The conundrum of Ownership in respect of the undersea cables and the landing stations rights in South Africa

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The CONUNDRUM of OWNERSHIP IN RESPECT OF UNDERSEA CABLES AND THE LANDING RIGHTS IN SOUTH AFRICA:

Understanding the legal regulatory framework

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Foreword

'Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover'. **Mark Twain (1835-1910)**

I dedicate this mini-dissertation in my own humble way to my surviving mother, Martha Musenge Sindano, for all the trouble she had to bear in rearing dynamic, ambitious eight surviving children of the original nine. My mother born in the early nineteen forties in many ways presents as a product of the generation of her time; God fearing and a strict disciplinarian.

I'm grateful for the love and unwavering loyalty that she has shown to us her children and our surviving earthly father, Bishop Johannes Sindano. In retrospect, and with the benefit of the hindsight I have known my mother over the last three decades radiate the following godlike virtues; forbearance, honesty, loyalty, abundance of generosity, extra-ordinary ability to forgive, hard work, and resilience. I thank her sincerely for genuinely embracing all these divine virtues and for passing on the ancestral torch over to all of us her children for keep.

I pay special tribute to Mr. Andrew Ndishishi, for facilitating the funding for this LLM program at the prestigious University of Cape Town. I acknowledge the concerted effort of Mr. Steve Ferguson, for taking the time from his demanding schedule of running a Law Firm to supervise this work. I sincerely thank Mrs. Sheryl Ronnie for her efficiency and effectiveness in attending to all my intermittent essential exigencies at the Faculty of Law department.

I salute friends, significant others for their integrity and invaluable patronage that they have shown during my stay in Cape Town. Words are insufficient to express my indebtedness to them.

I'm similarly grateful to all my class mates for all the energy, peaceful coexistence, thoughtfulness, deference, lovely debates, agreeing to disagree, and strong insightful conversations that we have shared together. I have learnt a lot from them.

Finally, praise goes to the Hand of Providence for protection, fortitude, resilience, and predetermined celestial destiny. I thank God for giving me the strength and the courage to abdicate my packaged life in Windhoek, embrace risk, and live on the edge. I trek up North secure in the knowledge that God has a plan for each, and everyone, of us - **Exodus 1:1-22**.

Nkosisikelel' iAfrica, God bless the people of Africa.

John Liwoyo Sindano
Cape Town, February 2009

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Chapter 1 - Introduction

'It's difficult to know what you do not know' **– Hudson Janisch**[1]

General background

An **often-encountered** question in practice is how the law is anyway relevant to the issues pertaining to the telecommunications sector. Even more perplexing perhaps is whether or not a legal discourse on the ownership of underwater cables in South Africa or Africa at large is absolutely essential.

It is submitted that complex questions about the telecommunications sector in South Africa and, in fact, elsewhere in the world may only be better understood through a pedantry examination and legal prism of the intertwined, interdependent role between policy, law and regulation.

At the outset, law being the predominant, compendious discipline, undoubtedly plays a pivotal role in shaping government demeanour on policy, regulation, and overall governance of the telecommunication industry.

Naturally, a comprehension of an exposition of this magnitude, in an increasingly dynamic telecommunications industry, demands a virtual background peculiar and unique to the historical development and context. The ensuing **Chapter 2** crisply sets the tone in this regard.

This paper operates from the assumption that telecommunications Law permeates every aspect of South African life insofar as it seeks to regulate vertical and horizontal communications conducted over cutting-edge converged modern technology. The theme permeating throughout this dissertation paints a vivid picture of the telecommunications sector as dynamic in nature and international in its design, revealing structure, character and statue.

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[1] University of Cape Town Professor Emeritus - University of Toronto, Canada

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Experience around the world has shown that the telecommunications sector entails embracing rapid change, innovation, doing things differently, in keeping with the rigorous demands of the new information society.

In South Africa, for instance, the government perception of the ever-changing nature of the telecommunication industry is succinctly captured in the foreword to the Green Paper on the Electronic Commerce adopted during November 2000 which defines South Africa as, inter alia:

> **'a new Information Society... driven by a technology that is taking** [South Africa]**, daily, into new ways of being; new ways of understanding, interpreting and living..., revolutionizing society, culture, politics, the economy and technological innovations'.**

As for its international appeal, the history of telecommunications sector worldwide is replete with international instruments governing it. The reader may consider, for instance, the instructive examples of the International Telecommunication Union (ITU) specifically established to regulate telecommunications internationally[2], the basic agreement on telecommunications[3] under the World Trade Organization (WTO), to mention but a few.

In the case of the WTO, it is, in fact, a fundamental requirement that member states establish independent regulators separated from, and not accountable to any supplier of basic telecommunications services[4]. It follows that South Africa as member state that has, acceded to, and ratified, the Fourth Protocol to the GATS, for instance, is obligated to honour its commitment to this end. Meaning, underlying domestic legislation on the telecommunications in South

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[2] Lisa Thornton et al (eds) page 17

[3] ***Colloquially renowned as the Fourth Protocol to the General Agreements on Trade and Services (GATS)***

[4] In terms of Section 5 of the Schedule of Commitments by South Africa under the Fourth Protocol to the GATS

Africa must necessarily be compatible with WTO requirements encompassing, inter alia, an obligation to establish an efficient independent regulatory framework.

In the circumstances, the better view is that would be quixotic and impractical to adopt a domestic approach to the competitive telecommunications sector. National legislation on telecommunications sector should take into account international trends. Meaning, efficient cost effective international paradigms should be adopted, adapted, molded to suit domestic structures, and national designs.

The point of departure in the context of South Africa encompasses a brief historical background. At the end of the apartheid era, the ANC led government embarked on an incredibly journey to entirely liberalize the telecommunications sector in keeping with the ethos of competitive converged telecommunications industry at the international level. Notably, at the dawn of the new political epoch, government through Telkom SA Ltd remained the sole shareholder and regulator of the telecommunications industry[5].

It appeared initially that the post 1994 Government of South Africa would eventually embrace liberalization in the telecommunications sector after years of natural monopoly exercised by the solely state owned entity Telkom during the apartheid regime. Incidentally, already in its early stage of existence the new government's policies with regard to ICT were indicative of an incremental managed liberalization approach as opposed to full liberalization. In this respect, the white paper on telecommunication policy[6] in South Africa

[5] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[6] The White paper on Telecommunications Policy Gazette No16995

is indicative of the government stance to gradually liberalize the telecommunications sector.

This paper holds an assumption that the full liberalization of the telecommunications sector[7] may lead to efficiency and cost effective modern technology. **To what extend** has the ANC led government succeeded in opening up the Information Communications Technology to competition?

Chapter 3 attempts to answer this vexed question by exploring the interplay between law, policy, governance and regulation within the context of South Africa. In particular chapter 3 carefully scrutinizes, Ministerial discretions, the functions of Icasa, and probable abuse of the dominant monopoly status accorded to Telkom (herein referred to as the incumbent network operator).

Immediately after chapter 3, **chapter 4** explores the nuts and bolts surrounding the paradox on the ownership of underwater cables and the landing stations in South Africa.
Chapter 4 espouses the assumption that underwater cables linking South Africa to Europe, Asia and the Americas[8] tentatively scheduled for completion toward the latter part of this year may ultimately bridge the digital divide between countries in the southern and northern hemisphere.

It is submitted that upon completion of the submarine cables South Africa and some of its adjacent neighbouring countries may rival their counter parts in the northern hemisphere such as Europe, Canada and the United States of

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[7] ***'North Africans are the most Internet-savvy on the continent, because governments have liberalised the telecoms sectors, while Internet service providers can get access to a number of undersea cables thanks to their proximity to Europe'*** - http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[8] ***The landmasses and islands of North America, Central America, and South America***

America (the US) and even North Africa in providing high speed, low cost, excess capacity in converged telecommunications services.

Is correct then to say that – '**South Africa significantly lags behind its international counterparts in terms of ICT penetration as well as the rate of new technology adoption; Broadband penetration relative to international benchmarks is virtually non-existent and significantly more expensive**'[9] [fifty times more expensive than in the US[10]]? Chapter 4 provides a theatrical exposition to this end.

In particular, the conundrum of ownership of the submarine cables in South Africa would serve as a pinnacle (**high-water mark**) in evaluating the successes and/or shortfalls as regards full liberalization of the telecommunication industry in general.

It is further submitted that the government stance on the ownership of underwater cables and the landing stations in South Africa gauges an overall understanding on whether or not the government's approach contextualized is in anyway indicative of a step towards convergence and full market liberalization in ICT at present and in the foreseeable future.

By way of conclusion Chapter 5 attempts to answer the question - what does the future hold for South Africa and by implication for Africa as a continent in the converged telecommunications services. In particular, it juxtaposes back to back the view of the writer hereof with practical realities that might have contributed to the success or mediocre government performance in obtaining convergence and fully fledged liberalization of the ICT sector in South Africa.

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[9] http://mybroadband.co.za/news/Telcoms/2947.html

[10] Available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

Theme – understanding the regulatory framework of the internationally competitive telecommunications sector

What are the basic issues that arise in Telecommunications Law? Why a legal exposition on telecommunications industry, in the first place? Who should own the submarine cables and the rights to the landing stations in South Africa? What are underwater cables, and how do they relate to the notion of convergence in modern technology? What is meant by bridging the digital divide between Africa and the rest of the world? What is a converged telecommunications service? What is the last mile? What is interconnection? What is a Value Added Service (Van)?

Can the government achieve public objectives (spreading telecommunication services in rural areas) through private means (free competitive environment)? What is the difference between universal service and universal access? From a practical point view in policy making, what distinguishes the white paper from the green paper? Who is in charge of formulating national policy? Who is responsible for implementing government policy? What should the role of the legislature be?

How best do you get a legal regime in place? Has South Africa succeeded in putting in place an effective efficient mechanism? What are the abilities and limits of the Law? What can the role of law be? How effective have protectionism and managed liberalization proved to be in South Africa? Has South Africa succeeded in putting in place an effective, efficient regulatory mechanism? How do you sort out institutional issues? What responsibilities do you give to the independent regulator (Icasa), and to the Minister?

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Is the South African story, a success story? What is meant by the term public interest? As regards the role of an independent regulator, what is meant by the word **INDEPENDENCE**? Why would government want to drive the telecommunications sector, both as a regulator and a player? To what extent has South Africa lived up to its commitments under the Fourth Protocol to the GATS in establishing an independent regulator separated from, and not accountable to any supplier of basic telecommunications services? What is the Fourth Protocol to the GATS and how does it relate to the Telecommunications sector in South Africa?

Questions about questions set forth in the preceding paragraphs robustly illustrate the intensity of the fierce articulation of ideas[11] and the legal discourse as regards the regulatory framework in South Africa. Intrinsically, and at the centre of telecommunications governance and regulation, are two competing interests, diametrically and vehemently opposed.

In the first place, in the context of South Africa, it is for instance, abundantly clear that on the one hand the government has a vested interest in achieving public objectives or goals such as universal access and universal service. Whilst at the other end of the spectrum private companies' are primary driven to maximize profit and may be not be remotely inclined in attaining public goals perceived as ostensibly non-profitable, financial not viable. How does one reconcile these seemingly mutually destructive, competing interests, to ensure that the situation is a win-win, as opposed to zero-sum[12]?

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[11] ***Intellectual copulation at its best***

[12] ***In zero sum game, there must always be a winning, and a losing party (something got to give!).***

A synopsis of the Arguments

The First Argument – it is not possible to completely de- regulate

The foreword to the Green paper on Electronic Commerce adopted during November 2000, articulates an idea that the new challenges brought about by the new information age; **'may seem to defy regulation yet at the same time requiring regulation as an enabling tool'.**

Essentially, opening up ownership to full competition does not mean total absence of government intervention. The government may intervene by way of strong regulatory framework in order to curb avarice and anti competitive behaviours. In fact, it is the duty of the government to ensure through appropriate legal instruments such as the Competition law that the ordinary citizens equitably derive benefits from the advent of modern technology. The better view is that the citizens would ordinarily benefit from the new technology, if and when, they are granted a wide array of choice, enhanced quality, and reasonable, affordable price range through fair competition.

On the face of it, it might seem as a contradiction in terms that full liberalization or fully fledged competition in the telecommunications sector intrinsically calls for further regulation. However, when applied to concrete practical reality, experience around the world has shown that even countries such as the USA, Canada, and the European Union that are committed to competition still retain strong regulatory regime in place. The paradox in this regard seems to emanate from the fact that competition gives rise to more rules and more regulations in order to make competition work efficiently.

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This paper holds the assumption that it is not possible to entirely de regulate and leave the telecommunications industry at the mercy of brutal market forces. Strong regulatory legal framework is a way of keeping the competition in check thereby consistently and fairly eliminate anti competitive behaviour, cupidity.

Always keeping in mind, the delicate balance that governments particularly in developing countries need to strike between achieving public objectives for the common good such as universal service and universal access and the need for competition that may lead to economy of scale[13] i.e., efficiency and reduced ICT cost.

The Second Argument - ambivalence towards the role of competition and monopoly leads to complexity and litigation

Information communication technology (**ICT**) is exorbitant in South Africa compared to the developed countries in the northern hemisphere[14], Asia[15], an even North Africa[16]. One of the major factors attributed to the high cost is the monopoly over voice and data transmission exercised by incumbent operators over undersea cables, landing stations and international gateways[17]. At the risk of repetition, the assumption perpetually persists that the cost of using

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[13] ***a fall in average costs resulting from an increase in the scale of production*** available at http://www.thefreedictionary.com/economy+of+scale [last accessed 9 February 2009]

[14] ***'Unwieldy monopolies, reluctance by governments to let go and the resulting lack of international connectivity mean that less than 1% of Africans have access to broadband services compared with 22% of Americans and 30% of Western Europeans'*** Available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[15] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

[16] ***'North Africans are the most Internet-savvy on the continent, because governments have liberalised the telecoms sectors, while Internet service providers can get access to a number of undersea cables thanks to their proximity to Europe'*** - http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[17] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

technology may significantly drop if the telecommunications sector is fully liberalized, albeit strongly regulated.

Be that as it may, there seems to be some kind of ongoing and at times inexplicable cacophony on the part of the government in South Africa to fully liberalize the telecommunications sector. What could be the reasons for this ambivalence, and seemingly back and forth stance as regards regulation generally, and competition in particular?

The point of departure is a bold contention that it is not quixotic for the end users of ICT in South Africa, or Sub-Sahara Africa at large to expect to count the utility cost in cents and pennies. On the contrary, the experience around the world has shown that consumers in developed countries, India and even North Africa, do calculate the cost of using modern technology in pennies and cents.

Certainly, in the case of South Africa there is clear evidence that Telkom's exclusive monopoly in the telecommunications industry has in no way resulted in affordable ICT cost. Nor has the perceived political interference in the regulation of the telecommunication industry by the executive led to genuine competition. In fact, the opposite appear to have happened, namely, ongoing tension between the regulator and the executive, artificial competition, protracted litigations, and astronomical ICT rate much to the dismay of the unsuspecting consumers.

Whilst it is widely acknowledged that Telkom's roll out initiative with the assistance of some private actors has been a partial success, the same cannot be said about the affordability and penetration of broadband technology

particularly when compared to developed countries in the northern hemisphere, Asia[18], or even North Africa[19].

