"The Wireless Internet Communications Company"

Registration No: 2006/006460/07

DIGITAL BROADBAND INTERNATIONAL 2 PTY

COMMENTS ON

DRAFT RADIO FREQUENCY SPECTRUM REGULATION GENERAL NOTICE 925 OF 2010

Dated: 17 November 2003

1. INTRODUCTION

1.1 Digital Broadband International 2 PTY, (DBI) welcomes the opportunity to comment on the Independent Communications Authority of South Africa's (ICASA) Draft Radio Frequency Spectrum Regulations.

1.2 DBI is a South African registered company founded by South African and US partners. DBI currently holds an Electronic Communications Services License (0220/IECS-JAN-09) and an Electronic Communications Network Services License (0220/IECNS-JAN-09).

1.3 DBI's mission is to build out and operate a national wireless broadband network and offer a suite of IP communications services at competitive prices. DBI intends to offer broadband and IP communications to residential and SME customers in addition to offering wholesale services.

1.4 DBI began its quest to enter the South African ICT Market in 2006, by first acquiring a radio frequency spectrum license.

1.5 While DBI wishes to see the Spectrum Regulations expeditiously reviewed and promulgated, it is essential to all stakeholders that ICASA "gets the process right."

1.6 By strictly adhering to both the relevant statutes and to Government's well established ICT and socio-economic development policies, ICASA can minimize the likelihood of litigation, and ensure that new spectrum licenses properly reflect Government's policy of broadening participation in the ICT sector and expanding affordability and access to all socio-economic communities.

2. SUMMARY

2.1 As a general matter, DBI would like to acknowledge the efforts ICASA has undertaken to develop a more comprehensive approach to regulating the licensing and use of scarce radio frequency spectrum in South Africa.

2.2 The Draft Radio Frequency Spectrum Regulations (the "Draft Regulations") have attempted to address a number of related issues including, but not limited to "**use it or lose it"**, spectrum sharing, spectrum leasing etc., that were not addressed by ICASA's previous Spectrum Regulations gazetted on 28 May, 2010, No. 33248 (hereinafter the "May 2010 Spectrum Regulations").

2.3 However, the Draft Radio Frequency Spectrum Regulations cannot stand in isolation but must be viewed in the context of "whether the regulations promote or advance the overarching ICT sector policy goals and objectives of Government?"

2.4 As will be discussed in greater detail herein, DBI respectfully submits that the Draft Regulations suffer from a material failure to advance or promote

longstanding socio-economic, ICT and Broadband Policy goals and objectives of Government.

2.5 For example, unlike the May 2010 Spectrum Regulations, the current Draft Regulations has eliminated the requirement (codified in the Electronic Communications Act of 2005) that mandated spectrum applicants to have at least 30% HDI ownership. *See Sec. 7(c) of the May 2010 Spectrum Regulations*

2.6 The current Draft Regulations has also eliminated the few competitive licensing safeguards contained in ICASA's May 2010 Spectrum Regulations including, but not limited to Sec 7(a) (prohibits applicants from colluding) and Sec 7(f)) (prohibited affiliated companies from applying for spectrum in the same spectrum bands.)

2.7 As will be discussed in detail herein, the Draft Regulations appear to have been drafted in a vacuum without regards to the "situation on the ground" in South Africa or without regards to the particular socio-economic and competitive challenges that are confronting the South African ICT market and consumers.

3. CURRENT STATE OF THE ICT MARKET

3.1 It is a well documented fact that Internet and Broadband penetration rates remain low in South Africa, while prices for broadband and other communication services remain stubbornly high.

3.1 ICASA's Spectrum Usage Report of March 2010 shows that wireless spectrum is controlled by and concentrated in the hands of a few incumbent operators. For ease of reference, DBI has prepared an Abstract of the Spectrum Usage Report which is attached hereto As Appendix 1.

3.2 Such control and concentration of wireless spectrum has been a key barrier to market entry for new wireless infrastructure based competitors such as DBI and other small operators.

3.3 Given the various barriers to market entry, meaningful participation in the South African ICT market by smaller operators and those operators owned and managed by HDI groups is severely limited.

3.4 These issues are but a few of the well known challenges that have for years been constraining the growth and development of the ICT market in South Africa.

4. GOVERNMENT'S SOCIO-ECONOMIC AND SECTOR POLICY GOALS AND OBJECTIVES

4.1 Government has articulated in the Electronic Communications Act (ECA) and in its ICT Sector Policy Documents, a number of well known and long standing policy goals and objectives to address the issues and challenges confronting the ICT sector as outlined in Section 3 above.

