

**COMMUNICATIONS  
ALLIANCE LTD**



INDUSTRY CODE

C536:2011

EMERGENCY CALL SERVICE REQUIREMENTS

## **C536:2011 Emergency Call Service Requirements Industry Code**

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Third edition as ACIF C536:2003  
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**Communications Alliance Ltd (formerly Australian Communications Industry Forum Ltd) was formed in 2006 to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services.**

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## INTRODUCTORY STATEMENT

The Emergency Call Service Requirements Code (C536:2011) replaces the registered Emergency Call Service Requirements Code (ACIF C536:2003).

The purposes of the changes are to:

- reflect obligations in the *Telecommunications (Emergency Call Service) Determination 2009* (the Determination);
- add obligations, including in relation to:
  - the promotion of awareness of a number of matters related to Calling Card Services;
  - the communication by Carriers of operational difficulties;
  - the employment of network strategies to ensure protection of Triple Zero calls; and
  - the inclusion of 000 and 112 in the Emergency Calling Code (ECC) field of identity modules;
- include a new section providing background and education on the manner in which the Emergency Call Service operates; and
- enhance obligations on providers to provide updated Emergency Call Service contact details to Communications Alliance.

The Emergency Call Service Requirements Code is designed to:

- ensure all end users of an Emergency Telephone Service have Access to the Emergency Call Service in case of emergencies or where a response is required from an Emergency Service Organisation;
- ensure the operational effectiveness of the *Telecommunications (Emergency Call Service) Determination 2009*;
- ensure that the obligations of Carriers and Carriage Service Providers, in relation to the Emergency Call Service, are clearly documented and understood; and
- promote public understanding (e.g. through Public Number directories) of the Emergency Call Service, including appropriate use, and advise that the disclosure of personal information to Emergency Service Organisations will occur as part of the Emergency Call process, in accordance with section 51 of the Determination.
- ensure effective communications of information between relevant parties where technical issues affect the operation of the Emergency Call Service.

Alexander Osborne  
Chair

**WC25 : Emergency Call Services Requirements** Working Committee

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**G TEXT WHERE VOIP OUT ONLY PROVIDERS DO NOT PROVIDE ACCESS TO AN  
EMERGENCY CALL SERVICE**

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# 1 GENERAL

## 1.1 Introduction

- 1.1.1 Section 112 of the [Telecommunications Act 1997](#) (the Act) sets out the intention of the Commonwealth Parliament that bodies and associations representing sections of the telecommunications industry develop industry codes relating to the telecommunications activities of participants in those sections of the industry.
- 1.1.2 The development of the Code has been facilitated by Communications Alliance through a Working Committee comprised of representatives from the telecommunications industry, an Emergency Service Organisation (ESO) and a consumer group.
- 1.1.3 The Code should be read in the context of other relevant codes, guidelines and documents.
- 1.1.4 The Code should be read in conjunction with related legislation, including:
- (a) the Act;
  - (b) the [Telecommunications \(Consumer Protection and Service Standards\) Act 1999](#);
  - (c) the [Telecommunications \(Emergency Call Service\) Determination 2009](#) (the Determination); and
  - (d) [Telecommunications \(Section of the Telecommunications Industry\) Determination 2007](#).
- 1.1.5 If there is a conflict between the requirements of the Code and any requirements imposed on a Carrier or Carriage Service Provider by statute, the Carrier or Carriage Service Provider will not be in breach of the Code by complying with the requirements of the statute.
- 1.1.6 Compliance with this Code does not guarantee compliance with any legislation. The Code is not a substitute for legal advice.
- 1.1.7 Statements in boxed text are a guide to interpretation only and not binding as Code rules.
- 1.1.8 This code replaces ACIF C536:2003 **Emergency Call Service Requirements** Industry Code.

## 1.2 Registration by ACMA

The Code is to be submitted to the Australian Communications and Media Authority (the ACMA) for registration pursuant to section 117 of the Act.

## 1.3 Scope

- 1.3.1 The Code applies to the following sections of the telecommunications industry under section 110 of the Act:
- (a) Carriers; and
  - (b) Carriage Service Providers (CSPs).
- 1.3.2 The Code applies to the Public Number Directory Publishers section of the telecommunications industry, as defined in the *Telecommunications (Section of the Telecommunications Industry) Determination 2007*.
- 1.3.3 The Code deals with the following telecommunications activities as defined in section 109 of the Act:
- (a) carrying on business as a Carrier; or
  - (b) carrying on business as a Carriage Service Provider; or
  - (c) supplying goods or service(s) for use in connection with the supply of a Listed Carriage Service.
- 1.3.4 This Code regulates the obligations of:
- (a) Carriers and CSPs to:
    - (i) Customers, by ensuring they have access to and information about the Emergency Call Service (ECS);
    - (ii) ESOs, through provision of information and assistance as required; and
    - (iii) Emergency Call Persons (ECPs), with respect to carriage of calls from callers to the ECS, or where appropriate, from the ECS to ESOs.
  - (b) Public Number Directory Producers to provide information regarding:
    - (i) the availability of Emergency Service Numbers (ESNs);
    - (ii) calls to the ECS attracting no charge;
    - (iii) which ESOs are accessed when calling an ESN; and
    - (iv) that disclosure of Customer information occurs as part of the Emergency Call Service process.
- 1.3.5 The Code does not apply to private payphone operators.