The only real winners in the ICT sector in South Africa appear to be the operators such as Telkom, Vodacom and MTN who have made huge profits. By implication the government has similarly profited considering that its subsidiary company Telkom has a 50% stake both in MTN[20] and Vodacom[21] respectively, to mention but a few.

In light of the significant shortfall arising out of the adoption of natural monopoly measured against the escalating ICT cost; it begs the vexed question why government in South Africa in 2009 still seems ambivalent to fully liberalizing the ICT Industry?

The starting point is a bold assertion that ambivalence towards competition must be debunked, for two reasons. In the first place, the cartel type of natural monopoly in telecommunications sector as traditionally known is in decline world wide and is not in keeping with the forward looking modern trends in converged telecommunications industry across the globe.

Secondly, and perhaps closer to home, exclusive monopoly granted in favour of Telkom has not fared well. Central to the ensuing discourse and by way of a quick reflection are the following factors. **How** does one, for instance, **reconcile** the fact that government **holds** a majority 38% stake in Telkom, a

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[18] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

[19] ***'North Africans are the most Internet-savvy on the continent, because governments have liberalised the telecoms sectors, while Internet service providers can get access to a number of undersea cables thanks to their proximity to Europe'*** - available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[20] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf

[21] ***It is expected of Telkom to redeem its 50% stake in Vodacom later this year*** – Business day online newspaper Tuesday 20 January, 2009

whopping 74% stake in Infraco whilst simultaneously playing a key role through Icasa in regulating the telecommunications industry? The matter is further compounded by the fact Icasa receives government funding and is occasionally subjected to Ministerial discretions in carrying out its functions.

This paper operates from the premise that as long as the government remains a major shareholder in the incumbent Telkom, Infraco and whilst at the same time plays a significant role in regulating the industry a perception of conflict of interest may exist on the part of the potential new entrants in the telecommunications industry.

Particularly, considering that Telkom as government subsidiary company in return holds 50% stake both in MTN and Vodacom respectively, 30% stake in Neotel ostensibly displaying a dominant role by government as a player and a key participant in the regulatory frame work.

The perceived conflict of interest on the part of the Minister is further amplified in the issuing of licenses. A case in point is, for instance, the perceived meddling of the Minister of Communications in the process of issuing of licences.

Similarly there is recorded historical tension between Telkom as a natural incumbent and Value Added Network Service (VANS) providers which seems to have hampered competition. Telkom seems to have abused its dominance position with impunity much to the dismay of the new competitive entrants.

Incredulous as it may sound, arguments invoked herein should not remotely be construed as a vicious attack on governance, regulation or government policy. On the contrary, this paper embodies a dispassionate appeal to the Republic of South Africa to embrace the telecommunications market structure nationally adopted in the white paper in 1996. If anything, this paper is an

epitome of a fair and objective assessment of the state of the telecommunications sector in South Africa as stated on this February month, in two thousand and nine years. Far from being a case of government bashing, this paper rather diligently lifts the veil on the telecommunications industry in South Africa and vigorously interrogates legal issues underneath that might have led to the prevailing status quo today - without fear, prejudice, or favour.

In adopting the white paper on telecommunications policy, the government of South Africa arguably entered into a covenant with the people to adopt a market structure that would bring fruitful and meaningful results to the users of technology, and that is for our purposes high speed, low cost, excess capacity in converged telecommunications services - immediately and unconditionally without unreasonable or protracted delay.

Chapter 2 – Historical Background

'Everyone has the right to... freedom to receive or impart information or ideas'[22]

As previously articulated, prior to the regime change in South Africa in 1994, Government through Telkom SA Ltd remained the sole shareholder and regulator of the telecommunications industry[23]. Telkom retained exclusive monopoly over telecommunications facilities including the South Atlantic 3 (SAT 3) underwater cable.

In 2002 South Africa, with a booming population of over 45 million presented as a grossly unequal country as regards access to, and the use of, telecommunications services. The inequality glaringly centred along racial black urban-rural divide[24]. For instance, a 2002 survey showed an average of 80% universal service[25] among whites both in urban and rural areas as opposed to 32% universal service among blacks in urban areas and a mere 5% in rural areas[26]. As for universal access[27] the figures averaged 90% for whites in both urban and rural areas as opposed to an average of 90% access for blacks in urban areas and a mere 56% for those in rural areas.

Clearly, the apartheid regime made use of telecommunications services as a tool to further the objectives of apartheid by denying the black people access, and use of telephony services. In practice, it meant that black people who applied for telecommunications services would be placed on a waiting list which was to all intends and purposes a subterfuge not to respond to black people's demand for the use of telecommunications service.

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[22] Section 16 (1) (b) of the 1996 Constitution interpreted by some legal pundits the right to universal access and service
[23] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[24] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[25] ***Universal service literally means a phone in every home***
[26] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[27] ***The term universal access refers to shared community or public phone within walking distance***

In light of the significant inequality reflected above, it became imperative and expedient for the governing regime to intervene and contrive a panacea that could cures the skewed gross imbalance in the telecommunications services especially among black urban and rural communities. Primarily the objective was rapid acceleration of telephone penetration in the previously neglected areas. Secondly, it was deemed expedient and imperative to introduce telephony services at affordable prices.

In terms of the demarcation of functions, the Ministry of Communications, assisted by its subsidiary Department of Communications is primarily entrusted in formulating a suitable national policy in the telecommunications sector[28]. In the mid nineties a practice evolved in South Africa in terms which the government increasingly solicited broad-based public opinion on fundamental national issues.

In keeping with the above tradition, government invited the public to participate in formulating a national policy on the telecommunications sector. The tradition in question entailed, among other things, vigorous broad-based consultation that lead to a discussion paper (renowned as the green paper) designed to inform the national policy. Thereafter the green paper was converted into a white paper on telecommunications policy in 1996.

The white paper is said to be the formal adoption of government's national policy which ultimately culminates into a national law. For our purposes the white paper culminated into the recently repealed[29] Telecommunications Act duly promulgated on 12 November 1996.

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[28] Lisa Thornton et al (eds) at page 23

[29] ***Section 97 of the EC Act repealed the Telecommunications Act 103 of 1996 in whole with effect from 19 July 2006.***

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The white paper on telecommunication policy[30] in South Africa is indicative of the government stance to gradually liberalize the telecommunications sector after years of natural monopoly exercised by the solely state owned entity Telkom during the apartheid regime. Incidentally, already in its early stage of existence the new government's policies with regard to ICT were indicative of an incremental managed liberalization approach as opposed to full liberalization.

Although the concept of managed liberalization is not clearly defined in the underlying legislations on telecommunications, it is submitted that the notion refers to government's measured intervention in the markets in order to achieve public objectives or goals. It is however, true that the mere fact that managed liberalization as a concept is neither defined, nor articulated in the underlying legislations could be tricky, may lead to conflict especially as regards questions of statutory interpretation.

In the context of the telecommunications sector, the principle of managed liberalization in South Africa presupposes, inter alia, deliberate adoption of rapidly declining practice of natural monopoly in order to cure the impugned imbalance among the populace in the converged telecommunications services. In short, the original intent of the doctrine of managed liberalization seeks equitable distribution of the telecommunications services among the greater populace in the South African society.

The drafters of the white paper on telecommunications policy in South Africa were pretty much aware of the prevailing trend internationally in competitive telecommunications sector depicting a shift from natural monopoly to a more competitive market structure, i.e., full liberalization. However, the proposed market structure as reflected in the white paper duly authorizing a time-

[30] The White paper on Telecommunications Policy ***Gazette No16995***

bound continuity of Telkom as a natural incumbent was an attempt to subsidize the spread of the use of services in previously neglected black urban and rural areas. The ethos reflected in the white paper, were so to speak, an attempt to grasp the dying part of the monopoly in order to attain greater government goals in telecommunications services. It is against this background that the white paper invoked a time frame during which the practice of natural monopoly would be ultimately abandoned in favour of fully fledged competition.

As succinctly set out below, Telkom monopoly clearly had a specific life span coupled, of course, with the Communications Minister's discretion to affect an extension if needs be:

- **Monopoly (Telkom only) 1997 – 2002**
- **Duopoly (Telkom & SNO) 2002 – 2005**
- **Triopoly (open market?) 2005 – onwards**[31]

On the face of it, the above dates seem to signify government's adoption of a firm policy of managed liberalization with clear time lines. Regard may similarly be had to the partial privatization affected by Telkom in the selling of 30% stake to SBC and Telecom Malaysia in its efforts to roll out telecommunications services to the previously neglected areas[32]. Government can therefore be said to have partially privatized whilst simultaneously protecting Telkom's exclusive dominant position by allowing limited, calculated competition.

However, strict adherence to the timelines could not be achieved to the extent that Telkom monopoly in ICT was prolonged to May 2005[33]. Meaning, the licensing of the Second Network Operator, for instance, had to be delayed. Telkom continued to exercise exclusive monopoly in the ICT sector

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[31] http://www.digitalcoast.org.za/docs/Carla_Raffinetti_Legal.pdf
[32] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[33] http://www.digitalcoast.org.za/docs/Carla_Raffinetti_Legal.pdf

effectively compelling mobile network operators to lease fixed links from Telkom for an extended period way past the envisaged initial deadlines[34].

Demonstrable government's inclination to entrench Telkom's exclusive monopoly for a time-bound period in order to address the impugned imbalance in telecommunications service seems to have culminated in unintended consequences.

For one thing, the over all converged telecommunications technology ranging from fixed lines, mobile cellular, and the internet remains high in South Africa compared to countries in the northern hemisphere such Canada, USA, EU, and even North Africa. Further, apart from the high rate of disconnection in rural areas due to non payment, other factors have also come into play.

Over and above the unreasonable cost of the telecommunications services is the seemingly muddied relationship between the incumbent network operator and other potential competitive new entrants. Telkom's exclusive monopoly has not been harmonious with new competitive entrants. For instance, in terms of the Telecommunications Act, Value-Added Network Services (Vans) and Private Telecommunications Network (PTNs) could compete with Telkom[35]. Stated differently, service providers other than Telkom could also apply for a Vans or PTNs licenses. However Telkom perceived the services of these licensed operators as undermining its natural monopoly. Telkom then embarked on total denial of access to telecommunications facilities who in return could not obtain the services elsewhere given Telkom's exclusive monopoly in telecommunications facilities[36].

For instance;

'**In the matter of Telkom SA Ltd v AT&T Global Network Services South Africa (Pty) Ltd, AT&T, a Vans licensee, complained that Telkom was refusing to provide**

[34] http://www.digitalcoast.org.za/docs/Carla_Raffinetti_Legal.pdf
[35] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[36] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf

telecommunication facilities to AT&T with effect that Telkom's Vans operations were given undue preference, in violation of section 53 of the [now defunct] **Telecommunications Act'**[37].

In the AT&T matter referred to above, Icasa conclusively confirmed AT&T's complaint as valid and legitimate in that - **'Telkom** [gave] **its own Vans provider an undue preference by unlawfully withholding telecommunications facilities from AT&T**[38].

Value added service presents a vital component of the modern day cutting edge technology. In amplification, a casual judicial glimpse on the enabling statute in telecommunications sector in South Africa coupled with some academic literature enunciated below underscores the importance of a value added service:

Section 1 of the Telecommunications Act, defines a value-added network service (Van) as[39]:

> **'a telecommunication service provided by a person over a telecommunication facility, which facility has been obtained by that person in accordance with the provisions of section 40(2) of the Act, to one or more customers of that person concurrently, during which value is added for the benefit of the customers, which may consist of—**
>
> **(a) any kind of technological intervention that would act on the content, format or protocol or similar aspects of the signals transmitted or received by the customer in order to provide those customers with additional, different or restructured information;**
> **(b) the provision of authorized access to, and interaction with, processes for storing and retrieval of text and data;**
> **(c) managed data network services;'**

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[37] Lisa Thornton et al (eds) at page 158
[38] Icasa's ruling in Telkom SA Ltd v AT&T Global Network Services South Africa (Pty) Ltd, 21 June 2002, available at http://www.icasa.org.za/Default.aspx?page=1018&moduledata=193
[39] Definition of "value-added network service" inserted by section 1(p) of Act 64 of 2001

Lisa Thornton et al (Eds)[40] provide the following examples of Vans, namely:

- **Electronic data interchange;**
- **Electronic mail;**
- **Access to database or a managed data network services;**
- **Voice mail;**
- **Store-and-forward fax;**
- **Video conferencing;**
- **Telecommunications related publishing and advertising services, electronic or print;**
- **Electronic information services, including internet service provision.**

Clearly, a value added network service is indispensable to the South African end users. The service is intended to benefit the consumer in that it adds value to the content of a telecommunications service facility. Value added service similarly provides options to the consumers in terms of access authorization, processing, storage, and retrieval of the content of the electronic transmission. The consumer gets to choose a value added service provider that guarantees quip pro quo i.e., value for money.

The consumer may undoubtedly benefit if the value added service sector is fully liberalized in that they would have improved quality in service, a wide array of choice, and arguably significant reduction in price through fair competition between the service providers. Icasa ruling in favour AT&T is a serious indictment, and is indicative of Telkom ostensible abuse of its dominant position as the then sole provider of leased telecommunications facilities.

Telkom's conduct in the AT&T matter begs the question – **who actually suffers when two elephants fight?** - The grass, **OBVIOUSLY**. In the context of the above matter the metaphor translate into consumer vis-à-vis the value added network service provider. The consumers would clearly be adversely affected

[40] At page 157

by any apparent abuse of the natural monopoly position by the incumbent in that quality, choice, and price would be negatively affected; competition highly compromised.

Finally, it is pertinent to note that Icasa's role as a regulator particularly with regard to the telecommunications industry has over the years been steadily curtailed by executive intervention. Justine White, for instance, argues that the Telecommunication Act affords ICASA far less independence from the executive in respect of telecommunications compared to its powers with regard to broadcasting[41]. Essentially as regards the telecommunication sector the government through Ministerial discretion has, and continues, to play a very active and interventionist at times hostile role[42].

Contrary to the ethos enunciated in the white paper[43] which favoured a more independent role of an Independent regulator insulated beyond the reach of politics, ministerial discretion assumed prominence over independent regulator. The regulator could only perform its duty on the policy directive issued by the Minister of Communications. The government in this context is said to have adopted a highly discretionary regulatory regime where the Minister of Communications literally calls the shots.

It is however, pertinent to note, at the juncture that the powers of the Minister to issue directions to Icasa in terms of section 5 (4) of the Telecommunications Act have subsequently been overtaken by Section 3 **Electronic Communications Act 36 of 2005**[44] (the EC Act) as amended[45]. So too has the role of Icasa been invigorated and amplified in terms of section 4 of the EC Act colloquially renowned as the Convergence Act. So-

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[41] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[42] See section 3 of Electronic Amendment Act 37 of 2007 supra
[43] hailed as excellent and forwarding looking.
[44] Came into force on 19 July 2006
[45] By the Electronic Communications Amendment Act 37 of 2007

called because in order to give effect to the converging technology and the ever changing nature of the telecommunication sector world wide, government subsequently introduced the EC Act.

