p.7.

[www.cellular.co.za](http://www.cellular.co.za) : ***“Digital Dictionary”*** **Vodaworld, - worldwide cellular communications update**, February / March 2001, p.p.12-13.

Zerbst, F., (ed.) (2002) : ***“Sun on line”*** **Update , For frequent guests of southern Sun Hotels**, January 2002, p.p. 36-37.

## INTERVIEW QUESTIONNAIRE

1. Why do companies establish internal information systems ?
2. How are they implemented ?
3. What demands are there for the information administrator which was established ?
4. What are the objectives and benefits from the units ?
5. What are some of the factors that govern the success or otherwise?
6. How do big companies like e.g. SABC evaluate the experiences gained from the establishment of such units ?
7. Name a few of the functions of a news editor .
8. How do you start of a story for news broadcast?
9. What are the responsibility of a newsreader ?
10. List a few functions of a news compiler ?
11. What does occur when a story breaks out example the Govender killing? in Phoenix – camera was taken etc done by Kas van Dyk
12. What approach is utilized in formulating a strategy in the Current affairs studio?
13. When do all the journalist meet and why ?
14. What effect have the bi-media on news broadcast ?
15. With the advent of technology what are your reservations or advantages and disadvantages ?

16. Where can a journalist obtain /gather his or her information e.g. Bongiwe Lourentia Cele?

Women who was an Associate expert in science and technology , died after a short illness on the 19.09.2002 . she was a United Nations official from Kwa-Zulu Natal , her funeral was held 28=09.-02 at the Amatata Village, Emaqadini, Area Ward 3, Ethekeweni, was a professor at UNESCO - 2 years in Paris /France and passed away while completing 2nd year in Harare, Zimbabwe ( This is a gist of the story )

17. What do you term as a hard story?

18. What do you term as sound byte ?

19. What do you understand by the term DALET ?

20. What is the latest technology used in the newsroom ?. Explain

21. In order to do justice to a story what are some the questions one should ask ?

22. Give an in depth account of how you would analyze a story?

23. Which sites or internet portals do you utilize to gain maximum information?

24. What is the best way of getting stories?

25. Broadcast is essential , what criteria is used to get the best / latest news?

26. Analyze the business strategy , taking into account , or including a deep understanding of the” brand “ including the overall marketing strategy?

*A faxed page of all the information was sent to the SABC newsroom on 27.09.02*

## APPENDICES

1. e-mail - telkom
2. Technology division – Applying intelligence to Technology – Technology Regions  
Presentation - Sharoda Rapeti Technology MD.
3. Newspapers and Magazines

INFORMATION CONTAINED IN THIS  
STUDY IS PRIVATE AND CONFIDENTIAL  
AND IS NOT TO BE USED IN ANY  
FORMAT. THIS STUDY CONTAINS SABC  
POLICIES AND PRODUCT INFORMATION.

RESEARCHER: P. GOVENDER

GOVENDER PREE      DBN

---

From: Roy Volkwyn (RG) [VolkwyR@telkom.co.za]  
Sent: 09 December 2002 04:44 PM  
To: govenderp@sabc.co.za  
Subject: FW: info required for private studies

Pree,

I'm not sure what kind of info you require, and the level of detail required.

"Dissemination" implies a one-way transmission. An old, but still very effective technology is MW/LW AM Radio broadcast from a terrestrial network.

Where there is no terrestrial network, then Worldspace [www.worldspace.com](http://www.worldspace.com) satellite digital radio is a good solution, and it covers the entire African continent. A Worldspace receiver can be purchased for around R800 in SA, and uses a tiny antenna which does not require special tools to align. Distribution of web based info is possible, but not from the entire WWW. Selected web content needs to be beamed up to the Worldspace satellite (gateways are available in several African countries) and from there it gets broadcast to users.

For 2-way communication e.g. Internet browsing, e-government or interactive distance learning, one needs a return path.

Options for Internet access include the following:

1. Wireline telephone
2. Wireless Local Loop (WLL) telephone
3. GPRS cellphone/PDA
4. Satellite - see [www.gilat.com](http://www.gilat.com) for a modern satellite system (model 360E) for broadband Internet

For WLL there are several technologies, but some cost effective ones cannot be used in some countries (incl. SA) because of Radio Spectrum restrictions.

For example, PHS is a low cost WLL system used in Japan and other Far eastern countries, but cannot be used in SA, as it uses the same frequencies used by Eskom to send control information to power stations.

A number of countries in Africa are using a DECT based WLL system from India called corDECT. [www.midascomm.com/cordeckt.htm](http://www.midascomm.com/cordeckt.htm) corDECT costs around \$300 per line for the access portion (i.e. excluding long haul microwave links). corDECT gives simultaneous voice + 35kb/s Internet, or 70kb/s Internet if not using the voice channel while browsing.

Web based Information can also be disseminated via a telephone, if the web info is speech enabled via VoiceXML. This technology enables people with no computer access/experience and even illiterate people to access information in databases. To get an idea of how voiceXML works in practice, phone Ster Kinekor's voice enabled movie information system at 0860 300 222

Information can also be disseminated via e-mail, and some non satellite based radio technologies enable e-mail to be sent/received several hundred km from any fixed telecom network. One such technology being e-mail via VHF and HF radio, such as Bushmail [www.bushmail.co.za](http://www.bushmail.co.za). HF radio is a modern technology ideally suited

to vast, sparsely populated countries. Bushmail is not cheap, however, @ \$1000 per year for unlimited e-mail without attachments. A Gilat 360E can give high speed internet at a similar price. Satellite needs accurate dish alignment. Bushmail requires a piece of wire strung up in a tree, and is therefore useful to journalists and reporters who can't always lug a satellite dish around with them.

Regards

Roy

-----Original Message-----

From: GOVENDER PREE DBN [mailto:govenderp@sabc.co.za]  
Sent: 13 November 2002 10:12  
To: Dillo Lehlokoe (DC)  
Subject: info required for private studies

hi

please assist if you can with the latest technology in place for dissemination of information in the rural areas in the Sub- saharan Africa

please assist if you can asap

this is study for the University of Natal

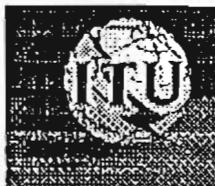
thank you

PREETH GOVENDER  
MEDIA LIBRARIAN SABC KZN  
MBA IT SPECIALITY/INFORMATION MANAGEMENT -E-COMMERCE  
TEL: 031 - 3625232  
CELL: 0823733223  
E-MAIL: GOVENDERP@SABC.CO.ZA

Disclaimer: Everything in this email and its attachments relating to the official business of the SABC is proprietary to the SABC. It is confidential, legally privileged and protected by law. The person addressed in the email is the sole authorised recipient. Please notify the sender immediately if this email and its attachments has unintentionally reached you, and do not read, copy or disseminate the content in any way. Whilst all reasonable precautions are taken to ensure the accuracy and integrity of the information, and that this email and its attachments is free from any virus, the SABC accepts no responsibility whatsoever in this regard, and in keeping with good computing practice, the scanning of files and attachments is advised.

Disclaimer: Everything in this email and its attachments relating to the official business of the SABC is proprietary to the SABC. It is confidential, legally privileged and protected by law. The person

addressed in the email is the sole authorised recipient. Please notify the sender immediately if this email and its attachments has unintentionally reached you, and do not read, copy or disseminate the content in any way. Whilst all reasonable precautions are taken to ensure the accuracy and integrity of the information, and that this email and its attachments is free from any virus, the SABC accepts no responsibility whatsoever in this regard, and in keeping with good computing practice, the scanning of files and attachments is advised.



# International Telecommunication Union

[Our Sites](#) [News](#) [Events](#) [Publications](#) [Site Map](#) [About Us](#)

Home : [Photo Library](#)

## ITU Photo Library

[Search by Country](#)

[Search by Description](#)

[Search by Event](#)

[Search by Keywords](#)

[Search by Location](#)

[Search by Number](#)

[Search by Publication](#)

[Search by Source](#)



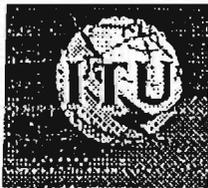
[6 digits per ITU News photos]

### Photo Library Search Option

- [Search by Country](#)
- [Search by Description](#)
- [Search by Event](#)
- [Search by Keywords](#)
- [Search by Location](#)
- [Search by Publication](#)
- [Search by Source](#)

Photos catalogued :	9835
Photos scanned :	5123
Last picture modified :	2003-2-25





## International Telecommunication Union

[Our Sites](#) [News](#) [Events](#) [Publications](#) [Site Map](#) [About Us](#)

[Français](#) [Español](#)  
[Print Version](#)

[Home](#) : [PP-02](#)

[Registration  
and Credentials](#)

[Policy  
Statements](#)

[Agenda,  
Timetable and  
Structure](#)

[Elections](#)

[Conference  
Documents  
and Proposals](#)

[Newsroom](#)

[Practical  
Information and  
Invitations](#)

[Contact](#)

### The 2002 ITU Plenipotentiary Conference

#### Documents

- [All Documents](#)
- [Candidatures](#)
- [Proposals](#)
- [Minutes/Summary Records](#)
- [Final Acts](#)

#### Administrative Documents

- [Invitations](#)
- [Agenda](#)
- [Structure](#)
- [Draft general timetable](#)
- [Final list of participants](#)

#### Information Documents (Electronic publishing)

#### Temporary Documents



Registration  
and Credentials

Policy  
Statements

Agenda,  
Timetable and  
Structure

Elections

Conference  
Documents  
and Proposals

Newsroom

Practical  
Information and  
Invitations

Contact

## Agenda, Timetable and Structure

### Agenda

In ITU, agendas to conferences normally define strictly the scope and subjects to be dealt with. Any matter which does not fall within a given agenda item cannot, in principle, be considered. However, plenipotentiary conferences being ITU's top policy-making body that set the general policies of the organization for the next four years, the agenda is a standing document sufficiently broad to enable discussions and debate on any issue. It is embodied in the ITU Constitution as its **article 8**. The work of the Conference is based on proposals tabled by Member States within the general framework of the agenda.

- ▶ [Article 8 of ITU Constitution](#)

### Timetable

At its first meeting, the Steering Committee establishes a general calendar for the work of the conference. This general schedule is reviewed periodically throughout the Conference to take account of the progress made. On this basis, weekly schedules are issued. The Plenary as well as each Committee, sub-committee or working group establish daily schedules for the work to be covered at each of their session. The meeting schedule will be displayed and regularly updated on the electronic notice board in the main hall.

- ▶ [General schedule](#)
- ▶ [Informal meeting of Heads of Delegation](#)
- ▶ [Schedule/Programme for each week:](#)  
[\(Week 1\)](#) [\(Week 2\)](#) [\(Week 3\)](#) [\(Week 4\)](#)
- ▶ [First Day Programme](#)
- ▶ [Schedule/Programme for each day](#)

### Structure

In order to perform its work, a Plenipotentiary Conference establishes committees; the structure of the conference is decided by the conference itself at its first plenary meeting. The Plenary Meeting may set up committees to consider matters referred to the conference. These committees may in turn set up subcommittees. Committees and subcommittees may set up working groups. Subcommittees and working groups shall be set up when necessary.

- ▶ [Structure for the Marrakesh Plenipotentiary Conference](#)

**International Telecommunication Union**

[Français](#) [Español](#)

[Our Sites](#) [News](#) [Events](#) [Publications](#) [Site Map](#) [About Us](#)

[Print Version](#)

[Home](#) : [Newsroom](#)



[Press Releases](#)

[ITU News Magazine](#)

[Events Calendar](#)

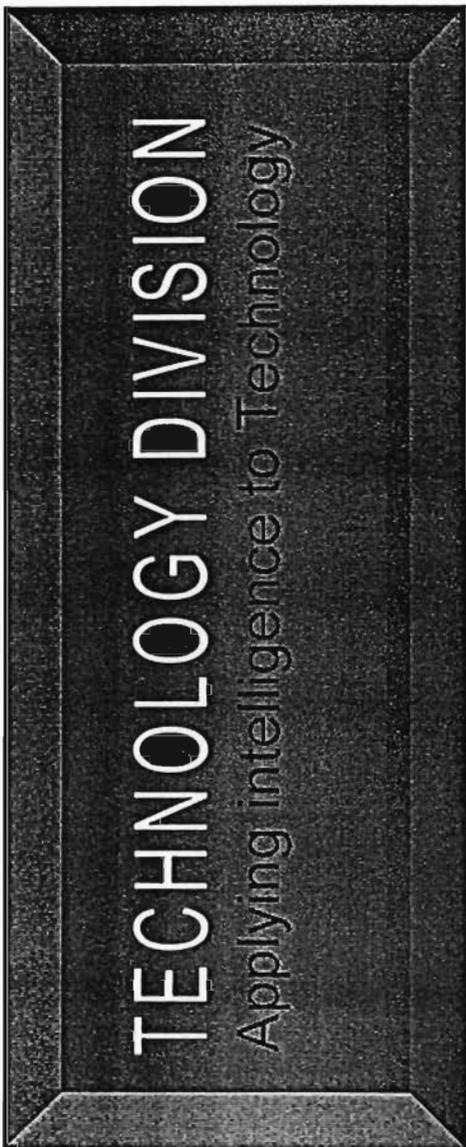
[Press and PR Contacts](#)

[Photo Library](#)

[Media Archives](#)

**Media Accreditation**

Sorry, this event is now past and media accreditation is no longer possible.



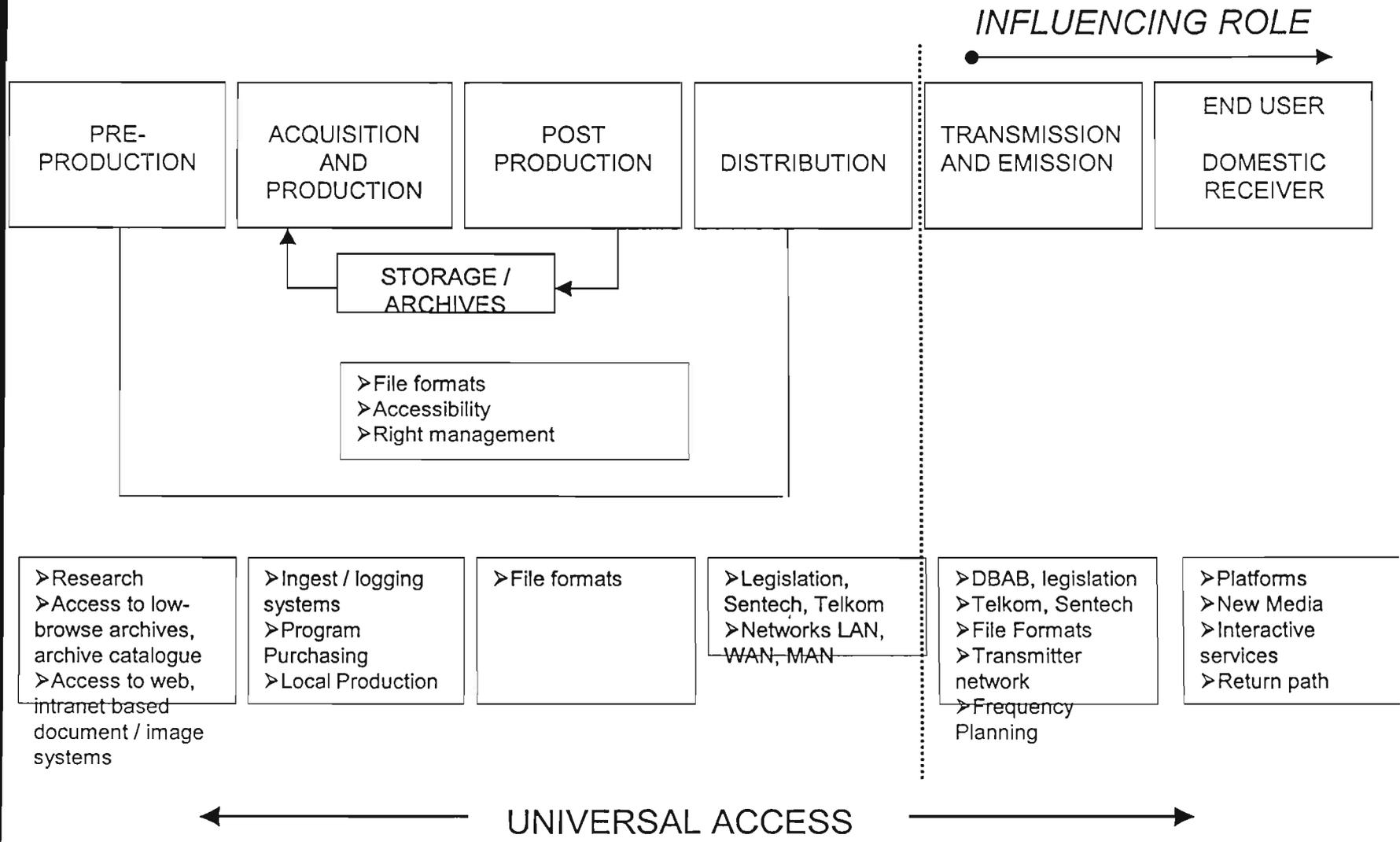
Technology Regions Presentation

POLOKWANE

11/10/ 2002

# BROADCAST CONTENT VALUE CHAIN

TECHNOLOGY DIVISION



confidential



**STRATEGIC IMPERATIVE ONE : TECHNOLOGY PLAN**

**OBJECTIVES**

Technology Plan Project consists of four fields of research, each of which will be researched by experts in each discipline, namely : Radio, TV, IT and New Media.

- To have documented standards and best practices, identified alternatives and their respective implications to the SABC, which will guide the development of the SABC technology plan.
- To have investigated and documented client's future requirements to inform the technology plan (including broadcast technology).
- To have developed a migration plan detailing the rollout technology changes.
- To have developed and documented an IT plan to inform the technology plan of suitable business and integrated solutions.
- To have developed and documented a set of technology standards to ensure consistency in quality and delivery within the SABC.
- To have documented regulatory and stakeholder requirements, to guide the technology plan.
- To have developed and communicated the approval of the technology plan and projected cost implication (including business plans and total cost of ownership).
- To have developed, documented and obtained a technology plan which will guide the implementation of smart technology to support the Technology Division's vision.

In order to improve Technology operations in a synchronised manner.

**STATUS**

BBC Technology, arivia.kom / Safika and Tata Consultancy Services will commence work on the Technology Strategy in mid-September.

The target date for completion is Dec 2002 – January 2003

## STRATEGIC IMPERATIVE TWO : PEOPLE GROWTH AND DEVELOPMENT

5

## OBJECTIVES

## STATUS

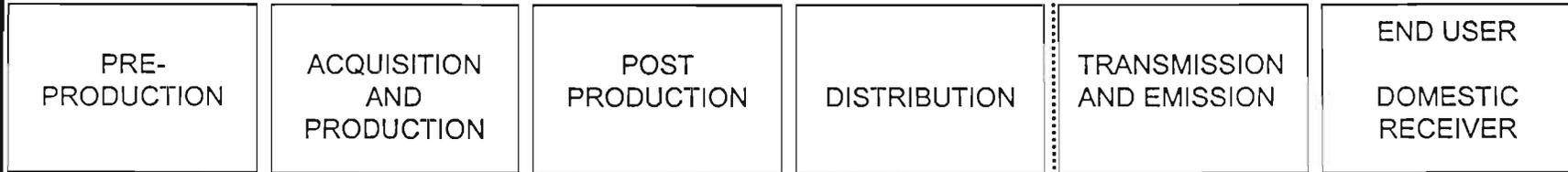
- To have a competency profiling exercise conducted to determine the skills requirements of the Technology division. WIP – with Group HR
- To have a skills audit exercise conducted to determine the skills gap to inform the division's Manpower Plan.
- To have developed a skills development programme which will support the Manpower Plan.
- To have developed a Manpower Plan which will support the business objectives of the Technology Division.
- To have developed a remuneration system which supports performance management and reward excellence.
- To have developed and implemented a performance management system to monitor employees' contribution towards achievement of the business objectives.
- To have finalised and implemented an EE programme to achieve transformation objectives for black empowerment.

confidential



# BROADCAST CONTENT VALUE CHAIN

INFLUENCING ROLE



STORAGE / ARCHIVES

- > File formats
- > Accessibility
- > Right management

- > Research
- > Access to low-browse archives, archive catalogue
- > Access to web, intranet based document / image systems

- > Ingest / logging systems
- > Program Purchasing
- > Local Production

- > File formats

- > Legislation, Sentech, Telkom
- > Networks LAN, WAN, MAN

- > DBAB, legislation
- > Telkom, Sentech
- > File Formats
- > Transmitter network
- > Frequency Planning

- > Platforms
- > New Media
- > Interactive services
- > Return path

UNIVERSAL ACCESS

TECHNOLOGY DIVISION

confidential



STRATEGIC IMPERATIVES THREE - SIX

OBJECTIVES

STATUS

Facilities Optimisation

Complete

Financial Management

Capex – complete  
Transfer pricing – WIP  
Financial measures –  
WIP

Quality Management – Operations Excellence

WIP

## CAPEX: Major Broadcast Projects

- ◇ FCC SERVER PROJECT
- ◇ AIR TIME DIGITAL UNIT
- ◇ ENG UNIT
- ◇ NON-LINEAR NEWS PRODUCTION SYSTEMS
- ◇ ATM LINE PROJECT
- ◇ NEWS GRAPHICS

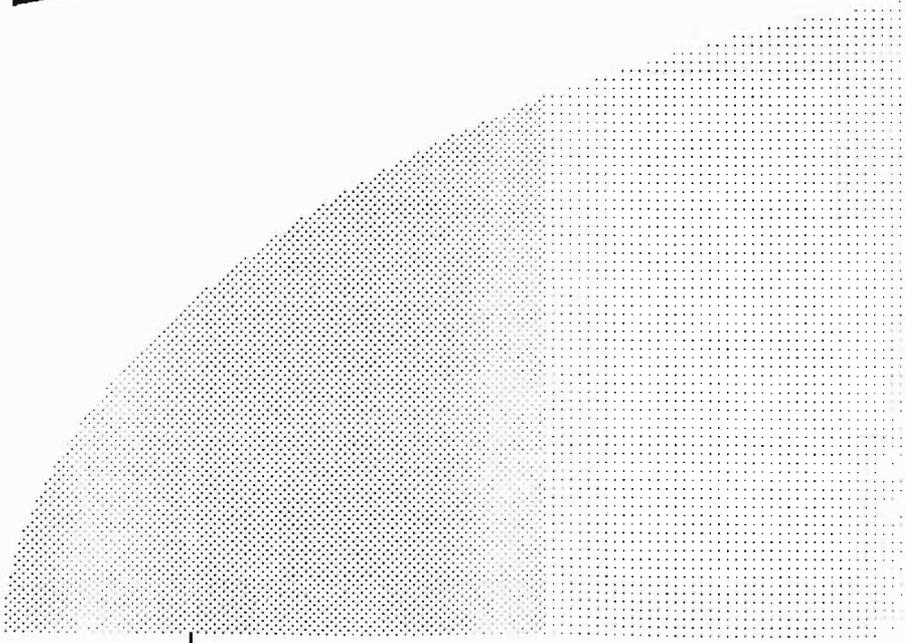
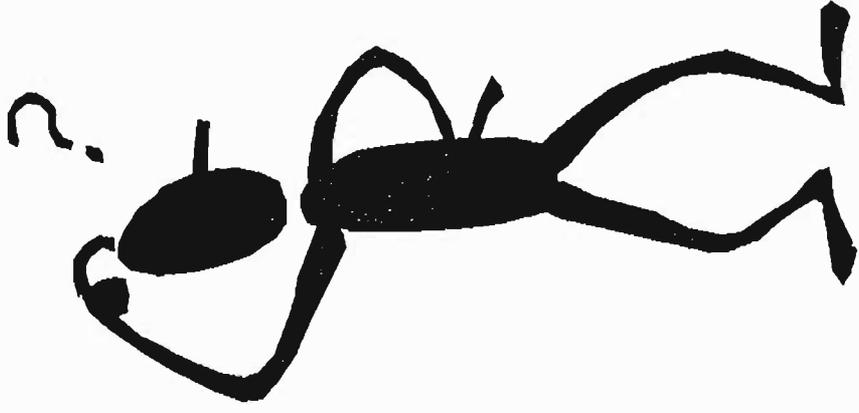
confidential



**Thank You  
questions  
comments**



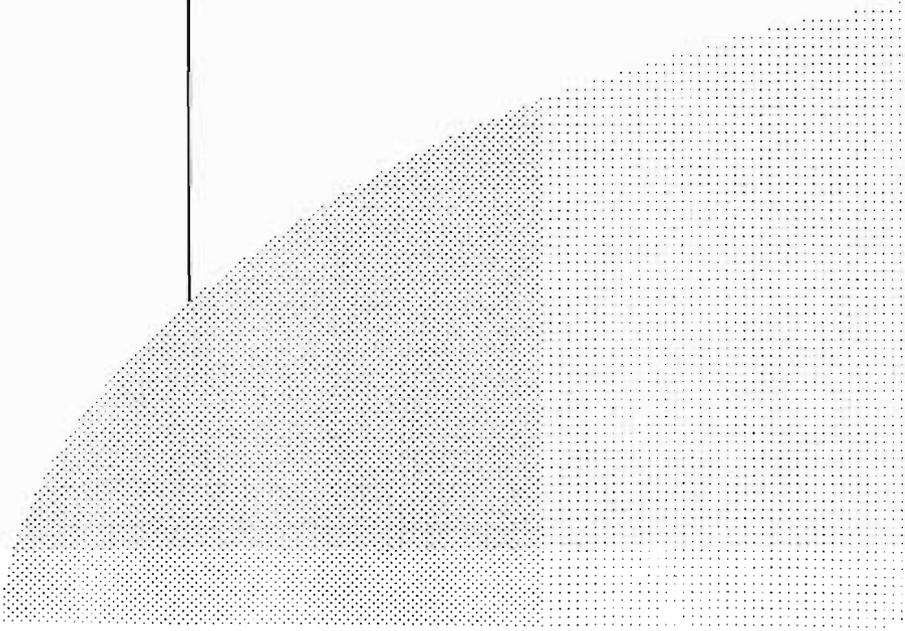
# What is Technical Liaison?



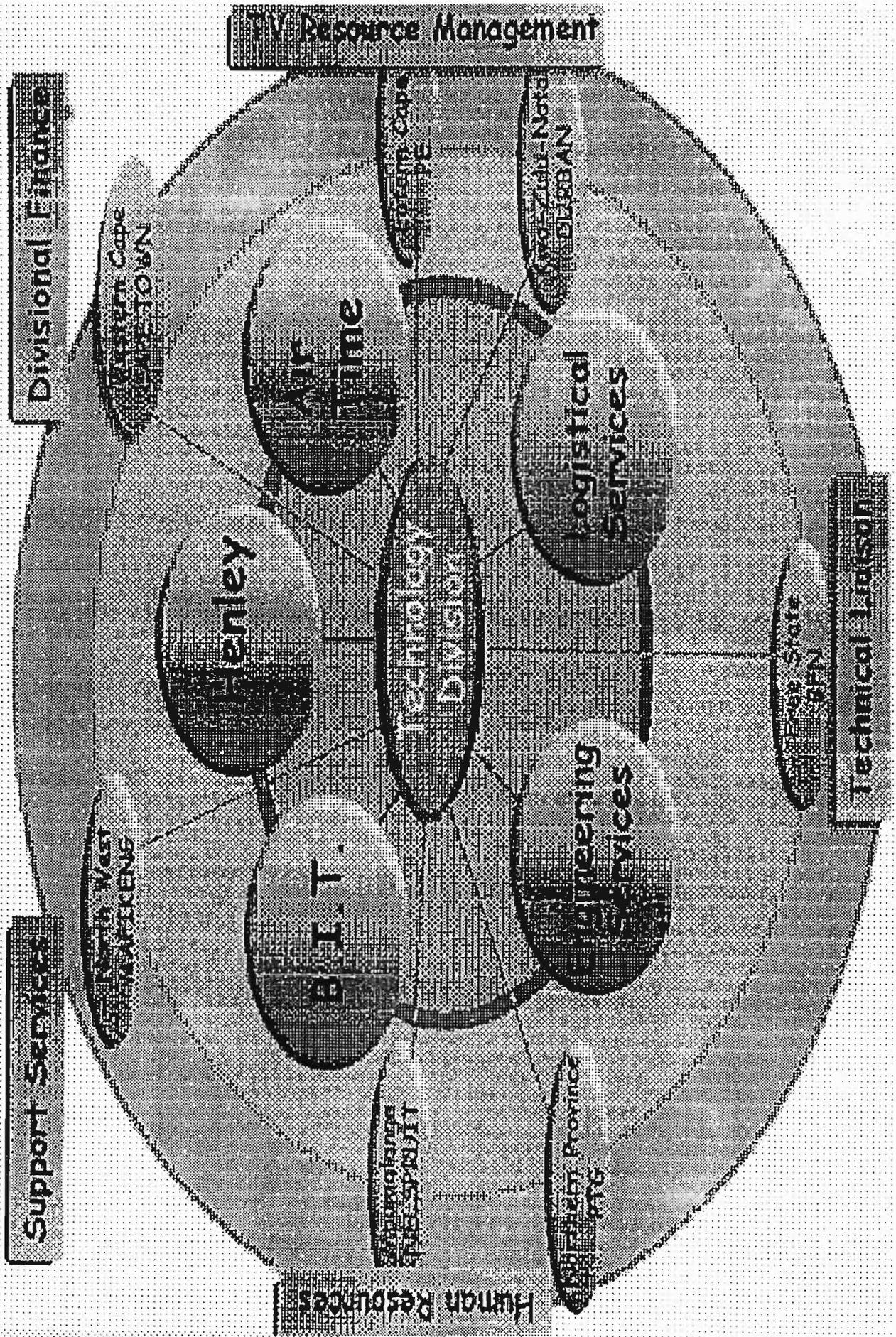
# Technical Liaison

Aldred Dreyer

Broadcast Managers Meeting.

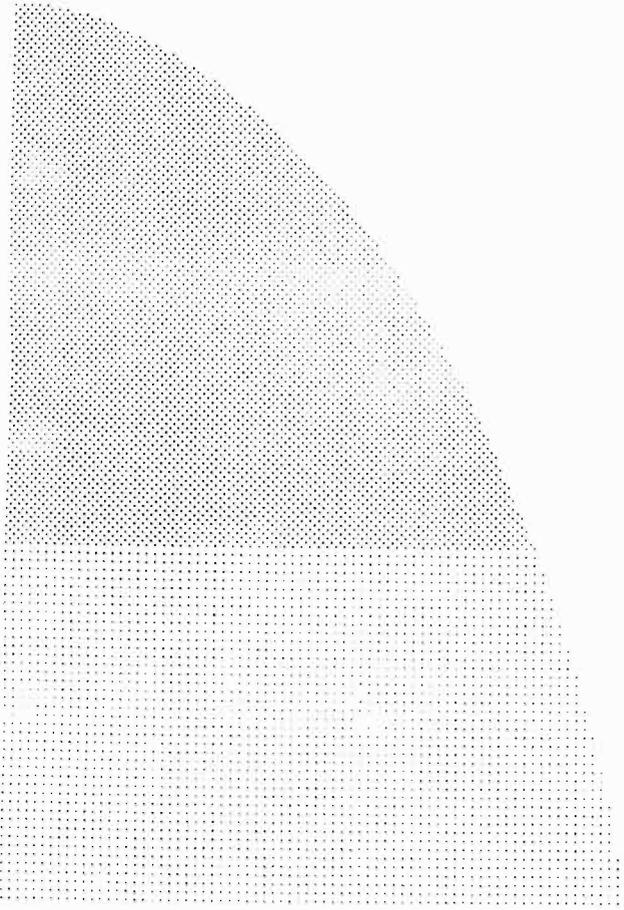


# SIKUGI UKE



# Staff

- Aldred Dreyer: Manager
- Fiona De Wet: Senior Secretary

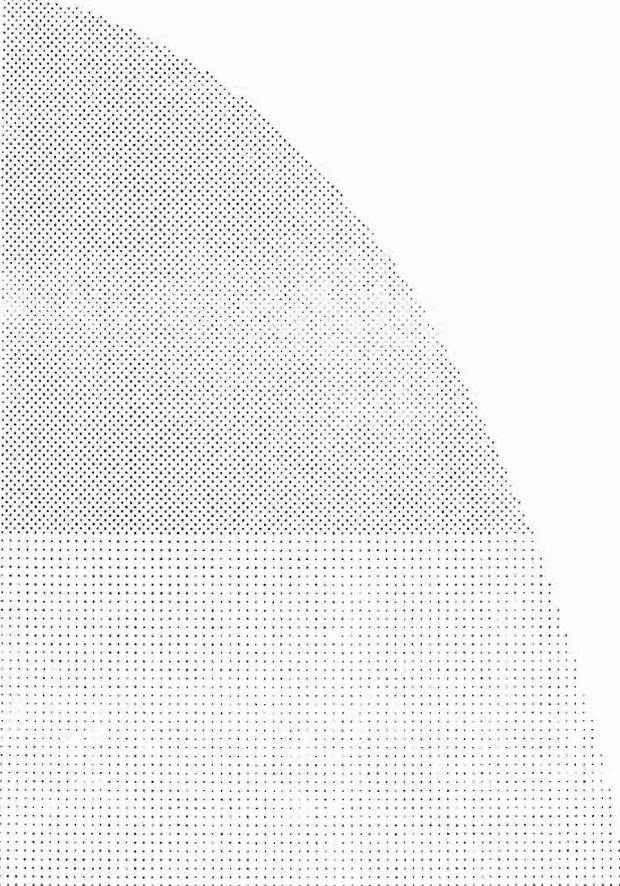


# Technical Liaison

- Responsibilities of the office:
  - ◆ Technical contact with ICASA, Telkom and Sentech, ensuring optimal delivery of SABC technical needs.
  - ◆ Manage and audit technical performance of the networks used by the SABC.
  - ◆ Keep record of all private licenses issued by ICASA.
  - ◆ Liaise with TV, Radio and relevant business units to ensure optimal delivery on TXN technology requirements.

