Regulatory Guide to starting and operating a
Wireless Internet Service Provider (WISP)

This Guide has been prepared on behalf of the Wireless Access Providers' Association (WAPA) and is intended to

- provide guidance to those considering starting a WISP on the different types of licensing and the licenses which they will require
- help the reader to have a basic understanding of electronic communications licensing
- highlight that operating a WISP without the necessary electronic communications licences is a criminal offence
- show that it is relatively straightforward and not unduly expensive to obtain service licenses for an initial period of 10 years.
- provide an overview of type approval requirements
- provide an overview of using licence exempt radio frequency spectrum

WAPA offers a service whereby they assist those joining it to obtain the necessary service licenses – see http://www.wapa.org.za/members/join-wapa/ for more information.

NB: THIS IS NOT EVEN CLOSE TO BEING A COMPREHENSIVE GUIDE TO ALL THE ISSUES. PLEASE DO NOT RELY ON THIS DOCUMENT ALONE IN REACHING BUSINESS DECISIONS.

CONTENTS

1. **Different types of licensing**

As a WISP there are three levels of licensing that you should be in compliance with:
- service licensing, i.e. licences which permit you to provide a service to others
- type approval, i.e. the licensing of equipment by ICASA to ensure that it meets required standards, and
- frequency licensing, i.e. licences allowing use of radio frequency spectrum so that you can backhaul and carry your services to your subscribers.

2. **SERVICE LICENSING**

The licensing and regulation of WISPs and other telecommunications companies and ISPs such as Telkom, MTN and Internet Solutions is performed by ICASA under the Electronic Communications Act of 2005.

The Government imposes licensing requirements on businesses in the industry mainly to ensure that:
- Scarce resources such as frequency and numbers can be efficiently allocated and coordinated
- Services are provided in under-serviced and rural areas
- They have authority over licensees, and
- Consumers are protected in their dealings with service providers.

So, in the same way as you would need to apply for a liquor licence in order to operate a bar, you will need to apply for a licence to operate as a WISP. If you are providing services as a WISP without the necessary licensing you are committing a crime under the Electronic Communications Act of 2005 and liable to a fine as well as the confiscation of your equipment.

2.1. **What licenses are available?**

There are two main categories of licence available under the ECA:
- **Electronic Communications Network Service (ECNS)** licenses: these licenses authorise the holder to roll-out and operate a physical network. This network can be made up of any technology you choose: radio equipment (for a wireless network), copper cabling, fibre optic cabling etc.
- **Electronic Communications Service (ECS)** licenses: these licenses allow you to provide services to customers over your own or somebody else's network. This will typically be the licence held by an ISP.

Examples:
- Telkom has a telephone or voice network which covers most of South Africa. The network consists of phone lines, switches and other hardware and in order to operate this network Telkom requires an ECNS licence. Telkom then provides voice services to its customers over this network – in order to provide these voice services it will require an ECS licence.
- Telkom offers an ADSL service. The twisted copper pair together with distribution boxes etc forms an electronic communications network for which Telkom needs an ECNS licence. The ADSL service itself is an ECS.
- Vodacom has a GSM network which also covers most of South Africa and consists of their masts and towers which have radio equipment located on them. They will require an ECNS licence in order to own and operate this network and an ECS licence in order to provide their services – voice, data, SMS, MMS etc – over this network.
- An ISP wishes to provide internet connectivity to customers. It does not have its own network (although it may own some hardware) but relies on the services of a network owner and operator such as Telkom (i.e. an ECNS licensee) to carry its services to its customers. In this example the ISP itself does not require an ECNS licence (it does not own and operate the network) but only requires an ECS licence so that it can provide its services to its customers over Telkom's network.

The ECA breaks down these licence categories into two subcategories - <u>individual</u> and <u>class</u> licences:

ECNS licences	**Individual ECNS**	This allows you to roll out your own network nationwide or across a province.
	Class ECNS	A class ECNS allows you to roll out your own network in a district or local municipality. In other words you will choose to operate in a municipal area and provide access services to consumers in that area. This is the form of licence you would require if you wanted to set up your own network focusing on a smaller area. South Africa has 48 district municipalities and 231 local municipalities as well as 7 metropolitan municipalities.
ECS licences	**Individual ECS**	This licence allows you to provide services to your customers over the network of an ECNS licensee, including voice or VoIP services which use numbers taken from the National Numbering Plan. Examples of other services that can be provided include: • Internet access • Email • Hosting • Protocol conversion • Virtual Private Networks (VPN) • Multi Protocol Labelling Systems (MPLS)
	Class ECS	This licence allows you to provide the same services as the Individual ECS licence except for voice services requiring numbers from the national numbering plan. If you have one of these licenses you will need to enter into commercial arrangements with one or more ECNS licensees who have the networks to carry your services to your customer.