The EC Act's main objective is to[46]-

> **(a) promote and facilitate the convergence of telecommunications, broadcasting, information technologies and other services contemplated in this Act;**
>
> **(b) promote and facilitate the development of interoperable and interconnected electronic networks, the provision of the services contemplated in the Act and to create a technologically neutral licensing framework;**
>
> **(c) promote the universal provision of electronic communications networks and electronic communications services and connectivity for all;**
>
> **(d) encourage investment, including strategic infrastructure investment, and innovation in the communications sector;**
>
> **[Para. (d) substituted by s. 2 of Act 37 of 2007.]**
>
> **(e) ensure efficient use of the radio frequency spectrum;**
>
> **(f) promote competition within the ICT sector;**
>
> **(g) promote an environment of open, fair and non-discriminatory access to broadcasting services, electronic communication networks and to electronic communications services;**
>
> **(h) promote the empowerment of historically disadvantaged persons, including Black people, with particular attention to the needs of women, opportunities for youth and challenges for people with disabilities;**
>
> **(i) encourage research and development within the ICT sector;**
>
> **(j) provide a clear allocation of roles and assignment of tasks between policy formulation and regulation within the ICT sector;**
>
> **(k) ensure that broadcasting services and electronic communications services, viewed collectively, are provided**

[46] Section 2 of the EC Act

by persons or groups of persons from a diverse range of communities in the Republic;

(l) provide assistance and support towards human resource development within the ICT sector;

(m) ensure the provision of a variety of quality electronic communications services at reasonable prices;

(n) promote the interests of consumers with regard to the price, quality and the variety of electronic communications services;

(o) subject to the provisions of this Act, promote, facilitate and harmonize the achievement of the objects of the related legislation;

(p) develop and promote SMMEs and cooperatives;

(q) ensure information security and network reliability;

(r) promote the development of public, commercial and community broadcasting services which are responsive to the needs of the public;

(s) ensure that broadcasting services, viewed collectively-

(i) promote the provision and development of a diverse range of sound and television broadcasting services on a national, regional and local level, that cater for all language and cultural groups and provide entertainment, education and information;

(ii) provide for regular-

(aa) news services;

(bb) actuality programs on matters of public interest;

(cc) programs on political issues of public interest; and

(dd) programs on matters of international, national, regional and local significance;

(iii) cater for a broad range of services and specifically for the programming needs of children, women, the youth and the disabled;

(t) protect the integrity and viability of public broadcasting services;

(u) ensure that, in the provision of public broadcasting services-

(i) the needs of language, cultural and religious groups;

(ii) the needs of the constituent regions of the Republic and local communities; and

(iii) the need for educational programs, are duly taken into account;

(v) ensure that commercial and community broadcasting licenses, viewed collectively, are controlled by persons or groups of persons from a diverse range of communities in the Republic;

(w) ensure that broadcasting services are effectively controlled by South Africans;

(x) provide access to broadcasting signal distribution for broadcasting and encourage the development of multi-channel distribution systems in the broadcasting framework;

(y) refrain from undue interference in the commercial activities of licensees while taking into account the electronic communication needs of the public;

(z) promote stability in the ICT sector.

As may be inferred from the preceding paragraphs, the EC Act in question is an ambitious pioneering piece of legislation that diligently and extensively addresses the question of convergence and competition.

Notably in terms of section 3 (4) of the EC Act, Icasa is not bound by the policies made by the Minister. Icasa must simply consider those policies. Section 3 (4) is therefore regarded in law as a weak form of mandate whose legal effects are not binding; a clear departure from peremptory section 5 (4) of the Telecommunications Act.

As mentioned earlier, the

> '**Telecommunications policy is articulated in the White Paper on Telecommunications Policy which deals with, among other things, universal service, market structure, and an independent regulator....With regard to market structure, the White Paper on Telecommunications Policy set out that there would be an initial period of exclusivity for Telkom SA**

> **Limited (Telkom) to provide basic services in return for an obligation to roll out services to South Africans who had previously not had access to them'** [47].

The market structure articulated in the white paper brought to the fore several principles[48]:

- **'First, it was stated the definitions of the different market segment were to be determined by an independent regulator and not Telkom'.** This is certainly a far outcry from the pre 1994 position where Telkom enjoyed exclusive ownership of the telecommunications sector both as owner and regulator.
- **'Secondly, it was stated that telecommunications policy must accommodate new services and technologies'...** The notion of convergence which brings to the fore issues such as value added services robustly suffices in this context.

Prior to 2000, two entities assumed the regulation role in the telecommunications, namely, the Independent Broadcasting Authority[49] (IBA) primarily responsible for broadcasting regulation, and South African Telecommunications Regulatory Authority[50] (Satra) South Africa's first Telecommunications regulator.

However in light of the blurring lines between information services and emerging new technologies in the telecommunications sector, IBA and Satra were subsequently dissolved as regulators with effect from 1 July 2000 to make way for the Independent Communications Authority of South Africa (Icasa) [51]. The rational in merging IBA and Satra into one entity, is clearly spelt out in the preamble to the Icasa Act. Without derogating from the exact language employed in the preamble, and the risk of simplifying; Icasa is a

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[47] Lisa Thornton et al (eds) at page 23

[48] Lisa Thornton et al (eds) at page 23

[49] Duly promulgated in terms of the Independent Broadcasting Authority Act, 153 of 1993

[50] Enacted in terms of section 5 of the Telecommunications Act 103 of 1996 as amended

[51] Promulgated in terms of the Independent Communication Authority of South Africa (Icasa) Act 13 of 2000

firstly a recognition of the convergence in telecommunications sector between broadcasting and telephone.

The question – what is convergence has proven to be at time allusive in the ordinary parlance the telecommunications industry. The Newton's Telecom Directory[52], defines the term convergence as;

> **'The word to describe a trend, now that most media can be represented digitally, for the traditional distinctions between industries to blur and for companies from consumer electronics, computer and telecommunications industries to form alliances, partnerships and other relationships, as well as to raid each other's market'**

Whilst the International Telecommunications Union (ITU) defines convergence as[53];

> **The technological, market, legal or regulatory capability to integrate across previously separated technologies, markets or politically defined industry structures...**

Although there is no single definition for the term convergence, this paper prefers defining convergence as[54]:

> **'Encompassing convergence of services, such as telecommunications, computing, publishing and broadcasting; the convergence of technologies such as wireless and wire line communications conduits, computers, newspapers and other traditional print media; the convergence of entities that supply such services and technologies such as Time Warner and AOL; as well as the various pieces of legislation and potentially the regulatory authorities operating in these sectors'.**

Traditionally, there used to be two separate categories of telecommunications, namely; point to point as in telephony, and point to multipoint as in broadcasting. Until recently, the assumption was that point to point telephone calls were carried on wires, point to multipoint on airwaves. However, in the new information society this assumption appears to be

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[52] Lisa Thornton et al (eds) at page 248; Newton, H (2002) Newton's Telecom Dictionary (18th ed) at page 300
[53] Lisa Thornton et al (eds) at page 248
[54] Lisa Thornton et al (eds) at page 248

rapidly fading away. The Twenty First Century is now replete with tangible evidence of telephone going over wireless satellite devices, broadcasting over fibre-optic cables and vice versa. In Fact – '**Electricity companies** [such as Eskom] **are even able to install fibre-optic lines within their cables that can then be used to provide long distance, high-speed data and video services'**[55].

Accordingly, converged - '**Telecommunications networks can now transport broadcast services and broadcasting networks can provide telecommunications services, including voice telephony**[56].

Further;

> **'The convergence of technologies and networks has already led to the convergence of services and the introduction of hybrid services such as pay-per-view and video-on-demand services. Home banking and home shopping are also possible over the internet or even over the airwaves through television. Sophisticated consumer devices such as VoIP**[57] **modems, set-top boxes and navigation software are available to the general public to enable them to modify their services to suit their lifestyle**[58].

The EC Act emphatically sets the tone for convergence when it defines[59] electronic communications very broadly as;

> **'The emission and transmission or reception of information, including without limitation, voice, sound, data, text, video, animation, visual images, moving images and pictures, signals or combination thereof by means of magnetism, radio, or other electromagnetic waves, optical,**

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[55] Lisa Thornton et al (eds) at page 257
[56] Lisa Thornton et al (eds) at page 257
[57] ...***Short for Voice over Internet Protocol - A protocol for transmitting the human voice in digital form over the Internet or other networks as an audio stream, instead of using traditional telephone lines. VoIP uses the Internet Protocol (IP), but is not limited to communication by computer—even phone-to-phone communication can be conducted using this technology.*** **Available at** http://www.thefreedictionary.com/VoIP [accessed on 28 January 2009]

[58] Lisa Thornton et al (eds) at page 257
[59] Section 1 of the EC Act

electromagnetic waves, optical, electromagnetic waves, optical, electromagnetic systems or any agency of a like nature, whether with or without the aid of tangible conduct'.

Electronic communications network as;

'Any system of electronic communications (excluding subscriber equipment) including without limitation:

(a) satellite systems;
(b) fixed systems (circuit- and packet-switched);
(c) mobile systems;
(d) fibre optic cables (undersea and land-based);
(e) electricity cable systems (to the extent used for electronic communications services); and
(f) other transmission systems, used for conveyance of electronic communications'

Electronic communications network service as;

'A service whereby a person makes available an electronic communications network, whether by sale, lease or otherwise-

(a) for that person's own use for the provision of an electronic communications service or broadcasting service;
(b) to another person for that other person's use in the provision of an electronic communications service or broadcasting service; or
(c) for resale to an electronic communications service licensee, broadcasting service licensee or any other service contemplated by this Act, Electronic'

Electronic communications network service as;

'A person to whom an electronic communications network service license has been granted in terms of section 5 (2) or 5 (4)'

Electronic communications service as;

'Any service provided to the public, sections of the public, the State, or the subscribers to such service, which consists wholly or mainly of the

> **conveyance by any means of electronic communications over an electronic communications network, but excludes broadcasting services'**

Electronic communications service licensee as

> **"A person whom an electronic communications services license has been granted in terms of section 5 (2)'**

Secondly the establishment of Icasa is an acknowledgement of the need to centralize the regulatory function of broadcasting and telecommunications services into one independent body. **In brevity,** Icasa may be defined as a creature of statute established in July 2000 as a merger of telecommunications and broadcasting. Icasa derives its mandate from four statutes, namely, The Icasa Act, The Independent Broadcasting Act, the Telecommunications Act and The Electronic Communications Act[60] collectively renowned as the underlying pieces of legislation or patchwork statutes.

The instructive analysis of Lisa Thornton in this regard is worth quoting verbatim:

> **'Icasa exercises powers and performs functions in terms of the underlying telecommunications and broadcasting legislation. Further Icasa must perform its functions in accordance with the Icasa Act as well as the underlying legislation, in order to achieve the objects of the underlying statutes'[61].**

Of the four underlying pieces of legislation the primary legislation regulating telecommunications in South Africa is the now defunct Telecommunications Act and at present, its successor the Electronic Communications Act (EC Act). Section 2 of the Telecommunications Act provides that the primary object of the Act is to provide for the regulation and control of telecommunications

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[60] http://www.icasa.org.za
[61] Lisa Thornton et al (eds) at page 33

matters in the public interest'.[62] According to Lisa Thornton et al (Eds), the Telecommunications Act does three things, namely:

- **Sets out fundamental rules for the Telecommunications industry**
- **Establishes an independent regulator now renowned as Icasa**
- **Empowers Icasa to make regulations subject to approval by the Minister**

In particular the Telecommunications Act empowers Icasa to make the following regulations[63]:

- **The manner in which applications for certain telecommunications service licenses are to be made [section 34 (1)]**
- **The procedure in relation to applications for frequency use licenses [section 30 (2) (b)]**
- **Rules to be used by the parties in negotiating interconnection or facilities leasing agreements [sections 43 (3) and 44 (5)**
- **The manner of determining fees and charges for the kinds of telecommunication services licensees where insufficient competition exists, for example for PSTS licensees [section 45]**
- **The way in which telecommunication service licensees keep accounts and records [section 46]**
- **The annual contributions for telecommunication services licensees to the USF**

Lerato Mokgosi in Lisa Thornton et al (Eds) defines the powers of the Minister in telecommunications sector as follows:

> **'The powers of the Minister as regards telecommunications regulation include, inter alia, the power to issue policy directions to Icasa, to initiate and participate in certain licensing processes, and to approve radio regulations and other regulations made by Icasa in terms of section 95 and 96 of the Telecommunications Act'[64].**

Primarily Icasa regulates converged telecommunications sector in accordance with government broader objectives of attaining universal service and access

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[62] Lisa Thornton et al (eds) at page 30
[63] Lisa Thornton et al (eds) at page 31
[64] At page 104

at an affordable price.[65] Central to Icasa main objectives is the issuing of licensees to operators whilst simultaneously playing an oversight role to ensure universal access and service particularly in under serviced areas. In short, Icasa was specifically enacted to promote government's policy of universal service and access in ICT[66] as originally articulated in the white paper on telecommunications policy and further amplified by the underlying patchwork statutes.

The question that may arise in practice is what to make out of the pieces of legislation neatly aligned as weapons of mass destruction all aimed at same sector, namely the converged telecommunications services. Firstly, in terms of section 3 (4) of the EC Act:

> **'The Authority, in exercising its powers and performing its duties in terms of this Act and the related legislation must consider policies made by the Minister in terms of subsection (1) and policy directions issued by the Minister in terms of subsection (2)'**

Meaning in terms of section 3 (4) of the EC Act, Icasa is not bound by the policies made by the Minister. Icasa must simply consider those policies. Section 3 (4) vindicates Icasa as an independent regulator, and is regarded in law as a weak form of mandate whose legal effects are not binding; a clear departure from section 5 (4) of the Telecommunications Act which reads as follows:

> **(a) The Minister may from time to time by notice in the *Gazette* issue to the Authority policy directions consistent with the objects mentioned in section 2**
>
> **(d) The Authority shall perform its functions in terms of this Act in accordance with a policy direction issued under this section.**

Evidently, in terms of section 5 (4) (d) referred to above, Icasa is unequivocally bound to act in accordance with policy direction issued by the Minister. That much is clear from the wording of subsection especially by the

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[65] http://www.icasa.org.za
[66] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf

use of the word **SHALL** which has a particular meaning in law i.e., peremptory.

Secondly, the elaborative section 4 of the EC Act stipulates that:

> **(1) The Authority may make regulations with regard to any matter which in terms of this Act or the related legislation must or may be prescribed, governed or determined by regulation. Without derogating from the generality of this subsection, the Authority may make regulations with regard to-**
>
> **(a) any technical matter necessary or expedient for the regulation of the services identified in Chapter 3;**
>
> **(b) any matter of procedure or form which may be necessary or expedient to prescribe for the purposes of this Act or the related legislation;**
>
> **(c) the payment to the Authority of charges and fees in respect of-**
>
> **(i) the supply by the Authority of facilities for the inspection, examination or copying of material under the control of the Authority;**
>
> **(ii) the transcription of material from one medium to another;**
>
> **(iii) the supply of copies, transcripts and reproductions in whatsoever form and the certification of copies;**
>
> **(iv) the granting of licenses in terms of this Act or the related legislation;**
>
> **(v) applications for and the grant, amendment, renewal, transfer or disposal of licenses or any interest in a license in terms of this Act or the related legislation; and**
>
> **(d) generally, the control of the radio frequency spectrum, radio activities and the use of radio apparatus.**
>
> **(2) Different regulations may be made in respect of different-**
>
> **(a) licenses granted in terms of this Act; and**
>
> **(b) uses of radio frequency spectrum.**

(3) Any regulation made by the Authority in terms of subsection (1) may declare a contravention of that regulation to be an offence, provided that any such regulation must specify the penalty that may be imposed in respect of such contravention taking into account section 17H of the ICASA Act.