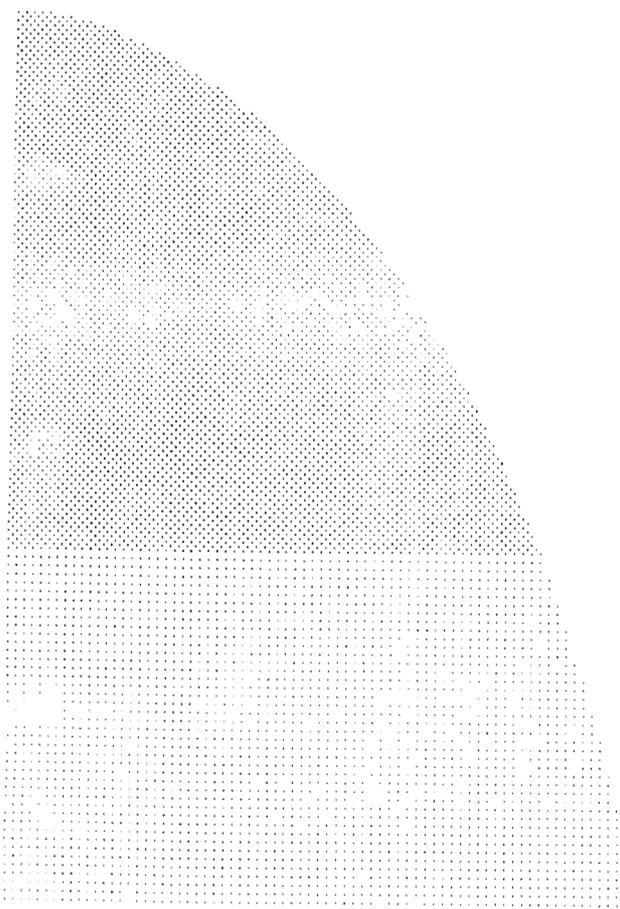
# INTERNAL CLIENTS

- TV
- RADIO
- TECHNOLOGY
  - ◆ Regions
  - ◆ Henley
  - ◆ Airtime
  - ◆ BIT
  - ◆ Engineering Services



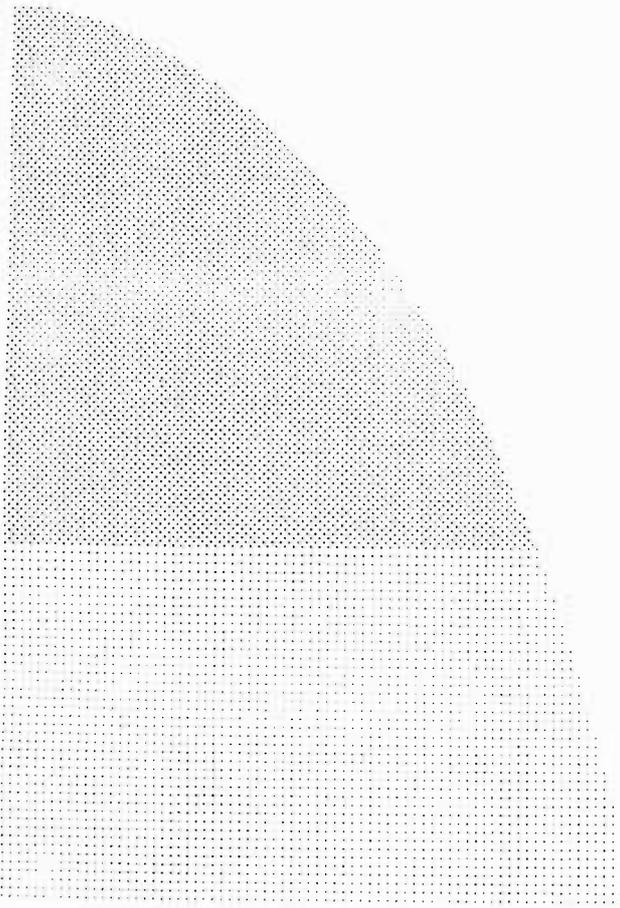
# EXTERNAL COMMUNICATION

- Regulator
  - ◆ ICASA
- Service Provider
  - ◆ SENTECH
  - ◆ TELKOM
- Professional Bodies
  - ◆ NAB, BILC, SADIBA
  - ◆ EBU, WBU, ITU, WORLDDAB, DVB



# Key Objectives

- *To be an effective service provider to internal business units.*
- To streamline business processes within the department.
- To improve communication between the SABC and its external stakeholders.
- To be an effective source of information to the public.



# To be an effective service provider to internal business units

- Asses the needs of internal clients and align business processes accordingly.
- Understand technical issues that affect business units.
- Communicate turnaround time/processes on technical queries.
- Devise ways of expediting solutions.

## Massive OB coup for SABC

Yvonne van Heerden

**I**t's here! Freshly painted in Air Time's colourful branding, our long-awaited, fully equipped and operational outside mobile production unit docked three weeks ago at Port Elizabeth harbour, all the way from the United Kingdom.

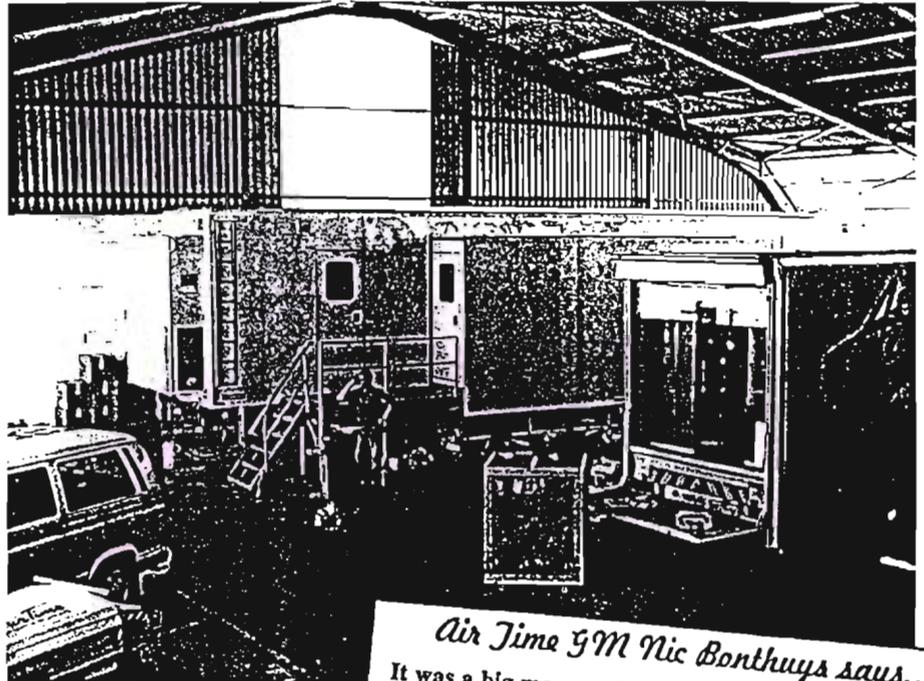
This all-digital unit puts the SABC ahead of the pack by being the biggest and most versatile digital mobile broadcasting unit in the country. Given the combination of the corporation's manpower, skills and technology, it is a force to be reckoned with. On 6 February the outside broadcast unit was introduced to South Africa in a special launch programme in conjunction with *Morning Live* on SABC2.

This state-of-the-art OB unit is now stationed at the Newlands Cricket Ground in Cape Town and it is all systems go for its first live production of the opening ceremony of the ICC Cricket World Cup 2003 on Saturday 8 February. The unit's inaugural broadcast of the opening of the Cricket World Cup tournaments will be beamed to some 1,5 billion viewers world wide.

"Because of the size, the completeness and the comprehensive facilities of our OB van — designed in conjunction with Air Time's clients — the SABC was given the opening, closing and the most important games to cover," says Cliff Graham, Marketing Manager of Air Time. Additional outside broadcast units are stationed on the various cricket sites and will broadcast exclusively for SABC3 for the duration of the World Cup

Air Time was commissioned by OCTAGON CSI to be one of the facility providers of the Cricket World Cup. This is alongside M-Net Broadcast Services, Gearhouse and Dimension.

"We are proud of this mobile production unit that will take the corporation into mobile digital broadcasting. At the cost of R40m, this is one of the largest single-project capital investments the SABC has yet made, and we are looking forward to improve our already good reputation with this



Compared to its sister broadcast unit, the new van is massive. Picture: D.K. Terblanche.

new unit," says Nic Bonthuys, General Manager: Air Time.

Upon arrival in Port Elizabeth, the OB unit was 98% equipped for broadcasting but still needed additional CWC equipment. This included digital Betacam machines and a second Super-Slomo system and had to be installed by the Air Time crew at the SABC's Outside Broadcast base in Cape Town. A line-camera system was also devised at Air Time in Johannesburg and sent down to Cape Town.

Three Air Time technical and one sound crew member received official hands-on training on the Sony 8000 mixing system of the new outside broadcast unit in the United Kingdom.

### *Air Time GM Nic Bonthuys says...*

It was a big moment for me to see the final product many years of work being off-loaded on Sunday evening. Air Time was under extreme pressure to have the unit ready for the Cricket World Cup (CWC) on February 2003. I felt a great sense of relief when the Air Time "horse" hooked up and drove off with this large new digital trailer.

At first glance the unit is overpoweringly impressive. Unfortunately, there was no time to sneak a look at the inside: the unit had to leave for Cape Town early on Monday morning. In Cape Town the unit would be unpacked and final system checks and installations completed. It will go on site at Newlands Cricket Grounds on Friday 24 January to start rehearsals for the CWC Opening Ceremony.

I wish to thank Sony for the excellent work done in nearly half the budgeted time! Also, I believe the four Air Time Technical staff members — Johan Neethling, Cliff Swart, Brian Banda, and Shane Elton — and Project Engineer Ivan Marsh really put noses to the grindstone to assist Sony in completing the unit on time.

The responsibility to ready the unit for its first production now squarely rests on the shoulders of the Air Time technical crew (we have two Sony experts to assist). It is a tall order, especially taking into account the time constraints before such a huge production. "OB guys" are a special breed, however, and they have the ability to excel when others give up. I have no doubt that we will be able to boast afterwards about our first successful digital production.

TO PAGE 5

## In this issue...

**Way back when...**  
intercom looks back on broadcasting in sa 2

### Cricket Fever!



a report on sabc's coverage of the cwc 4 & 5

### Regional News:

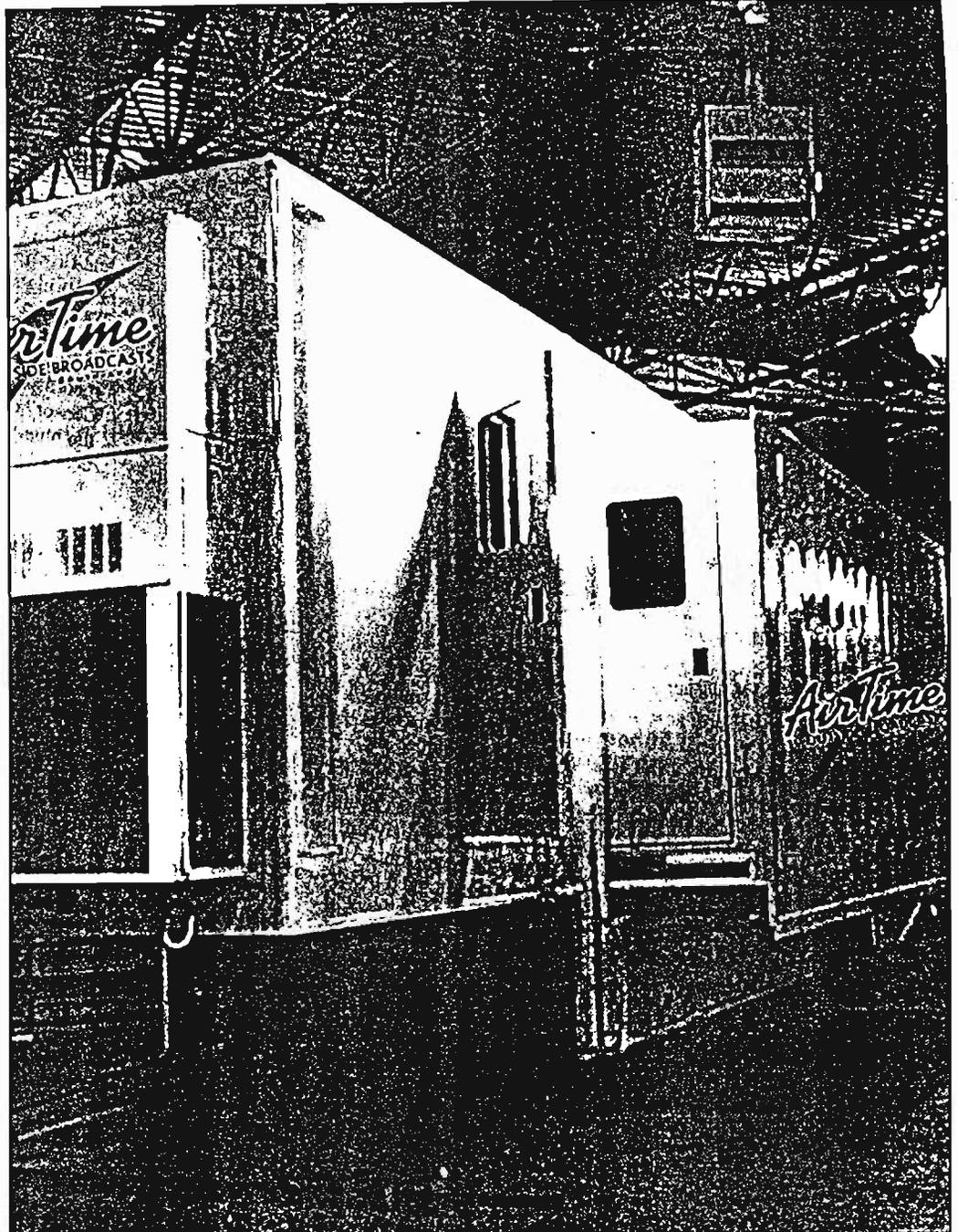
a look at activities countrywide 6 - 8

### Staff News:

what's current on the staff issues front... 12 - 17

### SABC Market Place...

vacancies and other corporate bulletins 19 & 20



## Our digital baby is here!

SABC's long-awaited, fully equipped and operational outside mobile production unit has arrived in South Africa

Turn to page 3 for the details...

## SABC's two satellite channels launched

By Michael R Phalatsé

**T**he SABC's two DStv satellite channels, *A2A Entertainment* and *SABC Africa News*, were relaunched at a function held at the Globe Theatre, Gold Reef City, in Johannesburg on 25 August.

SABC staffers, media and advertising representatives and ambassadors of some African countries attended the glittering occasion.

The channels are set to bring a complete new image and programme schedule targeted at a cross section of Africa's population, on a footprint that now extends right across the continent.

Both 24-hour channels will broadcast primarily in English, but will also accommodate sub-titled programmes in African languages, French and Portuguese.

The "new-look" channels aim to position themselves as Africa's choice. The unique programme mix will showcase the human and natural resources of the continent.

The key objective is to project a modern and positive Africa, reflecting hope, unity in diversity and celebration of achievements and successes.

*SABC Africa* carries 30-minute news bulletins on the hour. In addition to half-hour documentaries, which cover various issues pertinent to Africa, the chan-



At the launch: Nolo Letele of MultiChoice, and SABC's Thandi Ramathesele and Phil Molefe.

nel also broadcasts four in-house programmes: *Perspective*, *Ambassadors*, *Talking Sport* and *Today In Africa*.

Headed by Phil Molefe, Editor-in-Chief, *SABC Africa News* will project "The True African Spirit" — providing African as well as international news and current affairs of interest to Africans, by Africans, in a balanced, accurate and fair manner.

"With the revitalisation and repositioning of *SABC Africa*, the voice of Africa will become more vibrant. The potential exists — we intend to make the most of it," says Molefe.

On the other hand, *A2A Entertainment* provides multiple repeats of 8-hour segments comprising drama, movies, music, education and children's programmes.

The channel has added four new Pan-African programmes to the schedule:

a talk show, a magazine programme about Africa's successful people, a travel show and a sports programme.

"*A2A* aims to present the best of African Entertainment and I am excited about the challenge ahead," says *A2A* GM Thandi Ramathesele.

"These channels have great potential for growth on the continent. Supported by a strong marketing campaign, I am confident that our new image and line-up will have a major impact on our target audience throughout the continent."

In a message pledging the support of *SABC* management on the venture Cecilia Khuzwayo, Acting Group Chief Executive, said it was in line with the notion of the African Renaissance that the *SABC* is proud to announce another milestone that is set to change the face

of broadcasting in the African continent.

"The new look of the channels will depict Africa in a modern but positive manner, bringing news stories and entertainment about Africa, by Africans. For too long Africa has been represented negatively by the global media networks.

"Though the channel will not be totally exclusive, most of the programme material will be sourced from and exchanged with the African countries, to portray Africa as it should be seen — the cradle of mankind.

"Programming will be tailored to celebrate the achievements and successes of Africa by contextualising previous failures," she wrote.

An African dance group, the African Footprint, entertained guests at the function.

# SABC News

## TV News has lion's share of viewers

By Christoff Blaauw

**S**ABC's news monopoly in TV was broken with e.tv appearing on the airwaves. Many SABCers might now wonder how our bulletins are performing in the face of an independent competitor on the news scene.

The SABC still has the lion's share of viewers with 5,1 million people tuning into our bulletins daily from Monday to Friday (July 2000 average figures).

The Zulu/Xhosa bulletin attracts 1,54 million viewers daily and has a 40% market share. This is still the single biggest audience.

The Afrikaans bulletin has a 29% market share and enjoys the support of 1,115 million viewers daily. The success of this bulletin is mainly because of the so-called "stripping" of the news at 19:00 in an Afrikaans language block together with some very popular programmes.

The Sotho bulletin had a daily rating of 8 ARs during July, which amounts to 916 000 viewers and a 25% market share. With the rotation system out of the way since January, this bulletin improved by 2,6 ARs or 48% compared to the same period last year.

A look at the June 2000 profile of the Zulu/Xhosa bulletins indicates a strong Sotho viewer support for this bulletin.

Sotho support amounted to 21 ARs against the 26,5 ARs of Nguni speakers. Sotho support for their own bulletin stood on 15,4 ARs during the same period, showing the strength of SABC1 to attract Sothos.

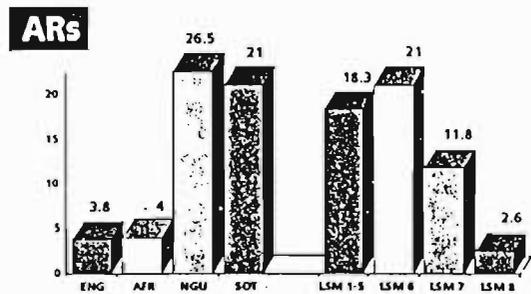
The English bulletin at 20:00 on SABC3 was most affected by competition from our own as well as the two dominant external channels. SABC3, like M-Net and e.tv is primarily focused on the higher Living Standard Measure (LSM) groups in the country and has to fend off a severe onslaught by these channels, and other media like the Internet, radio and the printed media.

The SABC3 bulletin succeeded in sustaining its audience over the last months with a constant rating of 5,2 ARs (600 000 viewers) despite the stiff competition.

An analysis of the 20:00 bulletin's profile shows that support from Nguni and Sotho viewers is on a low level, mainly because of the very popular *Generations* broadcast concurrently with this bulletin on SABC1.

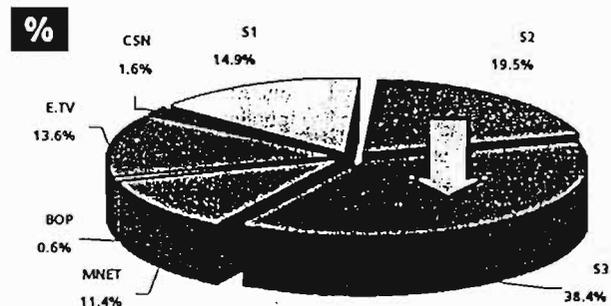
With language being the second strongest driving factor for people to watch the news, most non-English speaking viewers are already catered for by the other SABC channels. Thus, support for this bulletin is dependent on home-language English speakers, but those spread across our own channels as well on M-Net and e.tv.

SABC1 Zulu/Xhosa News profile  
Language & LSMs — June 2000



The Zulu/Xhosa bulletins draw the most of their support from the Nguni viewers, with a strong component of Sotho viewers also joining in. Most viewers are from the LSM 6 category.

English viewership distribution  
Channel share @ 20:00 — June 2000



The English bulletin still has the lion's share of English viewers at the time of the 20:00 News. SABC channels in total maintained 73% of this group between 20:00 and 20:30, with e.tv and M-Net sharing 25.2%.

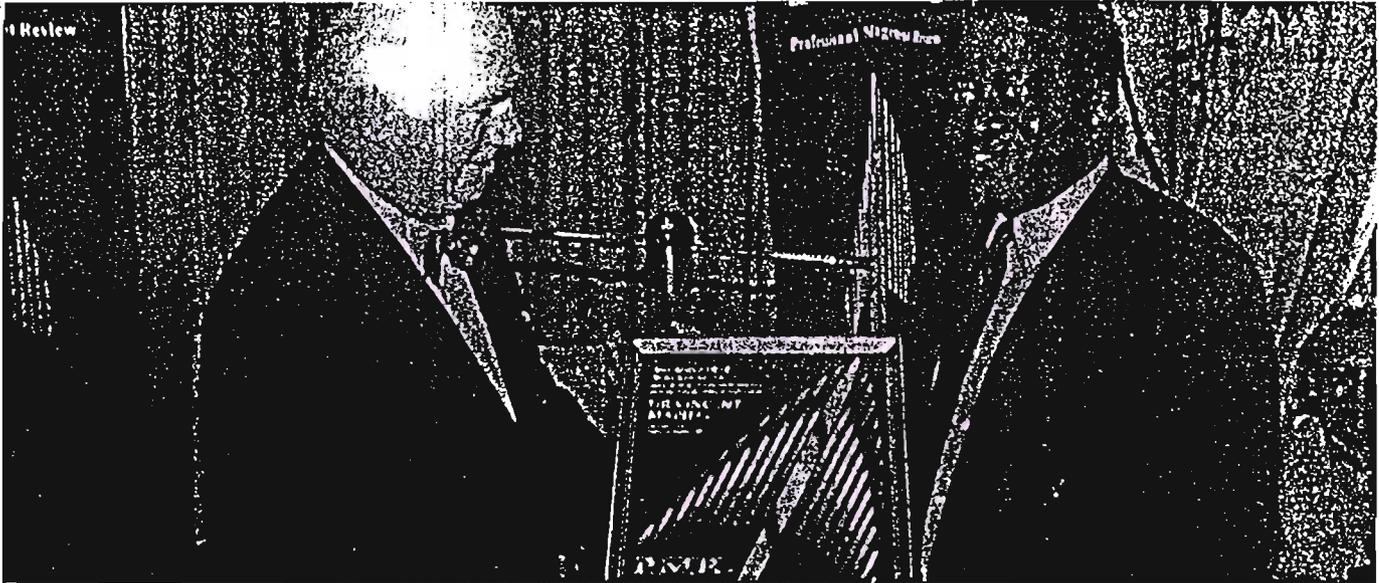
Stiffest competition for the attention of English viewers is, however, from our own channels as the graphs above show. Although SABC3 has a substantial share of 38% of English viewers at the time of the news broadcast, SABC1 and SABC2 jointly hold about 35% share of this group.

Although the other two SABC channels are broadcasting in English for some very important reasons, it nonetheless shows how English as a common language at 20:00 is affecting SABC3, our "English" channel.

This immediately brings the issue of complementary scheduling by the SABC's TV channels to the surface. The competitive environment, in which we are broadcasting, might be good to keep us on our toes. However, when one observes our news ratings (where news is the kingpin of our broadcasting) the following question jumps to mind:

Isn't it time that we start co-operating in putting out the best broadcasting product that South Africa has ever seen? We can do it! We are the pulse of Africa's creative spirit. Or are we?

## Awards confirm SABC's top achiever status



SABC Board Chairman Dr Vincent Maphai receives the Diamond Arrow Award from Ray Wood of PMR.

By Lerato Kojoana

**T**he SABC was among the big winners at last week's Professional Management Review (PMR) magazine Diamond Arrow awards. The Diamond Arrows are awarded to the most outstanding winners of the Golden Arrow awards in the past 12 months, which are determined through PMR's customer satisfaction surveys.

SABC TV was among the winners of the Diamond Arrow, a special award for consistent achievers. The division has won the Golden Arrow award previously as preferred advertising media, clocking impressive reviews from advertisers.

The awards were handed out at a breakfast function hosted by PMR magazine at the Johannesburg Country Club last Wednesday.

At the same function, the corporation was confirmed as overall the most admired media owner as rated by senior union officials who deal directly or personally with the corporation. For the vote of confidence, the SABC was awarded a Golden Arrow award. It also won in the category of media owners.

SABC1 and SABC2 jointly won the award for Most Effective Media for liquor products and retail advertising. Ratings for the award are canvassed among senior level decision makers involved with the above-the-line marketing

of liquor products through mass media. 5FM Music Radio won in the radio category.

The television award for FMCG Products and Retail advertising was won by SABC3. 5FM again took national honours for radio with Metro FM second, while Good Hope FM, the SABC's commercial station in Cape Town, won the radio regional category.

SABC Board chairman Dr Vincent Maphai gave the key-note address at the function. In his address, which focused on national pride, he bemoaned the South African tendency to highlight the negative, while underplaying the positive.

He said the country was wavering on the issues that built this country.

He said: "We are not giving as much hope to South Africans as before. We only say that we are criminals, rapists and murderers, forgetting that we could have become another Yugoslavia or Rwanda. In the world, we are number one in conflict resolution, we are an international resource."

Dr Maphai said South Africa has in ten years absorbed intense changes without disintegrating, and maintained human rights culture even when crime was escalating. In other countries, it would have called for a dictator.

"We are a nation of virtuous people."

## Radio continues its success story

By Michael R Phalatse

**T**he results for the second Radio Audience Measurement Survey (RAMS) for the year 2000 have been released and the picture for Radio is a healthy one.

According to the May - June 2000 figures, past 7-day radio listening has increased significantly year-on-year for the total population in both the English/Afrikaans and Nguni/Sotho listeners.

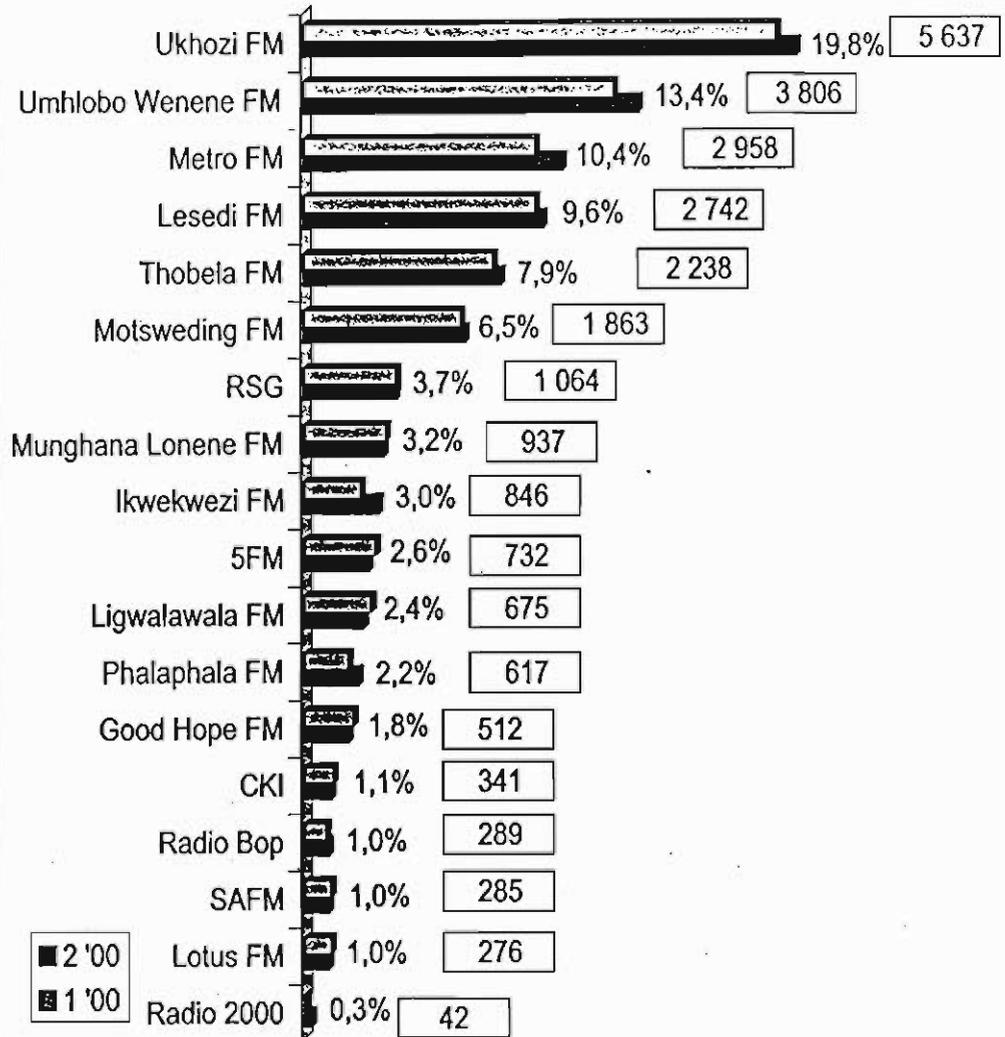
This growth also prevails in the significant increase of listeners both on year-previous and diary-on-diary in average-day listening for the total population.

The number of hours spent listening to radio in an average week has also shown a steady increase in the total population.

Shaun Pelsler, Radio Audience Researcher, says an important benchmark for RAMS 2000/2 is the fact that for the first time since 1996, new population figures have been used (the Bureau of Market Research projections to the year 2000).

"It's important that the BMR figures are higher in total, compared with previous RAMS projections. Although significant changes in comparing thousands may seem prevalent, it is important rather to compare incidence with previous surveys for a true reflection of growth or decline.

"Despite these changes, Metro FM continued on its impressive achievement path.



Incidence (%) and listenership (000s): Average Monday to Friday  
Total population = 28 488 000.

"Penetration in the past 7-day listenership (for total population) increased to 19,9% — this is significantly up, both from the previous year (May/June 99) at 15,3% and the previous diary (Feb/March '00), at 18%."

With the new BMR projections, Metro is thriving, at 5 661 000 listeners for past 7-day listenership. Increases are also evident in the average Monday-to-Friday listening, with a penetration from 7,2% in May/June '99 to 10,4% for May/June '00.

As part of SABC's Commercial and Community Radio Station portfolio, 5FM remained stable. Figures increased slightly from the previous year, to 4,3%.

SABC's African Language Stations (ALS) also performed well in the May/June '00 diary, reflecting significant increases for both year-previous and diary-on-diary for average Monday-to-Friday listening. Penetration into average Monday to Friday listenership increased to 57,8%.

Ukhozi FM, broadcasting in Zulu, dominated the past 7-day listening with a new projected 6 780 000 listeners.

Radiosondergrense remained stable with a 3,7% penetration into average Monday-to-Friday listenership.

Overall, SABC radio has managed to display a strong growth in an ever-competitive media market.



# INTERCON

KEEPING US ALL ON ONE WAVELENGTH

### Inside this Issue...

**Letters to the Editor:**  
your opinion counts



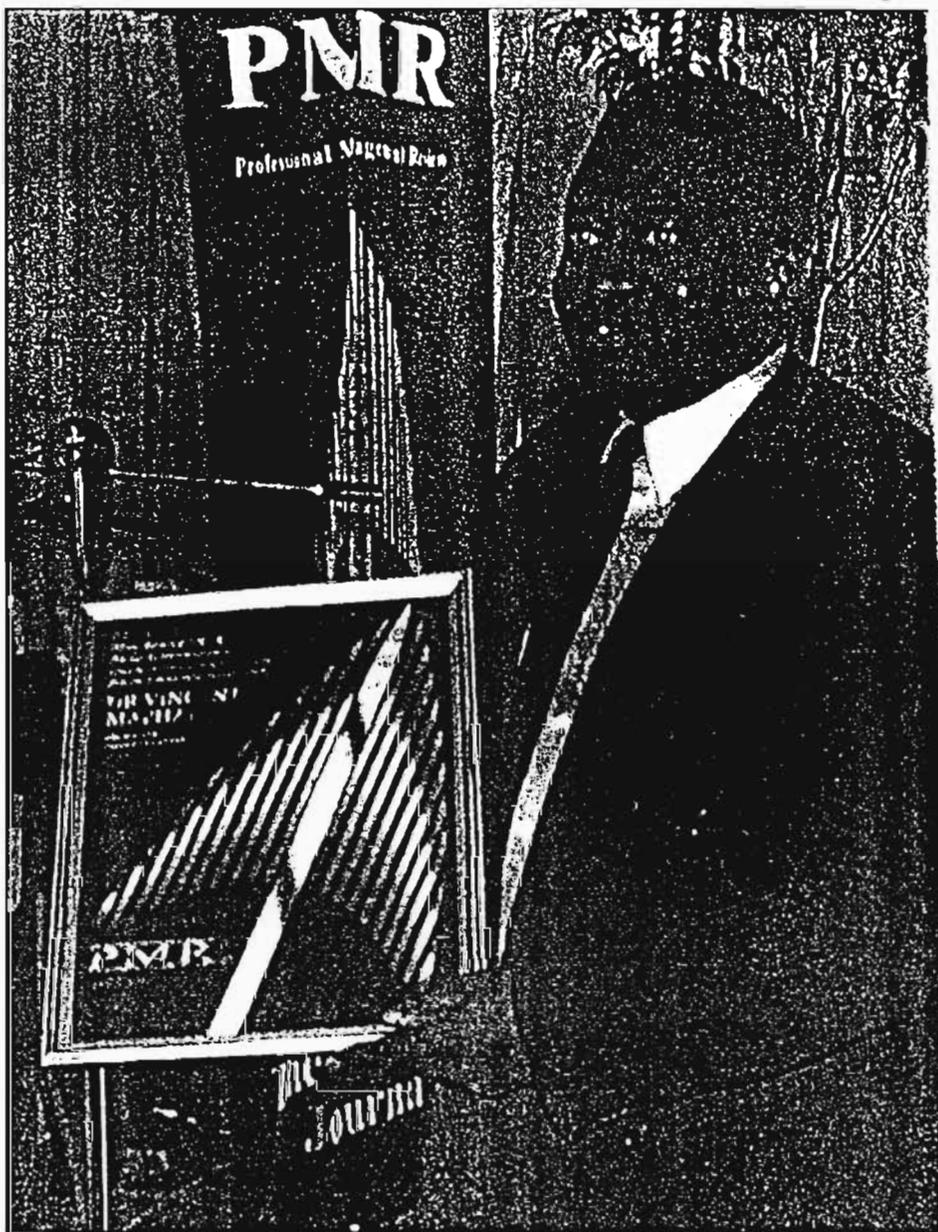
**SABC News:**  
Input 2001: the launch of continent's biggest tv event

**News about Radio:**  
read what the stations are up to 12

**News about TV:**  
the latest developments on our channels 14

**SABC People:**  
new faces in new places, and other stories 16

**Market Place:**  
advertisements & classifieds 19 & 20



## Awards for SABC:

PMR Awards put SABC on top

Chairman of the Board Dr Vincent Maphai accepts his PMR Award as "Most Admired Media Representative".

