

## Electronic Communications and Neighbourhood Watches

The following (informal) opinion was provided to a SA WUG (or Wireless User Group) and relates to the lawfulness of the use of electronic communications in the form of surveillance cameras in the fight against crime.

Names have been changed to protect the innocent...

### The question:

"I have been approached by the \_\_\_\_\_ and \_\_\_\_\_ neighbourhood watches regarding the establishment of a 2.4GHz mesh network there for security purposes.

These suburbs in \_\_\_\_\_t were identified recently as one of the top 5 crime hotspots in the country and the residents are looking at ways in which to counter crime. A WiFi network would be helpful to relay video surveillance and VoIP data between residents, security stations and patrol cars. A few residents have set up surveillance cameras with WiFi links, but only where there is line-of-site to the security company. The terrain is hilly and treed, which doesn't lend itself to long WiFi links.

While many residents would deploy cameras if possible, not enough would do so to create a robust mesh, which is why I suggested creating a non-profit Internet access mesh, based on the model here in \_\_\_\_\_. Such a mesh would have plenty of spare bandwidth to carry security data, and provide an Internet portal for transmission of security data by email and to cell phones.

The neighbourhood watch would like to approach local businesses (e.g. the Spur) who would sponsor the uncapped DSL line and Internet bandwidth would be bucketed per machine. Security traffic would be prioritized.

Can you appraise us of the current legal situation regarding such a network?"

### The disclaimer :)

As you will be aware the law regarding electronic communications is a complete and absolute mess as we move from the Telecommunications Act to the new Electronic Communications Act.

The advice below is based largely on a draft regulation which remains to be finalised. However I am confident that the final version will show little departure from the current draft [for reasons which I can go into if you require].

### The short answer

I believe what you propose may not be currently legal without licensing but that it will be so legal (without licensing) within the next year.

### The long answer

I will attempt to keep this as simple as possible but please query me if some technical legalese or oversimplification creeps in and undermines understanding.

1. Remember that under the new act (the ECA) there are two basic types of licence
  - a. electronic communications network service (ECNS) licences
  - b. electronic communications service (ECS) licencesIn simple terms an ECNS licensee may roll out and operate a network. An ECS licensee may use such a network to carry services to end-users.
2. What you are considering contains both elements:
  - a. The actual radios and the DSL are electronic communications facilities which make up an electronic communications network (ECN);
  - b. The provision of security and communication services over the network constitute electronic communication services.
3. Under certain conditions an electronic communications network (ECN) and an electronic communications service may be regarded as licence exempt...i.e. no licence will be required by the owner of the network or by the provider of the service. Licence exemptions are set out in regulations issued by ICASA.
4. Under the latest **draft** licence exemption regulations the following (amongst others) categories of licence exemption are proposed:
  - a. where an ECS is provided on a non-profit basis
  - b. where a network is regarded as a small electronic communications network
5. In order to qualify under the non-profit exemption the draft regulation states the following:

“A person offering or providing ECS on a non-profit basis may operate in terms of a licence exemption and does not require an ECS licence. Non-profit basis shall be presumed where:

  - (a) the ECS provider is:
    - (i) a registered non-profit organisation in terms of the Non-profit Organisations Act (Act 71 of 1997);
    - (ii) a company registered in terms of Section 21 of the Companies Act (Act 61 of 1973); or
    - (iii) a non-profit organisation established in terms of an Act of Parliament;
  - (b) the ECS provider provides ECS without any fee or compensation whatsoever to the public;”

6. So it is likely that the neighbourhood watches would need to register under the NPO Act.
7. As regards the small ECN exemption note that a small ECN is defined as

"Small electronic communications network" means an ECN, the scope of which is limited to equipment physically located on a single piece or contiguous pieces of land owned or controlled by a single person and, where such network uses radio frequency spectrum, where the technical parameters of such spectrum use fall within the radio frequency spectrum licence exemption regulations."

- a. The technical parameters referred to in the definition would be 100mW EIRP for 2.4Ghz use.
- b. Note that as long as you stay within the 100mW it does not matter if you cross public boundaries.

**Now to get to the point....**

8. The latest draft licence exemption regulations seem to make specific accommodation for mesh networks of the basic kind you are contemplating. The draft regs state:

(a) A small electronic communications network may be operated in terms of a licence exemption and does not require an ECNS licence.

(b) Where a small electronic communications network communicates with other such networks across the boundaries of the different properties upon which they are installed using only radio equipment operating in radio frequency spectrum bands that are exempt from licensing to form mesh networks, such aggregation of small electronic networks continues to be subject to a licence exemption provided that:

- (i) the provision of ECS over such mesh networks is limited to exempted ECS in terms of clause 3(1); and
- (ii) no capacity on the aggregation of the small electronic networks is sold, leased or otherwise made available to any Licensee.

So – the mesh network will be allowed on a license-exempt basis as described above BUT the services (ECS) provided over the network must be non-profit as described above.

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