(4) The Authority must, not less than thirty (30) days before any regulation is made, publish such regulation in the Gazette, together with a notice-

- **(a) declaring the Authority's intention to make that regulation; and**
- **(b) inviting interested parties to make written representations on the regulation.**

(5) The Authority must, not less than 30 days prior to making regulations, inform the Minister in writing of its intention and the subject matter of the regulations.

(6) The Authority may conduct public hearings in respect of a draft regulation.

(7) The provisions of subsection (4) do not apply with regard to-

- **(a) any regulation made by the Authority which, after the provisions of that subsection have been complied with, has been amended after receipt of comments or representations received in terms of a notice issued under that subsection; or**
- **(b) any regulation which the public interest requires should be made without delay.**

Meaning under section 4 mentioned above, Icasa is now imbued with broad regulation making authority as opposed to the earlier position in terms whereof the regulator could only put forward regulations in order for the Minister to decide.

Thirdly, Icasa's primary role to regulate telecommunications in the public interest remains intact and reverberates throughout the underlying legislations on telecommunications[67]. However, to the curious by stander the question that has not been addressed thus far is perhaps – why regulate the telecommunication in the first place?

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[67] See section 2 of the Telecommunications Act read with section 7 (b) of the EC Act

The conundrum of Ownership in respect of the undersea cables and the landing stations rights in South Africa

Legal pundits have advanced a three-pronged approach to the issue of regulation[68], and that is the fact that telecommunications has historically been:

- **Regarded by governments generally as a basic need** [a fundamental human right] **and therefore incumbent on the government to ensure** [universal access] **as well as universal service;**
- **Thought of as a national monopoly that is entrenched from competition**[69]
- **Comprised a valuable natural resource namely radio frequency over which government must exercise some control**

At present experience around the world shows that the regulatory framework in the telecommunication industry seems three-fold[70], namely:

- **To maintain control over the use of a valuable national resource namely the radio frequency spectrum**
- **To control anti-competitive behaviour by dominant players in the market that in return leads to the realization of universal service increased quality and choice**
- **To ensure the development and implementation of effective universal service policies**

By implication, recent trends in telecommunications strictly measured and benchmarked against the international standards seem to debunk formal adoption of the natural monopoly approach as retrograde. Out with the old in with the new seems to be the current talk in the telecommunications sector world wide. The trend in competitive telecommunications at present is pro competition albeit regulated to in order to curb anti competitive behaviour. However, it would appear that governments at the international level remain inclined towards retaining control over the use of the radio frequency spectrum.

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[68] Lisa Thornton et al (eds) at page 18 – 19

[69] ***Government protected natural incumbents from competition by granting them monopoly franchises as was the case with Telkom in exchange for commitments to provide reasonable level of service at reasonable rates – notably the roll out of telecommunication services initiative by Telkom.***

[70] Lisa Thornton et al (eds) at page 19

All said and by way of concluding this robust and progressive discussion on Icasa, the reader is quickly reminded of the concurrent jurisdiction that Icasa shares with the Competition Commission. Briefly, in terms of section 21 (1) (h) of the Competition Act[71], The Competition Commission is empowered to –

> **'negotiate agreements with any regulatory authority to co-ordinate and harmonize the exercise of jurisdiction over competition matters within the relevant industry or sector, and to ensure the consistent application of the principles of** [the] **Act'**

The reader would appreciate that Icasa and the Competition Commission entered into an agreement with effect from 16 September 2002[72] in order exercise jurisdiction over competition matters relevant to the telecommunication industry so as to insure consistency with the principles of competition enunciated in the Competition Act. Has South Africa succeeded in putting in place an effective efficient mechanism? How best do you get a legal regime in place?

The next chapter explores the interplay between policy, law and regulation.

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[71] The Competition Act 89 of 1998
[72] Lisa Thornton et al (eds) at page 35

Chapter 3 – Regulation, Policy, and Law

'...while in the developed world telecoms users count the cost of calls in pennies and cents, Africans are still forced to pay an arm and a leg'.[73]

The cost of converged telecommunications services is more expensive in South Africa compared to the developed countries in the northern hemisphere such as Canada, USA, The EU, Asia, and even in North Africa[74]. It is for instance argued that:

> **'The cost of telephony imposed by African governments has probably done more to retard the continent's development than any other single factor. In more competitive societies, broadband has been allowed to proliferate and drastically bring down the cost of telecommunications, for example, while in the developed world telecoms users count the cost of calls in pennies and cents, Africans are still forced to pay an arm and a leg'**[75].

One of the major factors attributed to the high cost is the monopoly over voice and data transmission exercised by incumbent operators over underwater cables, landing stations and international gateways[76]. This paper hold an assumption that the cost of using technology may arguably drop if ownership or the use of submarine cables is opened to full competition.

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[73] Available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[74] ***'North Africans are the most Internet-savvy on the continent, because governments have liberalised the telecoms sectors, while Internet service providers can get access to a number of undersea cables thanks to their proximity to Europe'*** - available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[75] http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[76] Available at http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

Full liberalization, in this context, does not entail total absence of government intervention. On the contrary, government may still intervene by way of strong regulatory framework in order to curb anti competitive behaviours. In fact, it is the duty of the government to ensure through appropriate legal instruments that the ordinary citizens equitably derive benefits from the advent of new technology. The better view must be that the citizens would ordinarily benefit from the advent of new technology, if and when, they are granted increased choice, better quality, reasonable, and affordable price range.

In light of the ICT imperatives advanced in the preceding paragraphs, it is probably comprehensible that South Africa at the moment is seized with a scramble for the construction of undersea cables. After all, although an essential facility, the construction of submarine cables is a costly business venture given 'the expense of installation and the high running costs of maintaining a repair ship on standby'[77] (should a break occur in the cable).

The installation and maintenance of the submarine cables is not a great surprise. It's been in use for a very long time. In fact, it seemed especially with the introduction of wireless satellite devices that undersea cables would become defunct, relatively obsolete. However, experience around the world has shown that wireless satellite devices may not be as reliable[78] or cost effective as the traditional fibre-optic cables. This is so because communication over the wireless satellite device is susceptible to intermittent interruption. The cable on the other hand, particularly the fibre optic, has proven to be efficient, reliable, and cost effective.

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[77] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

[78] ***'In East Africa, broadband is virtually non-existent, because there is no undersea cable linking countries to the rest of the world, forcing ISPs to rely on expensive and unreliable satellite connections'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

The conundrum of Ownership in respect of the undersea cables and the landing stations rights in South Africa

In the context of South Africa there are at the moment two submarine cables under the exclusive monopoly of Telkom. Telkom is effectively vested with exclusive rights on access to, and pricing of, international broad bandwidth[79]. Considering the high ICT rate coupled with the build up to the hosting of the FIFA World Cup in 2010, the two existing underwater cables are insufficient, inadequate, and puny in addressing the robust need in South Africa for a high speed, low cost excess capacity in the telecommunications services.

The point of departure is a bold contention that full-liberalization of the converged telecommunications sector is forward looking and may provide increased choice, increased quality, reasonable, and cost effective modern technology[80]. It is submitted that competition, if properly regulated, may lead to quid pro quo, value for money competitive services between the competing Mobile Network Operators (MNOs), Internet Service Providers (ISPs)[81], Value added Service providers and the infrastructure facilities service providers such as Telkom, Neotel, and Infranco.

This paper operates from this an assumption that it is not quixotic for the end users in South Africa to expect to count the cost of ICT in cents and pennies. On the contrary, experience around the world shows that consumers in developed countries, India and even North Africa, do calculate the cost of using technology in pennies and cents.

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[79] http://www.engineeringnews.co.za

[80] ***'That is all changing as modern telecoms find ways to circumvent restrictive state controls, and governments must now bow to inevitable telecom-sector liberalization'*** - http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[81] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

Certainly, in the case of South Africa there is clear evidence that Telkom's exclusive monopoly[82] in the telecommunication industry has in no way resulted in a healthy competition, sufficient broadband penetration, or affordable ICT cost[83]. Whilst it is widely acknowledged that Telkom's roll out initiative with the assistance of some private actors has been partially a success, the same cannot be said about the affordability of ICT cost.

Historically, resort to natural monopoly has always created tensions between the incumbent operator, potential new entrants, and the regulator. In the context of South Africa, apparent recourse to the natural monopoly paradigm is more pronounced and seems complex. The reader would note that prior to the regime change in South Africa in 1994, Government through Telkom SA Ltd remained the sole shareholder and regulator of the telecommunications industry[84].

Notwithstanding the fact that partial privatization has taken place and that new competitors have subsequently emerged in the telecommunications industry. At present government's dual role as a shareholder whilst simultaneously also being a key player in the regulatory frame work, presents as status quo in South Africa effectively depicting a strong inclination of becoming a permanent feature of the market structure in telecommunications sector.

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[82] ***'Even in South Africa, the continent's economic powerhouse, state-controlled fixed-line operator Telkom has a firm grip over the telecoms market, keeping DSL connections--a technology that enables broadband access through standard copper phone wires--to some 200,000, just 0.4% of the population," reports Harrison'*** - http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[83] ***'For years, Africa has languished in a kind of communications broadband grey-out with telecommunications users trapped between rapacious regional service provider monopolies, ageing and expensive connectivity and the sky-high cost of satellite links'*** - http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[84] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf

The reader would similarly recall private equity ownership in term of which Telkom (with apparent government approval) sold 30% of its stake to SBC and Telecom Malaysia in its efforts to roll out universal service and access to communications technology[85]. By the same token and in keeping with the ethos articulated in the white paper on telecommunications, Telkom liberalized certain market segments notably the seemingly tumultuous value added network services (Vans) during its period of exclusivity[86].

It is further the case that three mobile cellular networks, namely, Vodacom, MTN, Cell C, plays an active role domestically in the telecommunications sector. So too has Neotel as of late joined the fracas as the second network service operator. And very recently Infranco (albeit 74% government owned) has assumed prominence as the main converged telecommunications facilities network service provider. The question that may then arise out of the foregoing revelation in this: To what extent may government role as the dominant player in the telecommunication sector compromise competition? Put differently, To what extent may government's dual role as a shareholder and partly the regulator create artificial or limited competition?

For one thing, there is abundant recorded history on the tension between Telkom (in which government has a stake) as a natural incumbent with, not only network operators as regards to VANS, but also vis-à-vis Icasa in its official capacity as a regulator, which seems to have hampered competition. Further, in spite of the extended Telkom monopoly in the telecommunication sector the cost of ICT utilization remains high with a number of people especially in poor rural and urban areas left with access to facilities (fibre optic cables) which they can nonetheless not afford to use due to the exorbitant prices imposed by the profiteering operators.

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[85] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[86] Lisa Thornton et al (eds) at page 23

Below follows a brief exposition on how government dual role as a shareholder and a participant in the regulatory framework might have stunted competition. First, it must be mentioned right out at the outset, that the white paper on the telecommunications policy favoured a comprehensive role for an Independent Regulator Satra turned Icasa[87]. That role however, subsequently changed under section 5 (4) of the Telecommunications Act supra which invoked the Ministerial discretion in issuing peremptory policy directive to the regulator, Icasa. Government stance as regards the independence of the regulator taken in the white paper can in the context safely be said to have been abandoned in 1996 when the Telecommunications Act supra was promulgated.

Whereas the white paper sought to insulate the telecommunications from politics, the Telecommunications Act changed course. The functional independence for the regulator envisaged in the white paper could not be guaranteed under the Telecommunications Act. In particular the Telecommunications Act changed course in three ways:

- It subjected the independent regulator to policy direction from the Minister of communications in terms of section 5 (4)
- The issue of deadlines was abandoned in that the Minister had the right to set the liberalization timetable
- The independent regulator was not granted the power to grant licenses but could only recommend to the Minister to do so in terms of section 35 (1) (a).

To this end the enthusiasm for competition as encompassed in the white paper became subjected to the ministerial discretion. It should therefore come as no surprise that even the deadline for natural monopoly enunciated above in the preceding paragraph could not strictly be adhered to.

However as rightly pointed out earlier during this discourse, the Telecommunications Act 103 of 1996 has subsequently been overtaken by the

[87] See section 6.2 subsection 6.25 of the white paper ***Gazette No16995***

events as succinctly articulated in the EC Act supra. Evidently, the Government seems to have made about face turn, and appears to have reverted to its original stance in the white particularly if regard is had to section 3 and 4 of the EC Act.

In terms of these provisions, Icasa as an independent regulator is once again accorded broad independent[88] functional powers. The EC Act seems to elevate the telecommunications beyond the reach of politics. Be that as it may, the question still remains; to what extent did the enactment of the repealed 1996 Telecommunications Act wreck havoc in the telecommunications industry?

Central to the ensuing legal discourse and by way of a quick reflection are the following factors: The genesis of the argument advanced herein emanates from Telkom as a natural monopoly incumbent. How does one reconcile the fact that the Minister of communications holds a majority shareholding of 38% stake[89] in Telkom, 74% stake in Infraco whilst at the same time play a key role in regulation? This paper operates from the premise that as long as the government remains a major shareholder in the incumbent Telkom, Infraco and the Minister of communications plays a significant role in regulation a perception of conflict of interest may exist on the part of the potential new entrants in the telecommunications industry.

The perceived conflict of interest on the part of the Minister is even more pronounced in the issuing of licenses. A case in point is, for instance, the perceived meddling of the Minister of Communications in the process of issuing a license to a third mobile cellular telecommunications service provider

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[88] Lerato Mokgosi in Lisa Thornton et al (eds) opines that: ***'the term independence as used in the context of telecommunications regulation, does not imply independence from government policy or the power to make policy, but rather independence to implement such policy without undue influence from politicians or industry lobbyists'***.

[89] http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[Cell C]. In this instance, Nextcom, one of the contenders to the bidding process approached the Transvaal Provincial Division High Court[90] by way of an interdict alleging serious irregularity on the part of the regulator (then Satra). It transpired during the course of the hearing that the Minister had recalled the Chairperson of Satra from participating in the proceedings **'immediately prior to the internal deliberations which were to be held by Satra to identify the successful applicant....'**[91] The deposed chairperson of Satra, Dr Nape Maepe, alleged by way of an affidavit **'material procedural irregularity and a failure to give proper consideration to the advice provided by** [the] **experts employed by Satra'**[92].

Satra was subsequently dissolved on 1 July 2000 before the above matter could be finally settled in Court. Icasa, with effect from 4 July 2000 stepped into the shoes of Satra and the matter was again referred to Court for review of the perceived adverse administrative decision initially made by Satra. The Court found in the unreported matter of Nextcom (Pty) Ltd v Funde NO & Others[93] that:

- **There was a reasonable prospect that a review court would find that the executive interference in the adjudication process comprised Icasa's impartiality which is required by the Constitution and by section 5 (3) of the Telecommunications Act;**
- **Nextcom had failed to establish any irregularity based on conflicts of interest in the adjudication process;**
- **At the time that the public hearings were held, the public was entitled to access to all the information relating to the applicants, which had not been provided and that the lack of access to this information amounted prima facie to a procedural irregularity;**
- **There is evidence to suggest that Icasa ignored or did not give proper weight to the opinions of its experts, and that this may indicate that Icasa did not adequately apply its mind to the matter in question and that such a**

[90] Nextcom (Pty) Ltd v Funde NO & Others 2000 (4) SA 491 (T)
[91] Lisa Thornton et al (eds) at page 154
[92] Lisa Thornton et al (eds) at page 154
[93] TPD case no 8734/2000, 28 July 2000

> **failure amounted to an irregularity which vitiated the proceedings and the outcome thereof[94].**

Although the applicant Nextcom, in this instance, failed to establish a basis for a conflict of interest in the above matter, it is clear that government flexed a strong muscle that could be interpreted as hampering competition. Giving credence to the perceived meddling in the issuing of licences, Altech chief executive officer, Craig Venter, for instance, opines that restrictive license regulations breed high prices that consumers pay in phone and data charges[95]. In the context of the Nextcom case supra, intervention by the Minister of Communications could arguably impose restrictions licensing regulation thereby create artificial competition.