4.2 For example: In order to promote participation by HDI groups in the ICT sector, Sec 9(b) of the ECA requires that Individual License Holders have at least 30% HDI equity holding. This requirement should undoubtedly apply to spectrum license holders since spectrum licenses are considered to be individual licenses under the ECA.

4.3 Section 2 of the Broadband Policy For South Africa document *(Gazetted on 13 July, 2010, No. 33377),* articulates Government's overarching policy objectives for the ICT sector as follows:

> …to facilitate the provisioning of affordable, accessible and universal access to Broadband infrastructure to citizens, business, communities and the three spheres of Government and to stimulate the usage of Broadband services in order to promote economic development and growth and act as an enabler for further social benefits.

4.4 The Broadband Policy Document goes further to elaborate on ICT sector policy goals and objectives as follows:

4.4.1.1 **Spectrum for Broadband:** "This Policy recognizes that the radio frequency spectrum is a scarce national resource and that the allocation shall be guided by the developmental objectives in the public interest. *Section 4.1.4.1 Broadband Policy Document*

4.4.1.1.1 **Access:** "Ensuring access to broadband services is the first of three key priority areas considered in this Policy." *Section 4.1of the Broadband Policy Document*

4.4.1.1.2 **Affordability:** "Increasing competition, in both electronic communication network services (ECNS) infrastructure and electronic communications services, will improve the affordability of Broadband to government, business and citizens." *Section 4.2 of the Broadband Policy Document*

4.4.1.1.3 **Creating an Enabling Environment for Broadband Growth:** "Government will continue to promote competition in the market as contemplated under the Electronic Communications Act, 36 of 2005." *Section 4.2.1.1 of the Broadband Policy Document*

4.4.1.1.4 **Electronic Communications Network Services (ECNS) Infrastructure Base Competition:** "An increase in improved access and availability of networks, providing choice to the user and facilitating the reduction of the cost to communicate." *Section 4.2.2.2 of the Broadband Policy Document*

4.5 In short, Government's overarching ICT policy goals and objectives (e.g., expanding access to ICT services to a broader public, reducing prices for ICT services, increasing competition and broadening the participation in the ITC sector) have been well established and remain a continuing priority for Government and all stakeholders in the South African ICT market.

5. THE DRAFT REGULATIONS FAIL TO REFLECT GOVERNMENT'S SECTOR POLICY GOALS AND OBJECTIVES

5.1 In spite of Government's long held ICT sector policy and objectives, DBI submits that the Draft Regulations fail to acknowledge, advance or promote such longstanding Socio-economic, ICT and Broadband Policy goals and objectives.

5.2 With regards to promoting HDI involvement, the current Draft Regulations has eliminated the requirement that spectrum applicants have at least 30% HDI ownership as is required under the ECA and as previously required by ICASA in Sec. 7(c) of the May 2010 Spectrum Regulations

5.3 With regards to promoting competition and consumer choice, the Draft Regulations fails to include adequate provisions to enable ICASA to utilize scarce spectrum resources to promote competition and consumer choice in the ICT market.

5.4 For example, the Draft Regulations fail to include any provisions to redress the current concentration of scarce wireless spectrum in the hands of a few incumbent operators.

5.5 In particular, the Draft Regulations has eliminated the few competitive spectrum licensing safeguards in Sec. 7 of the May 2010 Spectrum Regulations that were intended to prevent existing spectrum licensees from adding to their existing hordes of spectrum and thereby thwart any new competition.

5.6 This is especially important as South Africa begins moving forward with implementing its Digital Migration Plans and additional spectrum bands become available.

5.7 Based upon the prevailing demands for wireless spectrum globally, DBI states that incumbent wireless spectrum licensees, who today are clamoring for spectrum in the 2.6 GHz band, will also be seeking to acquire spectrum in the 700 MHz, 800 MHz and 2.3 GHz bands as quickly as possible.

5.8 Such a continuing concentration of wireless spectrum in the hands of a few incumbent operators is unhealthy for the ICT sector and for South African consumers.

5.9 In addition, the Draft Regulations fail to expressly state that its provisions will be applied to current holders of wireless spectrum as well as new spectrum licensees. This is particularly important given the vast quantities of wireless spectrum that have previously been awarded but are not being optimally utilized.