COVER PICTURE: JAN M. MODUTWANE

## INPUT 2001 the biggest television event in Africa

By Lerato Kojoana

**T**he right to host Input 2001, which takes place from 27 April to 3 May, presents a special opportunity for South Africa, the SABC and broadcasting in general to showcase the industry in this country and Africa's unique talents. This was said by Chief Operating Officer Solly Mokoetle at the Johannesburg leg of the media launch of Input 2001, which the SABC is hosting.

"As national broadcaster," said Solly, "the SABC is the host broadcaster for Input. This will serve to further our involvement in the local, regional and international communities. It also opens up possibilities for ongoing community outreach in various forms."

Solly also said that Input 2001 offers the following attractive advantages for African broadcasters:

- Enables the formation of partnerships and develop existing ones, locally and internationally
- Enables Africa to focus the attention of the world on the continent, and on the SABC as an impressive production house
- Helps draw attention to South Africa as a TV and film making destination
- Demonstrates clearly the SABC's capability to commission and support



Solly Mokoetle: "Input 2001 will further our involvement..."

world class television programmes

- And, among broadcasters everywhere, will promote the potential of African and other developing countries in the world of TV and film production.

Last year's Input was held in Halifax, Nova Scotia. Previously, Nantes in France, Stuttgart (Germany), Guadalajara (Mexico), San Sebastian (Spain), Fort Worth (Texas, USA) and Dublin in Ireland, among others, have had a chance to host the event.

Input has been likened to the Soccer World Cup, and it is not surprising that the most important players in world television diarise the event as a must-attend. In Cape Town, some 1 000 of the world's top television directors, producers, network bosses, distributors, commissioning editors, writers and journalists are expected to gather at Spier Estate, site of this year's event.

Over the years, Input has drawn sponsors from TV networks, cities, government and the public and private sectors because

international television belongs to an increasingly important sector of the economy called the Knowledge-Based Industries (KBI). It is a non-profit organisation that receives limited funding from benefactors.

"Exploiting our resources and abilities needs vision," said Sylvia Vollenhoven, National Co-ordinator of Input 2001. "A handful of visionaries made this event possible. Now it is up to the business sector, broadcasters and film makers to make the most of this once-in-a-lifetime opportunity."

# SABC Training

## CBET trainees receive awards

By Michael R Phalatse

Twenty-one SABC staff members were among the more than 200 students who, on 28 March, received certificates for completing successful levels of the Competency Based Education and Training programme (CBET).

Foundation, Intermediate Accounting Technician and certificates were awarded at the Eskom Conference Centre.

Wiekus Vorster of TV Central Finance, who is now a qualified Accounting

Technician, was selected Student of the Year of the Association for the Education and Training of Accountants.

The SABC's CBET learners were drawn from the departments of TV & Radio Finance, Group, Operations & News Finance, and TV Licences.

CBET courses at the SABC have been held since 1998 and Wiekus has been the most successful student.

Dingaen Feliti, HR Manager at the Training and Development Department congratulated all the students, particularly Wiekus.

"The award he received goes to students that showed dedication and commitment in their studies.

"Wiekus, a shy and reserved student, showed a lot of strength and courage," said his facilitator, Riana de Bruyn.

Said Wiekus: "Since my inception on the CBET programme, my line manager, Andries van Dyk, has been extremely supportive.

"Andries' willingness to assist one whenever it is needed, made one feel that one can actually get somewhere without being held back."



Wiekus Vorster of TV Central Finance: front runner in the CBET programme.

## CAJ tutors to train new trainers

By Michael R Phalatse

The SABC News Research team took SABC's journalists firmly into the new century, when they launched Computer-Aided Journalism (CAJ) training year.

Over 200 journalists underwent the training, which included proficiency in the use of eMail, browsers and the Internet. The objective now is to train all news staff by the end of 2001, a task CAJ staff will undertake themselves.

To help spread the message and meet the deadline, two groups of CAJ trainers have recently completed train-the-trainer shops — organised by

Group Training and Development and conducted by Joy Cameron-Dow.

Each workshop lasted one day and Joy spent some time taking the delegates through the finer points of training skills — from understanding the different ways in which information is absorbed, to dealing with some of the learning process barriers trainees experience.

The delegates found the knowledge they gained was as much of a learning curve as the information they will be imparting to newsroom staff all around the country.

"Creative projects such as this will ensure the SABC remains at the forefront of modern-day journalism and research," says Joy.

## Cyber journalism course starts for SABCNews.com staff

By Michael R Phalatse

The team of 15 at SABCNews.Com started their six months Cyber Journalism course two weeks ago (28 March).

The eight-module course is conducted by the Department of Training and Development in conjunction with Rhodes University. The team has been divided in two groups and classes are held at the SABC in Auckland Parks and Rhodes in Grahamstown.

Trainers include Rhodes' Professor Chris Doherty and the SABC's Amena Frenzy, Kieran Maree and Judy Sandison.

The courses covered are: News Writing; Ethics, Law and Copyright; Computer Aided Journalism; Multimedia skills; Mobile News and Newsroom of the future.

Working in Group One are: Primrose Gamede, Sivu Tywabi, Lindi Ntuli, Annicia Reddiar, Tanya Bencun, Tinus de Jager and Maxwell Maseko.

Working in Group Two are: Daniel Matshe, Iman Rappetti, Safiya Mangera, Oscar Masubelele, Jeffrey Letlape, Rita Lewis, Richard Mantu and Damon Boyd.

# 5FM revamps web site

By Diahann Chldrawl

**T**he 5FM web site, [www.5fm.co.za](http://www.5fm.co.za) has been completely redesigned to become not only South Africa's leading entertainment web site, but a resource of information on all the station's deejays, programmes, frequencies, as well as competitions, fun downloads, links, charts, gift and CD-shopping, and a whole lot more.

Launched on 1 October 1997, [www.5fm.co.za](http://www.5fm.co.za) has become one of the country's more successful web sites, receiving an amazing 2.7 million hits a month. Due to this popularity, and to remain a leader in the entertainment field, 5FM have used the latest web-design technology to create a web site as dynamic as the station itself.

It features a new look, ergonomic design, more information, a launching pad into the creative world of 5FM and arts around the country.

In honour of this technological breakthrough, 5FM are giving away an AMD Athlon 1gig computer valued at R8 000 (supplied by AMD SA and Sahara Computers) in April.

"Without a web site you are nobody," says 5FM station manager Anthony Duke.



5FM station manager Anthony Duke.

"And while 5FM already had an extremely popular web site, we felt it was time to upgrade and show the world we are dedicated to pushing creative boundaries and staying ahead of the pack. [www.5fm.co.za](http://www.5fm.co.za) is another important service we offer our fan base."

Microsoft worked closely with 5FM to develop an agile technology solution that provides value to their business and their listeners.

"Our software is designed for the Internet, so you are able to harness the web quickly to work with your customers and partners

in innovative ways," says Wayne Meyer, product support business development manager at Microsoft South Africa.

Also launching with [www.5fm.co.za](http://www.5fm.co.za) is a new streaming server in conjunction with citec.net.

5FM will be broadcasting on the Net with new streaming partners that will allow listeners to tune in to their global grooves around the world via servers in SA and the US.

What we will soon see at [www.5fm.co.za](http://www.5fm.co.za):

- Biographies — Full biographies of all the deejays with profiles, deejaying times, personal information, favourites, likes and dislikes, professional info and pictures.
  - CD Zone — All the latest songs and albums on 5FM daily will be available on CD Zone for purchase at discounted prices.
  - Flower and gift shop — You name it, we sell it here. So whatever the occasion you may have forgotten, simply surf your way out of trouble.
  - Studio webcam — Just what do the jocks get up to on air?
  - Competitions — Loads of giveaways and specials will be offered throughout the year to site visitors.
  - Chat lines
  - Charts
  - Ticket web
  - Search engine
  - IT news
  - Sports news
  - News
  - 5fm clothing
  - Getaway zone
  - Job net
  - Domain registration
  - Free mail
  - Electronic greeting cards
  - SA music news.
- The new look of [www.5fm.co.za](http://www.5fm.co.za) became operational on 1 April, and is set to become the most visited South African web site, creating the perfect portal for all 5FM listeners to connect with the station.

# radiocracy conference

IDENT THABO MBEKI IS CREDITED WITH COINING THE NEW AGE TERM — RADIOCRACY — WHICH MEANS BRINGING TOGETHER THE THREADS OF RADIO, DEMOCRACY AND DEVELOPMENT TO FORM A STRONG ROPE OF COMMUNICATION FOR ALL SOUTH AFRICANS.

## Carol Phillips

In his opening address at the Radiocracy conference held in Durban, the Deputy Mayor of the eThekweni Municipality, Mphahlele Naidoo, said that the power of radio would not only be a continuing force that would strengthen democracy in Africa and help to build a new South Africa based on a new spirit of patriotism and the spirit of Ubuntu — the spirit of humanity.

He said that when community radio stations were first introduced, they came under fire for automatic changes it needed, particularly in the case of Radio South East to SAfm. But, this proved worthy because that particular station was only in tune, but in step with many of the people facing a country that was trying to find its feet after years of inequality and struggle against Black Apartheid.

## — an integral part

Deputy President Jacob Zuma said that were it not for radio, people, starved of information, living in remote areas, would be unable to receive data vital

to the improvement of their lives, and thus enabling them to make informed decisions.

He said that radio was and is an integral part of life for many communities, contributing to a sense of nationhood, enabling the marginalised to become part of mainstream society, so assisting with the process of democracy, because the free flow of information is one of the cornerstones of a free society.

Radio was an all-important communication tool and a nation-building instrument.

"It can and should be used to project the values enshrined in our Constitution and assist us to entrench a non-racial, non-sexist and democratic society," he said.

He said the penetration of radio was phenomenal.

"The public broadcaster, the South African Broadcasting Corporation (SABC), runs 19 radio stations, which together reach a daily audience of about 20 million people, nearly half of the population," he said.

However, while these figures excluded the country's 15 commercial and 80 community radio stations, the combined



Mathatha Tsedu and Charlotte Mampame at the banquet held during the conference.

figures would reach at least three-quarters of the South African population.

## Growth of radio

"The growth of radio since the democratisation of the country in 1994 has been remarkable. There were only seven commercial radio stations in the country before 1994, and within only seven years there are now 15. This came about through the sale of six SABC radio stations and the initial licensing process. The community radio sector also grew from nothing to now 80 stations," he said.

And while the community radio station sector was still in its infancy, it had already made a major impact on the communities currently being served and in the electronic

media landscape in the country.

Deputy President Zuma cited the launch of XK-FM, the !Xuxu and Khwe community radio station, as having a "liberatory impact" on the public, particularly the Khoisan community.

This was a practical demonstration of what freedom has meant to those who were previously oppressed and emphasised the extent to which the country had changed for the better since 1994.

## Educational radio

The SABC's head of educational radio, Fakir Hassen, said that since the early 90's the Corporation has dramatically refocused its priorities to becoming

## Digital Highway 2001

By Riana Burger

**L**unched in 1997, Highway Africa is a conference on New Media Development for African Journalism. The conference deals with the most important issues faced by media practitioners in Africa. These issues include poor economical conditions and the constant efforts from governments to contain the facts. The conference also creates opportunities to network and share information.

### The competition

SABC News on Demand was announced as the corporate winner of the 5<sup>th</sup> annual Highway Africa 2001 Awards for the Innovative Use of New Media in African Journalism. News on Demand, in association with Econet Zimbabwe, is the only wireless service provider delivering audio news on cell 'phones to Zimbabwe. The content is 70% African and compiled by SABC journalists daily from 06:00 to 18:00 during the week and 08:00 to 17:00 on weekends. News on Demand competed against AllAfrica.com, Africamediaonline.com and carteblanche.co.za.

This year was the first year nominations could be made online and a total of 20 nominations were received across the board. Initially there were only two categories, but due to the diversity of the nominations it was decided to add non-governmental organisations (NGO's) to the list. The winners were announced at a gala event sponsored by the SABC, and broadcast live on SABC Africa.

### News Management says...

Barney Mthomboti, Chief Executive: News, speaking on Access to Information on behalf of Group Chief Executive Officer Peter Mallare, gave an overview of where the SABC started. Since 1994 the SABC has moved towards becoming a multi-media content provider, using multiple distribution platforms.

Barney said the technology to access online information is out of reach of most people. He acknowledged that certain technological advancements such as cell 'phones have made a difference, and online multimedia education models and pilot projects tested to establish community based telecentres now offer new development opportunities to poor rural areas.

"Journalists have a major role to play, since they are some of the privileged few who have access to online and electronic information services. It is their responsibility to convey and interpret information held by the state and other institutions to communities."

### On distributing content...

On the topic of Technical Models of Distributing Content, Gelfand Kausiyo General Manager News Technology Development, said that recent development in the way technology could be used, need to be harnessed.

"People need to see the news and/or information now, they want quality and it should be affordable and easy to use."

The broadcasting models used today are satellites, broadcasting stations and ATM stations or broadcast lines. Distribution takes place through field journalists, live crossings, Digital Satellite News Gathering (DSNG), after-hours distribution via Future Story New York (FSN), International Satellite Digital Network (ISDN) or analogue lines and the most recent development, the videophone. "The disadvantages are that the quality received is inferior due to the bandwidth of the transmission. Although the quality is inferior delivery is immediate and the technology exists to fix it," says Gelfand.

### On leadership in News...

Judy Sandison, Editor of Special News Services, spoke on Leadership Challenges for New Media Managers in Africa. The challenges for new media managers, according to Judy, are to keep abreast of the rapid growth in the industry, one's ability to adapt, to operate cost effectively and remain competitive.

"People need to be multi-skilled to help develop a new product and they should be result orientated," says Judy.

"It is essential to adapt a different management style at different stages of one's development, and to be aware of new opportunities while driving the existing product. One should keep informed and be able to make quick decisions. Another very important aspect is that the staff should understand the structure and processes of the project. They should also have access to a good support structure."

### The RSG view...

Eugene Vorster, Marketing Manager for RSG, took his audience on a roller-coaster ride on the development of the station.

RSG has managed to keep up with development, and has brought together distribution channels of content such as radio, TV, Internet and cell 'phones, which were believed could not work together. Eugene explained that to sustain growth RSG has put together quality control policies.

Eugene works closely with Pieter Geldenhuys, Senior Lecturer E-commerce at UNISA, who gave the audience a glimpse of the technology that can be expected in the future. He says the day will come when no one will need to go to the bank, because banking can be done with one's advanced cell 'phone.

"All communications will be done through the Internet. Even your car and cell 'phone will be Internet-enabled."

### The final word...

The usefulness of News Intranets was highlighted in a workshop run by Izak Minnaar and Tina van den Hyden. They explained that background information needed by a journalist could be retrieved from News Intranet. The News Intranets are created within an organisation to supply relevant information to its staff. It can be data on a person or particular event. People were also given a range of useful Internet sites from which data can be drawn.

## FM radio transmitter project on line

By Carol Phillips

**A** project commissioned by the SABC for at least 11 new sites for 13 new transmitters to areas which did not receive FM coverage is on line and should be completed by the end of this year.

Lynn Mansfield, GM: Strategic Planning — Radio, said that 11 sites for the new transmitters were identified by the SABC after the then Independent Broadcasting Authority's Triple A Enquiry Report of 1995, which recommended that the SABC expands its radio language services to reach 80% of each language group.

But, before any new transmitter mast is erected, approval must be obtained from the Independent Communications Authority of South Africa, (ICASA) for the go-ahead. In addition, an independent environmental impact assessment (EIA) commissioned by Sentech, must be done to ensure that our natural heritage is not harmed in any way.

To date, approval has been obtained from ICASA and notices regarding the projects have appeared in the *Government Gazette*.

The new sites for the FM transmitter towers were identified at Hectorspruit, Loskop in KwaZulu-Natal, Qudeni, Mbuzini, Nqutu, Kwaggafontein, Louwsburg, Tolwe, Ulundi, Ga-Mabula and Harrismith.



A map showing the area covered by the new Kwaggafontein transmitter, which services the Thobela FM, Ikwekwezi FM and Ukhozi FM radio stations. The extended footprint is represented by the gray area.

These transmitters will feed the Ligwalagwala FM, Ukhozi FM, Thobela FM, Ikwekwezi FM and Lesedi FM radio stations.

Of the 11 sites, 10 have already been acquired, with the eleventh in Ga-Mabula, pending a decision from the South African Air Force to use its tower for SABC radio transmissions.

Transmitter masts have been erected and are in commission at Hectorspruit, Loskop, and Mbuzini,

supporting programmes from Ligwalagwala FM and Ukhozi FM.

The EIA studies for two of the sites, one at Qudeni and the other at Nqutu have been completed, but the on-air dates have had to be rescheduled to the end of this month owing to delays in erecting the masts because of strong winds and electricity power connections.

“Obviously, the SABC plans to increase

its radio transmitter network even further, but right now we're on schedule with this major project and our goal is to have all on air by the end of 2001,” says Lynn.

These sites now provide FM radio coverage to more than 7,6 million listeners who to date, did not have such a service in their mother tongue.

# — an historic event

a truly democratic broadcaster catering for a diverse variety of national interests.

The SABC's official Language Policy is based on the Constitution and had committed itself to the fair treatment of all language groups and provide equitable service in all languages.

Fakir said that in 1963, the SABC and the Government department responsible for education in Black schools decided that there should be some sort of radio broadcast to support their curricula, particularly in light of the popularity of the medium, at a time when a television service was not even under consideration in South Africa.

In 1964 the Schools Radio Service was founded, providing support material in a range of subjects — primarily language and literature — on the then 10 African language services.

In 1992 concerned individuals and NGOs established the Electronic Media in Education (EME) organisation, whose prime task was to develop policy, guidelines and goals for educational broadcasting in South Africa. Among the organisations that the EME entered into discussions with was the SABC.

## **SABC and Education In partnership**

A task team tabled a report that formed the basis for the SABC Board to commit the Corporation to education. Following consultations with the



Also at the banquet were (from left) Kripa Ananthpur of India, Ishana Sewlall and Robln Sewlall, chairman of the Radiocracy Conference.  
Photos: Fakir Hassen.

Department of Education, the SABC agreed to a partnership with the department and committed itself to providing airtime on 11 radio stations and two of its three terrestrial TV channels. The Department would provide funding for the production of programmes and in February 1997 the first educational programmes were broadcast.

## **World firsts for RSG**

When RadioSonderGrense (RSG) launched on a multi-media broadcast platform in October 2000, it achieved two world firsts: the simultaneous broadcast of content via multiple electronic media, and a Web site hosting a multi-media playout system with real-time broadcasting capabilities.

Speaking at the Conference, Sarel Myburg, RSG's station manager, said that the first achievement would always stand as a watershed event in media convergence, whilst the second had already been copied and brought to market.

"Because internet innovation never stops, RSG must continually revise and refresh, not just its Web offering, but also the interplay between the RSG WEB and the rest of the RSG platform," he said.

## **Radio in support of Road Safety**

Max Mojapela, station manager for Thobela FM, was another SABC speaker at the conference.

He told how the popular radio station became a driving force in a road safety campaign on the

notorious N1 between Gauteng and Pietersburg to ensure awareness for travellers to Morija City during the Easter weekend.

The rising death toll on the road was cause for deep concern, and together with various other media players and the Mantsole Traffic Control Centre, the station launched an all-out campaign to combat death on that particular stretch of the road during the Easter weekend.

The effect was overwhelming.

Compared to the 16 fatalities for the previous year, only two were recorded, following the all-out drive.

## *Morning Live* takes to the skies again

Sylvia Vollenhoven

**A**fter a short period of being grounded, *Morning Live* takes off once more, thanks to Netstar. The *Morning Live* Newscopter disappeared for a while. But since Monday 1 July pilots Eon de Vos and Paula Vaughan have been taking to the skies once more.

A revamped Newscopter, a new sponsor and a new *Morning Live* slot are all part of the deal. The Netstar sponsorship totals R2.8-million a year. This covers the cost of the Newscopter as well as a crime-stop slot called, "Get Your Own Back".

"We're not going to go the predictable route of just moaning about crime. The slot will focus on what's being done to combat crime," says Nyana Molete, Editor of *Morning Live*.

The Television News Division's Crime Desk will provide the stories for the weekly Monday slot. In reality TV style, journalists will go on crime busts, track criminals with the Netstar team, use anti-crime camera footage or just do their own investigations. And, the focus is getting our own (possessions) back quite literally as well as turning the tables on criminals.

As for the Netstar *Morning Live* Newscopter... for Eon and Paula it will be business as usual, providing daily information about traffic and travel. But of course the real reason they're up there rousing the skies is to be first with those breaking news stories.

"The new chopper is bigger — turbine as opposed to piston — and more capable. This gives us more range and we'll be able to fly further. As usual we'll have commuter news for the whole country. And, occasionally we'll travel with *Morning Live* around South Africa," says Pilot Eon de Vos.

The Netstar Newscopter is Africa's only ENG (electronic news gathering) helicopter, equipped with an externally mounted, remote controlled, 4-axis



The new chopper in action (on the right), and pilots Paula Vaughn and Eon de Vos (above).

stabilised camera/recorder. It also features two pencil cameras for an in-cockpit shot of the pilot/presenter and a point-of-view shot from the tail of the Newscopter. A microwave transmitter allows for instant broadcast of breaking news events, while UHF transceivers allow for uninterrupted studio to Newscopter communications.

In the Netstar Newscopter, the pilot does the TV-reporting, assisted by a camera operator, who cuts between shots and manipulates the remote controlled external camera. The camera operator uses a laptop-based digital editing package, which allows on-scene edits to be made and "live recorded" visuals to be broadcast immediately. A facility also exists to allow guest presenters to report live from the Newscopter.

In co-operation with Airtime, a specialised microwave link has been developed, which can be deployed anywhere in Southern Africa. A self-tracking system is currently under evaluation.

The hot seat of the Netstar Newscopter calls for a very special brand of pilot, who can cope with the hectic environment of flying and reporting "live to air" simultaneously. Flying the Netstar Newscopter requires a cool head and a good eye for spectacular TV-shots.



Paula Vaughan has achieved TV-stardom, flying the old Newscopter and reporting for *Morning Live*. Paula must be the only helicopter pilot who daily receives bundles of fan mail! She holds an ATP (Airline Transport Pilot) licence (Helicopter) and is a helicopter flight instructor. Paula is also an accomplished horsewoman and she will be competing in the South African Dressage Championships during July this year.

The Netstar Newscopter's other pilot/reporter is its founder, Eon de Vos. Eon has more than two decades of broadcasting and flying experience. He holds South African and American ATP (Aeroplane) as well as SA Commercial (Helicopter) licences and is a fixed-wing flight instructor. He is a three-time former SA National Aerobatics Champion with South African Colours for Aerobatics.

The Netstar Newscopter's flight crews are members of the NBPA (National Broadcast Pilots Association) in the USA.

## SABC celebrates 66 years!

FORMED IN 1936 IN ACCORDANCE WITH AN ACT OF PARLIAMENT, THE SABC HAS BEEN REFLECTING THE SOCIETY IN WHICH IT STANDS FOR THE BEST PART OF A CENTURY... THE GOOD TIMES AS WELL AS THE BAD. DURING THE DAYS OF THE APARTHEID REGIME, THE CORPORATION WAS FREQUENTLY THE TARGET OF SEVERE CRITICISM — BUT THOSE DAYS ARE OVER. ON 1 AUGUST 2002 THE SABC IS 66 YEARS OLD. 2002 ALSO MARKS NINE YEARS OF THE TRANSFORMATION OF THE SABC, STARTED IN 1993 WITH THE APPOINTMENT OF THE FIRST BOARD TO BE ELECTED BY DEMOCRATIC MEANS. IN 1990 THE WATERSHED EVENTS OF FEBRUARY 1990 — THE UNBANNING OF THE ANC AND OTHER POLITICAL ORGANISATIONS, AND THE SUBSEQUENT RELEASE FROM PRISON AFTER 27 YEARS OF NELSON MANDELA — SET THE WHEELS IN MOTION TO END APARTHEID, AND FOREVER CHANGE THE POLITICAL FACE OF SOUTH AFRICA. WITH THESE CHANGES THE SABC FACED THE BIGGEST TRANSFORMATION CHALLENGE EVER. THE TRANSFORMATION OF THE SABC BEGAN IN 1993 AND IS SET TO CULMINATE IN THE NEAR FUTURE WHEN THE SABC IS DUE TO BE CORPORATISED AND CONVERTED INTO A LIMITED COMPANY

YVONNE VAN HEERDEN REPORTS...

### 1993: Laying the foundations for the future

The SABC's first democratically elected Board takes office, setting the scene for the transformation of the SABC from State-controlled broadcaster to public broadcaster. This is also the year that the first broadcasting regulatory body, the Independent Broadcasting Authority (IBA) was created. There were then 22 radio services, three television services and the SABC had a permanent staff complement of some 5 300. One of the first moves of the new Board was to convene a strategic planning workshop in order to familiarise itself with the macro-position of the SABC, and determine its place in SA broadcasting. A new Vision and Values for the corporation was formalised. The Board also undertook to redress the racial and gender imbalances in the staff structure and the sensitive and complex issue of languages.

### 1994: This year of consultation

The massive task of transforming the former State broadcaster into a public broadcaster accountable to all the people of South Africa started to pick up speed in 1994. It was set to the mettle, imagination, creativity, skills and capacity of the Board, management and staff of the SABC as never before. There were a number of important transformation milestones, such as the language on SABC services, the multi-cultural society that must be reflected in the SABC's religious broadcasts and the increasing of South African drama productions of good quality. The SABC's first Black Group Chief Executive, Zwelakhe Sisulu, was appointed.

In 1994 the SABC got rid of International isolation and Election '94 was our biggest challenge.

### 1995: Greater clarity and impact

In this second year of the new democratic order the SABC was poised to play a transforming role with greater clarity and impact. The Board's Vision and Values expounded in its first year were translated into an SABC strategy for meeting the challenge of a South African transition. We became a member of SABA (Southern African Broadcasters Association) and hosted the 35th URTNA annual general assembly. We were hosts to the 1995 Rugby World Cup, which was a highlight in many South Africans' lives (of course, we won!). Over 4 000 broadcast and print journalists from all over the world converged on South Africa to cover the event. The second big election broadcast for the transforming SABC was the Community Elections in November.

### 1996: The big bang change

There is little doubt that 1996 stands out as one of the most important in the history of the SABC. It will be marked in the annals as the year in which the SABC's programme of transformation, started in 1993, culminated in breaking the mould of its apartheid past, with the relaunch of its TV and radio portfolios. One of the major achievements of the nineties transformation was planning and creating new television channels to replace those launched 20 years before. The new channels, known as SABC1, SABC2 and SABC3 went on air on 4 February 1996. The biggest staff bash in the history of the SABC followed when well over two thousand staffers

crowded into Johannesburg's Standard Bank Arena for a special preview of the restructured TV channels. Like the repositioning of the SABC's television channels, the process of transforming the radio portfolio stemmed from the overall transformation of the SABC into a national public broadcaster accountable to all South Africans.

### 1997: A bold new strategy

During 1997 the SABC moved to consolidate strategy and build further on the foundations laid when it relaunched its radio and television portfolios in the previous years. It heralded in a period of financial rightsizing as the SABC moved to focus its services in a competitive broadcasting environment shaped by the IBA's Triple Inquiry, to realign the corporation with its changing objectives, and adjust operations to fit funding levels and resources. This was also the year the McKinsey consultants began investigating ways of increasing the SABC's revenue while at the same time decreasing costs. TopSport unveiled a plan to dramatically upgrade the coverage of soccer on TV, and the SABC and the national Department of Education launched the Lifelong Learning Education Broadcasting Service. The SABC announced that it would commercialise its television production facilities comprising Henley TV Facilities and Air Time Outside Broadcasts. Millions of South Africans followed the Truth and Reconciliation Commission on radio and television, especially through news bulletins and the SABC TV programme TRC Special Report. The SABC also unveiled its new corporate identity and the SABC's Vision: *To be the Pulse of Africa's Creative Spirit.*

# Safeguarding the Health of the People and the Planet

*A DRASTIC SCALING UP OF INVESTMENTS IN HEALTH FOR THE WORLD'S POOR WILL NOT ONLY SAVE MILLIONS OF LIVES, BUT ALSO PRODUCE ENORMOUS ECONOMIC GAINS. WE HAVE THE RESOURCES AND KNOW-HOW TO SAVE MILLIONS OF LIVES, TURN THE TIDE ON GLOBAL ILL HEALTH AND POVERTY, AND HARNESS GLOBAL ECONOMIC DEVELOPMENT. THE COUNTRIES OF THE WORLD CANNOT AFFORD TO PASS UP THIS OPPORTUNITY FOR EFFECTIVE ACTION TO BENEFIT FUTURE GENERATIONS AND SAFEGUARD THE HEALTH OF THE PEOPLE AND THE PLANET"*

— WORLD HEALTH ORGANISATION (WHO) DIRECTOR-GENERAL, DR GRO HARLEM BRUNDTLAND.

The health of a population is fundamental to the achievement of development, long-term economic growth and poverty reduction. Inappropriate development and over-consumption drives in the disease burden. The poor, aged and displaced carry the greatest burden of preventable and treatable diseases and death.

Over 1 billion people worldwide are HIV positive and 1 billion people are under-nourished and overweight. Over 10 million deaths in the sub-Saharan region, caused by HIV/AIDS, malaria, TB, etc, could be avoided through a well-focused health programme.

In a previous WSSD *Intercom* article focusing on the acronym WEHAB devised by UN Secretary-General Kofi Annan, was explained. The "H" is for Health, one of the five key areas where concrete progress and must be obtained at this year's World Summit on Sustainable Development. And, according to the key message going to the Summit is that health is central to development. Health cannot be separated from the social, economic and environmental dimensions of sustainable development.

Key issues must be put at the core of the agenda by highlighting the direct impact on the health of environmental degradation, unsustainable use of natural resources, unhealthy lifestyles and consumption patterns on people's health.

Links between the environment and human health are powerful. Toxic chemicals and other hazardous materials are basic elements of development. Over 1 billion people breathe in unhealthy

air, and three million people die each year from air pollution — two thirds of them are poor people, mostly women and children, who die from indoor pollution caused by burning wood and dung.

Tropical diseases such as malaria and African guinea worm are closely linked with polluted water sources and poor sanitation.

In Africa, malaria alone is estimated to have slowed economic growth by approximately 1,3% each year and HIV/AIDS by up to 2,6%. Poverty is the predominant underlying cause of the huge burden of disease in the developing world. Effective health services need to be an integrated part of poverty reduction strategies.

Globally, there have been improvements in life expectancy and declines in infant and child mortality rates over the past decade, since Rio's Earth Summit '92. The picture is very different for the sub-Saharan region of Africa however, where underdevelopment prevails.

People are becoming poorer, countries are affected by war and conflict, and the HIV/AIDS pandemic and other communicable diseases have increased. Malnutrition is associated with more than half the deaths in this region. These conditions leave the people of this region vulnerable to other epidemics such as cholera. The life expectancy for developing countries has, in recent years, declined from 61 years to 43.

The Millennium targets on health include:

- Ø Reducing mortality rates for children under-5 years of age by two-thirds
- Ø Reducing maternal mortality by three-quarters by 2015

- Ø Reducing HIV/AIDS prevalence in all young people by one quarter
- Ø Reducing infants infected with HIV, and TB and malaria deaths and prevalence by one-half by 2010.

The WSSD is expected to focus on poverty alleviation. Programmes to reduce the disease burden and improve health services need to be an integrated part of this focus. "The emphasis of the Summit should be on action; the world expects not words and more reports but concrete deliverables. From WHO's point of view, we have the evidence that there are huge gains to be made by investing in health — including in the broader determinants of health. It is now time to act," said Dr Yasmin von Schirnding, responsible for Agenda 21 issues at WHO.

And, in the words of the UN's Mr Kofi Annan: "In Johannesburg, we have a chance to catch up. The issue is not environment versus development, or ecology versus economy. Contrary to popular belief, we can integrate the two. Nor is the issue one of rich versus poor. Both have a clear interest in protecting the environment and promoting sustainable development.