In terms of section 15 (1) of the Icasa Act, Icasa receives its funding from government, the Ministry of Communications in particular. Lerato Mokgosi opines that the mere fact that Icasa solicits its funding from government -

> **'compromises [its] independence in that should Icasa rule against Telkom, it would have indirectly ruled against the government and thereby against the hand that feeds it. Any decision that adversely affects Telkom indirectly affects the Minister and may therefore affect Icasa' funding'[96]**

What happens for instance when Telkom as the incumbent operator in any ways abuse its dominant position in the market?[97] For instance, in terms of the Telecommunications Act, Value Added Network Services (VANS) and Private Telecommunications Network (PTNs) could compete with Telkom[98].

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[94] Lisa Thornton et al (eds) at page 157
[95] Business Times newspaper print version 25 January 2009 at page 1
[96] Lisa Thornton et al (eds) at page 115
[97] ***'...in southern Africa some of the world's most expensive rates pertain through monopolistic government telephony service'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]
[98] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf

However Telkom perceived the services of these licensed operators as undermining its natural monopoly. Telkom then embarked on total denial of access to VANS who in return could not obtain the services elsewhere given Telkom's exclusive monopoly on the leased telecommunications facilities.[99]. Telkom is similarly ...**viewed as having used its monopoly of the international broadband gateway to maximize its own profits while blocking retailers' direct access or alternative routes**[100].

To what extend has the ANC led government succeeded in opening up the Information Communications Technology to competition? Chapter 4 provides some useful insight to this end. In particular, the paradox of ownership of the submarine cables would serve as a litmus test in evaluating the successes and/or shortfalls as regards full liberalization of the telecommunication industry. The government stance on the ownership of undersea cables and the landing stations in South Africa gauges an overall understanding on whether or not the government approach contextualized is in anyway indicative of a step towards convergence and full market liberalization in ICT at present and in the foreseeable future.

[99] http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf
[100] http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

Chapter 4 – the submarine cables paradox contextualized

'The world has changed, we must change with it' **– Barack Hussein Obama[101]**

By way of introduction it is considered not unhelpful to sketch a brief overview on the history of submarine cables. Traditionally, the construction and operations of undersea cables exhibited strong characteristics of a powerful cartel between sovereign states[102]. Each participating country, in this context, constructed under sea cables and built landing stations.

The original intent as regards -

> **'The creation of an undersea cable was to form a closed club of operators that would raise capital for the investment needed to lay the cable. The members would then have exclusive rights to use capacity in their respective countries'[103].**

The 'indefeasible' right of use granted to the operator in this context was exclusive and irrevocable and had a lifespan of 20 – 25 years.

Some of the challenges associated with the cartel ownership of the submarine cables are the tension between the operators and the incumbent network service provider. It is, for instance, argued that the operators generally are reluctant to increase traffic on the cables whose exclusive control over landing rights is in the hands of the national incumbent[104]. The tension primarily revolved around the failure of the incumbent network to provide cost effective access to the international transmission capacity[105]. Such tension clearly tends to undermine the whole idea underpinning the constructions of submarine

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[101] Excerpt from the inaugural speech of the 44th President of the United States of America delivered around NOON New York time on the 20 January 2009 before an audience roughly estimated to be around 2 million people. The Obama moment.....
[102] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf
[103] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf
[104] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf
[105] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

cables which is to enhance economic growth, help reduce digital divide through universal access and service[106], and reduce the cost of usage.

Recent developments such as the eroding dominance of AT&T in the United States of America show the declining modern trend in cartel type monopolies associated with undersea cables. The assumption is that full liberalization leads to competitive telecommunications market, which in return brings about efficiency and cost effective technology.

Submarine cables have particularly become attractive[107] due to the resultant positive impact in ICT in term of quality, cost reduction[108], and reliability[109]. In the context of South Africa submarine cables are particularly essential[110] considering that-

> '**South Africa significantly lags behind its 'international counterparts in terms of ICT penetration as well as the rate of new technology adoption; Broadband penetration relative to international benchmarks is virtually non-existent and significantly more expensive'[111].**

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[106] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

[107] '***The steady growth of global submarine fibre-optic bandwidth installation around the turn of the millennium has shown signs of increased activity in the past few years, with several new cable projects being developed. Significant cable connections are being laid from the US to China, Australia and the Caribbean, with multiple cables in various stages of development between East Africa and India'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[108] http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables. pdf

[109] '***In East Africa, broadband is virtually non-existent, because there is no undersea cable linking countries to the rest of the world, forcing ISPs to rely on expensive and unreliable satellite connections***' available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[110] '***Companies will spend in excess of $6bn on submarine and terrestrial infrastructure projects in Africa over the next two years," states Chanakira, "with the total design capacity of all planned cables of 10Tbps, up from the current baseline of less than 400Gbps. When these cables have been completed there will be a vast amount of excess capacity.'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[111] http://mybroadband.co.za/news/Telcoms/2947.html

It is for instance estimated that the

> **'Rates for SAT-3 bandwidth in the African countries it serves are high ($4,500-$12,000 per Mbit/s per month, over 50 times more expensive than bandwidth prices in the US), largely because operators have monopoly control of access'[112].**

If impeccably installed, envisaged underwater cables linking South Africa to Europe (London), the Americas[113] (Brazil), and Asia (India) tentatively scheduled for completion toward the latter part of this year will drastically revolutionize the ICT sector and the way Africa conduct business. Essentially;

> **'Hopes of alleviating the situation and of bringing more sensible telecoms pricing lie in the extension of underwater optical cable-based broadband to improve quality and cut the cost of communication between Africa and the world'[114].**

The evidence reveals that:

> **Broadband Infrastructure Company, Infraco[115]** (Infraco henceforth) **intends to link South Africa to the United Kingdom through a 13 000 km super cable that is 3 840 gigabit in size stretching from Western Cape to London[116]. In addition Infraco is planning to build another submarine cable linking South Africa to Brazil by 2009[117];**

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[112] Available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[113] ***The landmasses and islands of North America, Central America, and South America***

[114] http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[115] Broadband Infraco Act 33 of 2007 read with the Electronic Communications Amendment Act 37 of 2007 with effect from 1 February 2008

[116] http://www.info.gov.za/speeches/2008/08050710151002.htm

[117] http://www.engineeringnews.co.za

> **Sea Cable System** (Seacom henceforth) **is busy building a US$ 650 million 15 000 km submarine cable that will link Southern and Eastern Africa to India and ultimately to Europe scheduled for completion by 2009**[118]**;**

lastly;

> **Eastern Africa Submarine Cable System** (Easy henceforth)**, it intends to lay out a 9 900 km optical submarine cable along the coast of East Africa between Durban**[119] **and Port Sudan**[120]**.**

The above scenario is titanic, completely unprecedented in the history of South Africa and arguably the entire Southern Africa Development Community (SADC). Until recently the majority of the countries in SADC were linked to Europe, if at all[121], with one single cable often of a negligible size in terms of traffic, volume and speed that could be carried over the cable. For instance,

> **'Although countries on the African west and southern coasts have access to fibre connectivity through the SAT-3 undersea cable, an estimated 80% of Africa's international voice and data traffic is still carried via satellite.'**[122]

In the case of South Africa, for instance, classified as having the most sophisticated telecommunications infrastructure in Africa, the proposed US$ 650 million 15 000 km under sea cable by Seacom is expected to deliver 10

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[118] http://www.southafrica.info/business/economy/infrastructure/seacom-141107.htm

[119] ***'Telkom South Africa will land the East Africa Submarine System (EASSy) fibre-optic telecommunications cable on the main beach of Umlazi Nature Reserve, at Mtunzini in northern KwaZulu-Natal'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[120] http://www.southafrica.info/pls/procs/iac.page

[121] ***'In East Africa, broadband is virtually non-existent, because there is no undersea cable linking countries to the rest of the world, forcing ISPs to rely on expensive and unreliable satellite connections'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[122] http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

times more broad-bandwidth capacity in South Africa than the current South Atlantic 3 (SAT 3)[123] submarine cable[124]. Certainly, it is neither an understatement nor an overt exaggeration to say that the proposed constructions of underwater colossal and will help reduce the digital gap between countries in the Southern and Northern hemisphere.

The term digital bears a technical meaning in the context of telecommunications sector. The trend globally reflects a rapid shift from the traditional analogue means of communications to digital. The illustration below succinctly distinguishes digital from analogue[125] type of communications:

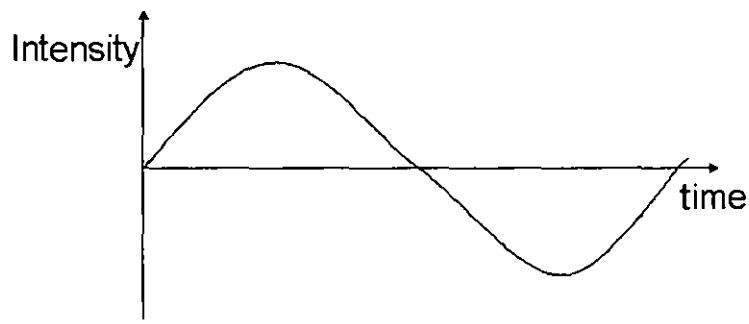
Analog vs. Digital Signals

The information carrying signals are divided into two broad classes;

1. Analog
2. Digital

Analog Signals

Analog signals are continuous electrical signals that vary in time as shown in figure 4a. Most of the time, the variations follow that of the non-electric (original) signal. Therefore, the two are analogous hence the name analog.



[123] ***'Apart from the SAT 3 cable, Telkom operates a number of submarine telecommunication cables including the existing SAFE (South Africa-Far East) underwater cable placed at Mtunzini [Natal] in 2000'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[124] http://www.southafrica.info/business/economy/infrastructure/seacom-141107.htm

[125] http://cbdd.wsu.edu/kewlcontent/cdoutput/TR502/page8.htm [last accessed February 2009]

Figure 4a: Analog Signal

Not all analog signals vary as smoothly as the waveform shown in Figure 4a. Analog signals represent some physical quantity and they are a 'MODEL' of the real quantity.

Example:

Telephone voice signal is analog. The intensity of the voice causes electric current variations. At the receiving end, the signal is reproduced in the same proportion. Hence the electric current is a 'MODEL' but not one's voice since it is an electrical representation or analog of one's voice.

Digital Signals

Digital signals are non-continuous, they change in individual steps. They consist of pulses or digits with discrete levels or values. The value of each pulse is constant, but there is an abrupt change from one digit to the next. Digital signals have two amplitude levels called nodes. The value of which are specified as one of two possibilities such as 1 or 0, HIGH or LOW, TRUE or FALSE and so on. In reality, the values are anywhere within specific ranges and we define values within a given range.

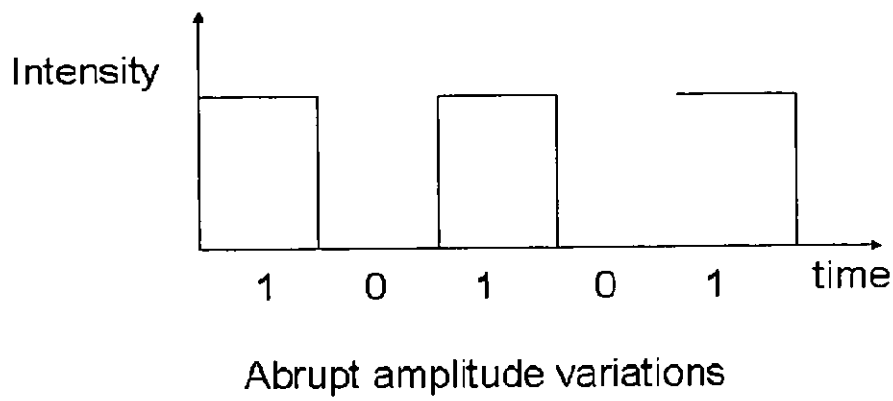


Figure 4b: Digital Signal

Upon completion of the underwater cables, South Africa and some of its adjacent neighbouring countries who are at the moment classified as lagging[126] behind may arguably rival their counter parts in the northern

[126] ***'Unwieldy monopolies, reluctance by governments to let go and the resulting lack of international connectivity mean that less than 1% of Africans have access to broadband services compared with 22% of Americans and 30% of Western Europeans'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

hemisphere such as Europe, Canada and the United States of America (the US) and even North Africa[127] by bridging the digital divide.

The main advantage of digital communication seems to be its super efficiency and the concomitant cost-effective use of the new technology[128]. In Canada

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[127] ***'North Africans are the most Internet-savvy on the continent, because governments have liberalised the telecoms sectors, while Internet service providers can get access to a number of undersea cables thanks to their proximity to Europe'*** – available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[128] ***Analogue vs. digital electronics***

Since the information is encoded differently in analogue and digital electronics, the way they process a signal is consequently different. All operations that can be performed on an analogue signal such as amplification, filtering, limiting, and others, can also be duplicated in the digital domain.

The first electronic devices invented and mass produced were analogue. The use of microelectronics has reduced the cost of digital techniques and now make digital methods feasible and cost-effective.

The main differences between analogue and digital electronics are listed below:

Noise

Because of the way information is encoded in analogue circuits, they are much more susceptible to noise than digital circuits, since a small change in the signal can represent a significant change in the information present in the signal and can cause the information present to be lost. Since digital signals take on one of only two different values, a disturbance would have to be about one-half the magnitude of the digital signal to cause an error; this property of digital circuits can be exploited to make signal processing noise-resistant. In digital electronics, because the information is quantized, as long as the signal stays inside a range of values, it represents the same information. Digital circuits use this principle to regenerate the signal at each logic gate, lessening or removing noise.

Precision

A number of factors affect how precise a signal is, mainly the noise present in the original signal and the noise added by processing. See signal-to-noise ratio. Fundamental physical limits such as the shot noise in components limits the resolution of analogue signals. In digital electronics additional precision is obtained by using additional digits to represent the signal; the practical limit in the number of digits is determined by the performance of the analogue to digital converters, since digital operations can usually be performed without loss of precision.

Design difficulty

Digital systems are much easier and smaller to design than comparable analogue circuits. This is one of the main reasons why digital systems are more common than analog. An

and the US, for instance, converged telecommunications service providers such as Bell Canada and the US Verizon are able to provide 50 megabits[129] per second to their customers at affordable price through fiber optic cables. These consumers in Canada and the US respectively, equipped with 50 megabits per second facility can literally down load a movie in 5 minutes. On the contrary in South Africa, the popular 3G[130] (third generation) wireless technology, for instance only contains half megabits costing an arm and a leg which is yet a far cry from 50 megabits.

