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March 2, 2012

Via email to [ykedama@icasa.org.za](mailto:ykedama@icasa.org.za)

Dear Madam,

**Reference: Qualcomm Response to Independent Communications Authority of South Africa (ICASA)  
Draft Spectrum Assignment Plan for the Combined Licensing of the 800MHz and 2.6 GHz Bands.**

Qualcomm Incorporated ("Qualcomm") welcomes the opportunity to provide feedback to ICASA regarding the proposed draft Spectrum Assignment Plan for the Radio Frequency Range 790-862MHz ( 800MHz0 and 2500-2690 MHz ( 2.6GHz), in terms of section 31(3) of the Electronic Communications Act, 2005(ECA), ("Draft Assignment Plan").

As a leading developer of technology used for advanced wireless services in metropolitan, regional and rural environments, Qualcomm plays an important role in the telecommunications industry of the entire continent of Africa. We believe that the IMT industry and eco-system, including its evolution will increasingly play a leading role in the provision of fixed and mobile broadband services to the citizens of South Africa and other countries worldwide.

The mature IMT-2000 (3G) ecosystem of vendors, operators and application developers enables rapid deployment of services by wireless licensees, and the ongoing emergence of an ecosystem built around Long-Term Evolution (LTE) and other IMT-Advanced technologies will enable even greater network capacity. These advanced wireless technologies will enable increased broadband connectivity and thus drive economic growth and social benefits.

On the whole Qualcomm finds that the objective and purpose defined in the Draft Assignment Plan are in line with international practices, particularly the pairing of spectrum for capacity (2.6GHz) and for coverage (800 MHz) in a licensing process.

The attached APPENDIX contains our views on some of the clauses of the Draft Assignment Plan.



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Once again, we thank ICASA for the opportunity to comment on this draft plan and remain ready to participate in any future proceedings.

We would be glad to provide any additional information and clarifications you may require.

Sincerely Yours,

**Elizabeth Migwalla**  
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**Government Affairs-Africa**

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## **APPENDIX**

### **QUALCOMM COMMENTS ON THE 800MHZ AND 2.6GHZ DRAFT SPECTRUM ASSIGNMENT PLAN (DRAFT PLAN)**

#### **OBJECTIVE**

Qualcomm concurs with ICASA's observation that allowing access to spectrum in the 800MHz and 2.6 GHz will enable the country to derive benefits of coverage and capacity, and thus play a vital role in provision of mobile broadband in both urban and rural areas of the country. Indeed the "combinational licensing approach" introduced in the Draft Plan has been used in spectrum auctions in several European countries, including Germany, Italy, Portugal and Spain.

#### **LICENSING PHILOSOPHY (Clause 5)**

Qualcomm has noted ICASA's intention to introduce new business models in a bid to encourage sharing of spectrum, namely the Wholesale Open Access model and the Managed Spectrum Park model, and observes that similar concepts are being discussed in the African Region and elsewhere. We further observe that to date such models have not been widely implemented. Qualcomm would respectfully recommend that details of the models to be deployed should be carefully examined and determined in an open and consultative process involving all stakeholders, prior to licensing. Given the anticipated pivotal role of these licensees in the development of robust national mobile broadband network(s) and services, the stakeholder discussions should include topics such as suitable criteria for eligibility as a licensee, guidelines regarding sharing, service agreements, quality of service, supervision by ICASA to ensure pro-competitive behavior, mechanisms to correct any unforeseen negative effects, etc.

#### **FREQUENCY CHANNELING ARRANGEMENTS (Clause 6)**

Qualcomm supports ICASA's proposal to adopt a frequency channeling arrangement that is in line with the decision ECC/DEC/ (09)03 for the 800 MHz Band and EC decision 2008/477/EC for the 2.6 GHz Band.

#### **IN-BAND MIGRATION IN 800MHZ AND 2.6GHZ (Clause 8)**

Qualcomm applauds ICASA for initiating consultations with incumbents, with the objective of aligning the 800MHz and 2.6GHz bands with the preferred channeling arrangements above.

South Africa, like most African countries sits in a situation with a (small) portion of the 800 MHz band assigned to existing IMT (CDMA 2000) services today. We are pleased that in assigning spectrum in the 800MHz band , ICASA plans to embraced a "win – win" solution which will enable introduction of new IMT/4G services, while allowing existing IMT infrastructure and licensee(s) to serve out their license period. The proposal to allow Neotel to retain 2 X1.2 MHz (for CDMA) in the duplex gap of the CEPT 800 MHz band is one such solution that will allow coexistence of the two technologies.



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**THE SPECTRUM ASSIGNMENT PLAN AND LICENSING FRAMEWORK (clause 9)**

Qualcomm has noted the proposed definition of the spectrum blocks in the 2.6GHz and 800MHz bands. We observe that in respect of the 800MHz band ICASA proposes to leave most of the duplex gap unused. A quick analysis reveals that by combining W1 and W2 it is possible to accommodate at least 5 CDMA Carriers (in the 824-832 MHz) with sufficient guard band between CDMA 2000 Up-Link and the LTE Up-Link. Since spectrum is a scarce and valuable resource we believe that it need not be rendered unused. Consequently we would recommend that the Spectrum Plan be modified to accommodate the option to utilize the duplex gap efficiently.

Qualcomm recognizes that multiple operations have merit in so far as they introduce real competition and drive costs down. However market fragmentation caused by an excessive number of licenses should be avoided. For this reason it is our expectation that ICASA has undertaken an exercise to determine the optimum number of Mobile Broadband (MBB) licensees for the South African market. In addition we encourage ICASA to ensure introduction of safeguards in the licensing regime to make certain that any licensee, particularly new entrants have both technical and financial capability to compete effectively, given their likely "green field" nature.