19 October 2009

The Deputy-Director: Frequency Spectrum
Department of Communications

Attention: Ms. Cynthia Lesufi

Per email: spectrum@doc.gov.za
Per fax: (012) 427 8455 (7 pages)

Dear Madam

SUBMISSION IN RESPECT OF THE DRAFT NATIONAL RADIO FREQUENCY SPECTRUM POLICY

The Wireless Access Providers' Association (WAPA) welcomes the initiative taken by the Department of Communications to out in place a long-overdue policy framework for the management of radio frequency spectrum in South Africa and thanks the Department for the opportunity to make submissions thereon.

ABOUT WAPA

WAPA is a non-profit industry representative body acting as a collective voice for independent fixed wireless operators in South Africa. WAPA's primary objective is to ensure the sustainability of the fixed wireless access services market.

WAPA represents a rapidly-growing number of Fixed Wireless Access (FWA) providers, ISPs and equipment vendors currently using or with an interest in licence exempt radio frequency spectrum bands. WAPA's membership, comprising over 60 service providers and growing steadily, focus on using open standard wireless technologies.

The average WAPA member is an SMME providing extensive coverage of rural areas in South Africa where there is no cost-effective alternative access means. Free or E-rated Internet services, including the underlying ECNS service, are provided to some 329 schools and other social responsibility programme, again often in rural or previously disadvantaged areas which are not serviced by the incumbent operators.

The non-protection of users in the license exempt (LE) bands is globally accepted policy and thereby increases the responsibilities of spectrum users to share spectrum efficiently, manage interference and to accept interference in certain conditions. WAPA facilitates the self-regulation of the outdoor fixed wireless and indoor nomadic wireless industries and seeks to minimise the potential of users of licence-exempt bands causing interference to services provided by licensed users and other unlicensed users.

WAPA enforces a Code of Conduct focused on wireless activities, an enforcement process, certification and training and a forum for sharing knowledge and resolving technical problems.

WAPA also works with registered equipment suppliers to promote the enforcement of type approval regulations by such suppliers as well as WAPA members.

WAPA is ideally positioned to be an interface between the government regulator (ICASA), network operators, service providers and consumers as regards use of licence exempt frequency.

Examples of services offered by WAPA members:

- Commercial hotspots
- Community wireless networks
- Wireless Internet Service Providers (WISPS)
- Municipal networks
- Fixed Wireless Access
- Provision and maintenance of type approved equipment

WAPA spectrum-related objectives

To promote the efficient and sustainable use of RF spectrum for fixed wireless access, by:

- Promoting the sharing of spectrum
- Self-regulation: regulating its members use of spectrum in order to get maximum benefit for the service provider and its customers
- Promoting innovative spectrum management so as to make this precious resource available to as many providers and for use by as many customers as possible
- Promoting adherence to ICASA regulation and type-approval requirements

SPECTRUM MANAGEMENT

WAPA subscribes to the truism expressed in the US FCC Spectrum Policy Task Report which states: *"In many bands, spectrum access is a more significant problem than physical scarcity of spectrum, in large part due to legacy command-and-control regulation that limits the ability of potential spectrum users to obtain such access."*

Various actual measurements indicate that > 70% of spectrum is unused. WAPA therefore supports the Departments intentions of ensuring a Policy of rational and effective use of spectrum.

WAPA also notes and supports the spectrum audit initiative recently launched by the Department.

SELF-REGULATION

It has been shown time and time again that, when an industry considers itself indispensably a part of the regulatory system, it will be more committed to seeing that regulation succeed because it is necessarily in its own interest to make the system work.

Self-regulation is also a faster way of dealing with apparent breaches of the rules than going to law. It is also much more 'user friendly' being readily accessible, predominantly informal and at minimum cost to its users.

Even where a statutory regulator can offer the same consumer access, a self-regulatory system is able to judge in accordance with the spirit of the rules and, being non-statutory, self-regulation is well-placed to respond with the flexibility needed in a fast-changing world such as that of wireless industry in which WAPA operates.

Truly effective self-regulation is not soft regulation and this can mean operating with recourse to ICASA as and when necessary.

WAPA as a self-regulatory body but is already tacitly aligned with many of ICASA's spectrum management policies and objectives.

It should be noted that the UK's Communications Act 20003 (section 4C refers) requires of their respective independent regulator, Ofcom, to promote the development of effective forms of co and self-regulation.

WAPA accordingly requests that the Department give due consideration to identifying the roles of co- and self-regulation in achieving the objectives of the Draft Policy.

LIGHT LICENSING REGIME AS A ALTERNATIVE APPROACH TO SPECTRUM MANAGEMENT

WAPA suggests that the Policy promote deregulatiion or the simplification of regulation wherever possible.