As illustrated in the preceding paragraph, at present South Africa is lagging behind in technological advancement compared with its counter part in the northern hemisphere, North Africa, and Asia. The envisaged construction of the gigantic undersea cables impeccably completes the revolution in technology through convergence by bridging the digital divide between the southern and northern hemispheres. As succinctly articulated by the Minister of Public Enterprises Alec Erwin [as he then was] during the second reading debates on the Infraco bill, to the National Assembly[131]:

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analogue circuit must be designed by hand, and the process is much less automated than for digital systems. Also, because the smaller the integrated circuit (chip) the cheaper it is, and digital systems are much smaller than analog, therefore a digital system is cheaper to manufacture than an analog one, generally - http://en.wikipedia.org/wiki/Analogue_electronics [last accessed 5 February 2009]

[129] ***A bit is the smallest binary unit of memory space, i.e., a one or zero. Eight bits make up one byte, which is the unit length required to make one character, such as a letter of the alphabet. A computer's memory is measured in kilobytes, where 1 kilobyte = 1,024 bytes and where 1 megabyte = 1024 kilobytes....megabits per seconds [=] One thousand kilobits of data transmitted in a second. 1megabit = 1 024 kilobits, or 1 048 576 bits (220 bits)*** – Lisa Thornton et al (eds) at page 68 & 74 respectively.

[130] ***'3G is an ITU specification for the third generation (analogue: cellular was the first generation, digital PCS the second) of mobile communications technology. 3G promises increased bandwidth, up to 384 Kbps when a device is stationary or moving at pedestrian speed, 128 Kbps in a car, and 2 Mbps in fixed applications. 3G will work over wireless air interfaces such as GSM(global system for mobile communications), TDM(time division multiplexing)and CDMA(code division multiple access)'*** – Lisa Thornton et al (eds) at page 81

[131] Available at http://www.search.gov.za/info/previewDocument.jsp?dk=%2Fdata%2Fstatic%2Finfo%2Fspeeches%2F2007%2F07101810151005.htm%40Gov&q=(+((erwin)%3CIN%3ETitle)+)%3CAND%3E(category%3Ccontains%3Es)&t=A+Erwin%3A+Second+reading+debates+on+the+Infraco+bill [last accessed 28 January 2009]

The conundrum of Ownership in respect of the undersea cables and the landing stations rights in South Africa

> **'In a modern industrialized economy the existence of high speed, high capacity telecommunication infrastructure is a major driver of economic growth and more accessible socio-economic services such as health and education. In fact there is little doubt that this is a strategic necessity for contemporary growth and development'.**

Be that as it may, the scramble for undersea cables in the context of South Africa is nevertheless compounded by two factors. Firstly, the about face turn on the part of the government in establishing a third facilities network service provider Infraco in spite of initially licensing Neotel as the second facilities provider. On the face of it, the establishment of Infraco appears to usurp the functions and purposes of Neotel. Further the creation of Infraco may prima facie appear to resort to the retrograde cartel type of natural monopoly that is clearly in decline in countries such the US with AT&T as the prime example.

Secondly, the matter is further confounded by the government stance that the ownership of underwater cables should reflect local content[132] before commencing construction of work of installing the underwater cables. Lyndall Shope Mafole[133], director general of the communications department has been quoted verbatim saying

> **"We are not going to make the same mistake we made with gold and platinum that get mined out of here and taken elsewhere and we buy them back at a higher price"[134].**

In the circumstances, it is fair to say that the construction of underwater cables was a rough start that eventually smoothed out. At first, it appeared that all the goodwill of bridging the digital divide between Africa and the

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[132] available at http://mybroadband.co.za/news/Telcoms/1213.html

[133] '***COMMUNICATIONS department director-general Lyndall Shope-Mafole yesterday*** *[5 February 2009]* ***quit her post with immediate effect, to play a greater role in the political party*** *[the Congress of the People, Cope]* ***set up in opposition to the African National Congress (ANC)'*** – available at http://www.businessday.co.za/articles/topstories.aspx?ID=BD4A933791 [last accessed 6 February 2009]

[134] available at http://mybroadband.co.za/news/Telcoms/1213.html

Northern hemisphere would be doomed because of the tussle on government insistence on local ownership content. The ownership issue was further exacerbated by the insistence that the Minister of Communications retain the discretion to decide the appropriate percentage that would constitute adequate local ownership.

It however eventually transpired that the companies charged with installing the underwater cables seem to have played by the rules in reflecting requisite appropriate local ownership as suggested by government.

The lead competing entities in the scramble for submarine cables are: Neotel, Infraco, Seacom, and Easy. Of the four enterprises, Infraco is the new kid on the block, arguably polemic and 74% government owned.

Although earlier indications showed that the licensing of Neotel by Icasa as a second facilities network operator (Telkom being the first facilities network service provider) would see Neotel as the major player assuming prominence in the landing rights to submarine cables, the Government seems to have made a total U-turn through the enactment of the Infraco Act of 2007[135]. The establishment of Infraco seems to have relegated Neotel[136] to an underdog status insofar as the latter was initially licensed as a second facilities network operator.

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[135] read with the Electronic Communications Amendment Act 37 of 2007

[136] With the apparent approval by Neotel see address by the Minister of Public Enterprises Alec Erwin during the second reading debates on the Infraco bill, to the National Assembly on 17 October 2007 available at http://www.search.gov.za/info/previewDocument.jsp?dk=%2Fdata%2Fstatic%2Finfo%2Fspeeches%2F2007%2F07101810151005.htm%40Gov&q=(+((erwin)%3CIN%3ETitle)+)%3CAND%3E(category%3Ccontains%3Es)&t=A+Erwin%3A+Second+reading+debates+on+the+Infraco+bill [last accessed on 28 January 2009]

Neotel is South Africa's first converged Telecommunications network operator[137]. In its original structure, Neotel is essentially licensed to provide converged telecommunication facilities. In fact in terms of Electronic Communications Act of 2005 prior to its amendment in 2007[138], Neotel would subsequently inherit Eskom and Transtel network infrastructure through transfer of Eskom and Transtel infrastructure licenses[139]. Essentially, and for all practical purposes, Neotel, save for the 30% government stake, became South Africa's first privately owned[140] converged telecommunications network operator[141]; as opposed to Telkom, for instance, where government holds a majority 38% stake.

At the risk of simplification, the principal aim of Neotel is to:

> ...'**reduce the cost of doing business by enhancing the operational efficiencies of companies through the optimal use of advanced communications technologies**'[142].

However, in terms of section 3 of the Broadband Infraco Act, government made a 180 degree somersault by establishing Infraco. In terms of the enabling legislation (the Broadband Infraco Act), suddenly, Infraco gets to inherited infrastructure from Eskom in order to give effect to the objective of the Broadband Infraco Act.

In terms of section 3 of the Broadband Infraco Act, Infraco:

> '**will use Eskom's fibre optic lines, which integrate its microwave radio backbone network, and Transnet's own fibre optic lines, which are said to surpass those owned by Telkom**'[143].

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[137] available at http://www.neotel.co.za/neotel/view/neotel/en/page55 [last accessed 28 January 2009]
[138] the Electronic Communications Amendment Act 37 of 2007
[139] available at http://search.sabinet.co.za/legi_docs/policydocs/policies07/DG081189
[140] Prior to the enactment of the Broadband Infranco Act supra, government owned a 30% stake in Neotel through Eskom and Transnet/Transtel. The remaining 70% comprised Nexus connexion and SEPCo
[141] available at http://www.neotel.co.za/noetel/view/en/page65
[142] available at http://www.neotel.co.za/neotel/view/neotel/en/page55
[143] available at http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

In addition Infraco by its mere existence will exercises exclusive monopoly over landing rights in respect of the envisaged submarine cable scheduled for completion in 2009[144]. Landing rights in this context is really the last mile which is in a nutshell the onshore distribution of underwater cables linking South Africa to Sudan, India, London, and Brazil. Infraco is now the entity that is legally entrusted to provide service domestically and regionally once the cables have landed in, Durban or Cape Town as the case may be. In effect, the establishment of Infraco has arguably eroded Neotel's prominence as the supplier of infrastructure in South Africa.

Infraco needless to say came into being by operation of the law[145]. However, unlike Telkom that is under the Ministry of Communications, Infraco operates under the Ministry of the public enterprises[146]. In terms of ownership composition, Infraco, comprises 74% majority stake by government with a minority stake (26%) held by Videsh Sanchar Nigam Limited (VSNL) [147], a subsidiary of the Indian conglomerate Tata[148]. The same company, VSNL, similarly holds shares in Neotel prompting some pundits to cry foul insofar as VSNL seems to depict a conflict of interest situation[149]. However, with hindsight acquiring shares in Infraco seem the logical route particularly given the Neotel's prevailing underdog status.

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[144] see also preamble to the Broadband Infraco Act 33 of 2007

[145] . the Broadband Infraco Act 33 of 2007 read with the Electronic Communications Amendment Act 37 of 2007 with effect from 1 February 2008

[146] 'Minister' means the Minister responsible for Public Enterprises – Section 1 [definitions] Broadband Infraco Act supra

[147] available at http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[148] '***Tata Communications (India), a part of the USD 17.8bn Tata Group, has been the leading provider of International Telecommunications and Value Added Services in India over the last 135 years. The Company was originally a Government of India department called "Overseas Communication Service" which was later incorporated as Tata Communications in March 1986'*** - available at http://www.neotel.co.za/neotel/view/neotel/en/page351[last accessed 28 January 2009]

[149] available at http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

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The preamble to the Broadband Infraco Act reads as follows:

> **'SINCE the State intends to expand the availability and affordability of access to electronic communications networks and services, including but not limited to underdeveloped and under serviced areas;**
>
> **SINCE the State wants to ensure that the bandwidth requirements for specific projects of national interests are met;**
>
> **SINCE the State intends to acquire Broadband Infraco (Proprietary) Limited and its electronic communications infrastructure to enable the State to provide affordable access to electronic communications networks and services;**
>
> **AND SINCE Broadband Infraco (Proprietary) Limited will require access to land and rights in land to maintain and expand its network in order to achieve its objects.**
>
> **BE IT THEREFORE ENACTED by the Parliament of the Republic of South Africa, as follows...'**

The English language employed in the preamble to the Broadband Infraco Act is clear and unambiguous. The rationale in establishing Infraco is apparently to lower broadband[150] ICT cost in South Africa[151] which is at present regarded fifty times higher than that of the United States of America[152]. In particular, it is envisaged that Infraco will provide national infrastructure and international gateway facilities at a fraction of current costs[153] to the competing converged telecommunications service providers. The concessions contrived in terms of the Infraco Act clearly reverses the earlier position in terms of which Neotel

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[150] '***Broadband is a transmission medium capable of supporting a wide range of frequencies, typically from audio up to video frequencies. It can carry multiple signals by dividing the total capacity of the medium into multiple, independent bandwidth channels, where each channels operates only a specific range of frequencies. This term has, however, become a generic term for communication technologies that can carry data at high speeds. For example ADSL, WiFi (802.11), and Ethernet, which are all Broadband technologies'*** – Lisa Thornton et al (eds) at page 68

[151] available at http://www.itweb.co.za: Mbeki signs Infraco laws

[152] Available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[153] available at http://www.itweb.co.za: Mbeki signs Infraco laws

was licensed to provide national infrastructure and international gateway facilities.

The principal objective of Infraco is - ... **'to revolutionize the ICT sector, and move** [South Africa] **one step closer to making more affordable broadband access a reality** [in Africa]'[154].

The Broadband Infraco Act articulates the main objectives as follows:

> **'To provide for the transfer of shares, loan accounts, liabilities and guarantees in Broadband Infraco (Propriety) Limited from Eskom Holdings Limited to the State; to provide for the main objects and powers of Broadband Infraco (Proprietary) Limited; to provide for the borrowing powers of Broadband Infraco (Proprietary) Limited; to provide for servitudes and additional rights in favour of Broadband Infraco (Proprietary) Limited; to provide for the expropriation of land or any right in land by the Minister for Public Enterprises on behalf of Broadband Infraco (Proprietary) Limited; to provide for the conversion of Broadband Infraco (Proprietary) Limited; into a public company having a share capital incorporated in terms of the Companies Act, 1973; and to provide for matters connected therewith'**[155].

In short, the Broadband Infraco Act aims to provide for the:

(a) **transfer of Infraco shares and Infraco interests from Eskom to the State;**
(b) **main objects and powers of Infraco;**
(c) **borrowing powers of Infraco;**
(d) **servitudes and additional rights in favour of Infraco;**
(e) **expropriation of land or rights in land by the Minister on behalf of Infraco; and**
(f) **conversion of Infraco into a public company with share capital.**

[a33y2007s3]3 Transfer of Infraco shares and Infraco interests[156]

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[154] Address by the Minister of Public Enterprises Alec Erwin [as he then was] during the second reading debates on the Infraco bill, to the National Assembly on 17 October 2007
[155] See the Broadband Infraco Act supra
[156] See the Broadband Infraco Act supra

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The issue of transferring liabilities and guarantees from Eskom to Infraco reflected above as well as the provision for servitudes and additional rights in respect of land expropriation is crucial. As mentioned earlier, in terms of Electronic Communications Act of 2005 prior to the 2007 Amendment[157], Neotel would inherit Eskom and Transtel network infrastructure through transfer of Eskom and Transtel infrastructure licenses[158]. However, Infraco appear to have altered the status quo.

It terms of the developments articulated in the enabling legislation Infraco is now in charge of onshore distribution of fibre-optic cables linking South Africa to the rest of the world across the board including adjacent neighbours notably, Namibia[159], Botswana, Kenya, to mention but a few. And herein lies the coup de grace. Infraco is effectively elevated to the most valued player status in-so-far as it seeks to provide national infrastructure and international gateways in South Africa. As opposed to Neotel as initially envisaged in the white paper on telecommunications policy.

Envisaged completion of underwater cables, bring back to life the doctrine of convergence as elaborated in Chapter 2. At the risk of repetition convergence encompasses:

> **...'services, such as telecommunications, computing, publishing and broadcasting; the convergence of technologies such as wireless and wire line communications conduits, computers, newspapers and other traditional print media; the convergence of entities that supply such services and technologies such as Time Warner and AOL; as well as the various pieces of legislation and potentially the regulatory authorities operating in these sectors'[160].**

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[157] Electronic Communications Amendment Act 37 of 2007 with effect from 1 February 2008
[158] available at http://search.sabinet.co.za/legi_docs/policydocs/policies07/DG081189
[159] ***'the cabinet of Namibia has recently approved a guarantee of 240 million Namibia Dollars through Telkom Namibia in favour of Infraco in return for access to its high speed super submarine cable connecting Southern Africa to Europe'*** - available at http://www.namibian.com.na/2008/May/national/08288FD16.html
[160] Lisa Thornton et al (eds) at page 248

Meaning converged telecommunications services - telephone going over satellite, broadcasting over fiber-optic cables and vice versa. As well as a converged telecommunications network services such as Eskom and Telkom fibre-optics cable carrying voice, video, text, data. Entities historically established to carry electricity and point to point telephone service will in the not-too-distant future carry video, text, all encompassing electronic data messages.

Infraco has been operational since May 2008 rolling out fibre optic cable infrastructure in various parts of the country[161]. Ironically, Infraco will now officially operate as a fully fledged broadband network facilities service provider to local operators including Neotel[162]. Last year the national treasury allocated a hefty R 1.4 Billion to Infraco'[163].