"At Johannesburg, Governments will agree on a common plan of action. But, the most creative agents of change may well be partnerships — among Governments, private businesses, non-profit organisations, scholars and concerned citizens.

"Together, we will need to find our way towards a greater sense of mutual responsibility. Together, we will need to build a new ethic of global stewardship. Together, we can and must write a new and more hopeful chapter in natural — and human — history."

# SABC News

## 1998: New transformation challenges

The rapidly changing and increasing competitive environment in which the SABC found itself in 1998 posed challenges for the national broadcaster. During March 1998 integration into the SABC of the broadcasters of the former "independent homelands" of Transkei, Bophuthatswana, Venda and Ciskei was completed. This followed the abolition by Act of Parliament of these broadcasters and the transfer of their services and facilities to the SABC and to signal distributor Sentech. Transkei Radio was integrated into the national full-spectrum station Umhlobo Wenene FM, Radio Venda was amalgamated with PhalaPhala FM, and Radio Mmabatho became part of Motsweding FM. Radio Thohoyandou in the Northern Province was closed down. On 1 March the former homeland broadcasting structure, comprising the television station, Bop-TV, and the radio stations Radio Bop and Radio Sunshine, became part of the SABC stable, but were not integrated into existing SABC services. They remained separate channels and retained their brand names. SABC Television's first real competition came on 1 October 1998 when South Africa's first independent free-to-air TV channel, e.tv, started broadcasting. This set the scene for SABC Television to face its first real competition since TV was launched in this country in 1976. On 16 November 1998 the SABC, in a deal with pay-TV company MultiChoice, introduced two pay-TV channels on the digital DStv platform, both of which are aimed at audiences in Africa. SABC Africa is a 24-hour news channel, and Africa-2-Africa is a 24-hour entertainment channel. This move allowed the SABC to migrate from analogue to digital technology on satellite broadcasts. It also positioned it as a major player in world broadcasting and enabled it to play a leading part in the renaissance of the African continent.

## 1999: The Impact of new legislation

The most important development influencing the transformation of the SABC in 1999 was the new Broadcasting Act, which came into effect in May 1999, and was set to irrevocably change the face of broadcasting in South Africa. It provided for three categories of broadcasting — public service, commercial and community — and had very specific requirements concerning the SABC as the national broadcaster, amongst

other, that the public broadcaster be governed by a Broadcasting Charter, that the then IBA — now ICASA — monitor compliance with the charter and that the SABC become a limited liability company with a share capital as contemplated in the Companies Act and that the State hold 100% shares in the corporation.

## 2000: Into the 21<sup>st</sup> century

The SABC's third Board to be elected by a democratic process, chaired by Dr Vincent Maphai, took office on 1 March 2000 at a difficult yet exciting time for the SABC. It was coming to the end of an era of 64 years as a statutory corporation, and preparing to launch itself into the 21<sup>st</sup> century as a registered public company. The Broadcasting Act of 1999 was an important milestone in the transformation of broadcasting in South Africa, and signified the beginning of a process to corporatise the public broadcaster. To facilitate this, discussions between SABC Management, the Ministry of Communications and the Department of Communications resulted in the appointment of a firm of consultants, Gemini Consulting, to assist in separating the corporation into two operating services. Movement on the road to transformation in 2000 and beyond was focused on initiatives to stabilise the corporation and prepare it for further development. Significant progress was made.



First chairperson of a post-apartheid SABC, Dr Ivy Matsepe-Casaburri.

## 2001: The 21<sup>st</sup> century

As the last year of the second millennium dawned, the SABC participated in what was billed as the world's biggest globalcast to date: the international millennium day broadcast project. The SABC joined 30 world broadcasters for this globalcast during the hours leading up to New Year 2000. The SABC expanded its new-media services by launching a news web site, SABCnews.com. This site now registers about 300 000 impressions a month. The SABC also added WAP news to supplement its telephone news service *NewsBreak*. The SABC proved its leadership by using technology and expertise to host broadcast important world events such as the 2000 World Aids Conference, the 2001 Third World Conference Against Racism and the 2002 Johannesburg World Summit. We also introduced our 20<sup>th</sup> radio station... X-Kfm, broadcasting in the ancient Xhosa and Khwe languages of the Khoisan people.

## 2002: Challenges of the future

There are still many challenges beyond April 2002, when implementation of the realignment plan picks up momentum. However, the SABC is, and will remain, in a building phase for the next 12 to 24 months. In fact, it will take between three and four years to effect the complete turnaround of the SABC. The repositioning of the SABC opens up a whole new world on many levels, offering the corporation opportunities to explore options for doing business in wider broadcast-related areas. This is in line with international trends which are seeing broadcasting organisations becoming increasingly integrated into multimedia, many of them developing interests ranging from broadcasting to print and film production, information technology and online content. This is possible here too, since the separation of the SABC's public broadcasting services from its commercial services will leave the commercial entity free to pursue alliances and joint ventures, and diversify its income stream. This could see the SABC diversifying into new market segments as it seeks new avenues to increase its revenue.



# INTERCOM

KEEPING US ALL ON ONE WAVELENGTH

## In this issue...

**SABC & WSSD:**  
crossing the digital divide 6

**SABC Feature:**  
Woman Today —  
50 years on air

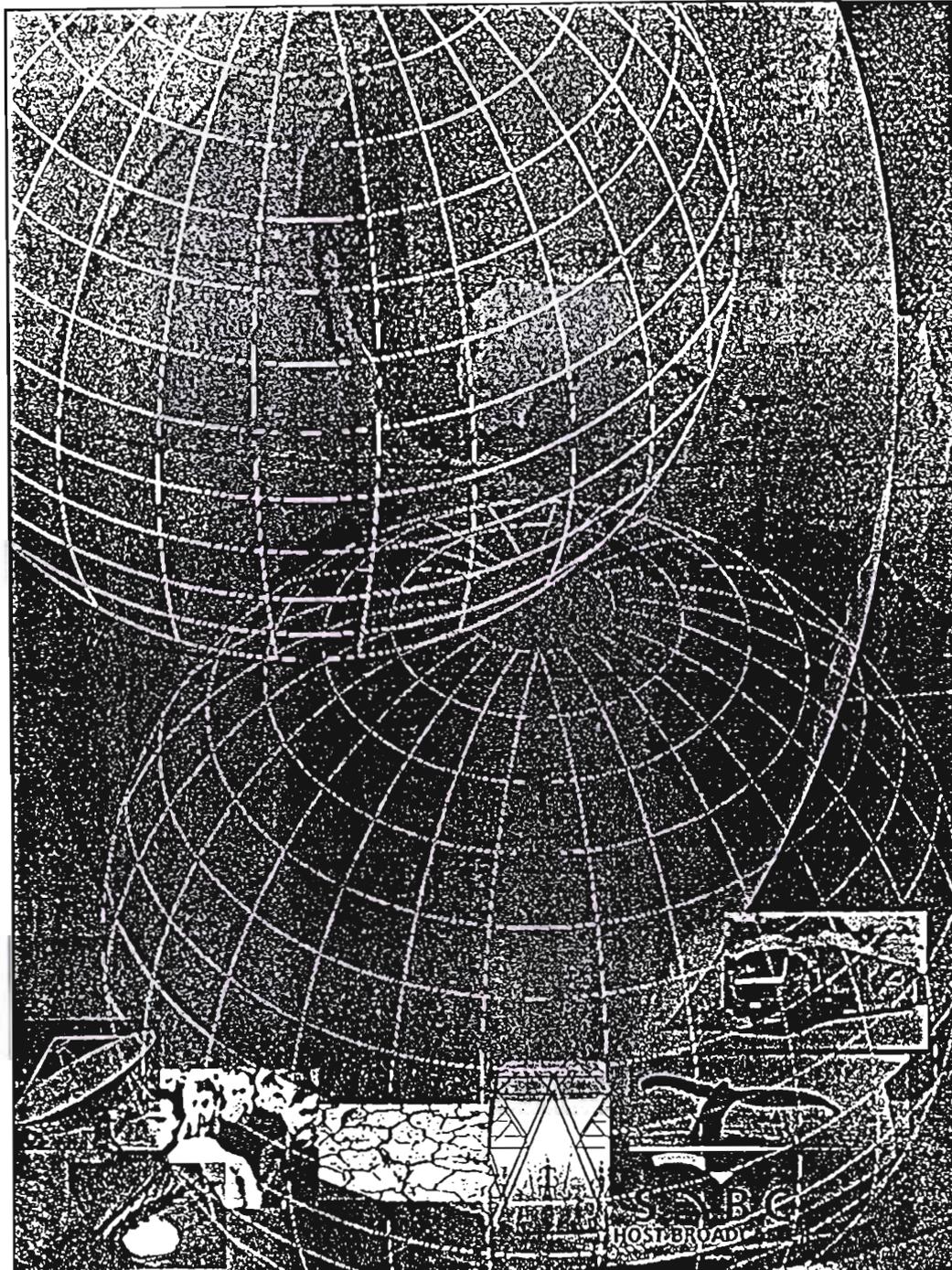


stalwart programme makes  
safm proud... 10 & 11

**Staff News:**  
out and about the  
corporation 14 - 21

**Ubuntu.com:**  
bande ubuntu! 22

**Intercom  
Market Place**  
vacancies and other  
opportunities 24



## SABC — host broadcaster for WSSD

*World Summit on Sustainable Development goes live...*

# Crossing the digital divide

AS ALL THE PLANNING AND PREPARATION FOR THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT (WSSD), WHICH TAKES PLACE IN JOHANNESBURG FROM 26 AUGUST UNTIL 4 SEPTEMBER, STARTS HOTTING UP, SO TOO DOES THE RELIANCE ON TECHNOLOGY TO ENSURE THE SMOOTH RUNNING OF THIS MASSIVE INTERNATIONAL EVENT.

Without technology, the SABC's enormous and vital task of setting up and managing all the adcast services and production facilities at the Broadcast Village within the Media Centre at Sandton Convention Centre, would have been almost impossible.

Like South Africa, as a developing country, is technologically advanced, there are many developing countries and underdeveloped countries whose technology acquisition by developing countries is a necessary condition for development and this issue needs to be specifically addressed by the WSSD.

"The only way to achieve sustainable development is through the ancient African tradition of Ubuntu, or the care. We need to ensure that poverty stricken majorities of the world are empowered to improve their lives. An integral part of this is to give them access, both directly and indirectly to the digital world," says Andile Ngcaba, the director-general of the Department of Communications.

Information and communication technology (ICT) is an integral part of every aspect of society, including the provision of water, health and sanitation. Without ICT, the running of a hospital or clinic would be thrown into a state of chaos. Rural schools can benefit from city-based teachers, through distance teaching. Every competitive business must use ICT effectively.

Says Mr Ngcaba: "The point is that ICT should not be seen as a luxury that must come after the basics. Sustainable integrated development has to close the digital divide. In today's modern society, one has no chance of success - or survival, if one is on the wrong side of the digital divide. The world has no need for ICT except to use it as a tool to improve competitiveness in other fields."

Modern economies are knowledge-based. We are moving away from agricultural and industrial economies and today what counts is, who has the most knowledge. The digital divide is the divide between those who have access to knowledge and those who do not.

The ability to source and apply technology and knowledge are clear differentiators of the prosperous and impoverished globally. All the evidence indicates that disparities will increase without decisive intervention. Sustainable development is not possible without the capacity to acquire, absorb, develop, modify and maintain technology and knowledge.

However, the provision of technology, in itself, is insufficient to achieve sustainable development. Clearly, other development constraints must be addressed simultaneously to permit technology to be effectively deployed and sustainable.

Key outcomes from the WSSD could include:

- Ø Shifting from a narrow definition of "technology transfer" to the concept of "technology and knowledge partnerships" ensuring that technology becomes self-sustaining within the receiving environment;
- Ø A fairer global intellectual property regime which recognises and protects indigenous technical knowledge, is accessible at reasonable cost, and does not place unreasonable barriers in the path of countries needing urgently to apply protected intellectual property in the interests of their citizens;
- Ø Support for regional centres of excellence in technology, particularly in Africa;
- Ø Focusing technology on the priority needs of the poor: food security, water and sanitation, habitation, communicable diseases, clean energy, transport and communication; and
- Ø The development of clear time-tables, indicators, responsibilities and resources to implement existing technology transfer commitments.

Concludes Mr Ngcaba: "Sustainable development must be looked at in the context of the digital society. If we look at it only in the context of health, education or housing, then we are setting ourselves up to remain a Third World country for the foreseeable future."

# Staff News

## Meet BIT's Computer Helpdesk

**Tinus Wolmarans**

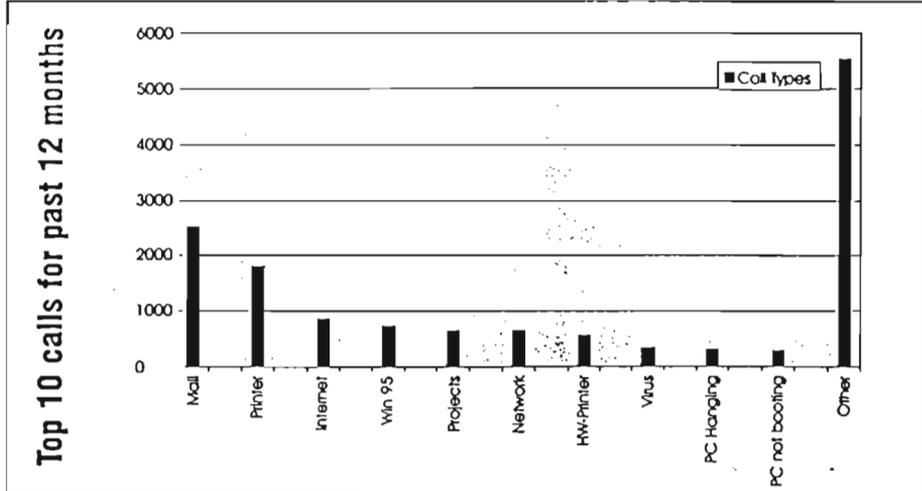
BIT's Helpdesk was established 15 years ago to provide a centralised fault reporting service for computer users at Auckland. The voices behind the Helpdesk operation centre are those of Fuad Dieter, Shereen Moosa and Yahya Ojee.

The function of the Helpdesk staff is to receive calls related to computer problems, log them on the helpdesk fault reporting system and provide first line support while the user is still on the line. If the problem cannot be resolved over the phone, the user is then given to a computer technician or consultant who is contacted off the problem by SMS message or by email. All faults are attended to in the order that they were logged.

There are two general groups of calls to the Helpdesk:

Computer faults are problems that occur during the daily operation of the PC. Computer faults could be hardware or software related, such as a faulty monitor or printer or problems in the use of Microsoft Office, Email, Internet Explorer, etc. All faults are attended to in the order that they were logged.

Computer Projects are initiated when clients need to order a new



computer, require hardware upgrades, software installations, etc. As projects are more time consuming to complete and often aren't impacting on users' ability to do their work, faults are obviously treated with a higher priority than the projects — please take this into account when registering a project.

To improve the support service the Helpdesk regularly analyses the statistics generated by the helpdesk system regarding systems availability, service levels and fault trends. Relevant data is then made available to Group Training who then use it for the planning and customisation of courses — with the aim to reduce the number of computer faults and help train users in areas that cause problems or frustrations. From the graph above it is clear why a short course for

Microsoft Outlook (to address the many calls for Email assistance) was created! If one takes into account that in excess of 14 000 calls have been logged for the past 12 months, it is evident that many users experience problems with Email — which is an extremely important communication tool in the SABC.

The Helpdesk is available from 7:30 to 16:30 on working days and computer problems can be reported by dialing 8040 or by sending an email message to [helpdesk@sabc.co.za](mailto:helpdesk@sabc.co.za). We look forward to assisting YOU!

## Anti-virus software for home computers

Although virus-related problems do not feature high on the helpdesk Top 10 calls list, the help desk realises the immense frustration a user experiences in the case of a virus infection. This frustration, in addition to the additional load placed on the IT infrastructure caused by virus infections, led BIT to extend the corporate anti-virus

protection software use rights to SABC staff's home computers. This protection then serves to minimise the infection of home PCs, as well as reducing the possibility of home viruses spreading to SABC computers.

The initiative of home anti-virus protection entails making CD copies of the corporate anti-virus

software for the installation on employees' home PCs — an arrangement that was negotiated with the SABC supplier of the Norton anti-virus software. Copies of the anti-virus software can be loaned from the computer helpdesk. A R50 deposit is payable on the CD which will be refunded on the return thereof (if you take your own clean CD, they'll copy the software

for you). Please remember that the corporate software is upgraded on a weekly basis, and to cater for the latest viruses users will also have to upgrade their software on a regular basis.

BIT hopes that these, and future initiatives, will help to drive the number of computer problems down to extinction! Contact Helpdesk at X8040.

# GCEO's regional visit to Kimberley

On Friday 19 July, SABC GCEO Peter Matlare and his executive team, Dr Ihron Rensburg, Sharoda Rapeti, Charle Mampane, Ben Cederstroom and Tango Lamani made good on their promises by paying a regional visit to SABC staff in Kimberley in order to acquaint themselves with the Corporation's News and other operations in the Northern Cape. JAMES BARKHUIZEN REPORTS...

**I**t was a memorable occasion for everyone since it was Peter Matlare's, Sharoda Rapeti's and Dr Rensburg's first-ever visit to the SABC offices in Diamond City.

All SABC staff from News, TV Licences, Technology and Motsweding FM joined Peter and his team for a working business breakfast where staff could pose questions and management could give feedback on the SABC's new strategies and the way forward for the SABC in the Northern Cape.

Peter also expressed his concern and dissatisfaction with the condition of the building in which the SABC's offices are housed in Kimberley. After inspecting the building, Peter took action by appointing a task team to investigate the possibility of relocating the SABC offices to another, more suitable, building which must also be accessible for disabled persons.

During their brief visit to Kimberley, the GCEO and his team also paid a courtesy visit to Northern Cape Premier Manne Dipico, where Peter explained to the premier that Sentech is in the process of expanding SABC3's TV reception footprint to the deep-rural areas of Namaqualand and the Kgalagadi in the Northern Cape.



Doing the rounds in the Diamond City, from the left, Director Corporate and Regulatory Affairs Dr Ihron Rensburg, James Barkhuizen of Kimberley and SABC GCEO Peter Matlare

## SABC KwaZulu-Natal hosts web editors

**S**ABC KZN played host to web editors from 15 southern African news sites in July, coinciding with the launch of the African Union (AU).

The event was held under the banner of Highway Africa, the annual conference convened by SABC and Rhodes University, and sponsored by Johnnic and Multichoice. It preshadowed the main conference in Johannesburg in August, with participants staying on beyond Highway Africa to cover the World Summit.

Representing six southern African countries, the participants at the

Durban "think tank" event brainstormed about their websites and about how to cover the AU for their diverse audiences.

Representing SABCnews.com was Rachel Stewart, while the corporation's Steve Lang led a "peer-review" session where delegates assessed each others' websites.

Initiated by Rhodes journalism professor, Guy Berger, and facilitated by SABC's Special News Services Editor Judy Sandison, the gathering was also briefed by Nepad expert, Smundu Mokoena.

Rhodes masters student Oluseyi Folayan presented the results of a two-year

study of the region's web sites, and later led a discussion about multi-media online journalism. B Journ final year Roxanne Prando built a commemorative web site which showcased the articles written by the participants who stayed on to cover the African Union launch. This site also has several Flash infographics on the African Union, created by Prando and Prof Berger.

Visit <http://au.ru.ac.za> to hear audio clips of Thabo Mbeki's key speech at the AU launch, as well as excerpts of the special song composed for the event by Caiphus Semanya and Jonas Gwangwa.

nominations in the Best Female Vocalist, Album of the Year and Best Jazz Categories, where she is up against established artists.

Brenda Fassie continues to be a dominating presence, this time earning a double nomination in the categories Best Female Vocalist and Best African Pop. *Mina Nawe* is the album that got Brenda all the attention over the past 12 months and she's shortly to follow that up with her latest, *Mykeleni*. Another hugely talented stalwart of the South African scene is Ihashi Elimhlophe, who also features in the African Pop category. Ihashi is one of South Africa's most respected Maskandi artists, and has worked with the likes of Jabu Khanyile and many others.

This year's Metro FM Music Awards have also provided a chance for kwaito hitmaker, Mapaputsi, to prove he's here to stay, with nominations in the Best Kwaito and Best Newcomer categories, as well as the nod for Song of the Year and Album of the Year. That brings Mapaputsi's nomination count to a highly impressive four! Over in the Best R&B category, KB of Backstage fame proves her *Beautiful Vibrations* has hit the mark with music fans across the country while Jae's sensitive and emotion-laden songs have done just the same, earning this Cape Town based singer her first Metro FM Music Awards nomination.

Voting again takes place over the next four weeks with music fans now having the chance to vote for the music act or artist they would like to see win in each category. Voting for the winners in each category began on Monday 28 October on 084 196 3876. The finals of the Metro FM Music Awards 2002 will take place on 29 November.

## Technological trends in television

Aldred Dreyer

**T**raditional analogue broadcasting as we know it is plugging an antenna into a television set and tuning the set into all the channels that you are able to receive.

We have been familiar to this concept for many years and the television set, as we know it, has become part of our daily lives. Many of us that live in apartment blocks have become used to the snowy picture we receive from our 'bunny-ears' antenna.

Have you ever wondered what it would be like if you could receive a crystal clear picture without snow in a moving vehicle, or on a portable set? Ever thought about what it would be like if you could buy your favourite CD sitting on your couch in front of the TV not having to use a telephone and not having to deal with telesales personnel?

Ever wondered what it would be like if you could change the view angle in the grand prix or in a soccer match?

All this technology exists today and has already been implemented in countries such as the UK, Sweden, Spain and Finland.

So what is this technology?

It is called Digital Terrestrial Television (DTT) broadcasting. DTT is the digital equivalent of the signals we presently receive on our TV. This technology has already been on trial in South Africa since January 2000. The transmitter operated by Sentech in the Sentech tower is a digital transmitter that looks like a



Aldred Dreyer of Technical Liaison in the SABC.

normal analogue transmitter on the outside, but is totally different on the inside.

The SABC, which has been involved since the trial's inception, has made its services available for broadcasting on the transmitter.

DTT has been in development since the early 90s in America, Europe and Japan.

Three internationally recognised standards were developed and have been adopted by various countries world-wide. The most popular standard is the one used in Europe, which is known as the Digital Video Broadcasting — Terrestrial (DVB-T) standard. The one used in America is known as Advanced Television Systems Committee (ATSC) A/52A Standard, and the one used in Japan is known as Integrated Services Digital Broadcasting — Terrestrial (ISDB-T).

The Minister of Communications is aware of this international trend for countries to digitise their analogue terrestrial networks and has recently appointed a body called the Digital Broadcasting Advisory Body (DBAB) to advise the minister on issues relevant to the introduction of digital broadcasting in South Africa. This process will soon be completed and a policy will be put in place to act as a guide for the implementation of DTT in South Africa.

The SABC waits anxiously for the outcome of the recommendations and hopefully we will soon be able to enjoy the life that digital broadcasting can offer South Africans.

Looks like the idea of buying a CD through your TV is not that far-fetched after all?

# Staff News

## Broadcast Technology Strategy

The Broadcast Technology Strategy project commenced on 16 September 2002. The project will culminate during early December 2002 when the Broadcast Technology Strategy will feed into the Medium Term Economic Framework (MTEF) process with the Department of Communications.

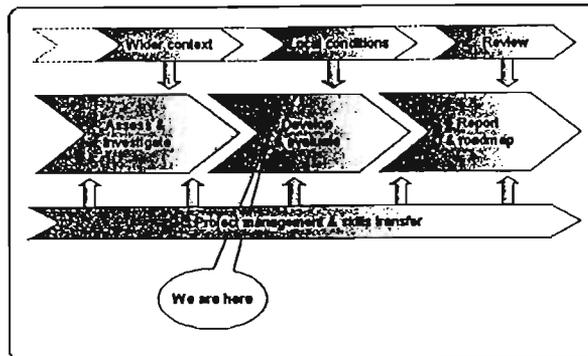
### Where are we now?

During the last four weeks up to 10 BBC-T specialists have been on site in Johannesburg, Polokwane and Durban, gathering detailed information about the SABC operation. The BBC-T team has met with well over 100 individuals including representatives from Sentech, ICASA, Telkom, Media Buyers and Independent Production Companies.

The following seven key work areas in content production have been reviewed:

- Radio (PBS and PCBS)
- TV (PBS and PCBS) Playout (FCC and News)
- Archives
- New Media
- Infrastructure
- News and Sport
- Airtime Sales and Scheduling

Initial findings were presented to the steering committee on 18 October and a full assessment report was provided to the SABC on 25 October. This document was validated by the SABC Steering Committee on 1 November.



### What Happens Next?

The validated report will provide the baseline for further analysis and scenario building by BBC-T during the develop and evaluate phase. BBC-T team members return on 11 November 2002 to finalise the evaluation phase and review working documents for the seven key work areas.



Peter Calvert Smith, Gareth Thomas, Simon Woolnough, John O'Donovan, Michael Readman, Andy Blustin, Jonathan Haine, Peter Weitzel, Lebogo Kekana and Moagi Motshoane.

### A Word of Thanks

To all our colleagues who have contributed to date, many thanks for your patience, time and effort.  
For further information please email: [joubertp@sabc.co.za](mailto:joubertp@sabc.co.za)

## Information Systems and Technology Strategy Update

### BIT Project in final stage

THE INFORMATION SYSTEMS AND TECHNOLOGY STRATEGY PROJECT TEAM IS IN THE 9<sup>TH</sup> WEEK OF THE TEN-WEEK STUDY.

#### Project Update

The team has completed the first draft of business architecture, application architecture, the technical architecture, the recommendations roadmap. The draft report was submitted to the SABC on 8 November, exactly as per the project plan. To help the team in the broadcasting area, TATA flew in a specialist with international experience in the broadcasting industry, Ms Chaitali Kumar to ratify the findings of the team to ensure they are in line with current best practices. Kumar completed extensive work in this area at General Electric's National Broadcasting Corporation (NBC) in the United States.

The team is currently looking into the feedback from stakeholders, testing some of the products and working on the ballpark budget estimates for the implementation phase. The team is also closely interacting with the BBC-T team in the areas of Scheduling, Archives and Media to plan out the best IT systems in these areas. The team is to deliver the final report on 22 November 2002.

The following gives a brief description of suggested technical architecture for the SABC:

The Presentation Layer serves the purpose of user interaction in the format required for e.g., PDA, JukeBox, interactive television server etc. All user interfaces happen through this layer. The Regions (the WAN) and the call centre application also have their presentation aspects embedded in this layer. This layer serves different user through the streaming servers, master portal or the intranet. The firewall provides security at this level. The Multi-Channel Access layer presentation layer looks at format needs of various presentation elements.

The presentation layer applications are the ones that support the presentation layer. These applications are the gateways through which other than audio/video is sent across to and received from the business applications. Data for these applications is received through the middleware and is converted to/from XML. This layer communicates with the business applications for all its data needs via the middleware (Enterprise Application Integration Framework).

The middleware handles the job of communicating between these applications and the business applications by converting the data from one format to the format, which the business applications understand. The middleware also provides workflow mechanisms to handle the various process steps involved to be recorded. The middleware works on the concept of messaging. All the communication is in what is known as "Messages". Each message contains the data communicated along with the metadata associated. XML fits this very much and hence is used in this layer. This layer communicates all the information to-and-from the business applications.

The business applications consist of both the mainframe and client-server applications. These are the applications that contain all the business logic. The applications own their data and communicate with the databases through the data layer.

The data layer contains all the management of data in various databases and data formats.

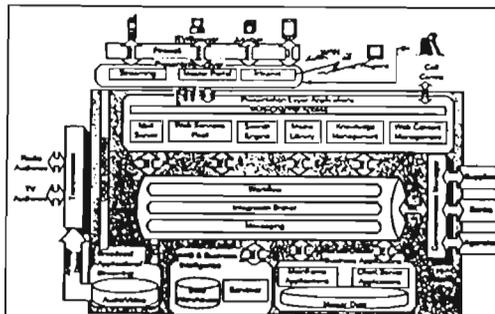
The communication manager provides a standard framework for integrating external partner and vendor applications like banks, SARS, supply-chain systems etc., with SABC applications. This allows for tighter control of the communication with the external entities.

The MIS and business intelligence source the data from the business applications and sanitise it and use the same to provide the necessary intelligence out of data. This also provides for various scenario building and "what-if" analyses to be carried out. In this layer also, the communication with the business applications happens through the middleware.

Middleware is not capable of handling high volume data i.e., digital audio/video data. For these data sourcing needs, all the requests for the data still go through the middleware to the Audio/Video data servers. The source application that services this data to the requestor applications will serve the data through a direct connection with the requestor. The request would allow the server to identify the requestor uniquely and thus establish a direct connection with the requestor for the data transfer. It is envisaged that the requestor application will receive the audio/video and will then allow for any manipulation of the same at the requestor's end. This would require that a logical partition exists on the network for the audio/video data transfer. The audio/video data source is the source that services the broadcasting needs also by directly communicating content to the transmission agencies. The real-time audio/video requirements for broadcasting are being investigated and would lead to the final broadcast production architecture.

#### Draft Technical Architecture

(does not incorporate real-time broadcast production at this stage)





## Messages

**SABC Chief Financial Officer: Robin Nicholson**

I think the need for a revision of the Technology Strategy within the technical division is necessitated by the fact that you're having a major shift in technology from analogue to digital over time. Our response is not informed by a comprehensive understanding of what it is that we need to be doing in future. Consequently our capital expenses are not guided by a strategy and the business therefore may or may not be delivering on its mandate.



Robin Nicholson

To date the work that BBC-T has done around understanding our business and understanding the environment we work in, I think has been very satisfying to see at this point, and it's clearly where we think the big issues are in our business.

From what I see, certainly it's guiding good strategic thinking. It's developing a vision of the future and it is enabling the people within the Technology Division of the SABC to gain a more thorough understanding of what their new world is about. I think it also supports very much the stated strategy of the Technology Division which is 'Applying intelligence to Technology'.

**BBC T Project Leader: Nigel Fry**

BBC Technology, part of the BBC Ventures Group, is pleased to be working with SABC Technology in the development of a 'Broadcast Technology Plan'. This document will illustrate the key steps that SABC need to take during the next five years to provide an infrastructure that enables them to meet the demands of public service broadcasting and commercial broadcasting. The objective is to ensure that the technological solutions are ready for the evolving demands of the digital broadcast, multimedia and telecoms environments and ensure that SABC is best placed to deal with competition in the media market.



Nigel Fry

**Arivia.kom Executive: Sipho Yeni**

It is my view that as the SABC transforms from an analogue to totally digital broadcasting technology, it has commissioned seasoned professionals, in BBC-Tech, for the development of its broadcast technology plan. This is a specialised area that requires specific niche skills and experience to ensure delivery of a workable, practical and implementable plan for the SABC. Needless to say, these skills are not readily available within the country at this point in time. As we at Arivia.kom are intent at making our relationship with the SABC a long term one, it is therefore imperative to ensure that when the international resources ultimately leave our shores, there are competent local skills to soldier on with the task at hand. I strongly believe that between ourselves and the SABC team, we will be in a position to take this task forward and drastically reduce, or even totally eliminate, our reliance on foreign expertise to pursue this very important task. The provision of African solutions to African problems is one of the pillars of NEPAD. Africa can only begin to claim addressing the scourge of economic devaluation once we begin to develop local skills in all spheres of our daily lives. These include among others, ICT and business skills. Our vision at arivia.kom is to be a dominant ICT player in Africa, our participation in this project is therefore totally aligned with that vision.



Sipho Yeni

**Safika Technologies CEO: Leslie Mampe**

The project has provided all of us with a unique opportunity to be involved in a master systems plan, in an industry that few consultants will ever be involved in. This has not only broadened our scope, but has also provided us with an opportunity to test our knowledge within a different industry to the ones that we are normally involved in. In addition, working within such a large team has given us the opportunity to broaden our knowledge and to look critically at different ways of accomplishing the same task. Working as part of the consortium, (BBCT, TATA Arivia.kom and Safika Technologies) has provided a platform for the exchange of knowledge and ideas.



Leslie Mampe

For Safika Technologies, being part of this engagement is an honour, which we want to take full advantage of, and we hope everybody else feels the same way as we do.

An SABC information publication

# Staff News

## Information Systems and Technology Strategy *Update*

### 3IT Strategy Project Completed

IS AND IT STRATEGY PROJECT COMPLETED ITS FINAL MILESTONE ON SCHEDULE AND DELIVERED THE IT PLAN TO THE STEERING COMMITTEE ON 22 NOVEMBER 2002. THIS WAS THE CULMINATION OF A TEN-WEEK STUDY OF THE IT IS SYSTEMS OF THE SABC AND USING TATA'S IMPACT METHODOLOGY, THE TEAM ARRIVED AT THE PROPOSED APPLICATION AND TECHNICAL ARCHITECTURES FOR THE SABC AND BASED ON THE ASSESSMENT OF THE CURRENT SYSTEMS, PROPOSED A ROADMAP AND IMPLEMENTATION PLAN TO THE SABC.

One of the highlights was that the team made a presentation in November at the SABC quarterly review at the Indaba in Durban, which was well received with the GCEO showing great interest in the outcome. It was proposed that detailed workshops be held with various departments of the SABC on applications and recommendations so that all the departments are on the same page as far as the impact is concerned and people can work together on the implementation side.