<u>AT THIS TIME ONLY CLASS LICENCES ARE AVAILABLE. PLEASE CHECK THE ABOVE TABLE TO SEE HOW THIS MAY IMPACT UPON YOUR PLANNED BUSINESS.</u>

2.2.   What licences do I need to operate a WISP?

From the above it should be clear that to operate a WISP you need both
• an ECS and
• an ECNS licence.

Because only the class licences are available you will need to register for a
• class ECS (CECS) licence, and
• a class ECNS (CECNS) licence.

2.3.   Registration fee payable

There is an application fee of R10 000 per licence for the class ECS and class ECNS licence you will need to register for, i.e. you need to budget R20 000 for the fees payable directly to your licences from ICASA.

2.4. Registration process

The registration forms are available from http://www.ellipsis.co.za/?p=30.

The process can take up to 12 weeks from date of submitting your registration documents (including proof of payment of the registration fees).

2.5. Annual Licence Fees

Once you are generating revenue from services provided under your licenses you will be required to pay annual licence fees and to make a contribution to the Universal Service and Access Fund (USAF).

Annual licence fees: 1.5% of Gross Profit generated from licensed services
USAF contribution: 0.2% of Total Revenue (with some deductions) generated from licensed services.

If the turnover of the business or businesses relying on the licenses is less than R13 million per year then you will be exempt from paying annual licence fees.

2.6. BEE requirements

At present there are no BEE or HDI (i.e. BEE + white women) equity ownership requirements and the BEE sector code for the ICT industry has not been finalized.

You should however be aware that BEE requirements will be finalized in 2009/2010 and will be applicable to all licence holders.

3. TYPE APPROVAL

Type approval is a form of equipment licensing. Unless you are importing or manufacturing your own equipment you will only need to ensure that equipment you purchase from a local supplier has been properly type-approved and that there are type approval stickers both on the packing and the radio or other device itself.

4. FREQUENCY LICENSING

Licensing which allows the holder to use part of the available radio frequency spectrum to provide services to its customers is a complex topic which is beyond the scope of this Guide.

It is extremely difficult to obtain licensed spectrum at this time so those starting out (and the vast majority of those already operating WISPs) will be using licence-exempt frequency bands. In other words you will not need to apply to ICASA for a frequency licence in order to use these bands.

It is important to bear in mind that bands such as the 5 400 – 5 725 MHz band may be licence exempt but this does not mean they are not regulated. Users of this spectrum must stick to a maximum power output of 1 W and must ensure that all equipment used is properly type-approved.

Further information on licence exempt frequency - http://www.ellipsis.co.za/?p=201.

5. Compliance

Once you are operating under an electronic communications licence you will be required to comply with the terms and conditions of this licence and with all the regulations issued by ICASA which apply to the services you provide. These will include quality of service requirements, consumer protection measures and a large number of reporting requirements.

Compliance has a cost and you will need to budget for this. If you join an industry association such as WAPA then you will receive basic regulatory support at a set price (currently R500 per month).

6. ICASA

When dealing with licensing issues you will have to approach the Independent Communications Authority of South Africa (ICASA). ICASA is an independent body which is responsible for the regulation of electronic communications in South Africa.

The ICASA Head Office is situated in Johannesburg. There are also regional offices in Cape Town, Bloemfontein, Durban and Port Elizabeth.

Contact details for Head Office are as follows:

Physical Address
Blocks A, B, C and D, Pinmill Farm
164 Katherine Street
Sandton
Postal Address:
Private Bag X10002
Sandton 2146

Tel: +27 (11) 566 3000/3001
Fax: +27 (11) 444 1919
Email: info@icasa.org.za

Contact details for the regional offices can be obtained from Head Office or by visiting:
http://www.icasa.org.za/Content.aspx?Page=153

Note: When dealing with ICASA you may need to be patient and follow-up regularly to ensure your matter is receiving attention. It will be excellent for your new business if you strike up a positive relationship with ICASA personnel and you should always be polite and positive in your dealings with them.

7. Conclusion

Regulatory issues and compliance are more often than not seen as too intimidating to get to grips with. Hopefully the above guide will have provided a simple understanding of the basic issues.

If you are going to operate a WISP and provide services to subscribers then you are strongly advised to ensure that you join an industry association or get a trusted source of advice so that you can be sure you are on top of the regulatory issues and risks.