Infraco's main objective may be summed up as follows:

> **'rapidly normalize telecommunications market efficiency and address the cost of broadband to other industry players and end users, by having infrastructure in the national backbone and international connectivity at reduced prices'[164].**

Further, as previously indicated, Infraco intends to link South Africa to the United Kingdom through a 13 000 km super cable that is 3 840 gigabit in size stretching from Western Cape to London[165]. In addition further, Infraco is planning to build another underwater cable linking South Africa to Brazil by 2009[166]. Effectively, the creation of Infraco appears to place it in a

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[161] available at http://www.itweb.co.za: Mbeki signs Infraco laws
[162] available at http://www.itweb.co.za: Mbeki signs Infraco laws
[163] available at http://mybroadband.co.za/news/Telcoms/2947.html
[164] available at http://mybroadband.co.za/news/Telcoms/2947.html
[165] available at http://www.info.gov.za/speeches/2008/08050710151002.htm
[166] available at http://www.engineeringnews.co.za

comparative advantage[167] and direct competition with privately owned enterprises such Neotel, Easy, and Seacom.

Seacom presents as a serious and significant participant in converged telecommunications services in South Africa. At present, Seacom is involved in the construction of a US$ 650 million 15 000 km submarine cable that will link Southern and Eastern Africa to India and ultimately to Europe scheduled for completion by 2009[168]. The undersea cable is expected to deliver 10 times more broad bandwidth capacity in South Africa than the current SAT 3 (South Atlantic 3) submarine cables[169].

At the moment, Telkom exercises exclusive monopoly over existing undersea cables[170]. Telkom's exclusive monopoly over South Atlantic 3 (SAT 3) cable was due for expiry during April[171] or June[172] 2007 depending on the accuracy of the sourced material.

Seacom has partnered Neotel in keeping with the government requirement that companies participating in the constructions of underwater cables should

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[167] being 74% government owned, that is indirectly in charge of issuing licenses to network operators through Icasa

[168] available at http://www.southafrica.info/business/economy/infrastructure/seacom-141107.htm

[169] available at http://www.southafrica.info/business/economy/infrastructure/seacom-141107.htm

[170] ***'Apart from the SAT 3 cable, Telkom operates a number of submarine telecommunication cables including the existing SAFE (South Africa-Far East) underwater cable placed at Mtunzini [Natal] in 2000'*** - available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[171] available at http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

[172] SAT-3 monopolies were due to expire in June 2007 and licence agreements are being renegotiated - available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [last accessed 28 January 2009]

reflect local ownership[173]. The term local, in this context, is employed broadly to mean African ownership. Neotel will make a contribution of US$ 20 million to the project. Overall, Seacom Africa ownership is pitched at 75% comprising, inter alia, a local company VenFin with whopping a 25% stake in the project and black economic empowerment companies Shanduka and Convergence Partners with a 12.5% stake each[174].

As for Easy, we are speaking of a US$ 235 million investment project aimed at transforming the African telecommunications landscape[175] by bringing excess capacity to the continent. it intends to lay out a 9 900 km optical submarine cable along the coast of East Africa between Durban and Port Sudan[176]. For instance, the Price in the use of converged telecommunications services in South Africa (Africa) is expected to drop by two thirds once this project is implemented[177]. The evidence reveals that Telkom, Neotel and MTN have a cumulative 27% stake in the project.[178]

If anything, the postulation in the preceding paragraphs has demonstrated active government participation in the telecommunications sector in dual capacity both as a major player and indirectly through Icasa as a regulator. Effectively prompting pundits to observe -

> **'With 100% ownership of Sentech, a 38% stake in Telkom, a 30% stake in Neotel through Eskom and Transnet/Transtel, and now a majority ownership (74%) in Infraco, government is viewed as being keen not to liberalise the telecommunications market but rather to dominate it'[179].**

On the face of it, the government of South Africa seems to have placed its hand in the cookie jar. In the context of the underwater cables government is

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[173] available at http://mybroadband.co.za/news/Telcoms/1213.html
[174] available at http://www.southafrica.info/business/economy/infrastructure/seacom-141107.htm
[175] available at http://www.southafrica.info/pls/procs/iac.page
[176] available at http://www.southafrica.info/pls/procs/iac.page
[177] available at http://www.southafrica.info/pls/procs/iac.page
[178] available at http://mybroadband.co.za/news/Telcoms/1213.html
[179] http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

virtually involved as an active participant in virtually all four leading contenders.

Having prescribed the appropriate percentage for the requisite local ownership in the underwater cables, government went ahead to vigorously acquire stakes in virtually all the leading contenders. 74 per cent in Infraco; 30% in Neotel and therefore by inference also acquired an interest in Seacom which has partnered Neotel; 27 percent stake in Easy through its subsidiary companies such as Telkom and MTN [considering that Telkom has a 50%[180] stake in MTN]. Could this perhaps be a hotchpotch approach, so to speak, to the ownership of the underwater cables and the concomitant landing rights?

Has South Africa succeeded in putting in place an effective, efficient regulatory mechanism? Why would government want to drive the telecommunications sector, both as a regulator and a player? How does one sort out institutional issues? What responsibility do you give to the Independent Regulator and the Minister respectively?

How effective have protectionism and managed liberalization proved to be? To what extent has South Africa lived up to its commitments under the Fourth Protocol to GATS in establishing an independent regulator separated from, and not accountable to any supplier of basic telecommunications services? Is the South African story in converged telecommunications sector, a success story? **Chapter 5** concludes this rather explosive, mind-boggling episode on converged Information and Communications Technology (ICT) in South Africa, in Sub-Sahara Africa with the benefit of the hindsight.

[180] available at http://www.iimahd.ernet.in/ctps/pdf/Justine-India-Conf-Paper.pdf

Chapter 5 – Conclusion

'I now know why the caged bird sings' **– Maya Angelou**[181]

Intricate questions as regards the telecommunications industry in South Africa and, in fact, elsewhere in the world may only be better discerned through a pedantry examination and legal prism of the intertwined, interdependent role between policy, law and regulation.

The law is pivotal in shaping government's demeanour on policy in the regulatory framework. This is so because South Africa is an entrenched constitutional democracy where the rule of law is supreme[182]. There are in theory clear boundaries between the executive in charge of formulating national policy, the legislature entrusted with enacting statutes and the creature of statutes such as Telkom, Icasa, competition commission, to mention but a few, duly established to implement pieces of relevant legislation.

This paper operates from the assumption that telecommunications Law permeates every aspect of South African life insofar as it seeks to regulate communications in the new converged modern technology. The theme permeating throughout this dissertation paints a vivid picture of the

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[181] ***'Angelou, Maya [orig. Marguerite Johnson] (born April 4, 1928, St. Louis, Mo., U.S.) U.S. poet. She was raped at age eight and went through a period of muteness. Her autobiographical works, which explore themes of economic, racial, and sexual oppression, include I Know Why the Caged Bird Sings (1970), The Heart of a Woman (1981), and All God's Children Need Traveling Shoes (1986). Her poetry collections include Just Give Me a Cool Drink of Water 'fore I Diiie (1971), And Still I Rise (1978), and I Shall Not Be Moved (1990). Her recitation of a poem she wrote for Bill Clinton's first inauguration (1993) brought her widespread fame. In 2002 she published her sixth volume of memoirs, A Song Flung Up to Heaven'*** - available at http://encyclopedia2.thefreedictionary.com/Maya+Angelou

[182] ***'The Constitution of South Africa is the supreme law of the Republic, law or conduct inconsistent with it is invalid, and the obligations imposed by it must be fulfilled'*** - Section 2 of the Constitution Act No. 108 of 1996 (herein referred to as the Constitution)

telecommunications sector as dynamic in nature and international in its design, revealing structure, character and statue.

As asserted in Chapter 1; the white paper on telecommunication policy[183] in South Africa is indicative of the government stance to gradually liberalize the telecommunications sector after years of natural monopoly exercised by the solely state owned entity Telkom during the apartheid regime.

Chapter 1 further pointed out that full liberalization of the telecommunications sector[184] may lead to a significant reduction in the cost of the Information Communications Technology in that new entrants would compete to add value to the converged telecommunication services thereby provide enhanced quality in the available commodities, increased choice in the options at hand, and reduced overall utility cost.

Opening up telecommunications sector ownership to full competition, in this context, does not mean total absence of government intervention. Government may still intervene by way of strong regulatory framework in order to curb anti competitive behaviour such as colluding, price fixing, abuse of dominant position etc. In fact is the duty of the government to ensure through appropriate legal instruments such as the Icasa Act in conjunction with the Competition Act that the ordinary citizens equitably derive benefits from the advent of new technology.

The better view, therefore, must be that the citizens would ordinarily benefit from the new technology, if and when, they are granted a wide array of

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[183] The White paper on Telecommunications Policy **Gazette No**16995

[184] ***'North Africans are the most Internet-savvy on the continent, because governments have liberalised the telecoms sectors, while Internet service providers can get access to a number of undersea cables thanks to their proximity to Europe'*** - available at http://www.thefreelibrary.com/Cable+offers+hope+for+Africa's+ITC:+it+is+just+possible+that+Africa's...-a0190340871 [http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

choice, enhanced quality, and reasonable, affordable price range by the converged telecommunications service providers.

It was further stated in chapter 1 that opening up the ICT sector to competition is forward looking, would reduce cost significantly, and is in keeping with the competitive international trends in the telecommunications industry world wide. The assessment of the state of the converged telecommunications sector in South Africa has revealed that Telkom's exclusive monopoly in the telecommunication industry has in no way resulted in affordable ICT, or sufficient penetration of broadband facilities. Nor has the perceived political interference in the regulation of the telecommunication industry by government lead to genuine competition. In fact, the opposite appear to have happened, namely, artificial competition, protracted litigations at times, and astronomical ICT rate.

Chapter 2 set the tone for the probable raison d'être of taking advantage of the dying part of natural monopoly in South Africa as a way of correcting the past imbalances in telecommunications especially among the black urban and rural areas. Telkom's exclusivity period was meant to cure the apartheid evil of denying the black people access to, and use of, the basic right of telecommunications.

Further, chapter 2 provided useful insights in the utility of retaining Telkom's exclusive monopoly in the telecommunications as a panacea to cure the racial inequality in access to, and the use of, telecommunications services perpetuated by the apartheid regime. Thereafter, Chapter 3 provided a theatrical exploration to the question - **To what extend** has the ANC led government succeeded in opening up the Information Communications Technology to competition?

In particular, chapter 3 intermittently explored the interplay between law, policy, and regulation within the context of South Africa. Specifically, chapter 3 carefully scrutinized, Ministerial discretions, the functions of Icasa, and probable abuse of the dominant monopoly status accorded to Telkom (herein referred to as the incumbent).

Chapter 4 examined the paradox on the ownership of submarine cables and the landing stations in South Africa in the context of converged telecommunications services. The assumption was that submarine cables linking South Africa to London, India, and Brazil scheduled for completion toward the latter part of this year will completely change the way South Africans conduct business. Further chapter 4 holds the assumption that upon completion of the submarine cables South Africa and some of its adjacent neighbouring countries may acquire excess capacity in converged telecommunications and will rival their counter parts in the northern hemisphere such as Europe, Canada and the United States of America (the US) and even North Africa.

However, there seems to be some kind of ongoing at times inexplicable cacophony on the part of the government to fully liberalize the telecommunications sector. What could be the reasons for this ambivalence, and seemingly back and forth stance as regards regulation generally, and competition in particular?

Chapter 5 now ventilates and vigorous interrogates assumptions posit in the preceding chapters by way of conclusion. In particular, it juxtaposes back to back the view of the writer hereof with practical realities that might have contributed to the success or mediocre government performance in obtaining convergence and fully fledged liberalization of the ICT sector in South Africa. Chapter 5 similarly attempts to answer the question - what does the future

hold for South Africa in the Information, Communications and Technology sector.

The point of departure encompasses an informed and rational assumption that government stance on the issue of underwater cables is not indicative of an inclination to liberalize the telecommunications sector. At the risk of sounding like an alarmist, government stance in this regards might reflect a permanent feature of the telecommunications market structure in South Africa, with government playing a protagonist's role as the dominant, dominating, domineering major player. The dual role of being a player and the regulator simultaneously has not bode well in South Africa as the end users of technology still patiently awaits to reap the fruits of competition which are at the moment puny, nonexistent, or a combination of both.

Recently, government has particularly raised eye brows in establishing Infraco to effectively compete in the constructions of the underwater cables, and by implication seems to have usurped the power of the Second Network Operator, Neotel, which was initially licensed as a network facilities service provider.

What could be the reasons for government stance on the telecommunications industry? Console Leanne a freelance, business analyst invokes a four-pronged clarion call[185]:

The first argument revolves around the 2010 FIFA world cup which places South Africa in an unenviable position to rapidly acquire excess capacity in converged telecommunications sector as matter of urgent priority. Further, Tleane seems to suggest that there is at the moment no local privately owned company with sufficient calibre to deliver on this promise to acquire the

[185] available at http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

requisite high speed, low cost, excess capacity telecommunications services for South Africa.

Secondly, Tleane invokes the issue of South Africa's bid to host the square kilometer array radio telescope project as the possible consideration in establishing Infraco. South Africa and Australia, so the argument goes, have emerged as the front runners for the project, given their positioning as southern hemisphere countries. The project, Tleane opines, will definitely require broadband connectivity.

The third explanation preferred by Tleane at best, ties in with the first advanced variable and that is for South Africa to acquire fast, reliable affordable broadband excess capacity. Thereby sell South Africa as an ideal destination for international calls.

Fourthly, Tleane invokes the government's inclination and strong desire to acquire a stake in the existing South Atlantic 3 (SAT 3) cable and the envisaged underwater construction cable by Easy. The reader would recall that Telkom's exclusive monopoly over the existing underwater cable might have expired by now. The reader would also recall that Telkom and therefore by implication government has subsequently acquired a stake in Easy to install a submarine cable linking South Africa to the rest of the world. Tleane's sound bite in this regard seems to correlate with the practical realities on the ground.

Tleane further suggests that perhaps the government wishes to be lead player in telecommunications sector, some kind of pragmatic approach in getting things done in the industry. Tleane then concludes his assessment by quoting Alex Erwin the then Minister of Enterprise who assured a business gathering that the purpose of introducing Infraco as a new company into the market for instance, is reduce the cost of telephony.

The question that may arise in light of Tleane's sound bites is this – is government stance indicative of tackling the root cause of the problem or is the government intervention rather focusing on the symptoms?

This paper operates from the assumption that the high cost of converged telecommunications services in South Africa as compared to its counterpart in the North Africa, Europe, and North America presents a symptom of the larger problem. It is submitted that the real challenge in the context of South Africa is its ambivalence to fully liberalize the ICT sector, and overt protectionism granted in favour of Telkom way past the envisaged expiry date. The same protectionist conduct presents as self evident truth in the formation of Broadband Infraco.

It is further submitted, as correctly pointed out by Tleane that government has displayed a strong desire to actively participate and dominate the telecommunications sector. That much is clear from the tussle illustrated as a condition precedent in acquiring rights to construct underwater cables in South Africa, in the first place.

The seemingly political rhetoric employed to entice underwater cables companies to include local content at an appropriate percentage determined by the Minister of Communications converted into a major victory on the part of government. Chapter 4 has clearly demonstrated and revealed directly or indirectly acquisition of government stake in virtually all the leading contenders in the construction of the submarine cables; Easy, Seacom, Neotel, Infraco. The reader would also take note that the political football surrounding the ownership of the underwater cables might have caused a costly delay in that the competing company could not commence construction on time prior to Ministerial approval.