6. A COMMERCIAL SPECTRUM AUCTION WILL NOT ADVANCE GOVERNMENT'S SECTOR POLICY GOALS AND OBJECTIVES

6.1 Finally, with regards to broadening participation in the South African ICT market, ICASA appears intent upon utilizing a commercial spectrum auction to award spectrum licenses regardless of whether such a licensing process is appropriate for

the South African ICT market, given its particular challenges and regardless of the adverse impact a commercial spectrum auction will have on new entrants and smaller operators.

6.2 DBI submits that the spectrum auction process employed by ICASA's in its 28, May 2010 Spectrum ITA was inconsistent with Government's goals of broadening participation in the ICT market and promoting competition.

6.3 Pursuant to the 28, May 2010 Spectrum ITA, new spectrum applicants were required to pay a license application fee of R70,000 (sec 12) and an auction entry fee of R250,000 (sec 18(a)). The spectrum would be awarded to the highest bidder. (sec 18(b)(ii)) Successful bidders were required to pay in full within 10 business days. (sec 18(b)(ii))

6.4 Such auction terms and conditions clearly would have a more onerous impact on smaller operators vis-a-vis the large incumbent operators and as such, would constitute a barrier to market entry for most small operators.

6.5 Furthermore, the highest bidder will almost certainly have been the incumbents with the deepest pockets, who in all likelihood, would then seek to recover the cost of spectrum acquisition through higher rates to end users.

6.6 Hence instead of broadening participation in the ICT sector, promoting competition and lowering, the spectrum auction rules would have actually weeded out competition to incumbent spectrum holders and thus enabled them to maintain their high cost structure.

6.7 As a general matter, the global experience with spectrum auctions has not resulted in expanding access to ICT services to a broader public, reducing prices for ICT services, increasing competition and broadening the participation in the ITC sector.

6.8 In other wireless spectrum auctions abroad, the spectrum was generally auctioned off at prohibitively high prices and in most cases, was auctioned off to large incumbent operators.

6.9 In South Africa, a commercial spectrum auction will dissuade smaller operators from participating, given the likelihood of excessively high spectrum auction bids. Hence, a commercial spectrum auction will serve to perpetuate the concentration of wireless spectrum in the hands of deep pocket incumbent operators

6.10 By virtue of their deep pockets, incumbent spectrum license holders who have failed to abide by previous build out commitments, some of whom are publicly on record foreswearing interest in low-income residential customers, will be rewarded with additional spectrum given the lack of competing spectrum auction bidders with access to comparable financial capital.

6.11 In the end, winning spectrum bidders who may be forced to pay a premium for their spectrum bids, will be dis-incented from network build out in underserved

communities and focus instead on major population centers so as to more quickly recover spectrum acquisition costs.

6.12 Such likely outcomes are inconsistent with the goals and objectives of the ECA or the Spectrum Broadband Plan.

7. RECOMMENDATIONS

7.1 DBI recommends that ICASA clarifies its position regarding whether spectrum licensees must have 30% HDI equity holding

7.2 ICASA should not limit itself to using a spectrum auction when licensing "high demand" spectrum as suggested by section 6(3)(i) of the Draft Regulations.

7.3 Instead, ICASA should continue using a "beauty contest" as it has done in almost every previous award of wireless spectrum.

7.4 ICASA should adopt provisions to preclude the further concentration of scarce wireless spectrum in the hands of a few incumbent spectrum licensees.

- Current spectrum license holders should only be allowed to apply for additional spectrum after having first demonstrated that they are optimally utilizing their existing spectrum assignments and substantiating their need for additional wireless spectrum.

- Current spectrum license holders should provide ICASA with an accounting of their existing spectrum holdings including, but not limited to the following:
    - How much spectrum the licensee currently holds and in which spectrum bands?
    - How much of the spectrum is actually being used?
    - What specific services (e.g. backhaul services, access services, etc.) is the spectrum being used for?

7.5 ICASA should adopt provisions to ensure that scarce wireless spectrum is being used optimally. Scarce wireless spectrum in the prime spectrum bands for access services" (e.g., the 2.6 GHz, 2.3 GHz, 700 MHz, 800 MHz, etc) should be used for access services instead of for backhaul services as some operators have previously indicated they planned to do.

7.6 ICASA should adopt provisions to provide for a competitive playing field for small operators and new entrants applying for wireless spectrum including, but not limited to:

- Giving current spectrum license holders lower priority with regards to the award of new or additional spectrum;
- Setting reasonable license application fees that are not more onerous on small operators and new entrants vis-vis large incumbent operators;
- Setting reasonable license application fees that are not more onerous on broadband and VoIP operators vis-vis Mobile TV broadcasters;

- Setting reasonable payment license application terms and conditions that are not more onerous on small operators and new entrants vis-vis large incumbent operators;

7.7 ICASA should clearly state applicable terms and conditions of its final Radio Frequency Spectrum Regulations shall be applicable to both current holders of wireless spectrum as well as new spectrum licensees, given the vast quantities of wireless spectrum that have previously been awarded to incumbent operators, but are not being optimally utilized.