#### The report covers these areas:

##### Executive Summary ✓

Summaries of individual detailed sections

##### Business Drivers, Initiatives and IT Capabilities ✓

Business Drivers, IT capabilities

Current Initiatives and their mapping to Business Drivers & Capabilities

IT Governance Issues/Policies

##### Business Architecture ✓

Business Drivers, IT capabilities

Documenting as-is High level Business for SABC in a process framework

High level view of possible business architecture

##### Application and Technical Architecture ✓

Proposed Application Architecture

Application components gap assessment (mapping with IT capabilities and existing systems). Proposed

Technical Architecture

Technical architecture standards framework

Assessment of existing application architecture and technical architecture

Will bring out a picture of current "as-is" of each domain

##### • Implementation Roadmap ✓

- IT Recommendations for overcoming the gaps and problems
- Options available, advantages/disadvantages for each domain

##### • Realisation plan for the options ✓

The SABC technical committee is currently studying the report. SABC has about 30 days to get clarifications on any of the recommendations, get details where necessary, refine parts to ensure that the overall report is of lasting value to the SABC.

As the project manager, I would like to thank the MD Technology who gave solid support to the team and guided it from time to time. I would like to thank the technical and project managers, Nades Kandan and Craig Smedy, respectively, who helped us quickly to come up to speed on important aspects. Also, I would like to thank the management and staff of the SABC for spending time with the team in sharing their thoughts enthusiastically which made our task that much easier. I would like to extend my thanks to my own team as well as the team from our South African strategic partners, ariva.kom and Safika Technologies, whose teams worked closely with ours and ensured that the final report was outstanding in its presentation. All in all it has been a wonderful experience and we take good memories back home.

Anantha Simha  
Project Manager: TCS



# Broadcast Technology Strategy

December 2002

## BROADCAST TECHNOLOGY STRATEGY IN FINAL STAGE

### Where are we now?

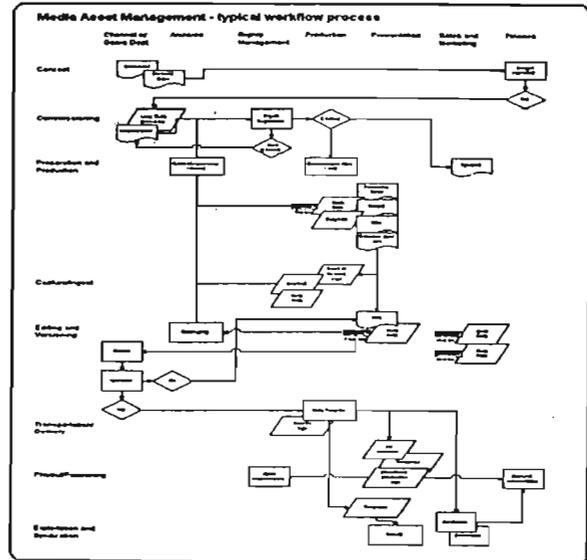
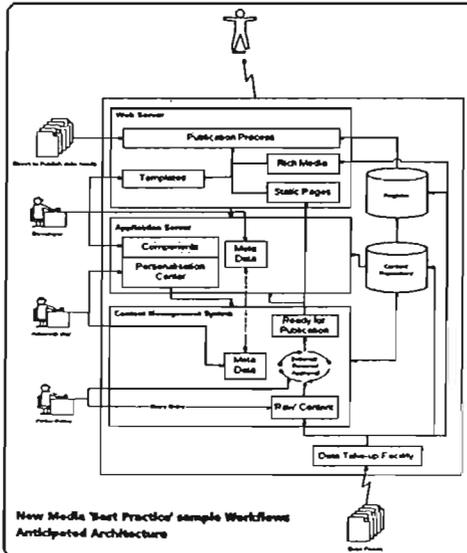
During the past four weeks BBC-T Specialists again visited the SABC and played back their initial proposals to the project team, key stakeholders and management.

Close on sixty individual work threads/project areas have been identified for possible recommendations.

Attendance at the Quarterly Review aided BBC-T in placing their findings in an overall Corporate context.

Without pre-empting final recommendations it has become clear that tightly integrated software applications, that will facilitate programme commissioning, acquisition and production together with costing, rights management, media management, commercial sales and scheduling are a pre-requisite for the future resourcing of cost effective, compelling programming.

Coupled to this we can expect the role of archives to change from a repository at the end of the production chain to a key element in all stages of the production chain.



### What Happens Next?

The 60-odd work threads/projects identified will be consolidated into a cohesive strategy in the final report.

The final report and road map will be delivered on 9 December. This report will detail, cost and prioritise, the recommended broadcast technology strategy for the next five years, taking into account staffing and training needs and the SABC's financial situation.

BBC-T will again visit us during the third week of January to present the report to stakeholders and top management.

Recommendations once ratified will be integrated into the SABC's capex plan during February 2003.

An SABC information publication

Financial  
Mail

# FUTURE

NESS IN THE INTERNET

MY

EVERY WF

11 29 2002

[www.futurecompany.co.za](http://www.futurecompany.co.za)

## DIGITAL DREAMING

Malaysia's lessons for SA

# FOLLOW

SA CAN LEARN FROM MALAYSIA'S experience in opening up its telecommunications sector and implementing policies that will help it become a developed nation

Marina Bidoli

**T**here are many similarities between SA and Malaysia. Both are developing countries. Both are multi-ethnic. Both have had to react to currency crises. Malaysia's Bumiputra policy, introduced in the Seventies to redistribute economic power from the Chinese to the indigenous Malay, is a forerunner to our affirmative-action policies.

An area that holds lessons for SA is IT and telecoms. In 1990, Prime Minister Mahathir Mohamad announced Vision 2020, a plan aimed at "leapfrogging" Malaysia into the information age. Predicting that neighbouring countries, China in particular, would provide ever-cheaper commodities and manufactured goods, Mahathir's vision was to elevate Malaysia to a developed, "knowledge economy" by 2020. The information age and technology convergence presented the best opportunities for socio-economic transformation.

Key to this was the privatisation and listing of State-owned firms, such as Telekom Malaysia, and opening the market to competition. This was followed by the 1996 launch of the Multimedia Super Corridor (MSC), Malaysia's answer to Silicon Valley.

"We had dynamic, political leadership," says Nuraizah Abdul Hamid, head of the regulator, the

Malaysian Communications & Multimedia Commission. A former government official, she says Malaysia decided not to follow the West blindly, but rather find its own solutions.

Mahathir wanted a farsighted view of convergence that took into account broadcasting, telecoms and IT, says Nuraizah, who relied on Australian consultants Cutler & Company (who has also consulted to SA's government) for a definition of multimedia. This led to the creation of the new regulator. Though not truly independent of government, the commission has not protected Telekom Malaysia's monopoly.

"One cannot completely separate regulation from policy. The FCC [the Federal Communication Commission of the US] and Ofcom [of the UK] are not relevant models for us," says Nuraizah. "We have strong political leadership and common vision. We're clear where we want to go," she says.

"Malaysian leaders realised that government had no business being in business," says Telekom Malaysia chairman Radzi Mansor. A former consultant on the MSC project, he says that many potential conflicts are ironed out because government works with industry and the regulator.

SA, too, is grappling with new policies for the information age. Unlike Malaysia, however, the relationship between industry

## NOT JUST A TECHNOLOGY PARK MULTIMEDIA SUPER CORRIDOR

Kuala Lumpur city centre

Technology Park

15km x 50km corridor

World-class physical infrastructure and next-generation 2.5Gbit/s-10 Gbit/s multimedia network

### Quick facts about Malaysia

- Population: 23.3m
- GDP 2000: US\$55.1bn
- GDP per capita: \$3,642
- Adult literacy: 83%

SOURCE: MULTIMEDIA DEVELOPMENT CORPORATION

SOURCE: MALAYSIAN INDUSTRIAL DEVELOPMENT CORPORATION

# the leader

*Handwritten notes:*  
 25 March 2005  
 1st floor - 1st floor  
 2nd floor - 2nd floor  
 3rd floor - 3rd floor  
 4th floor - 4th floor  
 5th floor - 5th floor  
 6th floor - 6th floor  
 7th floor - 7th floor  
 8th floor - 8th floor  
 9th floor - 9th floor  
 10th floor - 10th floor

ly Telkom), the regulator government is often acrimo- s. But here, too, President Mbeki has earmarked IT as an important component economic development. Like athir, he is advised by top and international IT ad- v-panels.

With the building blocks in place, Malaysia is poised to welcome new foreign investment, following the painful economic crisis of 1997, which put an end to decade-long economic growth of 5%/year. Growth is now just 2%. Improvements in corporate performance and the banking sector and the focus on hi-tech and modern infrastructure has contributed to a strong rebound in investment, which has increased by US\$3bn in 1998 to more than \$1.5bn last year.

The MSC's focus on developing knowledge-intensive industries — from biotechnology to the creation of Web content, security applications and smart cards — is expected to bear fruit. Encompassing top education institutions, venture capital, innovation incubators and state-of-the-art infrastructure, it makes Gauteng's Blue IQ and Cape Town's Knowledge Park projects pale into insignificance.

Run by an autonomous government agency, the Multimedia Development Corp (MDC), this 1.5 km long and 15 km wide corridor outside Kuala Lumpur provides MSC-status companies with speeds of 3 Gbit/s to 10 Gbit/s, fibre-optic-based Internet access and new highways and high-speed rail services to the rest of the country.

The hub is Cyberjaya (meaning digital success), which is a pro-

tototype for other "intelligent" cities. Meeting a host of environmental guidelines, the city's traffic lights and sewerage, water and elec-

tricity services are controlled from a command centre.

The controversial federal administrative centre, Putrajaya, is

also part of the MSC, as are universities and research institutes, including Telekom Malaysia's Multimedia University. African students are sponsored each year to attend Malaysia's largest private university.

Not everyone is in favour of the billions pumped into the area. "It's still mostly an infrastructure project and has not taken off as expected," says one industry commentator.

But MDC corporate communications manager Cheah Leong Wan claims the MSC has exceeded targets, despite the Asian economic crisis and the global downturn in technology.

There are about 650 MSC-status companies (the initial target was 500 by 2003), of which more than 50 are international players.

The MSC is a centre for software, content development, bioinformatics, the Internet, security and other technology companies and employs between 5 000 and 10 000 foreign knowledge workers and has spun off about 1 600 small and medium-sized enterprises — far more than the target of 300. "We want to develop Cyberjaya as a global hub for services and products," says Cheah.

Technology firms NTT, Nokia, SAP, Siemens, Motorola, Cisco Systems, Fujitsu and British Telecom have set up in the corridor. Others include Shell, DHL's Asia-Pacific headquarters, and news companies Reuter and Bloomberg.

"Companies initially did not want to locate there. They are now beginning to shift operations," says Minister of Energy, Communications & Multimedia Leo Moggie. He says the Malaysian government decided to

**TELECOMS IN MALAYSIA**

**Going with the flow**

**M**alaysia has been much bolder than SA in liberalising its telecommunications sector. But not everything has turned out as planned. Despite throwing the sector open to competition in the early Nineties, incumbent operator Telekom Malaysia retains 95% of the fixed-line market. The number of operators has reduced from 10 to five, which, with the exception of Telekom Malaysia, offer mainly cellular phone services. With a market of 23m people and GDP/capita of US\$3 642, more consolidation is likely.

"In practice, we have only one fixed-line operator," says Minister of Energy, Communications & Multimedia Leo Moggie. Mobile penetration is 31% (7m customers), compared with 19.6% (4.7m customers) for fixed-line.

Another area that has shown significant growth is the Internet. About 60 application service providers have been licensed, of which a number offer voice-over-Internet services for cheap international calls. Though these operators could destroy long-distance margins for Telekom Malaysia and the cellular operators, the Malaysian government has no intention of outlawing the service (as has happened in SA). Instead, it hopes to make Malaysia a regional hub for cheap international calls. "It's not possible to outlaw and we will make some money on the interconnections and the leasing of bandwidth," says a Telekom Malaysia regulatory manager.

"Government policy was never one of protecting the incumbent. Newcomers have given Telekom Malaysia a run for its money," says Nuraizah Abdul Hamid, head of the regulator. Though the incumbent is not the leading cell-phone provider, it remains well positioned. Of the estimated 2m Internet users, 1.3m are on TM Net, making this Telekom Malaysia subsidiary the biggest Internet service provider in southeast Asia.

Like its local partner Telkom, Telekom Malaysia has come under harsh criticism for rebalancing its tariffs — local charges have increased, while international and national rates have decreased. But Moggie says this is in the interests of the economy. An increase in local rates makes it more lucrative for rival companies to start offering fixed-line services. *Morino Bidoli*

continue investing in the MSC despite the 1997 Asian crisis.

Malaysian investors own 65% of the companies in the MSC. The biggest foreign investors are Europe (11%), the US (5%), Singapore (5%), and India, Japan and Australia (2% each).

Investors are drawn to the corridor by a bill of guarantees granted to firms that receive MSC status. These include 10-year income-tax holidays, investment tax allowances, no limits on foreign ownership requirements, unrestricted employment of foreign knowledge workers, no censorship of the Internet and intellectual property protection.

Malaysia has passed six cyber laws to protect investors. These include laws that cover digital signatures, computer crimes, telemedicine, personal data pro-

tection and copyright and data protection.

It normally takes three months to hire foreign workers. For MSC-status companies, the process is reduced to 10 days, says Cheah. He says Telekom Malaysia must also ensure that MSC-status companies receive top-quality service. If it fails to deliver 99.9% telecoms uptime, for instance, it must pay financial rebates. Export sales of MSC-status companies are expected to reach \$263m this year.

Guidance for the MSC and flagship applications comes from top IT leaders, including Microsoft co-founder Bill Gates and John Gage, chief researcher at Sun Microsystems.

The flagship multimedia applications identified for development include government's multipurpose smart card and many e-

government, tele-health and smart school projects. There's even a paperless health clinic in Putrajaya and an incubator initiative aimed at encouraging "technopreneurs". Last year, the MDC launched eVillage, an initiative aimed at helping the MSC to become the regional hub for media and content development.

In the first phase, the MSC is a dedicated area set aside as a test bed for harnessing IT and multimedia potential, says Cheah. The second phase, from 2003 to 2010, aims to create a web of similar corridors in Malaysia. The third phase, through 2020, will see the whole of Malaysia transformed into a knowledge economy.

It is a grand vision. With support from government and close ties to the Asia-Pacific region, Malaysia aims to take advantage

of a developed infrastructure of low-cost and skilled work force, political stability and a multicultural population. More than 10 million Malaysians register for higher education and almost 20% of Malaysia's 9.6m-strong workforce are knowledge workers.

Unlike SA, which tends to have ad hoc IT initiatives, resulting in duplication and conflict between government departments, the Malaysian initiative is comprehensive and driven from the top.

Another key difference is that the MDC reports directly to the prime minister, so, if any ministry is lagging behind, it can be hurried along, says Cheah. He says that unlike other countries have elementary IT, Malaysia's policy, none offer a whole scope. SA would do well to look to Malaysia when formulating its policies.

## BRIEFING: INFORMATION SECURITY

# May as well leave the door open

WHILE MOST SA COMPANIES HAVE SECURITY MEASURES IN PLACE TO PROTECT THEIR INFORMATION ASSETS, THERE'S STILL WORK TO DO

Lance H

**T**his is supposed to be a time of deep paranoia in IT departments, a fear fuelled by the security issues highlighted by September 11 and a raft of recent high-profile hacking incidents, worms, viruses and denial-of-service attacks.

On the contrary, most companies in SA and the rest of the world are leaving themselves wide open to attacks on their information assets, through neglect or ignorance.

In its latest Global Information Security Survey, management consulting group Ernst & Young offers a blunt appraisal of the readiness of corporations around the world to cope with attacks on their information systems: "There are alarming gaps and some organisations could be judged irresponsible in their approach to information security."

Some research firms estimate that around 80%-90% of companies have experienced some

sort of security breach at some point since the Internet burst on to the scene, be it a virus outbreak or a hacking incident. According to KPMG's Global Information Security Survey for 2002, around 87% of the world's 1,000 largest companies have experienced a violation of their IT infrastructure in the past year.

Viruses were reported by 61% of respondents. The next most common security breaches are theft of IT equipment (38%), e-mail intrusions such as spamming (29%) and denial-of-service attacks (27%).

So where has it all gone wrong? Security specialists agree that cutbacks of corporate IT budgets, a lack of user training, and poor implementation of security policies and procedures share the blame.

These weaknesses, coupled with an accelerating rate of technology change as well as the growing number and sophistication of virus authors and hackers, leave many



Mark Danton

## A HIGH PRICE TO PAY

	% suffering breaches	Average days lost/year
of IT equipment	38	21
of company documents (hardcopy)	12	11
of software	16	19
incident	61	68
of service attack	14	24
Intrusion (eg spamming)	29	12
ing of input and output	4	14
le intrusion (eg hacking)	12	84
system failure	12	80
confidential data	5	18

rganisations have experienced significant security s over the past year, resulting in large financial and vity losses

SOURCE: KPMG

nterprises vulnerable to attack. problem is that companies don't know r it's worth spending so much on y, says Mark Danton, Ernst & Young artner responsible for information sys- ssurance and advisory services. "They now how much a serious attack would nd because so many attacks remain ed, they're not sure of how many ey would incur that cost," he adds. even well-intentioned companies often away their security budgets by not ing their technology investments with t staff and processes.

not seeing enough of a structured h to information security [in the SA

It needs to be based on solid risk ment principles. Companies are putting nology in place, but they often don't : skills in-house to look after it, or they ople who don't understand risk man- who are responsible for security," says Nelson, MD of software quality as- ompany iLab Project Services.

rganisations imagine that they are i attack as long as they have a firewall not realising that technology is only ive as the policies and procedures , says Christopher Jones, BMC prod- ger of MGX Enterprise Solutions. on process and human failures in- r configuration of security tools such lls, inconsistent enforcement of se- icies, and slack management of user ts. US analyst firm Gartner suggests is 90% of security breaches could be if network administrators configured

security software properly and stayed up to date with the latest ways of fixing problems.

Most denial-of-service and hacking incidents take advantage of documented vulnerabilities in software, such as the Linux and Windows operating systems, according to Gartner.

Companies have also failed to pay enough attention to education of staff members in security policies. US-based PentaSafe Security Technologies found in a recent online survey that about 90% of the nonsecurity personnel in American companies believed that a password based on a name or a common word was safe.

They gave no thought to using a number or punctuation character in the middle of the password to make it harder to crack. Even more shocking, 60% of respondents did not understand the consequences of not complying with their companies' security policies.

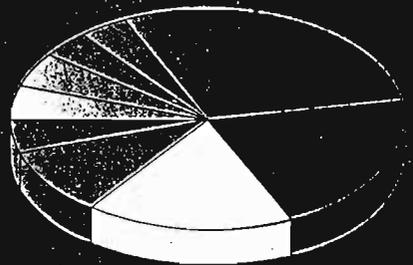
Crackers are likely to make increasing use of guile to persuade employees to give them access to normally out-of-bounds areas in a company's office or to give them sensitive information such as passwords.

Tight budgets are another problem. For example, the open-source operating system, Linux, is an alternative to expensive, dollar-based software, particularly for applications such as e-mail and Web servers. But many companies neglect to take the steps needed to secure Linux servers, says Stieler van Eeden, of Ernst & Young SA's e-security team. He es-

timates that more than 80% of Linux servers in SA that are not behind a firewall have been compromised.

The release of the King Committee's second report — the latest version of SA's guide to corporate governance — has a strong emphasis on risk management and places responsibility for IT issues directly on the shoulders of the board of directors. This signals that information security has emerged as a critical issue for business leaders — and they have much work to do to address it. ■

## MOST IMPORTANT INFORMATION SECURITY ISSUES



- Viruses - 22%
- Hackers - 21%
- Remote access controls - 17%
- Internet security - 10%
- Leak of information/data privacy - 5%
- Education of users - 5%
- B2B security when collaborating with partners - 5%
- Internal fraud - 4%
- Theft of or damage to data/information - 4%
- Other - 7%

SOURCE: KPMG

## It's too complicated: hand it over

*OUTSOURCING COULD SPELL SOME RELIEF FOR security headaches, especially the cost*

Lance Harris

**S**outh African companies are expected to turn to managed security services providers (MSSPs) for cost-effective ways of coping with the growing complexity of information security and the acute shortage of specialist skills.

Enterprises want to focus on activities that directly affect revenues and customer service, while leaving essential but noncore parts of their operations to specialist service providers.

"Information security is such a complex field, it's difficult to come to grips with it. There's no clear return on investment for most companies in maintaining a huge security staff

of their own," says Pieter Pretorius, business solutions divisional manager at Comparex subsidiary Nanoteq.

Many local enterprises already outsource some security measures, such as firewalls and intrusion-detection services, to third parties. Usually they retain control over security policies and architectural decisions. That's set to change as a range of SA IT groups prepare to offer a full range of services.

Companies positioning themselves as MSSPs include Nanoteq, Internet service provider Internet Solutions (IS), Nampak's specialist information security group NamITech, and sys-

## BRIEFING: INFORMATION SECURITY

tems integrator Unisys SA. Typical services offered include firewall management, intrusion detection, vulnerability assessment, antivirus management and security intelligence.



Saki Missaikos

Companies can save through outsourcing because they don't need to hire their own staff or buy hardware and software, says Saki Missaikos, business solutions director at IS.

IS estimates that it will cost a typical small to medium business R311 000 in the first year and R78 000 in the second to install and manage its own firewall. By contrast, an outsourced solution will cost about R50 000 in the first year and R45 000 in the second, he says.

Much of the cost lies in the fact that systems need to be tended all the time because the Internet is always available, says Grenville Payne, practice manager at Unisys Africa.

Another advantage MSSPs offer is helping customers get Web-based initiatives working sooner. "A new business-to-consumer or business-to-business Website could be delayed by up to two years if a company tries to recruit in-house information security experts and build its own infrastructure," says Missaikos.

Most local MSSPs admit that their offerings are still works in progress and that many companies are not quite ready to outsource such a sensitive part of their business. "It's a question of building relationships of trust," says Pretorius. But necessity will prompt many SA companies to try it. These days, only specialists and the largest companies can afford the latest and best technology.

Rebecca Tshabalala



Pieter Pretorius

### SYMANTEC

## Eating up the competition

The information security market is at last showing signs of maturity. A handful of companies, among them RSA Security, Symantec and Verisign, have begun to dominate the field.

The company that has arguably done the most to consolidate the market is Symantec, which three years ago began its transformation from a waning PC utilities vendor into a highly profitable, focused Internet security company. The Symantec of today is a US\$1bn/year software and services company with a range of security products.

"Think of how the systems and network management space has narrowed down to Hewlett-Packard, Computer Associates and IBM from dozens of players five years ago. We think the security market is likely to do the same," says Rob Clyde, Symantec's chief technology officer.

Best known for its Norton antivirus and utility packages, Symantec still ships more shrink-wrapped software in a year than any other vendor other than Microsoft. But the company has also successfully diversified from the retail space into the corporate market, which now accounts for 65% of revenue.

Much of the credit for reinventing Symantec goes to John Thompson, a former IBM executive who took the helm in April 1999 when it was a struggling vendor of PC utilities battling to keep pace with rival Microsoft. Under his guidance, Symantec got rid of the Act! contact management software and Visual Cafe development tools, and beefed up its enterprise offering by acquiring start-up companies Axent Technologies, L-3 Security and 20/20 Software.

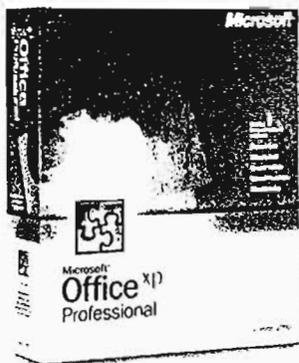
The pattern of consolidation in the information security market is already building big barriers to entry for new competitors. Symantec, for example, has made staggering investments in infrastructure and bandwidth to support its business — its LiveUpdate service alone represents an investment of "tens of millions of dollars", says Clyde.

LiveUpdate, which allows customers to download patches and product updates, caters for 1.7m downloads a week; when particularly nasty and pervasive virus strikes, this rockets up to 10m downloads a day, he adds.

Symantec's main focus over the next 18 months will be on improving integration of the products it inherited from its acquisitions into suites of server, client and gateway software.

"Customers are telling us they want security to be simpler," says Clyde. "There aren't enough skills to go around, and the threats are becoming larger and more complex."

Lance Ho



## Activate this

Microsoft claims its controversial decision to include product activation technology in its latest productivity suite and operating system is paying dividends.

The technology, which is built into Office XP and Windows XP, forces users of the software to activate it — either over the Internet or telephonically.

In the Europe, Middle East and Africa region, 2.6m attempts to activate Windows XP have been rejected since the software first shipped (6.5m, or 71.4%, have been accepted). For Office, the number is 3.4m (9m, or 72.6%, were accepted).

Cindy White, product marketing manager for Office and Windows, says the numbers are in line with piracy rates for the re-

gion, which typically average between 25% and 32%.

White says product activation has been generally well accepted by consumers.

She says there have been isolated instances where users have been concerned that their personal information was being uploaded to Microsoft during the activation process, but she says those concerns are quickly allayed.

Though it's still too early to tell what impact product activation is having on piracy worldwide, White believes at least a small part of SA's declining levels of piracy (it's falling steadily each year) can be attributed to it.

Large companies don't need to worry about product activation; the software they buy from Microsoft has the activation technology stripped out of it.

Duncan McLeod



## Pills, religion or nothing?

### THE GREATEST INVENTIONS OF THE PAST 2 000 YEARS

edited by John Brockman (Phoenix, 192pp)

**W**hat is the greatest invention of the past 2000 years? This is the question John Brockman asked scientists on his Website. The answers are fascinating.

Unsurprisingly, many of the respondents choose the printing press and movable type. But there are more offbeat suggestions that transform the book from predictable laundry list to the inspired.

Susan Blackmore, a reader in psychology at the University of the West of England, chooses the contraceptive pill because women freed from being almost permanently pregnant can spread memes (ideas, skills or habits) by imitation and, thus, have a greater effect on culture.

Other suggestions include sec-

ularism, Islam and Christianity, marketing and the city.

My favourite is nothing. Henry Warwick, an artist, composer and scientist, says he is "too disengaged and alienated from the dominant cultural paradigm of messianic technology to think that there is a 'greatest invention' of the past 2000 years." He argues that every invention has brought human misery or "resulted in a meaningless tangent that renders it fairly useless".

He says we are not progressing but simply evolving and adapting to our environment. He says that when he thinks of invention he sees its opposite or tangent. "The printing press = World Weekly News Video = Barney the purple dinosaur. The computer = Finnish pornography Websites."

Computer networks, the digital bit, the computer and the Internet are mentioned for obvious reasons — they make it possible to disseminate information quickly and easily.

Each writer gives a logical argument for their choice, some serious, others less so.

Margaret Williams



## Used, not useless

Cape Town-based FreeCom has made a business out of refurbishing used PCs for sale in a fast-growing second-tier market.

"Used, fully depreciated hardware is not redundant technology," says MD Rob Packham. "Older technology is perfectly adequate in certain niches, such as education, the Soho market and in developmental projects.

"Most people use less than 10% of the capacity on their desktop machines," he says.

Since FreeCom was founded 18 months ago, its staff have worked to change entrenched attitudes on the buying and selling of used PCs. "The sentiment is it's crazy to buy a used PC," says Packham. But low cost does not have to mean second grade. Every PC the company buys is stripped down, tested and rebuilt according to ISO and (soon) SA Bureau of Standards rules.

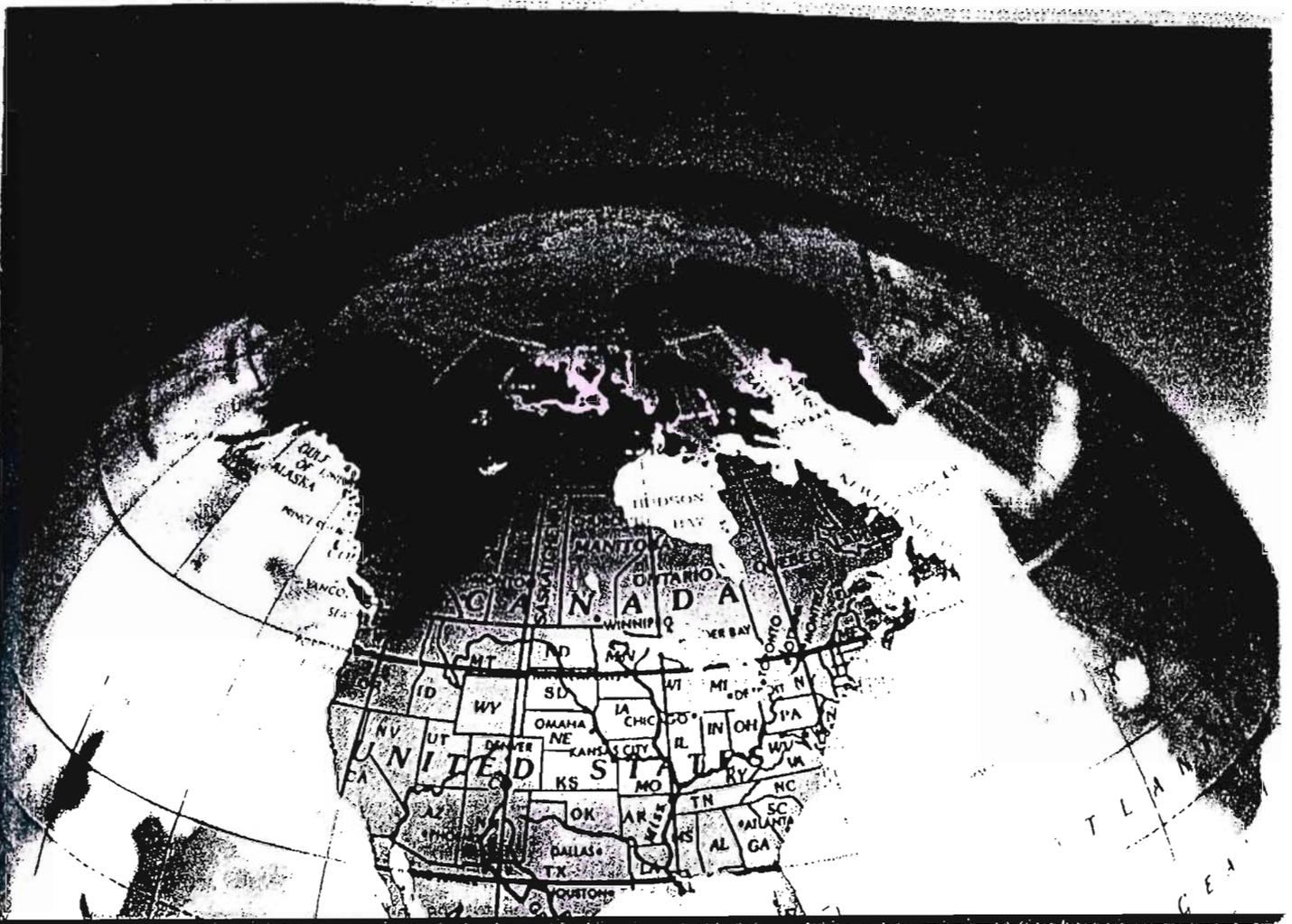
The company sells Pentium Is, IIs and even IIIs, equipped with e-mail, Internet access, a word processing package and a spreadsheet — and a 12-month guarantee. Also, the software is legitimate — FreeCom is the first "Microsoft Approved Refurbisher" in SA.

Yet the SA market was slow to warm to a service that seemed too good to be true. FreeCom will collect the PCs from the workplace, ensure the residual data is erased (PricewaterhouseCoopers audits and certifies this process), provide accurate asset management information and ensure the correct disposal of computer scrap. Now, says Packham, demand outstrips supply. To keep up with demand, the company buys used computers from the US and Europe.

"We pay R500-R800/computer and sell them for R2 500 and up," says Packham.

Margins are generally between 15% and 20%, twice those made by the world's big PC manufacturers.

Sasha Planting



# cellular around the world

## DRC

The African Renaissance moved a step forward with the signing of a joint-venture agreement in October between Congolese Wireless Networks (CWN) and Vodacom International Holdings (Pty) Ltd. There are only 100 000 phones for the more than 60 million people in the DRC, which is Africa's third biggest country.

The agreement was signed by Mr Andrew Mthembu of Vodacom and Mr Aliou Conteh, Chairman and CEO of CWN. Vodacom will have a 51% stake in the joint venture while CWN will have a 49% stake. Mr Mthembu will occupy the chairman's position and Mr Alioume Dieng will become CEO of the new consortium. Vodacom International believes that the total potential market for cellular stands at 5% of the DRC's 60 million inhabitants and the company is confident that its new joint venture will capture at least 60% of the total market.

## WORLD

Vodafone Group Plc, a 31.5% shareholder in Vodacom Group (Pty) Ltd, recently announced the launch of its first

global communication campaign. The campaign is the largest in Vodafone's history and will feature TV, cinema, print and outdoor media. Each version will ask the question 'How are you?' Sir Christopher Gent, Vodafone's chief executive, said: "This campaign is a key next step in our plans to establish Vodafone as a truly global brand and we aim to run "How are you?" in all our major markets across all types of media." The new global brand campaign was created by Wieden + Kennedy, one of the world's leading creative advertising agencies.

## UNITED KINGDOM

A UK judge has issued a warning that SMS messages are the latest weapon in divorce courts and has urged unfaithful wives and husbands to delete them.

Judge Timothy Nash gave the warning during a case at Canterbury Crown Court, Kent, involving a man who attacked his partner after reading SMS messages that she had received from a lover. **D**

# working together

## BLUETOOTH AND WAP: TWO TECHNOLOGIES IN PARTNERSHIP

### WAP status

WAP stands for Wireless Application Protocol and it essentially defines a standard global method for information transfer between mobile devices and the Internet. It's a standard that's continually evolving, with the latest version, WAP 2.0, due for release shortly. In order to use WAP your cellphone must support the standard, while your Personal Digital Assistant (PDA) should have a WAP browser installed.