This paper holds an assumption that the participation of government as a dominant player may lead to complexity. Console Tleane's firm caution in this respect bears reference:

> **'What seems crucial is that the introduction of Infraco should not be seen to be a case of the state competing against itself -- that is, the public enterprises department competing against the communications department, or state-owned companies competing among themselves.**
>
> **That will defeat the overall mandate of ensuring that the divide between the information-rich and the information-poor is bridged, and more important, that the overall cost of communications in SA is brought down'.**

It is submitted that, when state entities competes among themselves, such competition brings about artificial competition which adversely affects consumers.

In the context of South Africa, the history of telecommunications sector is replete with tension between government entities such as Telkom and Icasa. The establishment of Infraco broadens the net further to included two distinct ministries (communications & enterprise) in charge of different entities (Telkom, Infraco), and a government funded regulator Icasa. This development could add to the logistical nightmare in putting in place an efficient independent regulatory framework beyond the reach of politics.

During the second reading debates on the Infraco bill, to the National Assembly on 17 October 2007 the Minister of Public Enterprises Alec Erwin [as he then was][186] articulated government intervention in the telecommunications sector as follows:

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[186] available at http://www.search.gov.za/info/previewDocument.jsp?dk=%2Fdata%2Fstatic%2Finfo%2Fspeeches%2F2007%2F07101810151005.htm%40Gov&q=(+((erwin)%3CIN%3ETitle)+)%3CAND%3E(category%3Ccontains%3Es)&t=A+Erwin%3A+Second+reading+debates+on+the+Infraco+bill [last accessed 28 January 2009]

'In a modern industrialised economy the existence of high speed, high capacity telecommunication infrastructure is a major driver of economic growth and more accessible socio-economic services such as health and education. In fact there is little doubt that this is a strategic necessity for contemporary growth and development. It is this understanding that led the Government to decide to retain the key fibre optic national network, developed originally by Transnet and Eskom, in State hands'

'This will be achieved not through some form of subsidy but by a long term strategic investment by the State where our pay-back periods are longer and the rate of return required determined by a number of economic calculations rather than profit maximisation as the prime determinant. If these objectives of high speed, high capacity and internationally competitive telecommunications pricing are met in the medium to long term the State can then re-consider the need to retain all or part ownership of such infrastructure'.

Broadband Infraco is a precise intervention in our telecommunications sector. Whilst South Africa's telecoms industry is well established, with world-class companies, it is characterised by a limited number of incumbents who hold significant market power and the size of our economy is likely to make this a relatively permanent feature of the economy. This means that simply licensing additional players does not significantly alter the market structure and global market forces may lead to an underinvestment in large-scale national infrastructure within such a compact market. Accordingly, leaving such critical investment to purely market forces was too risky given our urgent need for greater and more internationally competitive broadband capacity.

However, we are confident that the new Electronic Communications Act (ECA) and licensing conditions now in progress will lead to an active private sector development in the multiplicity of value added services that utilise broadband. It is important to note that Broadband Infraco will not enter these areas in competition with the private sector. It seeks to ensure long-range broadband capacity that will liberate such value added services from constraints of capacity and cost. To this end it will focus on intercity and national networks and undersea cables. In the later case we will work

> **with other players to ensure that a timely and large capacity broadband connection to the world is available. By making long distance connectivity available to the private sector on a cost plus basis, Infraco will commoditise long-distance infrastructure and will bring the South African telecoms market in line with others worldwide.**

Alec Erwin's understandably lengthy verbatim quote. In short, there is an urgent need in South Africa for excess capacity in converged telecommunications sector that can give rise to equitable broader government objectives; i.e., socio-economic rights particularly in health and educations at affordable price.

By his own submission, Erwin seems to suggest that the transfer of infrastructure previously owned by Eskom and Transnet to Infraco seems to have been an after thought particularly if regard is had to the revelations in chapter 3 that, in terms of the Telecommunications amendment Act, Neotel as the second network operator was initially licensed to inherit Eskom and Transnet infrastructures. Chapter 4 went further to explain the utility of Eskom/Transnet infrastructures in that converged telecommunications has made it possible to carry data over electricity wires through fibre optics for instance.

The government, through Erwin, similarly highlights the risk of living the investment in converged telecommunications sector to the private sector. Like Tleane, Erwin similarly raises the issue of lack of local privately owned company with sufficient caliber that can provide high speed, excess capacity in internationally competitive telecommunications.

Erwin adds a positive spin to this whole debacle in telecommunications sector in two respects. Firstly, the interventions, so we are told, should be seen as benevolent because government is simply providing infrastructure so that broader socio-economic goals especially in the health and education sector

may be achieved. Making profit from this venture in telecommunications is not a prime determinant. Secondly, government undertakes not to participate in the value added services. In fact, government through the establishment of Infraco seeks to liberate the value added services from constraints of capacity and cost.

At this juncture, it might be helpful for the reader to briefly pose and calmly reflect on two themes persistently reverberating throughout this paper. Firstly, the seemingly high cost of converged telecommunications as elaborated in chapter 4. Secondly, the inevitable conflict between the incumbent network operators and value added service providers. To this end the exposition set forth in chapter 4 is worth reiterating for purposes of abundant, unequivocal clarity:

Some of the challenges associated with the cartel ownership of the submarine cables are the tension between the operators and the incumbent network service provider. It is, for instance, argued that the operators generally are reluctant to increase traffic on the cables whose exclusive control over landing rights is in the hands of the national incumbent[187]. The tension primarily revolved around the failure of the incumbent network to provide cost effective access to the international transmission capacity[188]. Such tension clearly tends to undermine the whole idea underpinning the constructions of submarine cables which is to enhance economic growth, help reduce digital divide through universal access and service[189].

It is difficult to read into the government intentions insofar as it seeks to actively participate as a dominant player in the converged telecommunications sector. Neither is it a simple task to speculate on the government motives in

[187] available at http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf
[188] available at http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf
[189] available at http://link.wits.ac.za/papers/esselaar-et-al-2007-undersea-cables.pdf

robustly entering the converged telecommunication sector at the time when the trend internationally is in favour of full liberalization. That much is clear from the instructive example of Videsh Sanchar Nigam Limited (VSNL) a subsidiary of the Indian conglomerate Tata[190] a government turned private company and the recent acquisition of Bell Canada for 40 billion US$ into private hands.

By way of comparison, it is perhaps apposite at this juncture to reflect briefly on the state of telecommunications sector in Canada by reading the relevant parts an extract from the correspondence between professor Hudson Janisch and the writer hereof:

> **'Dear John,**
>
> **...I am following things in South Africa with great interest, especially as you mention at MTM and Telkom. In Canada, there has been much excitement about the completion of the $40 billion private equity acquisition of Bell Canada and a very successful spectrum auction which will bring us a 4th wireless competitor. All very interesting and challenging.**
>
> **Go well with your dissertation!**
>
> **All the best,**
>
> **Hudson'**[191]

Whatever the rationale is for the government of South Africa's intervention as a major play in the telecommunications sector, the fact remains that:

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[190] ***'Tata Communications (India), a part of the USD 17.8bn Tata Group, has been the leading provider of International Telecommunications and Value Added Services in India over the last 135 years. The Company was originally a Government of India department called "Overseas Communication Service" which was later incorporated as Tata Communications in March 1986'*** - available at http://www.neotel.co.za/neotel/view/neotel/en/page351[last accessed 28 January 2009]

[191] Electronic mail communiqué dated 22 July 2008 – 3:05 PM

> **'With 100% ownership of Sentech, a 38% stake in Telkom, a 30% stake in Neotel through Eskom and Transnet/Transtel, and now a majority ownership (74%) in Infraco, government is viewed as being keen not to liberalise the telecommunications market but rather to dominate it'[192].**

At this juncture, it is advisable for the reader to halt horses and juxtapose the above paragraph with some of the commitments that South Africa has made in terms of the Fourth Protocol to Gats. The reader would recall that in terms of WTO basic agreement on telecommunications, South Africa is required to establish an independent regulator separated from, and not accountable to any supplier of basic telecommunications services? In the context of South Africa, Icasa is the independent regulator. However to what extent can Icasa be said to be separate from, and not accountable to any supplier of basic telecommunications services such as Telkom, Infraco, Neotel, when government appears to dominate the industry?

Having thoroughly explored the various variables and the interesting dynamics in the telecommunication industry, this paper concludes that vibrant competition in the telecommunications sector has not developed the necessary wings to fly – **not ready for take off**. The rate of broadband penetration is limited; the cost of utilizing modern technology remains astronomically high.

Although the trend at the international level seems to suggest a shift from monopolies to full liberalization, South Africa as of now seems ambivalent as clearly demonstrated in the acquiring extensive shareholding in virtually all the contending players in the telecommunications sector.

As for the future the better view must be that experience around the world is in favour of full liberalization as panacea to excess capacity at low cost. In

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[192] http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

the context of telecommunications, full liberalizations as repeatedly pointed out, does not entail a **Laissez-faire**[193] approach where government places the entire telecommunications sector at the mercy of the brutal market forces without establishing a strong regulatory legal framework in place. On the contrary even developed countries such the Canada, USA, EU, that have already succeeded in attaining universal service still retain strong regulatory framework in order to manage competition. The risk alluded to by Alec Erwin, for instance, can be kept under check through the underlying legislations, namely, the EC Act, Icasa Act, the Competition Act, superseded by the Constitution.

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[193] *'Laissez-faire (pronunciation: French, [lesefɛʀ]; English, [ˌlɛseɪˈfɛɹ]) is a French phrase meaning "let do". From the French diction first used by the 18th century physiocrats as an injunction against government interference with trade, it became used as a synonym for strict free market economics during the early and mid-19th century. It is generally understood to be a doctrine that maintains that private initiative and production are best allowed to roam free, opposing economic interventionism and taxation by the state beyond that which is perceived to be necessary to maintain individual liberty, peace, security, and property rights.[1]*

In the laissez-faire view, the state has no responsibility to engage in intervention to maintain a desired wealth distribution or to create a welfare state to protect people from poverty, instead relying on charity and the market system. Laissez-faire also embodies the notion that a government should not be in the business of granting privileges. As such, advocates of laissez-faire support the idea that the government should not create legal monopolies or use force to damage de facto monopolies. Supporters of laissez-faire also support the notion of free trade on the grounds that the state should not use protectionist measures, such as tariffs and subsidies, in order to curtail trade through national frontiers.

In the early stages of European and American economic theory, laissez-faire economic policy was in conflict with mercantilism, which had been the dominant system of the United Kingdom, Spain, France and other European countries, during their rise to power.

The term laissez-faire *is often used interchangeably with the term "free market". Some use the term* laissez-faire *to refer to "let do, let pass" attitude for matters outside of economics.[2]*

Laissez-faire is associated with classical liberalism, libertarianism, and Objectivism. It was originally introduced in the English-language world in 1774, by George Whatley, in the book Principles of Trade, *which was co-authored with Benjamin Franklin. Classical economists, such as Thomas Malthus, Adam Smith and David Ricardo did not use the term. Bentham employed it, but only with the advent of the Anti-Corn Law League did the term receive much of its (English) meaning.[3] Free-market anarchists take the idea of laissez-faire to its full length by opposing all taxation, preferring law and order to be privately funded* - available at http://encyclopedia.thefreedictionary.com/Laze+faire [last accessed 3 February 2009]

The future in the telecommunications industry intrinsically requires South Africa to put in place an inefficient strong independent regulatory framework free form political interference. The competitive trend internationally in converged telecommunications is in favour of competition, a move away from natural monopolies. It is not as if South Africa does not have a solution to the present challenge of high cost in the affordability of technology. The white paper clearly anticipated the challenge a decade and half years ago. The white paper is still a living document, whose ethos demands immediate and unconditional implementation.

As to why the proposed market structure in the white paper has not yet been implemented, insofar as it advocates competition, an anecdote on Benjamin Franklin[194] may shed some light. It goes like this; as a participant in the drafting of the Declaration of Independence and the Constitution of the United States of America, he was asked what the drafters have given the American people. We have given you a Republic if you can keep it, Benjamin quipped, and the he mumbled something negative in the process. But why are you so cynical about the Republic, he was asked. Because about all the other Republics that have come before this one have failed, he responded. Why have past Republics failed, Benjamin? I do not know, he replied, but I have a suggestion - people are corrupt.

For our purposes, it is fair to say that the drafters of the white paper on telecommunications policy gave South Africans an excellent piece of legislations if the custodians of such policy (the executive, the legislature) could keep and studiously implement it. The white paper aimed at fully

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[194] - ***'a printer whose success as an author led him to take up politics; he helped draw up the Declaration of Independence and the Constitution; he played a major role in the American Revolution and negotiated French support for the colonists; as a scientist he is remembered particularly for his research in electricity (1706-1790)'*** - available at http://www.thefreedictionary.com/Benjamin+Franklin

liberalized the telecommunications sector in keeping with the international trends; so as to make the telecommunications services available across the board at affordable prices.

It is submitted that the South African story in the telecommunications sector is a compromised one. Competition has not really taken place at a scale envisaged in the white paper. South Africa is lagging behind in the rate of penetration in telecommunication services compared to other economies of scale of developed countries and even India and North Africa. The cost of telecommunications services remains high some ten years post the adoption of the white paper as the formal national policy. Whilst consumers in countries such as Europe, US, India, or even North Africa count the cost of using converged telecommunications services in pennies and cents.

Although at policy level particularly as articulated in the white paper on telecommunications and the concomitant convergence EC Act, the South African government displays an abundance of awareness and knowledge about the new developments in competitive telecommunications sector in favour of full liberalization, there are appear to be challenges in implementing commitments undertaken in the white paper.

Like Benjamin Franklin, the writer hereof does not know why the underlying legislations on telecommunications have failed to produce excellent results. However, like Franklin, this paper has a suggestion – people are corrupt, may be corrupted, avarice, inherently self-centred, in other words flawed - the original sin.

Finally, arguments advanced herein should not remotely be construed as a vicious attack on government policy or regulatory framework. On the contrary, this paper embodies a dispassionate appeal to the Republic of South Africa to embrace the telecommunications market structure nationally

adopted in the white paper in 1996 for two reasons. The first being, that government in South Africa has not given competition a chance. Stated differently the market structure adopted in the white has not been tested in-so-far as it advocates full liberalization. Secondly, it simply makes commercial sense to open the ICT to competition, will bring the prices down - quid pro quo, and it has proven as successful in other countries in the northern hemisphere including, India and even North Africa.

If anything, this paper is an epitome of a fair and objective assessment of the state of the telecommunications sector in South Africa **as stated** on this February month, in two thousand and nine years. Far from being a case of government bashing, this paper rather lifts the veil on the telecommunications industry in South Africa and vigorously interrogates legal issues that might have led to the status quo today - without fear, prejudice, or favour.

In adopting the white paper on telecommunications policy, the government of South Africa entered into a covenant with the people to adopt a market structure that would bring fruitful and meaningful results to the users of technology, and that is for our purposes high speed, low cost, excess capacity – value for money; immediately and unconditionally without unreasonable or protracted delay.

It therefore – **'remains to be seen whether the introduction of Infraco will lead to better and affordable services'**[195] quid pro quo in South Africa and by implication its southern and eastern neighbouring states. What is however clear, is the fact that the future in the telecommunications sector is in favour of full liberalization albeit under strong legal regulatory framework. Tomorrow keeps happening today in the internationally competitive telecommunications industry, **the future is now.**

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[195] Console Tleane available at http://allafrica.com/stories/200703200195.html [last accessed 28 January 2009]

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