New Zealand POLICE
Nga Pirihimana O Aotearoa

6 October 2008

Mr Mark Forward
Commerce Commission

Emergency Telecommunication Services Steering Group response to the Commerce Commission "Next Generation Network Study Consultation Questionnaire"

Thank you for the opportunity to provide input to your Next Generation Network (NGN) Study.

Background

In late 2006, Cabinet agreed [CBC Min (06) 16/20, 25 September 2006] to the establishment of the Emergency Telecommunications Services Steering Group (ETSSG) with the following purpose and focus:

- *The purpose of the ETS Steering Group is to research and plan a robust public safety framework for emergency telecommunications services.*
- *The focus of the ETS Steering Group is a whole of government approach to the strategic development of emergency telecommunications services for public safety purposes. The work of the Steering Group shall include policy, regulatory, organisational, governance and operational aspects of emergency telecommunications services. It will also consider models based on international best practice.*

One of the roles of the ETSSG is to oversee and coordinate a number of projects related to radio communications and emergency calling. In this latter area the Emergency Call Services Working Group (ECSWG) was established with responsibilities:

> *"to determine a suitable future model for managing and developing emergency call services and guide the development of any emergency call services regulations under the Telecommunications Amendment Bill to ensure the requirements of emergency service providers are appropriately addressed.*

The ECSWG currently has representation from:

- The emergency services (Ambulance, Fire and Police);
- Ministry of Civil Defence and Emergency Management,
- Ministry of Economic Development,
- State Services Commission

The ECSWG is currently addressing a number of matters related to the emergency call services including the availability, accessibility and quality of 111 publicly available services and related matters such as caller location.

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Our Concerns

For 50 years we have been promoting the simple message to the public: ***If there is an emergency, dial 111 from any phone***. We note that international bodies take such access as a given with definitions like the one below from the EU's Universal Service Directive (2002/22/EC) being used in Europe:

> *"publicly available telephone service" means a service available to the public for originating and receiving national and international calls and access to emergency services through a number or numbers in a national or international telephone numbering plan, and in addition may, where relevant, include one or more of the following services ...*

One of our major areas of concern is to ensure that, as we move to NGN provision of our telephony services, New Zealand citizens can continue to rely on having timely and quality access to emergency services as and when they need them.

Response to the Commissions Consultation Questionnaire

Your questionnaire Question C.4. covers the area we are primarily interested in:

C.4. Do you have a view on emergency service, mains powering and location information in an NGN environment?

We have commented on this question below using the three topics raise in this question.

View on Emergency Service in an NGN environment:

As noted above, we see it as vital that, as we move to NGN provision of our telephony services, New Zealand citizens can continue to rely on having timely and quality access to emergency services as and when they need them.

As we see it, this access has a number of dimensions:

1. The user will be able to easily recognise what device(s) can provide such access;
2. There will be a high probability of being able to get through to the emergency services on this device;
3. The quality of the call will be such that emergency services call taker is able to understand the reason for the call

To this end, we have been providing input to the Telecommunications Carriers Forum (TCF) committee charged with putting together their proposed (voluntary) code of practice for Emergency Services (the TCF Emergency Services Calling Code). In this we have been stressing the need for the code to ensure that a member of the public in a highly stressful situation can easily, rapidly and reliably access emergency services.

We have also recommended to the TCF[1] that it, via the NAD, should make access to numbers from the national numbering plan conditional on providing an emergency service that meets the requirements of the TCF Emergency Services Calling Code.

(It is also worth noting that while some ECSWG members believe that a regulatory solution is required to provide the appropriate level of clarity for all parties, the Working

[1] Refer our submission dated 30 June to the Commission's Study on Numbering Management

Group has, nevertheless, decided to fully explore the self-regulatory TCF option and will support it if it provides an acceptable solution.)