There has been a lot of hype - and criticism - around WAP and many people have been left disillusioned with the whole mobile Internet concept. The technology is in its early days and is only now starting to mature. The four main factors for WAP's apparent failure are slow connection speed, slow data transfer, cost of use and poorly designed WAP websites. It's important to remember that people who use WAP do so because they want to retrieve a specific piece of information, or perform

a transaction, e.g. ticket booking or mobile banking not acceptable for the connection to take 30 seconds and then still have to navigate through menus at a painfully slow rate. With the introduction of GPRS in 2002, the long connection time and slow data transfer problem will be directly addressed, and will no longer be obstacles. To be effective, a WAP browser should be specifically designed with the mobile user in mind. Unfortunately, many WAP websites simply serve up large graphics and serve the same information to a mobile user that they would to a PC surfer. The result is that mobile surfers become impatient and frustrated. Luckily, mobile website developers are starting to see the light and are critically looking at how information is served to mobile surfers.

In the meantime, Vodacom has drastically reduced the cost of off-peak data calls. Until the end of December 2001, off-peak data calls have been reduced to 10c per minute.

per minute, effectively allowing subscribers more time to surf with WAP and also saving them money.

#### What is Bluetooth?

Bluetooth is the codename given to a low-power digital radio technology. A broad range of electronic devices will have a Bluetooth microchip built in (or support a plug-in adaptor) to allow short-range (10 metres) wireless, high-speed and secure digital communication. Its application potential is virtually unlimited and within a couple of years all the things that are now connected by data cable could be connected wirelessly. Bluetooth, unlike infrared data connections, does not require a line of sight between devices.

#### Bluetooth and WAP working together

Workers are becoming more mobile and are required to be more mobile than ever before. Wireless technology has assisted them in becoming less tethered to the office...and Bluetooth will take mobility one step further, both in and outside the office.

#### Inside the office:

Bluetooth access nodes are connected to the corporate network at various points in the building. Devices within range of the access node can then wirelessly connect to the network. For example, a Bluetooth-enabled PDA, e.g. Palm, iPaq, or HP with a WAP browser, can instantly connect to the Internet through the corporate network, or to a corporate Intranet. WAP browsing in this way is extremely fast and does not suffer from the limits described earlier. Other advantages are the larger display and more convenient data-input methods that a PDA supplies.

If you don't have a PDA, then your Bluetooth-enabled phone can also be set up to connect directly, via Bluetooth, to the corporate network without having to dial up. The only limitation in this example is the screen size on the phone.

#### Outside the office:

In this example, we use the Bluetooth-enabled phone to make a GSM connection to the Internet or corporate network. The Bluetooth link is used to wirelessly connect the phone (acting as a modem) to your PDA. Note that there is no great speed advantage, as we rely on the GSM network for the connection (this will change with GPRS), but we do have the advantages of a large screen on the PDA. Another subtle touch is that you can simply take out your PDA and start working while your phone is in your pocket or briefcase. The Bluetooth link ensures that your phone performs all the necessary actions. Once the GSM connection is made, WAP surfing, or checking your email, calendar and contacts, is as easy as if you were in the office.

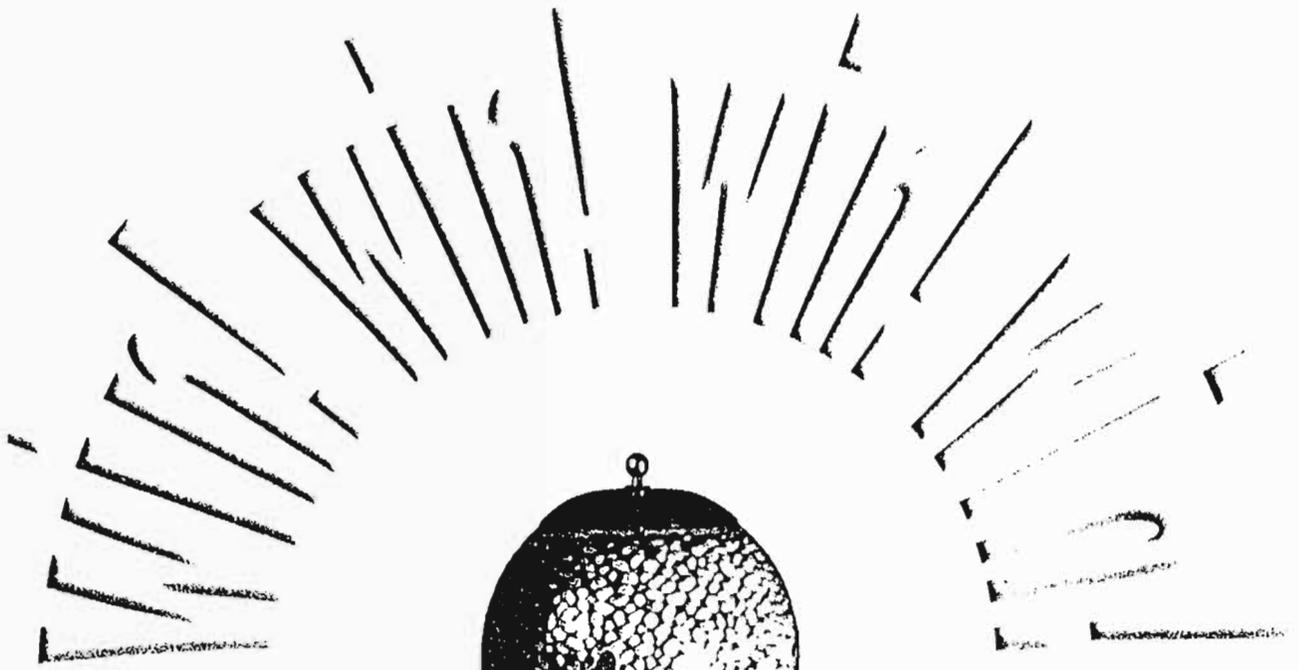
All the above scenarios are currently available and working in South Africa - the evolution to a wireless world is taking place. 

Workers are becoming more mobile and are required to be more mobile than ever before.

### AT A GLANCE



1. In order to use WAP (Wireless Application Protocol) your cellphone must support the standard, while your Personal Digital Assistant (PDA) should have a WAP browser installed.
2. With the introduction of GPRS in 2002, the long connection time and slow data-transfer problem associated with WAP will be directly addressed, and will no longer be obstacles.
3. Vodacom has drastically reduced the cost of off-peak data calls to make the WAP experience more affordable.
4. Bluetooth is the codename given to a low-power digital radio technology that allows short-range (10 metres) wireless, high-speed and secure digital communication.
5. Bluetooth, unlike infrared data connections, does not require a line of sight between devices.
6. Inside the office: devices within range of access nodes can wirelessly connect to the network, offering larger displays and more convenient data-input methods.
7. Outside the office: the Bluetooth link is used to wirelessly connect your phone (acting as a modem) to your PDA. Once the GSM connection is made, WAP surfing, or checking your email, calendar and contacts, is as easy as if you were in the office.



win this unique funky  
bluebean.com jelly bean  
vending machine that  
can also be found in  
Standard Bank branches.

simply apply for your  
bluebean.com credit card  
by calling 0861 121 131  
or visit  
www.bluebean.com and  
answer the question  
below.

question: from late October,  
where will you be able to apply  
for a blue .com credit card,  
other than online and  
telephonically?



blue .com

e-mail your answer to help@bluebean.com,  
including your name, daytime  
telephone number and address.

the offer ends on 31 december  
2001 and is open to successful  
card applicants only.

powered by 

get a card.  
even if you still think  
a mouse is a rodent.

→ cards now available from any Standard Bank branch

- ☛ earn "beans" every time you spend
- ☛ the card is a MasterCard and is backed by Standard Bank
- ☛ use the card wherever, whenever
- ☛ get interest free credit for up to 55 days
- ☛ free access to internet banking
- ☛ get up to 50% discount on selected travel destinations
- ☛ free delivery
- ☛ call 0860 121 131 or visit [www.bluebean.com](http://www.bluebean.com) and apply now



for additional benefits and loyalty details, contact [bluebean.com](http://bluebean.com) on 0860 121 131 or visit our website.



blue [bean.com](http://bluebean.com)

REG 1102/319 1000

# Hot Desking

How will mobile technology developments affect your future working life?

Rather than be a New Age gypsy and try to look into my technological crystal ball in order to discuss specific technologies or their emergence, I prefer to avoid risk and look at the emerging trends of mobility in the workplace. It's not a case of not sticking your neck out, but one of making observations and drawing conclusions.

There is no doubt, for example, that music has an impact on one's life. The medium through which it has been reproduced has changed dramatically, from gramophones to records, audiocassettes, CDs and, now, solid-state MP3 players. However, the act of listening and its effect or impact should not have changed... or should it? This is the question we ask about mobile technology and its effects, if any.

There are three major trends and technologies fuelling the Information Age, namely processing power and memory capacity, operating systems and application software, and networking and telecommunications.

## Processing power and memory capacity

Moore's law (Gordon Moore is a co-founder of the Intel corporation, the world's largest silicon chip manufacturer) states that every two years we will witness a doubling in processing power of the computer microchip. This trend has been remarkably accurate since its formulation in 1965 and is the basis for many planners' performance forecasts. In contrast, the cost and physical size of computer chips has decreased steadily. Computers are now so powerful that the average desktop computer today has more computing power than the entire Apollo Mission Control Centre of the 1970s. Today the effect of Moore's law is that the number of USA homes with a computer is over 30%, putting computers on a par with other household appliances like toasters and blenders.

## Operating systems and application software

Microsoft, through the leadership of chairman and CEO, Bill Gates, has dominated the operating system market worldwide. Graphic user interfaces, like Microsoft Windows, have simplified the use of application software such as word processors and spreadsheets, resulting in their proliferation. As processors have become more powerful, so software has become more elaborate and all encompassing.

## Networking and telecommunications

Sharing information is now the driving force behind the telecommunications industry, be it through the medium of voice, data or fax. Linking or networking of computers through Local Area Networks (LAN), Wide Area Networks (WAN) and, recently, the Internet, allows access to vast local and global information resources.

Global economies of scale and competition have also ensured that the real price of these enabling technologies has steadily decreased, in tandem with vastly improved performance. Developments in these fields and particularly the global adoption of mobile communication standards, most notably GSM, have led to fundamental changes in the nature of business. Corporations have, to varying degrees, started implementing these technologies to tap into the productivity, efficiency and effectiveness that they promise.

Mobile office technology sees the culmination of these driving forces, allowing business to leverage all three simultaneously to make substantial gains in productivity.

The mobile office is a relatively new concept of mobility in the workplace. Mobility has been achieved primarily through technological advances in the computing and telecommunications industries. The mobile office concept does not, however, inherently imply wireless mobile computing. It means that mobile workers are properly empowered, while out of the workplace, to replicate desktop communication and/or computing functionality, and to employ mobile computing solutions to provide competitive advantages for the organisation. Some organisations have already implemented the mobile office concept in varying degrees of complexity and have realised tangible benefits.

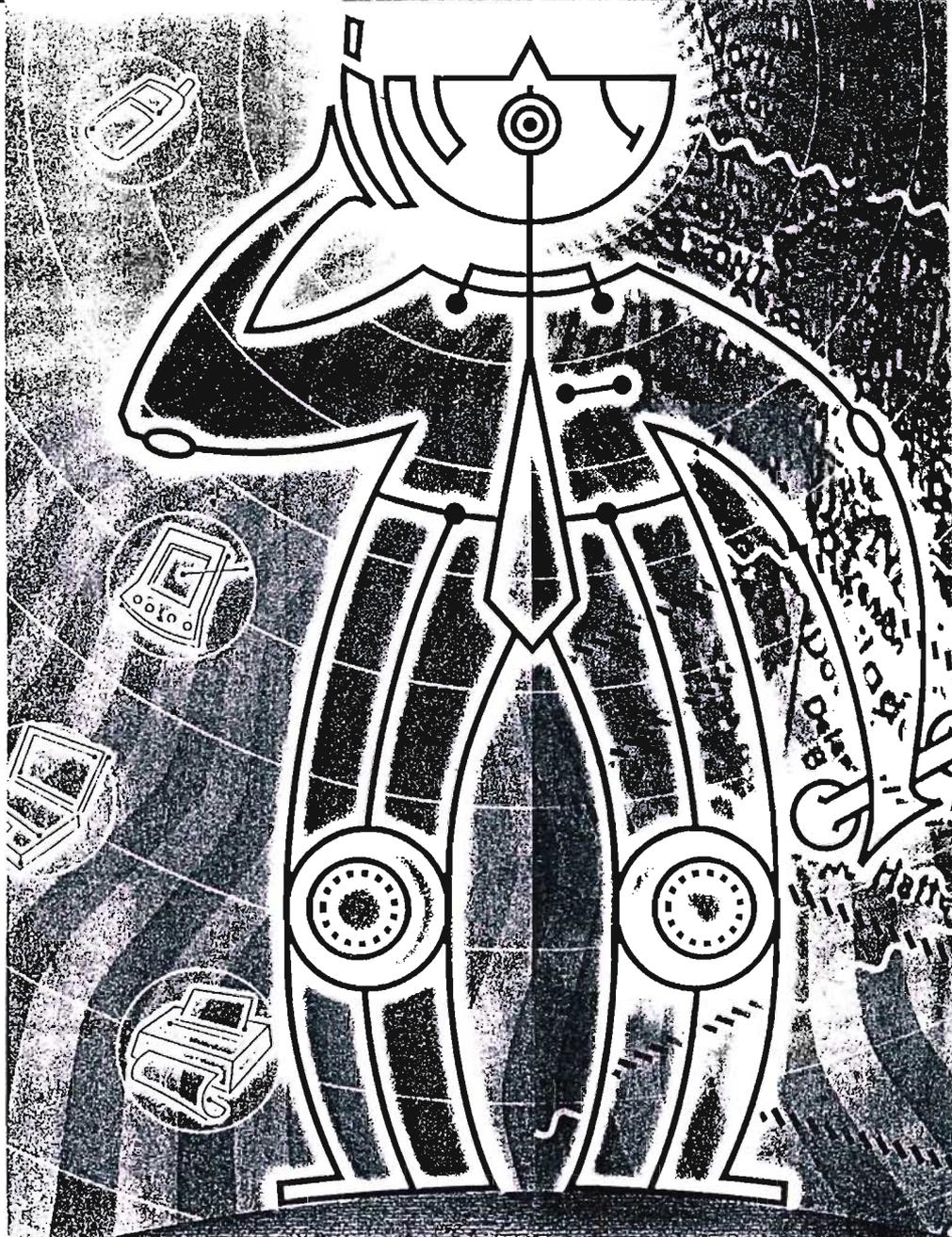
Early-adopter case studies have shown that mobile office technology has a significant role to play in business, with the common thread being a simultaneous improvement in service and a reduction in overhead costs. A mobile office strategy is a new method of conducting business and a change in thinking about the traditional workplace. Those organisations that already have a mobile solution in place will have a considerable learning and competitive advantage over those who don't.



Mobility is a facet of today's business world. Mobile telephones are poised to become the default means of communication in the not-too-distant future. Portable computers are shrinking in size, while becoming more powerful and affordable. The advent of the Internet has done for data communication what the telephone did for voice communication and, as such, enables far easier data transfer between computers. Organisations will therefore find it increasingly easier and more compelling to adopt a mobile office solution. Computers and communication terminals are inching closer together to become one, the Nokia 9110 communicator being a classic example. In the next two to five years, there will be a number of new terminals, optimised for wireless applications to allow Internet and Intranet access functionality, multimedia and robust data exchange.

Although technology is developing rapidly enough to allow cheaper and easier mobile office solutions to be implemented, it remains a business criterion and not a technological one, whether mobile office solutions should be implemented.

MIKE HALBERSTADT



# Digital

## Analogue

Analogue refers to signals that can represent an infinite range of numbers, as opposed to digital, which can only be distinct, whole numbers. Analogue data often comes from measurements, like a sine wave. The sound a modem makes over the phone is analogue since it can be any of a number of different frequencies. The fixed-line networks usually transfer analogue data and fax. The GSM networks are digital.

## Archie

A program and database which locates files on the Internet.

## ASCII

American Standard Code of Information Interchange. It uses seven bits to represent all uppercase and lowercase characters, as well as numbers, punctuation marks and other characters. ASCII often uses eight bits in the form of bytes and ignores the first bit.

## ASCII transfer

When a text file is sent directly as it is, without any special codes. Asynchronous Transmission is a transmission method in which the intervals between transmitted characters may be of unequal length. Transmission is controlled by start-and-stop bits at the beginning and end of each character. In this way, if there is line noise, the modem can find out right away where the next byte should start.

## Bandwidth

The difference between the upper and lower limits of a band; a range of radio, audio, or other frequencies. Since it is so limited, a modem must carefully change data into sounds that "fit" within this range. It is similar to frequency spectrum. The bandwidth of a voice channel is 3000Hz - 3001Hz which equals 2700Hz. Telephone lines have a bandwidth from 300 Hertz to 3400 Hertz.

## BASIC

Beginners All-purpose Symbolic Instruction Code is a programming language. It is called "symbolic" because it allows programmers to use symbols to represent numbers and information. In algebra, these symbols are called variables.

## BFT

Binary File Transfer

## Bit

A Binary digit is a number in base 2 (binary), which means that it can only be a 0 or a 1. It is used in the expression "bits per second".

## Bps

Bits Per Second. The transmission speed of most modems is measured in baud or bps. Bps is literally the number of bits sent by the modem every second.

## Byte

A group of eight bits. It usually represents one character.

## CIS

Card Information Services. A PCMCIA set-up protocol.

## CLIP

Caller Line ID Presentation. A code that is sent over the phone lines in some areas when a person makes a phone call. This code includes the phone number of the person making the call. The v.com network is able to understand this signal and let you know who is calling you before you answer the phone.

## CLIR

Caller Line ID Restriction. The ability to prevent someone whom you're calling from seeing your number.

## CDPR

Cellular Digital Packet Radio

## Cell

The receiver/transmitter a GSM phone connects to; the equivalent of the base station of a cordless phone. A cell can support a number of simultaneous calls.

## Checksum

A number that represents a larger group of numbers in order to check for errors in data transmission. It is commonly used when downloading a program, as well as in error-control protocols. The checksum is the result of a mathematical equation, such as adding all the numbers in a block together (although it is usually more complex than that).

## CMOS

Complementary Metal Oxide Semiconductor. A chip which uses small amounts of electricity. It is used, typically, on battery-powered computers and to save configuration information on other computers when they are turned off.

## Communications programme

A programme that controls a modem, that has features that allow the user to do such things as upload, download, etc. It is similar to a terminal programme, but more sophisticated. Examples are Trumpet WinSock, for connecting to the Internet, and Windows HyperTerminal.

## Compatible

When one object can work just like another. Although the term is usually used with computers, it is often used with modems. Many modems are compatible with other popular modems.

## Compress

To make data take up less space. Archiving programmes do this, which means that files will take less time to transfer by modem. Many modems now have the ability to automatically compress the information they send and receive.

## Cracker

From "hacker" and "safe cracker". A hacker who breaks into computers

## CTS

Clear To Send. This is when the modem lets one computer know that it can send information to the other computer.

## DAA

Data Access Arrangement. A device used to connect modems to the switched telephone network.

## Data over GSM

Sends digital data over the digital GSM networks.

## Data Compression

Some modems have the capability to "squash" data, so that it takes up less space. When another modem (that also has this capability) receives the data, it "unsquashes" the data to its original form. By using data compression, a modem can send information faster. It's a lot like shorthand - all the information is still there, but it takes less space and is quicker.

## Data Transmission Rate

The speed at which data travels. For example, data may be sent at 115,200bps. Same as transmission rate, transmission speed, data rate.

## DSA

Data Services Adapter, an alternative interface to PCMCIA for connecting to a fax or data terminal. The Siemens S1 uses a DSA.

## Digital

A system using discrete numbers to represent data. In computer systems, these are the numbers 0 and 1 (for binary). [See also Analogue].

## DSR

Data Set Ready. This indicates that the modem is on and ready to accept input from the computer (either commands or data to be sent over the phone line).

## DTMF

Dual Tone Multi-Frequency. This is used in tone dialling. It is a method where two distinct tones are sent for each digit dialled.

## DTR

Data Terminal Ready. The DTR signal is sent from the computer to the modem, to let the modem know that the computer is ready to communicate.

## EDI

Electronic Data Interchange. Commonly transferred by Internet or X.400 networks

## Error Correction

Error Correction. The ability of a modem to notice errors in transmission and to resend incorrect data.

## ETSI

European Telecommunications Standards Institute.

## E-mail

Electronic mail. Messages that are sent to individual people. You choose who to send the message to and only that person receives the message.

## Error

When there is line noise and one or more characters are changed. This is especially noticeable when downloading or uploading a program. In this case the error must be detected and the data must be re-sent.

## FAQ

Frequently Asked Questions

## Firewall

Computer security that attempts to keep crackers out.

## Flame

To write emotional remarks on electronic mail.

## GSM

GSM originally stood for *Groupe Speciale Mobile*, but has been anglicised to Global System for Mobile Communications, an international digital cellular standard. South Africa was one of the first to implement Phase Two of GSM.

## Handover

What occurs when a cellphone used in a car moves out of the range of one cell and needs to connect to the next available cell. The preceding cell then hands over the connection to the stronger cell.

# Dictionary

## Hertz

A unit of frequency, which equals cycles per second.

## ISO

The International Standards Organisation, the body responsible for setting world technical standards. It is based in Geneva, Switzerland.

## ITU

International Telecommunications Union, based in Geneva, Switzerland.

## Lotus

Famous for the Lotus 1-2-3 spreadsheet of the 1980s and, more recently, for its Notes Groupware system. Bought by IBM in 1995.

## Microsoft

The world's largest developer and publisher of software, based in Redmond, Seattle, USA. Headed by William (Bill) Gates, the richest (non-royal) person on this planet.

## Modulation

A process whereby a signal is transformed from its original form into a signal that is more suitable for transmission over the medium between transmitter and receiver.

## Modem

A Modulator DEModulator computer peripheral which allows a computer to communicate over telephone lines. This is the heart of computer telecommunications. The main factor that differentiates modems is their speed, measured in bps. Analogue modems talk to one another by converting digital information from the computer into tones called PSKs. An ordinary analogue modem cannot be physically connected to a GSM phone, because networks will not carry PSK tones.

## Network Operators

The folks who install and maintain GSM cellular networks.

## Non-Transparent Cellular Data

Non-transparent phones use a special error-correction technique called RLP. Transparent phones' data do not incorporate the RLP error-correction technique and their data MIGHT be corrupted.

## PABX

Private Branch Exchange. This is the telephone system that many offices have, allowing extensions for each telephone and a connection to the main telephone system.

## Parity Bit

Most modems have the ability to send an extra bit for every byte sent, which is used to help sense errors. This is called the parity bit. It can be set to no parity, mark parity, space parity, odd parity or even parity. Most BBSs do not use a parity bit.

## PC Cards

Previously known as PCMCIA cards, these are credit-card devices used in notebooks and desktop readers for, inter alia, data/fax, storage and GPS purposes.

## PCMCIA

A credit card-sized card that generally plugs into a notebook computer. It conforms to the Personal Computer Memory Card International Association spec. Now known as PC Cards.

## PSTN

Public Switched Telephone Network. This is the regular phone line that just about everybody uses.

## Phreaker

A person who spends a lot of time trying to find out as much as possible about the telephone company (like South Africa's Telkom), and how it works. They often try to find out ways to make long distance calls free of charge. Some steal calls from telephone credit card users, some steal calls from the phone company directly, and others don't make "free" long-distance calls. They are sometimes confused with hackers.

## PKZIP

The program which will create an archive with the extension "ZIP". It is one of the most popular archive programs.

## Pulse dialling

A method that some phones use to dial numbers. It involves a series of "clicks." Most modems support this type of dialling, which is the only type available in some remote areas. The other method of dialling is tone dialling.

## RPE-LPE

Regular Pulse Excitation - Long Term Prediction, the speech coding used by GSM

## Reset

A modem can be reset. This will change any options (such as parity and speed) to the values that they have when the modem is first used. This can be useful if you change some values for the modem and aren't sure what they do, and then you find that the modem won't work. Resetting the modem will fix everything for you. With Option modems, this is the ATZ command.

## RJ-11

This is a normal phone jack. The older South African plugs have a three-prong connector. All Option modems sold in South Africa have RJ-11-to-three-prong adaptors.

## RTS

Request To Send. This is when the computer tells the modem that it wants to send information to another computer. It is only used in half duplex mode.

## Serial Transmission

A method of transmitting data in which bits are sent sequentially.

## SIG

Special Interest Group. The GSM MoU has many SIGs.

## SIM

Subscriber Identity Module. This is a Smart Card installed in every GSM handset. Within the GSM application, the three primary roles of the SIM are access control to the network (authentication &

ciphering), service personalisation (SMS, advice of charge, etc.), network branding and advertising (graphics printed on SIM card). The new generation of Phase 2+ SIMs will enable services such as virtual cash, mobile banking, ticket reservations etc.

## SMS

Short Message Service will display a pager-like 160 character message in the LCD panel on the phone. Your phone must support SMS.

## Streaming

When data is sent continuously, without waiting to make sure there are no errors. Transparent mode on GSM is an example of a streaming method faster than non-transparent mode, but unreliable.

## Telecommunication(s)

This word has no precise definition, but is frequently used. Its definitions range from "any form of communication over a distance" to "any communication by electronic means" to "two computers 'talking' to each other via modems." Methods of communications that probably are considered telecommunications: telephones, cellphones, TVs and fax machines. The word is used both in singular and plural.

## Telecommuting

The concept of company employees working from home, rather than their offices. At home, they can communicate with the office (and other entities) by modem or voice calls.

## Telkom (South Africa)

Telkom is the parastatal fixed-line network operator in South Africa. Option modems are approved for use on the Telkom network and 25 other networks around the world.

## Tone Dialling

This is a method that a phone or modem can use to dial a phone number. It uses one audible tone per digit to be dialled.

## Transmit Level

The "loudness" level of the sound leaving a modem to go over the phone lines. It is measured in dBms. It should be different at different frequencies, since certain frequencies lose more over the phone line than others.

## Transparent Data Transmission

A method of transmission in which the transmission medium will not recognise control characters or initiate any control function. Transparent-based phones do not utilise any error correction. So the data sent and received MIGHT be corrupted, unless a greater-than-two-bar cellphone signal is used (South African conditions). Non-transparent data use a special ensure-robust GSM-specific error-correction technique called RLP for transmission. Vodacom's GSM network supports both techniques.

## WWW

World Wide Web. A hypertext system set up on the Internet.

## Xoff

The CTRL-S character. This is often used to pause information that is being sent. The information will be continued when a CTRL-Q is received.

## Xon

The CTRL-Q character. This will sometimes continue paused information.

## Xon/Xoff

The flow-control method using the Xon and Xoff characters. It is built into the software, not the hardware.

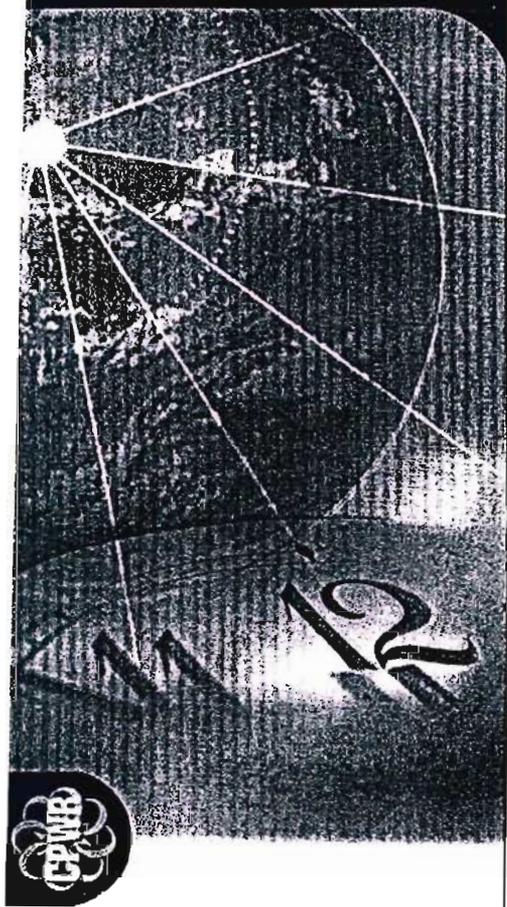
## ZIP

The file extension which refers to archives that were created by the program PKZIP. You need the program PKUNZIP to get the files out of the archive.

Courtesy of [www.cellular.co.za](http://www.cellular.co.za)

N

Compuware®



## Will your business crash if your application does?

Plan, monitor, manage and report on **application performance** – ensuring your business performs.

For your FREE copy of the "Troubleshoot Network Application Performance" white paper navigate to: [www.compuware.co.za/products/ecosystems](http://www.compuware.co.za/products/ecosystems)

For more information, contact Caroline Wylie on (+27 11) 516 2900 or [caroline.wylie@za.compuware.com](mailto:caroline.wylie@za.compuware.com) or log onto the website: [www.compuware.co.za](http://www.compuware.co.za)

COMPUWARE®



# Realities of e-commerce teach costly lessons

The whole concept of business-to-consumer e-commerce has fallen from favour in the wake of the dotbomb debacle. Retailers no longer blithely assume that the mere fact of having a Web site means that consumers are going to beat a path to their door. But e-commerce is not ready to be written off yet. The basic merits of taking the shopfront to the customer's desk or into his living room - at a fraction of the cost of a physical presence - are still valid. And the failures of the past can help companies contemplating an e-commerce presence to avoid costly mistakes and build systems that bring the promise to fruition.

It's not difficult to understand why business-to-consumer e-commerce has failed to set the world alight in the way that was originally anticipated.

While there have been some notable successes in the US, UK and Europe, the overall picture for e-shopping is really not as bright as it could have been by now.

Perhaps the main reason for the slow start is that, although consumers want convenience, they're not necessarily prepared to pay a premium for it.

Then there's the frustration factor, although this could be more applicable to South Africa with its slow and often-unreliable bandwidth issues. Delays in downloading and an almost-total inability to compare prices and services can make Web surfing an exercise in frustration that drives many users back to the mall.

The instantaneous nature of the Internet also raises fulfilment expectations that retailers can't always deliver on.

It's all very well ordering that book you wanted online, but if you have to stand in a queue at the Post Office to collect it, what have you actually gained in terms of convenience?

The good news for consumers is that as the unviable dotcom economic model finally fades off the radar screen, new and existing retailers can now approach their e-commerce projects in a more realistic way that holds out the promise of long-term success.

The important thing for companies embarking on an e-commerce initiative is to pay equal attention to all the aspects of the project, advises Mark Berman, principle technology specialist at Microsoft SA's enterprise group.

He explains that any e-commerce initiative is an evolution from the original idea, through to the business plan, funding, development, testing and implementation.



Mark Berman, Microsoft SA.

# e-commerce

## t valuable lessons

"A lot of projects fall apart at one or another of these stages," says Berman. "Often people go in too heavy in certain areas and then don't have the capacity or resources left for other areas."

The crucial element that many designers and developers fail to keep in mind throughout the project, however, is the ultimate user - the customer.

"Often you'll find a small team that's full of good ideas, but somewhere in the cycle the customer gets forgotten. And it's a fact that many e-commerce sites are simply not consumer-friendly - somewhere along the line they've missed the whole point.

"Companies have got to find the balance. They need great ideas, but they also need sound implementation. They need to end up with a stable site that works well at every point."

With the customer in mind, retailers must also be keenly aware that they have to offer the consumer a value proposition - a compelling reason to use a particular site.

"If I want to buy a book on the Web and it's the same price - or even more expensive - than I can get it at the store, where's the value proposition?" asks Berman. "And then the customer still has to pay for delivery.

"The truth is that there aren't that many sites out there offering a true value proposition. Many are too unfriendly to use and many simply don't make any sense at all.

"Retailers need to have a value proposition, and then they need to tell people about it. The truth is that consumers are 100% fickle."

Possibly because they're scared of criticism, most South African companies also fail to provide an online forum for customer feedback.

"Most sites don't give customers the opportunity to share experiences or opinions - it's one of the big things we are missing in South Africa," says Berman.

"Maybe retailers are afraid that people will say what they really think, but the fact is that people love contributing their opinions. One of the many things that 20Twenty did right was giving direct access to the CEO - people almost felt touched."

The value proposition to the customer needs to include fulfilment, and this is another area where local organisations fall down.

"It's very common for South African e-commerce sites, which function 24-hours-a-day, to offer deliv-

ery only during office hours."

Even that delivery comes at a price and is usually only on the following day - or even the day after. "This could be related to the non-service ethic we have in South Africa anyway," says Berman. "But it contributes to why people don't use the Web."

Not all e-commerce sites are doomed for failure. Common sense planning has protected many companies from becoming casualties on the dotbomb field.

Spescom CEO Carl Mostert points out that there are many e-commerce success stories and companies that are not implementing their own Web strategies may fail to compete in the future.

However, he advises caution when setting up an e-commerce presence. "Many companies are so intent on 'not missing the bandwagon' that they are rushing into e-commerce without considering all elements needed to attain the desired efficiencies of their new technology.

"There is no substitute for normal, sound business practices, including maintaining good relationships with existing customers, making profit and keeping stakeholders happy."

A carefully considered strategy that vertically integrates all components of both the supply chain and customer chain is therefore essential.

"The second cautionary principle is to choose reliable partners," says Mostert. "No company can face the e-commerce challenge alone and every resource - both in-house and outsourced - will have to be harnessed with the aim of satisfying the customer."

Ensuring a customer-centric, as opposed to a product focused approach to business, is a third, vital component to success.

"Companies should realise that products are now simply commodities - they will not survive in future if their focus is product as opposed to customer-orientated," he says.

Finally, Mostert counsels that the move towards e-commerce should be viewed as enhancing the way a company does business, rather than as a clean sweep replacement to the way business was done in the past. E-commerce capability should form part of the company's overall service offering.

"If companies are trying so hard to reach new customers that they are neglecting the needs of their existing customer base, then they place themselves

in a perilous position," he points out.

"Serving customers is not new," he concludes. "However, there is no doubt that technology will enhance business relationships and improve the enterprise's chances of retaining its customers."