WAPA proposes light licensing as an alternative spectrum management approach whereby deployment of transmitters is recorded by the administration without going as far as implementing a "traditional licensing" regime.

The two broad definitions of Light Licensing are summarised as:

> **Light licensing – few restrictions:** Registration or notification is required. No limits on the number of users.

Light licensing – with restrictions: Registration or notification is required, and there are limits on the number of users and/or requirements for coordination.

The benefits of light licensing include:

- Ability to increase the service offering
- Improve service levels
- Maintain a competitive advantage due to low barriers to entry i.e, "Speed to market" and cost.
- An ability to coordinate with incumbents to work around particular geographical areas e.g. radar sites
- Lower risk of interference

In order to promote access to spectrum where its members are afforded a level of interference protection by means WAPA recommends the following characteristics and restrictions of the light licence regime:

- frequency co-ordination
- reduced administration by means of online applications
- "first come first served" rights
- defined but limited level of interference management
- quicker application approvals
- significantly cheaper than traditional (individual) applications
- "Use it or loose it" policy

Light licensing has been implemented in, *inter alia*, the USA, UK, Canada, Australia and Kingdom of Bahrain.

DELEGATING THE MANAGEMENT OF ALLOCATED SPECTRUM

WAPA proposes that the Department, in developing the Policy, consider a license regime in terms of which recognised industry bodies, such as WAPA, can manage allocated spectrum in support of ICASA.

In the U.S., the Federal Communications Commission (FCC) recently introduced rules permitting spectrum leasing under which a licensee may acquire a block of spectrum to create a private commons for use by thousands or even millions of new users. The FCC speculated that

this type of private commons could be an innovative means to roll out new services. This could offer a higher quality of services than users must now accept in existing licence-exempt bands.

Particularly, WAPA requires an allotment of spectrum where members are afforded a level of interference protection by means of frequency co-ordination. The band 5.875-6.1 GHz has been identified by WAPA as suitable spectrum for this purpose.

Delegating the management of allocated spectrum provides the benefits of specialisation through empowering a dedicated and expert body, such as WAPA, with a responsibility for which it is uniquely suited instead of requiring the national regulator, with many other responsibilities, to focus on activities which an existing self-regulatory body may already have developed expertise.

TECHNOLOGY AS A MEANS OF SPECTRUM MANAGEMENT

Cognitive radio is an example technology that would enable license-exempt operation within a frequency band that is already occupied by a licensed service. In its simplest form, Cognitive Radios access the spectrum during the time the licence holder is not using it.

WAPA recommends that the Policy promotes and facilitates transactions between licence holders and cognitive radio users.

ALLOCATION OF LICENCE EXEMPT SPECTRUM

WAPA members currently have access to limited license exempt spectrum with the result that some of the currently used spectrum is becoming congested, especially in the inner city areas.

WAPA would like to see the Policy enshrine the existing license exempt bands and increase suitable spectrum allocation in order to facilitate WAPA members in providing services to many more communities, especially in rural and other disadvantaged areas.

In particular, the frequency band **5.725 – 5.85 GHz** (5.8GHz band) is used as licence exempt in many countries. In addition, there are many well priced technologies available for network deployment. ICASA launched a public enquiry in March 2006 which is not yet concluded. WAPA believes that the lack of progress in allocating the 5.8 band is indicative of the inefficiencies that the Policy aims to eradicate.

WAPA requests that the Policy encourage the expansion of licence exempt allocations and supports the call made in the Draft Policy for shorter lead times in the assignment of licensed radio frequency spectrum.

SUMMARY AND CONCLUSION

Light licensing schemes provide the registration, coordination and interference protection benefits that a wireless license guarantees but at a cost and application time significantly lower than traditional wireless licensing.

Self-regulation has a number of significant advantages which addresses both industry and consumer interest, but most importantly, effective self-regulation brings the added value of industry 'buy-in'.

WAPA is uniquely positioned to manage specific allocated spectrum under a light license regime without imposing undue financial and administrative burdens on the national regulator.

The Policy should recognise and provide for devices and technology such as **Cognitive Radio Systems** that will increasingly be able to deliver low risk of interference through self-coordination.

The **license exempt band** is internationally recognised as a key area for innovation but we need considerably more allocation in order to provide wireless access in areas need.

In conclusion, WAPA has developed a deep understanding of the procedures and policies that is required of an effective and efficient regulatory body. However, self- and co-regulation can only be effective where all partners share a common goal and have confidence in the ability of future co-regulators to deliver it.

We trust that the above is of assistance.

Regards

WAPA Co-Chairs