Respectfully Submitted,

Julius Kearney
DBI Director

APPEDNIX 1

ABSTRACT
ICASA Spectrum Usage Report For Q1 2010

Frequency Bands Highlighted in “blue” are considered prime “broadband” bands.

TELKOM

Frequency Band	Ch Bandwidth assigned (duplex)	Total Bandwidth	Application	Comment
1.3 -1.5 GHz shared duplex band with reserved channels	18x 1 MHz FDD	18 MHz	Links	"Old" 1.4 GHz band (due for migration)
1.3 -1.5 GHz shared duplex band with reserved channels	30x 500 kHz FDD	150000 KHz	Links	"Old" 1.4 GHz band (due for migration)
1.7/1.8 GHz **	2x 12 MHz FDD	24 MHz	Fixed Data	Unknown utilisation
1.9 GHz DECT	1x 20 MHz TDD	20 MHz	DECT	Fully utilised
1.9 GHz Extended DECT	1x 20 MHz TDD	20 MHz	Extended DECT	Apparently Fully utilised
2.0 GHz FS Band	1x 28 MHz FDD	28 MHz	Links	"Old 2GHz plan (due for migration)
2.0 GHz FS Band	4x 3.5 MHz FDD	14 MHz	Links	"new" plan"
1.9/2.1 GHz	2x 10MHz FDD	20 MHz	Data	
2.3/2.4 GHz	34x 2 MHz FDD	66 MHz	Links	National backhaul links
3.5 GHz	1x 28 MHz FDD	28 MHz	Broadband	
6.0 GHz lower analogue	8x 29.65 MHz FDD	237.2 MHz	Links	High capacity backhaul links
6.0 GHz upper normal	8x 40 MHz FDD	320 MHz	Links	High capacity backhaul links
6.0 GHz upper interleaved	16x 20 MHz FDD	320 MHz	Links	High capacity backhaul links
7.0 GHz lower	1x 28 MHz FDD	28 MHz	Links	High capacity backhaul links
7.0 GHz upper	5x 28 MHz FDD	140 MHZ	Links	High capacity backhaul links
7.0 GHz "old" analogue	6x 23.324 MHz FDD	139.994 MHZ	Links	High capacity backhaul links
11 GHz FS band	12x 40 MHz FDD	480 MHz	Links	High capacity backhaul links
13 GHz	8x 28 MHz FDD	224 MHz	Links	
18 GHz	17x 55 MHz FDD or 34x 27.5 MHz FDD or 131x 7.5 MHz FDD	935 MHz	Links	High capacity backhaul links
23 GHz	Subband 2, 3, 7, & 9		Links PtP	Medium & High capacity backhaul links
26 GHz	6x 28 MHz FDD	168 MHz	Links PtP & PtMP	Short distance High capacity
38 GHz	2x 56 MHz FDD	112 MHz	PtP Links	

VODACOM

Frequency Band	Ch Bandwidth assigned (duplex)	Total Bandwidth	Application	Comment
900 MHz GSM	2x11 MHz FDD	22 MHz	GSM 900 Mobile	Fully utilised
1.7/1.8 GHz **	2x 12 MHz FDD	24 MHz	GSM 1800	Fully utilised
1.9/2.1 GHz	2x 15MHz FDD	30 MHz	3G Mobile	3G
1.9/2.1 GHz	1x 5MHz TDD	5 MHz	3G Mobile	3G
7.0 GHz lower	2x 28 MHz FDD	56 MHz	Links	High capacity backhaul links
7.0 GHz upper	4x 28 MHz FDD	112 MHz	Links	High capacity backhaul links
15 GHz FS shared band (including reserved channels)	2x 28 MHz FDD or 4x 14 MHz FDD or 8x 7 MHz FDD	56 MHz	Links	"new" plan
18 GHz	4x 27. 5 MHz FDD	110 MHz	Links	High capacity backhaul links
26 GHz	3x 28 MHz FDD	84 MHz	Links PtP & PtMP	Short distance High capacity
38 GHz	1x 56 MHz FDD	56 MHz	PtP Links	