Rubico's Jay van Zyl agrees that the twin principles of customer focus and balance throughout the entire implementation are keys to success in any e-commerce venture.

"There is one formula to success in e-commerce and that is to become a totally efficient organisation that delivers value at every stage of a customer transaction, and via every customer touch point," he says.

"Implementing that formula is easier said than done, but there is no chance of e-commerce tolerating inefficiencies in any process. Early e-commerce initiatives failed because they didn't heed the warnings and allowed one or two weaknesses to creep in and ruin the entire customer experience.

"It might have been an inability to handle queries efficiently, a lack of integration with back-office systems, or inadequate product delivery at the end of the process. Whatever the weakness, the e-commerce model proved to be totally intolerant," he says.

It is intolerant because it is an ambitious model, so Van Zyl's advice to companies embarking on an e-



Jay van Zyl, Rubico.

commerce programme is to make sure that their top priority is the successful integration of their back-office systems with the e-commerce solution.

"Get the internal processes right before extending out into the supply chain," he urges. "The back-office is the cornerstone of e-commerce. Early e-businesses thought they could do without this tight integration, but they soon found out they couldn't."

He adds that to avoid becoming locked into one technology, it is essential for companies to separate their technology architecture from their

business processes.

"Doing so will give them the flexibility and scalability they will need to accommodate future business complexities and new technologies."

In the midst of planning an e-commerce venture, companies need to be sure not to lay aside core business values.

As Frederick Morrison, Group MD of Vesta Technologies Holdings says, it is unwise to distinguish an Internet business from any ordinary business.

He points out that the biggest downfall of the e-revolution was the measurement system it applied, with the perception that the number of visitors to a site equated directly to the revenue generated.

## Security concerns hinder e-commerce adoption

There is no doubt that one of the major inhibitors to the widespread adoption of e-commerce by consumers is ongoing security fears.

Customers are still not comfortable sending their financial information - and authorisation - into a cyber-black hole and the occasional horror story that comes to light does nothing to ease fears or engender confidence.

According to Clive Handley, e-business specialist at NamiTech, users and merchants alike are eager for the cyber equivalent of the real-life signature.

The good news is that this may very soon become a reality.

"Until the arrival of the smart card and biometric technology, the search for the cyber equivalent of a real-life signature would have been just that - a continual search.

"But the inexorable arrival of the smart card-based bio-signature will create a new environment of confidence for consumers and businesses in general."

Handley says consumer confidence is a critical factor in the take-on and acceptance of online trading, and if any doubt exists many players will simply return to the traditional ways of conducting business.

"If there is no trust in transactions taking place on the Internet - a potentially wide-open network - worldwide adoption will be negatively affected.

"Right now, many consumers have adopted a wait-and-see attitude, believing better security measures still need to be put in place."

And with mobile computing still the biggest industry growth area, Handley believes that smart cards will soon come into their own as users will be required to carry a portable signature.

"While we are currently using security technology such as the PKI [public key infrastructure] digital certificate, together with SSL [secure socket layer], the transmission of transaction data is not 100% failsafe," Handley points out. "It's close, but not quite there.

"The smart card solution is a means of both storing and generating the data necessary for a binding signature. A smart card can be likened to an electronic safe: it lets the user lock away his private key in a safe and protected place."

Bio-signatures take this concept one step further and users can authenticate their identity by placing a finger on an integrated smart card/fingerprint reader. Only once the fingerprint is authenticated, the transaction can continue.

However, it's not just users who are at risk in online transactions. South African banks lose millions of rand each year through online credit card fraud - a figure that is expected to increase as e-commerce takes off.

Mosaic Software, has linked up with leading UK card-based transactions services business, Retail Decisions, to step up online transaction security for its clients.

Mosaic Software has also designed its Postilion transaction platform for seamless upgrade to EMV compliance (a new smart card standard that offers new, heightened levels of security).

The agreement with Retail Decision means that Mosaic clients will be able to simultaneously route card authorisation transactions to ReD's ebitGuard service for fraud analysis and prevention prior to completion of the merchant transaction.

"With the growth of payment card use, e-commerce and card-not-present transactions, the business of combating payment card fraud has never been more important," says Johann Dreyer, executive chairman of Mosaic Software.

However, now things have taken a turn for the better, Morrison believes, with the return to traditional business models that are profit-based and not revenue-based. "I guess the ultimate question remains one of cash flow," he says.

It is not only the financial side that Morrison believes is better off with a return to the traditional.

"I view the Internet as a standard component of business which must be tightly tied to the very core of what companies do. It contributes to the economic value of a business the same way as any other technology or strategy that a company may employ."

The Internet allows for the automation of routine communications, transactions and processes, while reducing the cost of searching for both customers and suppliers.



**Frederick Morrison, Vesta.**

Morrison believes the Web can successfully be used as an ordering replacement system, where orders are placed online. The Web "company" is to function as an extension of, or in support of, a brick-and-mortar company.

"The fact is, customers are fickle," he stresses. "They will do business when and where they want. If you only have bricks-and-mortar outlets, you will lose the customers who like to shop from home in the middle of the night.

"But if you only have a Web store, you will lose the customers who feel uncomfortable shopping online."

The lesson for smart companies, he says, is to invest in tying together their online and offline business systems.

"Doing so lets you run a Web-based business on the same underlying infrastructure used to handle your offline business, saving you money and helping you serve customers through whatever channel they prefer to use," says Morrison.

## E-commerce dos and don'ts

The focus on e-business continues, fuelled by new developments in Internet technology. E-commerce protagonists point to its unbridled success and global adoption of Web-based trading. On the other hand, many online traders have a different story to tell. In this article, Andy Dalrymple, business technologist at Computer Associates, lifts the veil on some of the realities of the e-commerce world, bringing us face-to-face with the successes and the failures.

or anyone wanting to start an e-commerce venture there isn't a single right answer or correct method. Many business strategists and technologists have tried to distil the essence of successful online trading into a series of do's and don'ts.

As yet no-one has produced the definitive e-commerce manual. Many say the forces that permeate this arena are largely mythical and the skills evident here can be likened to the "black arts".

That said, the process of e-enabling a business has become highly profitable and many online traders are today reaping the rich rewards of their efforts. Sadly, greater numbers are crying over the spilt milk of their dreams and aspirations.

It goes without saying that the process of e-enabling a business should not be taken lightly. Many a successful brand has been given the kiss of death when exposed to the fickle and critical online market.

If there are any basic guidelines to follow, they are associated with the process of "tailoring" the product to the market.

For example, is the product selected for online marketing suitable for either a service-orientated marketing pitch or a price-dominated presentation?

The Wooltru Group, for example, opted for a service-orientated approach when they launched their "Woolworth's in the Bag" online service.

Would their Internet customers receive the levels of service promised? Would the online shopping ex-

perience be as good, or better, than the real "Woollies thing"?

These and similar questions were asked frequently within the corridors of power at the group's Cape Town head office.

Effectively, the entrenched value of the Woolworth's brand was being risked in this venture. Bad press from poor service, or more significantly, poor performance from the fulfilment solutions installed by Wooltru's IT consultants, could have spent disaster for the brand and significant losses for the company.

The story has a happy ending, as online service is proving to be a key Woolworth's differentiator and a worthy and welcome addition to the company's arsenal of marketing tools.

The same can be said of Kalahari.net, which set out to market books (and later music) online, based on a price platform. Again, the exercise was successful because Kalahari was generally able to deliver products cheaper than their store-bound opposition due to lower overheads and other factors.

However, these success stories could have turned ugly had the companies got their sums wrong.

Online, there is no such thing as a second chance. Should the customer have a bad purchasing experience, chances are he won't return to the Internet.

A disappointed online customer is a lost customer, both to the e-business and even to its bricks-and-mortar equivalent. In effect, faith in the brand is lost and the money spent by the organisation to foster brand loyalty is also lost.

It is often best to view the e-business model as an extension of a traditional business model rather than a completely new one.

In the traditional arena most business plans that are hastily conceived, poorly researched and underfunded end in disaster for their authors. The same is

true for online businesses.

This was underlined by the recent drama surrounding one of South Africa's banking and financial institutions that had set out to capture market attention and market share by offering free Internet access.

Although warned by many analysts, the institution went ahead with its plans and staked the equity of its brand on the success of the venture.

Initially, it seems to have been a positive move. However, cracks in the foundations of the plan were soon evident as critical mass was approached, achieved and later exceeded. The fears surrounding the perceived flaws in the initial business model proved to be well-founded.

The net result was a dramatic scaling back of the venture, with many dissatisfied customers having negative experiences due to poor Internet and E-mail performance and other service-orientated issues.

The message is clear: Make sure all elements of the e-business plan have been thoroughly researched, tested and appraised before launching a venture.

## Avoid nasty hosting surprises

*Companies that have expressed interest in taking their businesses online have no doubt, at one stage or another, been bombarded with the "do's and don'ts" of creating an online presence.*

When choosing a third-party solution provider to host your Web server, the solution must be solid, scalable and secure. However, one element that is rarely explained unless you read the fine print, is the fourth "s" - surprise. Surprise when you receive your monthly bill from the solution provider, that is. In an economy that has forced many businesses to cut costs across the board, the idea of appointing a third-party solution provider for hosting your server has become more and more attractive.

Not only is it more cost-effective than setting up your own hosting environment, but maximum security and protection of the data centre is usually ensured through access cards, network security, restricted physical access, video surveillance, fire protection and backup power generators.

Traditional pricing models for server hosting have, however, inhibited the uptake of this trend to a large degree.

When a third-party solution provider hosts a company's server, the company is charged a variable monthly fee depending on the amount of traffic that has been recorded on the site for that month. Surprise bills are usually the outcome of this, complicating budgeting and financial planning for businesses.

For example, company A has a server hosting contract with an Internet Service Provider which allows them 1Gb of Internet traffic to be served per month. The monthly charge is R2 000 and the excess rate (for all traffic exceeding the 1Gb) is R0,6 per Mb.

When a company promotion takes place and Web traffic usage exceeds the 1Gb by 1,5Gb, company A would be liable for the monthly charge of R2 000 as well as R900 for excess traffic. The company can therefore never be sure what their bill would be at the end of the month.

To eliminate the element of surprise in server hosting, M-Web Business Solutions has introduced a new pricing structure that works on a flat fee basis. Using this model, a company will pay a fixed monthly fee for bandwidth and additional bandwidth can then be requested at a fee. M-Web also offers all companies that make use of this fixed-fee server hosting service the first 64Kbps of bandwidth at no cost.

**By Eddie van Rensburg, GM of M-Web Business Solutions**



Customers will be strong and aggressive critics and the promised features and benefits of any system must be in place and able to be realised.

### Basic rules of business

It's also important to realise that e-business has not changed the basic rules of business devised by the Phoenicians: profit is still the function of the selling price minus the sales price, less overhead expenses. View the Internet as a tool, rather than a medium that has changed the rules.

An example of poor business planning concerns an online trader who obviously had not fully understood the key drivers behind a successful business, more specifically, the implications of cost-cutting.

In this case, while it was possible to order product online with ease from this vendor, there was no immediate confirmation that the order would be fulfilled.

Many surprised and disgruntled customers soon realised that their efforts were in vain when letters arrived in the post advising them of the unavailability of their product selection and highlighting the waiting period that could be expected before fulfilment.

By simply linking the primary Web site with those of suppliers' systems it would have been possible to verify stock availability online and so obviate customer disappointment and even anger.

### Human dynamics

Finally, it is wise not to forget the human factor when setting out on a new e-business adventure. What might sound great and look practical on paper may not be successful because of the human dynamics associated with the business.

For example, a major motor dealership embarked on a high-profile campaign to persuade customers to buy vehicles online. But they didn't take the human aspect into account.

In a scenario that was later found to be typical, a walk-in customer would be given preference over an online customer simply because the commission earned by the salespeople was higher in the former sale.

Thus salespeople would fight to make sales to "real" customers to the detriment of online customers, who were given poor service as a result.

Why did the company inadvertently discriminate against its online customers and risk losing customer loyalty as a result? The key reason was that management saw the online sale as effectively concluded on the Internet and, as a result, downgraded the salesman's role (and his commission) in its execution.

### Fulfilment, fulfilment, fulfilment

The watchword for e-commerce is fulfilment. This aspect needs to be - if anything - significantly better than that offered by bricks-and-mortar opposition. Its strategic importance cannot be over-emphasised.

In short, success is built on clever strategic thinking backed by the appropriate technology, adequate start-up funding and a great marketing concept.

## Ensure the online applications work

Effectively analysing and reporting on the relative health and reliability of a distributed Web-based application has become one of the most crucial issues facing management today.

That's according to Pauline Barnes, account manager at enterprise and e-commerce solutions specialist Compuware.

She says the ability for users to collect and view data from multiple machines, while correlating disparate data and event contexts across machines and technologies, is a complex yet vital task for companies wishing to maintain a competitive advantage.

"Compuware's DevPartner Distributed Analyzer is one of the first software development solutions in the industry that meets these

needs. Distributed Analyzer Remote Agent extends Distributed Analyzer's view beyond a single system to a view that incorporates multiple systems.

"Together, the two tools significantly reduce the time needed to fully understand the critical events and transactions that are at the core of distributed, Web-based applications," says Barnes.

Distributed Analyzer and the Distributed Analyzer Remote Agent allow Web professionals to quickly validate program quality, evaluate performance requirements, localise program errors and gain a comprehensive understanding of their distributed applications.

# Trading online in the new economy

In the old economy there was a mantra that executives used to repeat about where to build their shops, offices and factories. All you had to remember were the three most important things: location, location and location.

In the new economy that's out the window as companies set up e-businesses wherever the infrastructure is good, the tax breaks are generous and the costs are competitive.

If there has been one thing that the Internet has kick-started in its short mainstream life, it's dirt cheap global communication. Now it's set to turn the global trading environment on its head.

One of the great truisms about the Internet is that it allows borderless trade because traditional restrictions associ-

ated with global trade are falling away thanks to technology.

Saki Missaikos, business solutions director at Internet Solutions (IS), says many companies are choosing to host their e-commerce activities offshore.

"Let's take the example of a company in the UK

that has a Web site for its Japanese customers. If the Japanese server is in Tokyo, there are people there with the skills to update the content in the local language," he says.

"But it's more than just a convenience factor. South Africa is a brilliant location for hosting Web-based activities because it's cheap. It costs between 30% and 50% to run and maintain a Web site in South Africa compared to the cost for the same service in the UK. And South Africa has a technology skill set that compares with the best in the world."

The big problem with South Africa, however, is that Internet bandwidth itself is very expensive.

"Because there's no real telecommunications provider competition yet, it's hugely expensive for companies to move data around. In the US, a 2Mbps line costs around R250. In South Africa, it costs about R10 000. Statistics show that, because bandwidth is expensive, about 80% of companies opt for a 64kbps line. In Europe, the smallest on offer is nearly 20 times as wide, 10Mbps."

Missaikos says there was a time when companies believed that the machines that hosted their data had to be on their premises. Now, in many cases, it's irrelevant where in the world the machine is.

But with global trade come a few issues that need to be ironed out. Tax authorities are having to deal with the complex task of working out where to collect their revenues. And companies, squeezed by cost-cutting in the current economic climate are choosing to operate their e-commerce activities from countries that offer good tax breaks.

Says Missaikos: "It will probably take between two and five years to get the global e-business infrastructure up to speed. In some developed economies that's already happened to a large degree.

"In developing regions like Africa there's a way to go, but the revenue earning potential for the sub-continent is huge. Telecommunications deregulation should go some way to reducing bandwidth costs locally, which will open up the country as a destination to host e-business initiatives.

"Executives should bear in mind that, in future, business will happen where it's convenient and cheap. The world is e-commerce's oyster," he says.



Saki Missaikos, Internet Solutions.

## Sage drives Web Enterprise into local market

To offer companies a structured way of migrating their businesses online and then managing the systems and interacting with customers, Sage Enterprise Solutions is to drive its Web-enabled business management solutions (BMSs) hard into the local market.

That's according to Lee Mounter, the business advisory manager at Sage Enterprise Solutions South Africa, who says the company has seen increased trust in the Web from existing Sage customers - and increased demand for Web-based solutions from new customers.

"The challenges of moving business on the Web have been well-documented in the past couple of years, but it's still critical for companies to understand exactly which processes can go online and what the benefits will be," she explains.

"For the most part, companies we've talked to are looking to create a forum where customers can interact with them - placing and checking the status of orders, accessing pricing information and managing the delivery or supply chain. That's just the start of the Web-based process, the potential scope is clearly much greater.

"Sage Web Enterprise is a family of products that integrates with Microsoft and IBM e-business technologies, and is designed to take a company online in weeks [rather than months] at a reasonable price," she explains.

## Cellphone reception provided to Congo

Cellphone reception has been provided to a remote site in Congo Brazzaville, following the installation of unique advanced communications equipment by Webb Industries.

A MIKOM frequency shifting repeater was installed at Pokola on Congo Brazzaville's northern border with Cameroon to give coverage to a sawmill which is located in the rain forest where some 20 000 people previously had only limited communication. The site is 6 km from the nearest town. Webb supplied, installed and commissioned the entire system using its MIKOM repeater equipment which receives a signal from a BTS site at Ngombe and re-broadcasts to the sawmill.

Webb Industries is an acknowledged leader in the supply of GSM cellphone repeater systems to remote sites and has completed several major projects in inaccessible areas where GSM communications has previously proved impossible. The engineering team spent a week on site to complete the installation. Careful re-planning was essential as all equipment and personnel had to travel on two separate flights and then by boat up the Sanga River.

Webb Industries foresees potential for such systems in other countries where remote sites require communication systems that are effective but less expensive than satellite options.

For more information contact Webb Industries, 011 444 2299.

## Report looks at the prospects for mobile and Internet technologies and 3G

The *International Telecommunication Union* released its first mobile/Internet index as part of a research report entitled "Internet for a Mobile Generation". The index measures how each of more than 200 economies are performing in terms of mobile and Internet technologies and how likely they are to be able to take advantages of new developments in this field.

"Individually, mobile communications and the Internet have been the two major drivers of consumer demand for telecommunication services in the last decade of the twentieth century. Put them together and you should have one of the major demand drivers of this century," states Dr Tim Kelly, head of ITU's Strategy and Policy Unit. However, he cautions that while it takes "no great leap of imagination to believe that the convergence of mobile communications and the Internet will produce something big, it may take longer than we think."

Exploiting the new opportunities offered by the mobile Internet will require high levels of capital investment. For example, knowing the location of a particular mobile user, combined with targeted advertising, may make it possible for local businesses to attract users that are passing by. Investors want to see concrete

evidence that a market for mobile Internet services exist. But operators can't provide that evidence until they build the networks. Because of this 'chicken and egg' situation, the mobile Internet could potentially be the biggest gamble the telecommunication industry has ever taken on.

Nonetheless, the combination of mobile and Internet technologies, such as SMS and i-mode, is already transforming the way people interact and the way business is done. Some 2.1 billion SMS messages were sent worldwide in the first quarter of 2002.

Determining which economies are likely to provide the most fertile ground for the development of the mobile Internet is not an easy task. Countries that are doing well in terms of mobile services (for example, the Philippines) may not be doing so well in terms of Internet penetration. On the other hand, countries that are leaping ahead on Internet use, such as India, may have a sluggish mobile sector. Again, countries that have the most potential in terms of infrastructure development may be the most closed to foreign investment. It should also be noted that although the economies that score highest in the report, like Hong Kong, Denmark or Sweden are all high income, there are many low, lower-middle and upper-middle income economies

# TraX

TraX Interconnect (Pty) Ltd

**WORLD CLASS PCB  
MANUFACTURER**

Locally manufactured pc boards - 1 to 10 layers  
Production volumes  
Fast reliable prototype & small batch service  
"Shadow" direct metallisation  
Spray coated solder mask  
Bare board testing  
Flying probe testing to netlist



**Cape Town**  
Factory and Sales  
Frank Ellis  
Tel (021) 712 5011  
Fax (021) 712 5798

**KwaZulu-Natal**  
Shirley Jones  
Tel (031) 208 7908  
Fax (031) 207 9492  
Mobile 083 751 6594

**Gauteng**  
Monica Darmanovic  
Tel (011) 646 9018  
Fax (011) 646 5504  
Mobile 082 443 7243

email: [sales@trax.co.za](mailto:sales@trax.co.za)

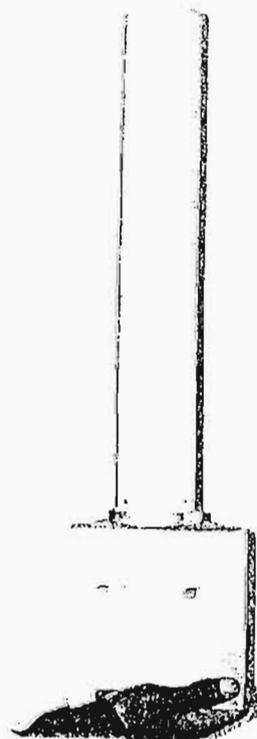
## 2,4–2,5 GHz horizontally polarised omni-directional antenna

Poynting has developed a new omni-directional antenna for wireless communication applications. This rugged horizontally-polarised antenna is part of the company's range of wireless communication antennas.

This antenna covers the 2400–2500 MHz band that is used for wireless networks and wireless Internet service providers. Being collinear the antenna is ideal for the high site in point-to-multipoint applications. It comes with rugged bracket for mounting on top of a pole.

The antenna has a gain of 5 dBi with a VSWR of less than 1.5 over the band. It is supplied with a N-Type female connector as standard, but other options are available on request.

For more information contact  
Claire Nitch, Poynting Antennas,  
011 262 5155,  
[sales@poynting.co.za](mailto:sales@poynting.co.za)



## convergence of mobile -up

ing much better than their relative GDP capita would lead one to expect.

### Market trends

There are a number of factors that will enable the rapid growth of the mobile market. First and foremost, the timely deployment of high-speed 3G networks. It will be a crucial catalyst for the generation of diversified multimedia services. Second, the availability and affordability of equated Internet-enabled handsets will be a prerequisite for mass penetration. Thirdly, the development of unrestricted (non-proprietary) mobile Internet content needs to be actively fostered. Mobile phones are already pervasive in all major developed economies and in an increasing number of developing ones, as well. However, with the advent of the mobile Internet, wireless gadgets are set to invade new areas of personal life and work.

The average car now has as much computer power as some of the early Apollo rockets and most families in developed nations own dozens of microchips embedded in different devices. The next stage of development is for microchips to gain the ability to communicate with other devices and to report on their location and status. Such is the vision of 'pervasive communications'. By using existing technology (eg, nanotechnology, location tracking systems) over new networks, the mobile internet can make this happen.

Consider the following scenarios:

- ▣ Future medical devices may be so small that they could be swallowed to provide health status reports from inside the body, for instance on blood pressure or on the workings of a heart pacemaker.
- ▣ Miniaturised GPS chips could be created in cars to assist with road charging schemes. They could record, for instance, whenever a car uses a particular road, or crosses into a particular urban area, allowing the motorist to pay on a monthly basis rather than having to queue

to pay at toll stations.

▣ Every valuable item we own may in future have a positioning device embedded in it, to help track it if it is lost or stolen. People may no longer invest in insurance against theft but in private security companies to trace and recover stolen goods.

▣ Inventory management systems will help factory owners to track the location and quantity of spare parts by ping-pong messages to 'intelligent barcodes' that are added to each item that passes through the factory.

### Teenager-driven

Teenagers appear to be the most avid users of the mobile Internet, notably in markets where it is at an advanced stage of development, such as the Republic of Korea and Japan. In Korea, for example, as much as a third of a user's mobile phone bill stems from data services. The major uses of mobile data tend to be 'flirtatious and frivolous', such as downloading cartoon animations or 'avatars' to represent the user when entering chat rooms or sending messages.

One challenge for telecom operators is that teenage users generally have less to spend than older age groups. But while teenagers may send more text messages than they receive, they probably receive more voice messages than they send. Thus they are a more profitable market than their disposable incomes would suggest. However, the report points out that if teenagers are driving the market for the mobile Internet, it may be because advertisers are ignoring other segments of the market. The 'grey market' (senior citizens), for instance, can prove to be a highly profitable one. The Japanese 'Raku-Raku' (Easy-Easy) handset with a bigger keypad and an easier-to-read screen proved an instant hit in Japan, selling more than 200,000 units in the first two months.

For more information on the report see <http://itu.int/mobileinternet>

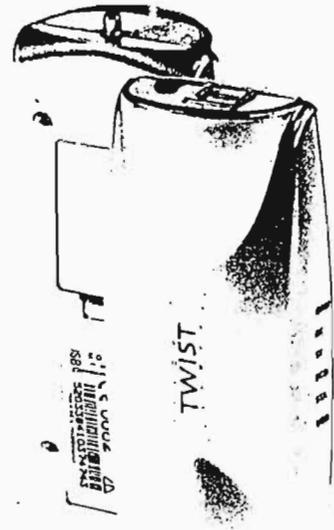
## Whither ultra wideband

Ultra wideband (UWB) allows a system to operate across a range of frequency bands while not interfering with existing communication systems. This is because it uses very low transmit power, often in the picosecond (one trillionth (10<sup>-12</sup>) of a second) but can still maintain a high data rate. It operates in the time domain rather than the frequency domain, with its signals consisting of high-speed electromagnetic pulses rather than sine waves. This means that the waves

traverse many frequencies unimpeded and unnoticed.

Regulatory approval for selected use has already been granted in the USA (3.1 GHz to 10.6 GHz) and approval in Europe and Asia is expected soon. ABI has a report ([www.alliedworld.com/servlets/CatalogView?category=CA05](http://www.alliedworld.com/servlets/CatalogView?category=CA05)) that investigates the market for UWB and examines if this will be the next generation in wireless communication, from wireless LANs to radar.

## Dual band GPRS modem



Falcom's Twist-USB-Set is a plug-and-play fully type-approved dual-band modem especially designed for mobile office applications and wireless access to the Internet. The USB interface together with the Falcom USB driver and the complete set of accessories make this unit suitable for quick and easy implementation of GPRS functionality into PC or laptop-based environment.

With a graphical user interface called Mobile PhoneTools a user-friendly interface is available for end-users without a need for in-depth technical knowledge. This makes the Twist-USB concept attractive for mobile network operators and other mobile service providers. In addition, the full-featured USB driver enables system integrators to develop in a short period of time, cost-effective and compact solutions for diverse applications requiring mobile wireless information exchange, like remote object control and monitoring, security, telemetry etc.

Key features: dual band GSM/GPRS engine; voice, SMS, data, fax; GPRS class B, multi-slot class 8; CS 1 to 4 and PBCCH support; up to 85,6/21,4 kbps (down/up link); USB 1.1 compliant; USB driver for Win2000/XP; dual band antenna; USB cable and headset; CD with USB driver and Mobile PhoneTools.

For more information contact  
RF Design, 021 762 5365,  
[sales@rfdesign.co.za](mailto:sales@rfdesign.co.za)

## Improving measurement practice for the manufacturing industry

Current trends in the manufacturing sector leading to globalisation and international acceptability of manufactured goods, increased competitiveness and rapid technological development has culminated in the CSIR National Metrology Laboratory (NML) developing a 'Measurement practice improvement guide' aimed at SMME's in the local manufacturing sector.

The 'Measurement practice improvement guide' was launched at the Southern African Test and Measurement Workshop at Roodevallei Country Lodge in Pretoria in August. The guide is aimed at improving metrology awareness and empowering companies to instil good measurement practice. Ultimately, this will contribute to an improvement in the competitiveness level within South African manufacturing companies, thereby realising an increase in local

and international trade.

"Industry has already recognised the need to comply with internationally acceptable specifications, standards and legal requirements to compete internationally as already implemented by many companies. Our role in assisting the manufacturing industry will highlight the importance of using metrology as a keystone in implementing good measurement practice," commented Keeran Kowlaser of the NML.

She added that the 'Measurement practice improvement guide' would empower companies to identify their measurement characteristics of their market segment, measurement needs and how to improve these measurement practices.

The guide comprises three sections. The first analyses the importance of measurement in the company's market segment. Factors

including regulations, standards, specifications, product quality, export requirements, product certification and measurement requirements are rated in terms of importance thereby facilitating a decision-making process. Secondly, an evaluation of the measurement capabilities of the company initiated and thirdly, recommendations suggested to improve its measurement practice.

The success of the manufacturing industry relies on the use of metrology to implement good measurement practice. This will result in a continued growth in technological advancement and increasing confidence in the quality of manufactured goods.

For more information contact Keeran Kowlaser, 012 841 2241, [kkowlaser@csir.co.za](mailto:kkowlaser@csir.co.za)

# WANTED

## THE RETURN OF YOUR REGISTRATION FORM

BEFORE YOUR SUBSCRIPTION EXPIRES!

If in doubt, contact subscriptions on 031 764 0593

## Tel.Com Africa 2002: Africa's premier international telecommunications event

The programme for Tel.Com Africa 2002, an initiative of the *Computer Society of South Africa (CSSA)* and *Electronics Industries Federation (EIF)*, is nearing completion. The event, which is being held from 23-25 October at the Sandton Convention Centre in Johannesburg, will

feature an industry exhibition and three-day conference alongside.

The exhibition, organised by *Reed Exhibitions*, has drawn participation from sectors including telecommunications, mobile and wireless communications, satellite communication, IT networking, and broadcasting.

Inaugural speakers at the co-located conference include Gerard Dega, VP Alcatel France and member of Thabo Mbeki's Presidential Task Force, Andrew Barrett, former US Federal Commissioner on Communications, as well as top management from South Africa's fixed line and cellular operators who will address future strategies and plans.

The second and

third days have been split into three tracks. Track A will cover Mobile and Wireless, Access Solutions and Multimedia; Track B will cover Policy and Regulations, Internet Protocols, and New and Emerging Technologies; and Track C will cover a Skills Development Forum, Youth Summit, and New Communication Routes into Africa.

Several new innovations are planned to make this year's event more far reaching and influential. The Swedish Trade Council is hosting a strong delegation from the mobile and wireless industry in Sweden, while the ISETT SETA is hosting the Skills Development Forum and Youth Summit.

"With the planned second fixed line operator licence due to be issued, the opening up of the market with new regulations and policy, the new eCommerce Bill and the controversy over control of the SA Internet domain, we have much to debate and address to make Tel.Com Africa 2002 maintain its position as the most influential event in the telecommunications industry in Southern Africa," says Peter Aspinall, immediate past president of the CSSA and managing director of conference organisers, SBS Conferences.

For more information about the conference, gala dinner and sponsorship opportunities, contact Peter Aspinall, SBS Conferences, [peter@sbs.co.za](mailto:peter@sbs.co.za). For more information about the exhibition and promotional opportunities, contact Aldean Prior, Reed Exhibitions, [aldeamp@reedexpo.co.za](mailto:aldeamp@reedexpo.co.za). Also see [www.telcom.org.za](http://www.telcom.org.za)

## YOUR TOTAL ONE-STOP TELEPHONE SUPPLY AND MAINTENANCE SOLUTION

Constancia Telecommunications Company offer a full range of new and remanufactured telephones, head set phones, speaker phones, extension callers, etc. All our products comply ICASA specifications, or can be customised with any flash time and loop impedance to suit any public switched network or PABX. Constancia Telecommunications Co. also personalise telephones with corporate branding and contact details.

We provide a full remanufacturing and repair service at competitive rates to all makes of single line telephones, and most digital terminals. All our telephones are remanufactured to "As New" condition using new plastics, reprinted case tops, and fitted with new line and handset cords.

All new units carry a full 12 month guarantee, and remanufactured units a six month warranty.



# CONSTANCIA

Your complete Telephone Solution for the Home, Office or Public Network Operator

Constancia Telecommunications Company

Tel: (011) 339 4045 (011) 403 6941 Fax: (011) 403 2747

E-mail: [www.constelecomweb.co.za](mailto:www.constelecomweb.co.za) PO Box 32032 Braamfontein 2017

# SABC

## SABC aims to develop an integrated Internet Strategy

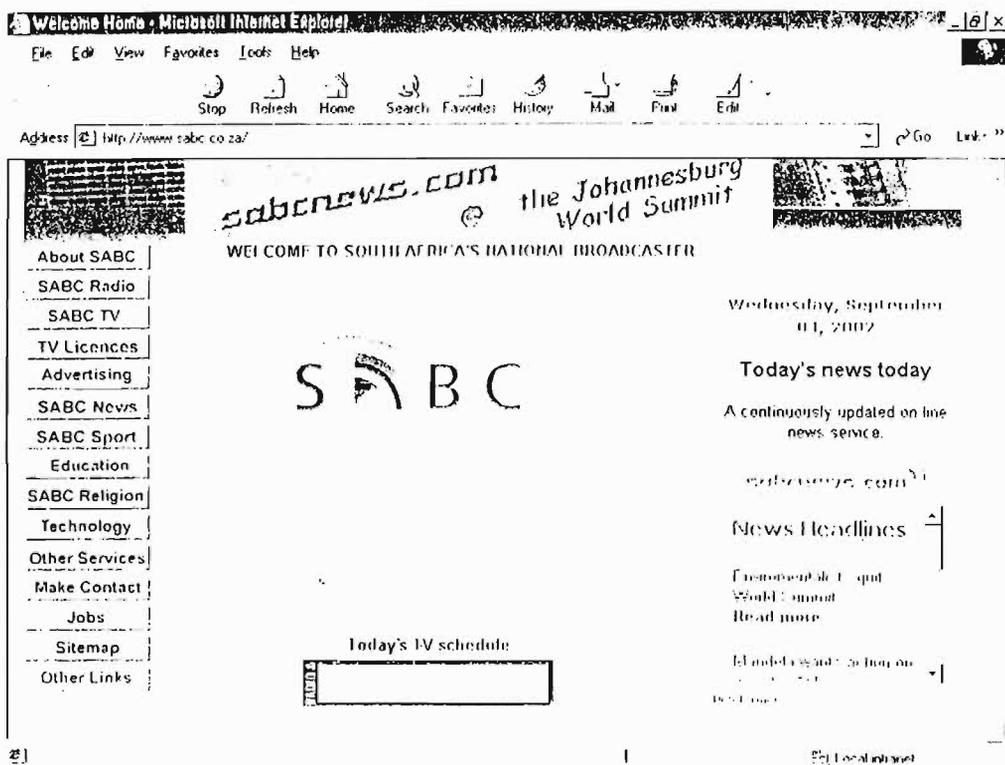
### Chigomezgo Gondwe

The approach to the Internet to date in the SABC has been fragmented. The corporation and many business units have an Internet presence, but there has never been an integrated approach to the Internet.