View on mains powering of telephones in an NGN environment:

The original (manual) telephone system in New Zealand was based on local powering of telephone systems – each phone contained a pair of dry cells and would only work if these were in good condition. It was recognised that this was not a particularly reliable method of powering the telephone and there was a gradual move from this (local battery) system to one used today where the power needed by the telephone is supplied from the telephone exchange. [2]

The centralised powering of telephones is also available in an NGN environment and it is understood that all major telecommunications equipment manufacturers (including those supplying the NZ carriers) have this as a standard option for most (if not all) of their access equipment.

We see the proposal by some carriers to save a small amount of money by not providing centralised powering of telephones as a retrograde step for subscribers as it will mean that:

- Dwellings without a permanent mains power supply will not be able to have a telephone service; and
- Any short term or long term interruption to the mains power supply will prevent calls being made to, for example, the very organisations who are able to restore the power supply that has failed.

From an emergency call services point of view, we are also concerned at the effect that moving to local powering of telephones will have as it may prevent the subscribers from contacting the appropriate service in situations like those described below:

- **Police**: Criminals deliberate turning off the power to a dwelling in preparation for carrying out a crime;
- **Ambulance**: Failure of power to life support equipment such as oxygen machines;
- **Fire**: Reporting of fires that have caused the failure of the power supply.

We are aware that there is a belief in some quarters that centralised powering of phones is no longer required as most households have at least one cellphone to use if their land line is unavailable and are anyway dependent on mains power for their cordless phones. While these arguments do have some validity, they also ignore the fact that:

- Many rural households are not covered by any of the cellular services; and
- Most households have at least one corded phone that they are able to use when their (mains powered) cordless phones are not available.

View on location information in an NGN environment:

Both the speed and the accuracy of dispatching Primary Emergency Services (Ambulance, Fire and Police) are improved if 111 call takers are provided with the

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[2] It is interesting to note that data communications manufacturers are recognising the benefits that come from centralised power. Most are now incorporating power feeding into their local area network switches so that telephones, wireless access points and similar equipment do not need a local power supply.

location and telephone number from which the call was made. Similarly, knowledge of who is calling (or, at least, whose telephone connection is being used) can assist in the successful resolution of a 111 call.

For this reason, the emergency services all use computer systems which give call takers the street address for each landline call they receive; and a general geographical indicator (e.g. Wellington, Wairarapa, etc) for each cellular call with the aim that, wherever practicable, the location of the caller is provided to the call taker together with the call. .

To this end, the ECSWG is currently working with the cellular carriers to improve the location information available for cellular calls and are investigating cell based, network (multi-cell) based and handset-based techniques for achieving this. :

Given the value that location information brings to the emergency services area, we would be concerned if the introduction of NGN technology (particularly to the provision of wired telephone services) led to a reduction in the availability of this information.

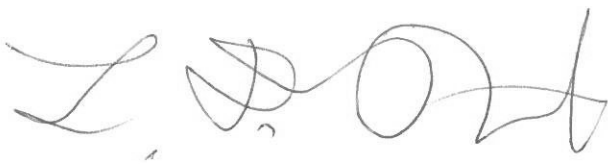
It is our understanding that caller location is a little more complex in an NGN environment (as a customer may take their IP address and/or telephone number with them as they move around the country) but that modern telecommunications equipment (such as the ISAMs used to provide DSL services) possess the ability[3] to link physical location to the IP address used.

Conclusion

In this paper we have identified the nature of the threats that the introduction of NGN techniques could have, if not properly managed, on citizens' access to emergency services and possible solutions to these threats.

The Emergency Telecommunication Services Steering Group look forward to working with the Commission and other parties to ensure that the introduction of NGN technology improves, rather than diminishes, the availability and quality of the 111 and similar services.

Yours sincerely



Lyn Provost

Deputy Commissioner, New Zealand Police

Chair, Emergency Telecommunication Services Steering Group

[3] It is understood that the typical, but not only, way to do it is to provide DHCP Option #82 from the DSLAM back to the Access Seeker. This then enables the carrier and/or the emergency services to relate a telephone number to a physical port on a DSLAM and hence to a physical location.