MTN

Frequency Band	Ch Bandwidth assigned (duplex)	Total Bandwidth	Application	Comment
900 MHz GSM	2x11 MHz FDD	22 MHz	GSM 900 Mobile	Fully utilised
1.7/1.8 GHz **	2x 12 MHz FDD	24 MHz	GSM 1800	Fully utilised
1.9/2.1 GHz	2x 15MHz FDD	30 MHz	3G Mobile	3G
1.9/2.1 GHz	1x 5MHz TDD	5 MHz	3G Mobile	3G
7.0 GHz lower	1x 28 MHz FDD	28 MHz	Links	High capacity backhaul links
10 GHz	1x 28 MHz FDD	28 MHz	Links	PtP & PtMP, band is subdivisible into smaller channels
11 GHz FS band	12x 40 MHz FDD	480 MHz	Links	High capacity backhaul links
13 GHz	2x 28 MHz FDD	56 MHz	Links	
15 GHz FS shared band (including reserved channels)	2x 28 MHz FDD	56 MHz	Links	"new" plan
18 GHz	1x 27. 5 MHz FDD	27.5 MHz	Links	High capacity backhaul links
23 GHz	1x 28 MHz FDD	28 MHz	Links PtP	Medium & High capacity backhaul links
26 GHz	2x 28 MHz FDD	56 MHz	Links PtP & PtMP	Short distance High capacity
38 GHz	1x 56 MHz FDD	56 MHz	PtP Links	

CELL C

Frequency Band	Ch Bandwidth assigned (duplex)	Total Bandwidth	Application	Comment
900 MHz GSM	2x11 MHz FDD	22 MHz	GSM 900 Mobile	Fully utilised
1.7/1.8 GHz **	2x 12 MHz FDD	24 MHz	GSM 1800	Fully utilised
1.9/2.1 GHz	2x 15MHz FDD	30 MHz	3G Mobile	3G
1.9/2.1 GHz	1x 5MHz TDD	5 MHz	3G Mobile	3G
10 GHz	1x 28 MHz FDD	28 MHz	Links	PtP & PtMP, band is subdivisible into smaller channels
15 GHz FS shared band (including reserved channels)	2x 28 MHz FDD	56 MHz	Links	"new" plan
38 GHz	1x 56 MHz FDD	56 MHz	PtP Links	

NEOTEL

Frequency Band	Ch Bandwidth assigned (duplex)	Total Bandwidth	Application	Comment
1.7/1.8 GHz **	2x 12 MHz FDD	24 MHz	Fixed Data	Unknown utilisation
3.5 GHz	1x 28 MHz FDD	28 MHz	Broadband	-
7.0 GHz lower	1x 28 MHz FDD	28 MHz	Links	High capacity backhaul links
10 GHz	1x 28 MHz FDD	28 MHz	Links	PtP & PtMP, band is subdivisible into smaller channels
15 GHz FS shared band (including reserved channels)	4x 28 MHz FDD	112 MHz	Links	"new" plan
26 GHz	1x 28 MHz FDD	28 MHz	Links PtP & PtMP	Short distance High capacity
38 GHz	1x 56 MHz FDD	56 MHz	PtP Links	

WBS

Frequency Band	Ch Bandwidth assigned (duplex)	Total Bandwidth	Application	Comment
1.7/1.8 GHz **	2x 12 MHz FDD	24 MHz	Fixed Data	Unknown utilisation
1.7/1.8 GHz **	1x 10 MHz TDD	10 MHz	Fixed Data	
2.6 GHz	2550 - 2565 MHz	15 MHz	Broadband	-
10 GHz	1x 28 MHz FDD	28 MHz	Links	PtP & PtMP, band is subdivisible into smaller channels
15 GHz FS shared band (including reserved channels)	2x 28 MHz FDD	56 MHz	Links	"new" plan
26 GHz	1x 28 MHz FDD	28 MHz	Links PtP & PtMP	Pending Approval

SENTECH

Frequency Band	Ch Bandwidth assigned (duplex)	Total Bandwidth	Application	Comment
2.6 GHz	2500 - 2550 MHz	50 MHz	Broadband	-
3.5 GHz	1x 14 MHz FDD	14 MHz	Broadband	-
7.0 GHz lower	2x 28 MHz FDD	56 MHz	Links	High capacity backhaul links
10 GHz	1x 28 MHz FDD	28 MHz	Links	PtP & PtMP, band is subdivisible into smaller channels
13 GHz	5x 28 MHz FDD	140 MHz	Links	
26 GHz	2x 28 MHz FDD	56 MHz	Links PtP & PtMP	Short distance High capacity
38 GHz	1x 28 MHz FDD	28 MHz	PtP Links	