Recognising that this was not allowing the SABC to maximise the effectiveness of its Internet presence, the corporation embarked on a process in June this year to develop an Internet strategy.

The project will be co-ordinated and managed by the Corporate Strategy Department. Gemini Consulting has also been appointed to provide assistance with the development of the strategy. They bring to the project a significant amount of international experience in similar projects in the USA and Italy, as well as knowledge of the local market. They will work over the course of the next two months to help achieve the objectives of the strategy, which are to:

- Identify ways to use the Internet to:
  - more effectively fulfil our public service mandate;
  - more effectively build and extend our brands;
  - retain and grow our audiences; and
  - more effectively communicate with the trade.



The SABC's web presence... set for a major revamp!

- Appropriately refine rights acquisition and management processes in line with the strategy;
- More effectively and appropriately organise our internal resources and structures in regard to the SABC's internet presence and strategy;
- Identify what our strategic and operational approach to the web should be in relation to Corporate, the Public Broadcasting Service (PBS), the Public Commercial Broadcasting Service (PCBS), News, Education, Air Time

Sales and Sport and the synergies that can be created between them:

- Develop a plan of implementation in line with these approaches; and
- Estimate additional potential costs in implementing the strategy.

In order to ensure development of a successful strategy that will be implemented, Gemini will be working closely with the Corporate Strategy department and with key people within the SABC in various business units.

The first phase of the process is due to be completed by mid-October. At the end of this process a broad strategy for the Internet will be developed for the corporation and identified business units.

Queries regarding the development of the internet strategy may be directed to Herman Warren, Director of Corporate Strategy, at [warrenh@sabc.co.za](mailto:warrenh@sabc.co.za) or to Yusuf Nabee, Strategic Planning Analyst in the Corporate Strategy department, at [nabeey@sabc.co.za](mailto:nabeey@sabc.co.za).



# Mammoth Summit Broadcast Mission Accomplished

AS SUMMIT LEVER SLOWLY ERBS, SOME OF THE 500 SABC STAFF AND CREW APPOINTED TO HELP FULFIL THE DEMANDING SUMMIT HOST-BROADCAST ROLE WERE PINNED DOWN FOR HONEST COMMENT. THE SABC CREW HAVE BEEN BASED AT BROADCAST CENTRES AT THE SANDTON CONVENTION CENTRE, URBUNTU VILLAGE AT THE WANDERERS AND AT THE GLOBAL PEOPLE'S FORUM AT NASREC. JANET DE KRETZER REPORTS...

**W**hen asked about the broadcast service SABC delivered at the WSSD Planning, Research and Stakeholder Project Team Leader Izak Minnaar commented: "The Summit has been a huge project for the SABC to set up - our most complex to date. Our challenge was to provide a community service of all SABC's platforms to South African and international audiences, and inform the world's broadcasters via the pool services offered at the key Summit venues. In this regard, we fulfilled our purposes - we have successfully delivered hours of programming as well as offered extensive in-depth coverage. This has required the focus of a very substantial and dedicated team. As a result, we experienced no major hiccups and have accomplished what we set out to do."

Frans Schepers, executive producer of all WSSD programming, believes the SABC has accomplished a mammoth task in successfully covering more than 300 side events, in addition to the key events. "We brought it all together to provide the comprehensive Summit story. The feedback we have received from delegates and the public only confirms this."

An SABC press officer based at Uburutu Village, Joyce Dubois of SABC News Marketing said she had mixed feelings. "I am proud to be part of the host broadcaster's team. We have done well in bringing the news to the people, but I still find the room for the SABC to build its footprint and embrace things collectively. All in all though, South Africa and the SABC have been positioned on the world map - we now have a world class country and broadcaster. What I have loved the Uburutu experience and have been inspired by the diversity of people and their languages, cultures, traditions and information exchange."

Tredde Snyman, an SABC TV journalist from Pretoria covering the Summit, believes that "through the SABC, the voice has been heard - world leaders will now be motivated to act." Other SABC staff on the ground at the Summit expressed that they had enjoyed the past weeks despite now being ready to return home to their regions.

In a world where every third year film students arrive on the host of SABC journalists at SABC's Orlando exhibition stand with questions on sustainable film and TV policies, there will be no rest for the weary."

SABC staffers at NASREC had these comments about the event:



Some of the SABC staff at NASREC, and other staff, who were involved in the event.

**Sean Plaatjies:** "Working here at Nasrec for the past few weeks has helped me to sharpen my skill. I have really enjoyed working with the journalists and training and mentoring them."

**Zolisa Sigabig**, Managing Director of the project has empowered the local team in Daled to edit and to broadcast a weekly award to the BBC. This has been a very positive experience, although the time, cost and logistical issues of the project are still being addressed. The project is still in progress.



Local team members in Daled looking at the award for the best radio station.

**Ismail Jimshi, News Research:** "Since the beginning of the launch of the WSSD project in Daled on 10 April, however, it has remained by a complete lack of communication from the News Research. At the summit, I have had the opportunity to meet a number of international NGOs who have all had a very good response to the SABC, commending on what a professional organisation it is, and that the WSSD programming and broadcast is excellent. We also viewed the president of one of these NGOs, the Henry Roll Foundation, together with a local NGO which the Henry Roll Foundation sponsors, unbeknownst to the president. It was a wonderful surprise for the president of the foundation and it was very exciting to see how European and Africans can work together on sustainable development. Eyegone who interacted with was extremely positive about the SABC, and was impressed the WSSD programming broadcast on the SABC TV channel, and radio stations. A good overall picture has been presented. My compliments to management for the great infrastructure, facilities, and leadership we're gonna change the world!"

**Veronica Stygloni, TV assignment editor:** "I've experienced great to meet and work in Daled with people from different regions, you'll have some interesting challenges, so I would offer the opportunity to find out more about the content of the local TV and radio procedures and to attend the educational interests of the local community, illustrating the possibilities and the challenges of the local and national TV. People from different regions will be invited."

**Dejima van der Horst, Director News:** "I would offer the news to be prepared so that the team are an awareness of what you can do. I have been to the local TV and radio stations, and they are very interested in the part of the action. I have been to the local TV and radio stations, and they are very interested in the part of the action. I have been to the local TV and radio stations, and they are very interested in the part of the action."

**Alwyn Kloppers, Logistics:** "I have recently visited the local TV and radio stations, and they are very interested in the part of the action. I have been to the local TV and radio stations, and they are very interested in the part of the action. I have been to the local TV and radio stations, and they are very interested in the part of the action."

**Ray Starck, Airtime:** "This has been a wonderful team effort... we couldn't have achieved it otherwise. Our colleagues from Durban have been fantastic. They are more experienced than us, having dealt with more major events of this nature, and we have learned a great deal from them. We experienced minimal technical problems. Our onsite challenge was meeting the ever-changing needs of all our clients."

...to get this objective and to change it.



...to get this objective and to change it.

## Fact Sheet:

- 1. The project is a joint venture between the local team and the international team.
- 2. The project is a joint venture between the local team and the international team.
- 3. The project is a joint venture between the local team and the international team.
- 4. The project is a joint venture between the local team and the international team.
- 5. The project is a joint venture between the local team and the international team.
- 6. The project is a joint venture between the local team and the international team.
- 7. The project is a joint venture between the local team and the international team.
- 8. The project is a joint venture between the local team and the international team.
- 9. The project is a joint venture between the local team and the international team.
- 10. The project is a joint venture between the local team and the international team.

## Staff News

# BIT bites the bulle

Carol Phillips

**T**he SABC's BIT Department has been awarded the prestigious Munnik Basson Ddagama (MBD) IT Client Award for 2001.

The award was made for BIT's "accuracy and consistent delivery of data, co-operativeness and best progress made".

In its citation MBD said the department achieved its goal against tough competition with other corporate clients.

Founded in 1997, MBD Attorneys specialises in overdue accounts and legal collections.

MD founder Frans Basson has, with other companies, been collecting TV licence fees since 1994. The company has collected outstanding licence fees for the SABC since its inception.

BIT's winning team (back, from left) Riaan Baatjies, Danie Beukes, Christo van Eeden, Astrid van Warmelo, Krystyna Jabs, David Kritzinger, Nicholas Reddy, Faisal Khan and Brian Williams, with in front (from left) Shafief Hendricks and Sam Hlahane.



## Good bye and good luck!



Jan Hüsselman, GM: BIT left the SABC at the end of 2001, after a number of years in the corporation's service. There to wish him well were (back, from the left) Koetie Basson, Erna Vorster, Theuns Nel and Tinus Wolmarans. In front are (from the left) Noms Philiso, Susan Botha and Martin Slabber.

## HIV/Aids: the way ahead

The results of the prevalence survey, voluntarily entered in most members of staff last year, will only be made available at the end of January.

"Once we know the results and have discussed them with top management and union leadership, we will be able to announce them to staff, as well as map out the way forward," says Daphne Koza, who drives the SABC HIV/Aids awareness project.

But Daphne was quick to point out that the survey was not just a once-off project. "The Awareness Project is on-going and we will keep staff informed on every step along the way," says Daphne.

# Back to basics for IT industry

► *Jos Nickmans*

**Focus on immediate delivery and reap the dividends from the coming African boom.**

The conventional wisdom in the IT industry is that the global economic downturn is having a significant impact on business and consumer spending – which in turn is restricting revenue and profitability for many South African IT companies.

I'm extremely optimistic about the growth of the IT industry in SA and the African continent in the next couple of years.

Local research house BMI-Tech-Knowledge believe Africa is on the

brink of a technology boom, and is starting to emerge as a market that may leapfrog current technologies in favour of more advanced solutions.

It is agreed: there is conflict and poverty in many parts of Africa. But the opportunities for innovative IT services and solutions providers are immense, as governments and corporations across the continent are hungry to join the global economy.

That doesn't mean companies aren't taking a more cautious approach. We're likely to see a "back to basics" drive in the IT industry in the coming year, with a strong focus on using existing systems and assets. Companies are asking: "How do we get more out of what we

have?" rather than venture into unproven technologies.

We're already seeing an increasing lack of patience to invest in solutions that don't boost sales or save money. There are three things that matter in business – creating revenue, preserving revenue and reducing costs – and if your solution doesn't make a difference to any of these, you should reconsider your approach.

Customers are demanding strong service level agreements and better value for their money. That's why IT companies with reliable, user-friendly solutions are going to be the big winners in the local marketplace in the next year or so. *Jos Nickmans is MD, Hewlett-Packard South Africa. ▲*

COMT – UPDATE

# Boost for African bandwidth

► *Mike Halberstadt*

**The African continent is to get connected to high-capacity underwater cable soon.**

Speaking at the International Telecommunications Union's congress at Gallagher Estate in Midrand, Nombulelo Moholi, Deputy Vice-President of Telkom Sales and Marketing said: "Connecting Africa is ... a prerequisite for the successful introduction of e-commerce on the continent." She said the four critical factors driving the success of e-commerce on the African continent are:

- Bandwidth in the national and international telecommunications networks

- Affordable access to computers
- Widespread access, and
- Computer literacy.

A submarine fibre optic cable, which will boost South Africa's international connectivity by up to 120 times and cater for Africa's communication needs for about 25 years, is less than six months away from the official switch-on date. Not only will it improve international capacity but also enable African countries to be interconnected directly, keeping telecommunications revenue in Africa.

During the period July-September this year around 94 million mobile phones were sold worldwide. Finnish group Nokia remains the world's leading manufacturer with a market share of 33,4%

and Motorola its closest rival with 15,7%. Ericsson is third with 8% market share followed closely by Samsung Electronics with 7,5%, which pushed Siemens into fifth spot with 7,2%.

In an effort to form a closer relationship with its customers, Cell C is creating an online permission-based community. By registering, consumers stand the chance to win prizes and cellular products and receive an instant branded SMS message from Cell C. The online presence, linked with SMS functionality, provides more contact with the brand and a high level of interactivity. Clickatell's database and SMS technology will be used for direct marketing initiatives to Cell C customers. ▲

## WHAT IS THE WORLD INTERNET PROJECT?

The World Internet Project (WIP) is an international research program that was created and organized to comprehensively study the social impact of the Internet. The UCLA Center for Communications Policy and NTU School of Communications Studies, Singapore, initiated it in the summer of 1999.

WIP researchers believe that the Internet will transform our social, cultural and economic lives and will surpass, in its significance, the most influential of media of the past 50 years - television. World Internet Project researchers asserted from the beginning that these effects will require globally compatible scientific surveys that apply a common methodology.

Research in the field of Information Societies has been characterized by analyses of growth rates and regional diversity. Such a research, completed by international organizations, mostly represents a collection of raw statistics allows enable sophisticated analysis on the social and cultural impact of the Internet.

Furthermore, international and local companies have begun to request surveys and reports on specific questions in connection with the information society. These reports, however, usually reflect particular themes that are useful for internal reference by companies, and are motivated by business strategies so they are often not available for scientific researchers and a greater audience.

It is obvious that, the systematic queries that should discover the social consequences of Internet use are missing from the circle of research.

WIP researchers are convinced that the changes the Internet expansion is causing in various fields of social life are of growing significance. How might the new medium affect social relations, types of communication, political activity, the world of jobs and entertainment?

It is also significant to point out that these are the phenomena of an accelerating process under constant development. That is why we need research that will follow the course of events in the long run, instead of research that attempts to record momentary information.

We believe also that besides the consideration of a wide range of social effects, incidents should be explored with scientific thoroughness at a relatively early stage of the expansion within WIP. Thus, we can better understand the conditions occurring prior to the expansion of the technology and the causal relations of the changes consequently, and not subsequently as a postscript. Professor Jeffrey Cole, head of the American research project points out on several occasions that the WIP's inquiry will bridge a significant gap in media theory. Unfortunately, it is an examination that failed to be brought forth before the end of the 1940s, during the expansion of television. Consequently, in the absence of the comparison with the

world without television, we have only our intuitions about the cultural and social effects of the television.

The expansion of the Internet, though at different rates and degrees, has become a worldwide phenomenon with a global effect. Hence, from the very beginning WIP began collecting information and national analyses for an international comparative study regarding the effects of the Internet on various fields of our social life. One of the initial goals is to urge the participation of an increasing number of regions from around the world by inviting cooperation from new partners.

Thus, the World Internet Project is the first international program on the international scene that prioritises the needs and expectations mentioned above. On the basis of these ideas, the project's importance lies in the following four characteristics:

- Examination of the social impact of the Internet

Besides aiming to fulfill the goals of previous research, such as exploring the level of expansion and growth rates, the World Internet Project also strives to produce a comprehensive interpretation of the effects of Internet use on attitude, value, and behavior variables.

- Coverage of both Internet users and non-users

Contrary to recent research primarily focusing on users, WIP's significant initiative, among others, aims at examining non-users as well. This makes it feasible to examine the crosswalks between the groups of users and non-users, and the dynamics of these changes. Moreover, it enables the full analysis of attitudes between and within the two groups and reasons for the "absence" of non-users can be discovered.

- Longitudinal research

WIP avoids employing a singular approach in its inquiries. Instead, it attempts to map the general social impacts of the Internet. For this reason, we have developed what we call the longitudinal research project. This is a ten-year project that consists of an annually updated, panel-like survey. Every year, we will ask the same selection of people to complete the survey. This will enable us to discover what short and long-term effects Internet use has had on the life of the households. We will explore also the opinions, habits, and relations of the people who have become users either at the beginning or during the survey. WIP-analyses should create new strategies to deal with the fundamental questions and problems of business, government and politics.

- International comparison
-

The project is an international comparative survey, and represents a picture of the changes related to the World Wide Web in different countries and regions. The surveys distributed to every nation, ask questions related to the “general social feeling”, assumptions associated with electronic technologies and the Internet. Therefore, comparisons within these fields can be constructed as well. Since among the general questions the survey includes country specific questions and themes, researchers who are interested in particular countries can satisfy their individual interests on a number of specific topics. Research teams involved in the World Internet Project share their experiences, conclusions and results, regularly at annual conferences.

Currently, fourteen countries are participating in the World Internet Project. Before the manuscript deadline, the following countries had joined the survey: Italy, Japan, Singapore, Taiwan, South-Korea, Sweden, China, Australia, Germany, Great Britain, France, Finland, India and Brazil.

ronic business

# M-WEB BUCKS THE TREND

athing new life into tainted industry

met company M-Web has recorded 1bn worth of trade on its e-commerce site, CommerceZone, in the past 15 months. It is currently doing more than R300m worth of transactions a month. With more businesses joining the marketplace, these figures are set to rocket.

CommerceZone's record is impressive. It considers the huge fallout of e-commerce (B2B) marketplaces wide.

At the height of the Internet boom, thousands of electronic marketplaces were able to lure buyers with promises of cost savings and sellers with instant access to markets. Of the hundreds of hubs to have survived, many are now bogged down in complexity and struggling to make money.

M-Web, owned by listed media group Naspers, is bucking the trend. "We had to get it right internally before we brought in outsiders," says CommerceZone GM Andreij Horn.

Getting it right meant reining in its purchases at 1,200 stationery suppliers nationwide and limiting these to two tiered suppliers, Waltons and its base.

Naspers printing subsidiary Paarl Meas has gone as far as integrating the ordering system into its stock-shipment system. As a result, it is positioned to reduce its buffer stock, initially at two weeks' worth of print

automatic ordering will lead to better efficiency, lower stock holdings and savings, predicts Horn.

After bringing its subsidiaries on board and smoothing out integration problems, Naspers extended its CommerceZone service to external customers.

The first outsider to sign up was the Film Industry, a conglomerate of companies in the film and video in-

FM understands that Commerce-

Zone has signed up another client, JSE-listed DNA Supply Chain Investments. But Horn declines to comment.

"In the past six weeks there has been a resurgence of corporate interest in the offerings of B2B trading exchanges," says Horn. "Previously, online procurement was well down the list of priorities."

A significant breakthrough will happen in November when CommerceZone launches a fully integrated payment



**Andreij Horn** Got it right internally before allowing outsiders to trade

solution, including a procurement card, for customers.

In the past, customers have been able to procure electronically. Payment, however, has not been automatic.

Naspers' solution is innovative. It caters for the fact that buyers will not want to pay immediately for goods ordered but not yet received. CommerceZone suppliers will be paid by Absa Bank within five days of the order being received. However, customers are not

compelled to pay immediately. Instead, they can stipulate when, immediately, at month-end or at the next payment run.

The option of a procurement card allows companies to delegate procurement down to the lowest level, says Horn. Users will not be able to buy over their spending limit.

Many other companies are also racing to provide fully integrated payment systems in their e-commerce hubs. FirstRand incubation company Scion, e-commerce solution suppliers Commerce One and Miraculum, Sasol's MarketSite Africa and Bidvest's MyMarket, for instance, are integrating — or planning to integrate — payment solutions into their electronic marketplaces.

But not all are convinced about the benefits of procurement cards. "The charges associated with these cards can militate against the savings," says Miraculum director Gavin Vermaas.

But scepticism is not holding Horn back. He plans to extend a select basket of CommerceZone's procurement services to M-Web's 60 000-90 000 small and home-office users later this year.

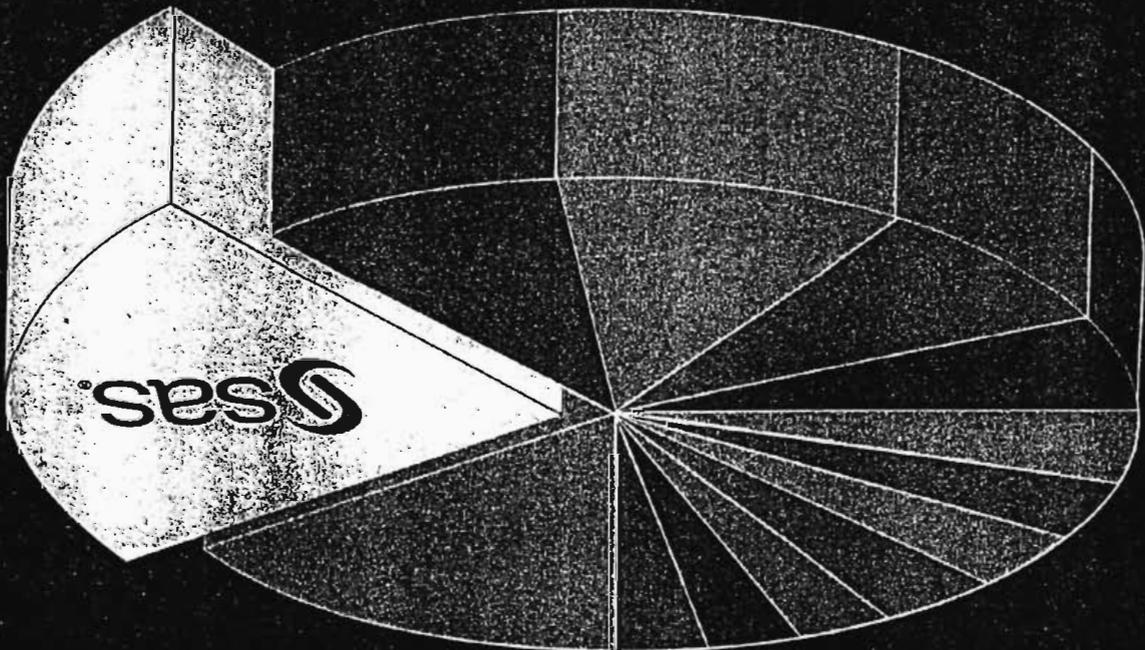
These users will be able to buy stationery, computers and computer peripherals at "better-than-market" prices from CommerceZone's authorised suppliers, says Horn.

Smaller customers will be compelled to pay for goods immediately through M-Web's online banking service, iCanonline, which has been integrated into the trading site. "This takes away the financial risk for a supplier unwilling to transact with dozens of faceless customers," says Horn.

On the issue of savings wrought by CommerceZone for parent Naspers, Horn is unable to provide detail. "Savings are retained by individual business units. Asking them to return savings to the group would have adversely affected the buy-in that we benefited from."

Sasha Planting

# South African BI Market Share 2001



**SOURCE: BMI-TECHKNOWLEDGE**

- SAS 21%
- Other 15%
- Cognos 11%
- Hyperion 11%
- Business Objects 9%
- Microsoft 6%
- IBM 5%
- Seagate Software 4%
- Sybase 4%
- Comshare 4%
- Oracle 3%
- Acta 3%
- Software AG 3%



*The Power to Know®*

Companies, real rewards. Learn how today's most successful companies are reaping the rewards of SAS Intelligence architecture.

us at Johannesburg (011) 713-3400 or Cape Town (021) 689-7870 or stop by [www.sas.com/sa](http://www.sas.com/sa)

## Broadcasting

## WANTED: FRESH IDEAS IN A CHANGED MARKET

Icasa tables ownership and regulatory control proposals

Nine years after government opened the broadcasting industry to private-sector competition, the rules are about to change. And about time too. The economic landscape has changed and there is much more willingness to accept the need for foreign investment in the industry.

At present, broadcasting law limits ownership to only two AM or FM radio stations and restricts cross-ownership of print media and broadcasting assets. Foreign ownership is capped at 20%.

As these broadcast licence restrictions that forced industry regulator Icasa to controversially reject the New Africa Investment Ltd (Nail) acquisition of Kagiso Media earlier this year. In contrast, the competition commission had approved the merger.

Radio and TV owners have fumed over these cumbersome and restrictive regulations. Strict ownership and control laws, they say, complicate changes in ownership of broadcasting licences and ultimately stifle growth and new investment in the industry.

But change is on the way.

Last week Icasa released a discussion paper on reviewing ownership and control regulations. It is also asking for comment on the feasibility of introducing new commercial radio licences in secondary towns such as Rustenburg, Polokwane and Bloemfontein.

Icasa's discussion paper — the result of an independent study conducted by IMG Consulting and Bowman Gilfillan — admits that increased competition for advertising revenue and SA's small market size has meant media companies have low profitability and revenues.

Relaxing cross-ownership restrictions, for instance, would allow media owners in particular the new black-owned media groups — to build critical mass and achieve economies of scale. The benefits could include reduced costs through sharing of marketing, technical



skills and facilities, and building revenues through multiple channels.

Empowerment groups should be allowed to trade their investments. But Icasa's concern is that black ownership could be diluted. Licences were often awarded on the strength of empowerment credentials.

Also, if left to market forces, existing

media groups might dominate the commercial broadcasting sector, warns the regulator.

Icasa's consultants have found both the UK and Australia are removing foreign-ownership, cross-media and other restrictions to broaden the scope for competition and improve access to capital and technology.

But in SA, a survey of key stakeholders indicates that most are in favour of the foreign-ownership restrictions.

Icasa has supported its discussion paper with comprehensive industry and advertising statistics.

Advertising has moved to commercial stations at the expense of "public-service" stations. The winners are those stations that favour the top end of the market — e.tv, M-Net and state-owned SABC 3 in television and the privatised former SABC radio stations.

Icasa points out that the commercial radio market is highly concentrated and competitive. Successful radio stations are either delivering high general audience numbers or targeting top earners (living standards monitor of 8-10).

For greenfield radio licence holders, however, economic conditions are tougher than expected. Two have closed their doors, five appear to be making losses and only one has broken even.

In the light of these difficulties, Icasa has asked for suggestions on the viability of issuing new radio licences in secondary towns.

It also wants input on whether it should issue national, rather than regional, licences or allow existing stations to move from AM to FM frequency — bearing in mind that frequency is a scarce resource.

Icasa's discussion document is a sound move that is likely to see wide-ranging calls for changes to the law.

But ultimately, changing policy is not up to the regulator — it's the job of the department of communications, which time and again has undermined Icasa.

Councillor Neel Smuts resigned three months ago, two years before the end of his term, because he was disillusioned with the ways things were being handled at Icasa.

Smuts vacated his post this week and has yet to be replaced.

Yet Icasa has a hefty workload ahead of it, both in broadcasting and the liberalising telecom sector. Its independence must be strengthened, not undermined, for significant investment to take place.

Marina Bidoll

## IT Industry

# NO RELIEF IN SIGHT

Further trading squeeze expected for Datatec, Didata and Comparex

The IT industry, already trading in its most sustained downturn ever, is bracing itself for a direct hit from slower economic growth worldwide.

Figures released by the International Monetary Fund this week point to disappointing growth of 2.6% in the US and 2.9% in Europe next year.

The excessive exuberance in the run-up to the millennium has saddled the IT industry worldwide with US\$750bn of debt and \$250bn of overcapacity, reports *The Economist*.

The lower rates of recovery predicted by the IMF are unlikely to cure this hangover. "If the world's GDP growth contracts or stagnates, the IT and telecom industries will suffer the most," says Datatec CEO Jens Montanana. "Other industries are sitting still or moving sideways, but IT and telecoms are still gripped by recession."

As if to prove this point, news from industry giants like Oracle, Hewlett Packard and in particular EDS proved that the season of corporate belt-tightening was not yet over. A fortnight ago, EDS chairman Dick Brown disclosed that corporate cost-cutting had taken a large slice out of the company's expected revenues. With that one blow he dispelled forever the naive notion

that IT services were a safe haven from the carnage facing the industry.

Citing poor "visibility", few market watchers are prepared to predict when the upturn will come. However, current logic suggests that companies will be forced to upgrade technology around the end of 2003.

"The last major capital outlays were in preparation for Y2K and the threatened e-business revolution," says Deutsche Bank technology analyst Chris Veegh. "At some stage the replacement cycle will have to kick in."

Locally, shares of yesterday's darlings Dimension Data, Comparex and Datatec seem cheap. "IT shares are all trading at attractive multiples," admits HSBC technology analyst Franca di Silvestro. She warns, though, that the next 12 months will be tough. "The pricing power remains with the customer and there are too many competitors willing to sacrifice margins just to keep a customer."

She believes these factors have been priced into the share prices but expects IT spending to show a recovery only towards the end of 2003. Meanwhile, says Di Silvestro, smaller, focused niche companies coming off a smaller revenue base will continue to perform better.

Yet the market, it seems, has not lost its capacity to punish. A trading update released by Datatec last week warned that interim results for the six months to September 2002 would be substantially lower than in the same period last year.

This was blamed on losses from one of its European operations, lower margins and the strengthening of the rand. There was nothing in the update that had not already been communicated to the market. Yet the update triggered a flurry of selling and the share fell 20%.

"The odds are stacked against us," Montanana says. "SA is viewed as an emerging market, so investors are not interested. Companies exposed to telecoms and networking suffer a double

whammy of no interest," he says. "The timing is so bad that business fundamentals, no matter how solid, virtually irrelevant."

These days, companies are not tal-

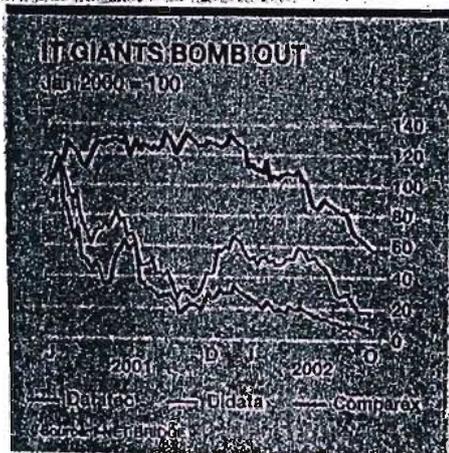


Jens Montanana Gripped by recession

about growth. Instead, says Peter V acting CEO of Comparex Holdings, about survival of the fittest.

"Companies that think they can survive this period without cost-cutting are delusional," adds Montanana. "The lay in the upturn makes it a liability those companies, like EDS, that have scaled back costs."

Datatec has scaled back significantly. It has reduced its staff numbers from 4 600 to 2 900. Revenue has declined but Montanana says revenue earned per employee has risen. "The industry is in contract to pre-1997 levels in every respect — people, inventory, profitability."



1997, the industry was gearing for levels of 30%," says Veegh. "We have negative growth rates. Capacity is a big problem and for a competitive environment. Datatec and Comparex have all had material gross margin erosion." Dimension Data worldwide has \$560m off its annual overheads could break even at year-end.

"The group has \$193m of free cash flow and no debt, and our SA division generates cash," says Dimenata SA CEO Allan Cawood.

Last week, Didata announced a retired board to "infuse" the group with new, internationally experienced executives.

Myrdal remains executive chairman, with a number of new non-executive appointments, and the resignation of ten of the directors will also go some way towards allaying investors' corporate governance concerns.

"One wonders, where to place your bet on the SA IT landscape? Again, your pick. Companies will begin investing in the software projects that are in the pipeline, but are still awaiting statutory approval," says Veegh. "System integration follows naturally, and

hardware will bring up the rear."

"Undoubtedly the product companies will be hurt further," agrees Watt. "More and more of the key equipment makers are going directly to the market, bypassing their resellers."

Though uncertainty hovers around Comparex Europe, Watt is upbeat about the sustainability of Comparex SA. Services contribute 70% of revenues and products the balance, he says.

Didata agrees. "Services contribute 67% of gross margin in SA," says Cawood. "Almost 40% of this is annuity-based contracts. Our focus will remain on a blend of products and services."

But Montana believes early indicators of a recovery will be in sales of hardware, semiconductors, PCs and servers, which will run ahead of a broad-based industry upturn. So product movers, such as Westcon, will be well placed to benefit. Until then, Datatec is focusing on managing costs and building its presence in niche markets, like wireless, where margins are under less pressure.

Until the markets improve, SA's once-great IT leaders will keep their heads down and focus on keeping their businesses profitable.

Sasha Planting

## Perigine (US) bankruptcy

### LOCAL PARTNERS LAY IT COOL

MGX and FrontRange are confident bystanders watching as software group Perigine Systems remains on the edge of bankruptcy. FrontRange's involvement in Perigine's US stake in its only operational subsidiary FrontRange Inc in the US. MGX is a distributor of Perigine software in SA.

With revenues overstated by up to \$3250m, and unable to file audited accounts for the past three years, Perigine is using the chapter 11 option in such companies either for their house of cards to go under, "I think Perigine will probably survive," says FrontRange CEO Dana Buys.

Perigine's survival battle has already resulted in the sale of its Remedy business unit to rival BMC for

\$350m. But even if Perigine survives, says Buys, it will have lost much of its momentum, made worse by months of financial scandals.

Perigine's woes actually represent a positive development for his group, says Buys. Perigine's stake in FrontRange Inc worth about \$4m, will probably be repurchased and the break with Perigine relieves FrontRange Inc of an unwanted association.

"It was a relationship that never worked as we wanted it to," says FrontRange financial director Julian Henaar. FrontRange has long ceased incorporating Perigine software into its product suite, he says.

For MGX, Perigine's woes are more painful. Remedy software will be available to MGX as BMC's distributor in SA. But Remedy is only a small portion of MGX's sales of Perigine products, says MGX CEO Chris Hills.

MGX has focused on Perigine's infrastructure management software over the past years. "Negativity may delay orders," says Hills. Stafford Thomas

Behind every great achiever is a team of experts.

To share in our wealth creating opportunities, call us on 0860 22 44 22 or visit us at [www.futuregrowth.co.za](http://www.futuregrowth.co.za)



Futuregrowth  
UNIT TRUSTS

INFORMATION CONTAINED IN THIS  
STUDY IS PRIVATE AND CONFIDENTIAL  
AND IS NOT TO BE USED IN ANY  
FORMAT. THIS STUDY CONTAINS SABC  
POLICIES AND PRODUCT INFORMATION.

RESEARCHER: P. GOVENDER