## **1.4 Objectives**

The objectives of the Code are:

- (a) to ensure all end users of an Emergency Telephone Service (ETS) have Access to the ECS in case of emergencies or where a response is required from an ESO;
- (b) to ensure the operational effectiveness of the Determination;
- (c) to ensure that significant obligations of Carriers and CSPs, in relation to the ECS, are clearly documented and understood;
- (d) to promote public understanding (e.g. through Public Number directories) of the ECS, including appropriate use, and advise that the disclosure of personal information to ESOs will occur as part of the Emergency Call process, in accordance with section 51 of the Determination; and
- (e) to ensure effective communications of information between relevant parties where technical issues affect the operation of the ECS.

## **1.5 Code review**

The Code will be reviewed after 5 years of the Code being registered by the ACMA and every 5 years subsequently, or earlier in the event of significant developments that impact on the Code or a chapter within the Code.

## 2 ACRONYMS, DEFINITIONS AND INTERPRETATIONS

### 2.1 Acronyms

For the purposes of the Code:

**ACE**

means Australian Communication Exchange.

**ACIF**

means Australian Communications Industry Forum.

**ACMA**

means Australian Communications and Media Authority.

**CLI**

means Calling Line Identification.

**CSP**

means Carriage Service Provider.

**ECC**

means Emergency Calling Code.

**ECP**

means Emergency Call Person.

**ESO**

means Emergency Service Organisation.

**IPND**

means Integrated Public Number Database.

**NRS**

means National Relay Service.

**NRSP**

means National Relay Service Provider.

**PIN**

means Personal Identification Number.

**SIM**

means Subscriber Identity Module.

**TTY**

means Telephone Typewriter.

**UICC**

means Universal Integrated Circuit Card.

**USIM**

means Universal Subscriber Identity Module.

**VoIP**

means Voice over IP.

**2.2 Definitions**

For the purposes of the Code:

**Access**

has the meaning given by section 18 of the Act.

**Act**

means the *Telecommunications Act 1997 (Cth)*.

**Australia**

has the meaning given by section 7 of the Act.

**Business Day**

means any day from Monday to Friday (inclusive) excluding any day that is gazetted as a public holiday, for the relevant jurisdiction, in a Commonwealth, State or Territory gazette.

**Carriage Service**

has the meaning given by section 7 of the Act.

**Carriage Service Provider**

has the meaning given by section 87 of the Act.

**Carrier**

has the meaning given by section 7 of the Act.

**Customer**

means the person who is contracted to a CSP for the supply of a Carriage Service in association with a Public Number.

**Determination**

means the *Telecommunications (Emergency Call Service) Determination 2009*.

**Emergency Call**

has the meaning given by the Determination.

**Emergency Call Person**

has the meaning given by section 7 of the Act.

**Emergency Call Service**

has the meaning given by section 7 of the Act.

**Emergency Service Number**

has the meaning given by section 3.24 of the *Telecommunications Numbering Plan 1997*.

NOTE: The Numbering Plan specifies that 000 is the primary Emergency Service Number and 106 and 112 are secondary Emergency Service Numbers.

**Emergency Service Organisation**

has the meaning given by section 147 of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*.

**Emergency Telephone Service**

has the meaning given by the Determination.

**Fixed Local Service**

has the meaning given by the Determination.

NOTE: The definition of a Fixed Local Service in the Determination may include some VoIP services.

**Identity Module**

means a Subscriber Identity Module (SIM) or a Universal Subscriber Identity Module (USIM).

**Integrated Public Number Database**

has the meaning given by section 1.3 of the *Telecommunications Integrated Public Number Database Scheme 2007*.

**Life Threatening Call**

means a communication relating to which a person believes that action is required to prevent or lessen a serious and imminent threat to the life or health of another person.

**Location Independent Communications Service**

has the meaning given by the Determination.

**National Relay Service**

has the meaning given by subsection 95(1) of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*.

NOTE: The NRS is designed to provide access to a standard telephone service to people who are deaf, or have a hearing or speech impairment.

**NRS Provider**

has the meaning given by section 94 of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*.

NOTE: The NRS Provider has the responsibility of providing the service which answers calls with a text (TTY) component to the text (TTY) ESN and relays calls, with relevant associated information, to the requested ESO.

**Public Number**

has the meaning given by the *Telecommunications Numbering Plan 1997*.

**Public Number Directory**

has the meaning given by subsection 285 (2) of the Act.

**Public Number Directory Producer**

means a:

- (a) Public Number Directory Publisher; or
- (b) Carrier or CSP who is otherwise authorised or required to produce a Public Number Directory.

**Public Number Directory Publisher**

has the meaning given by the *Telecommunications (Section of the Telecommunications Industry) Determination 2007*.

**Public Payphone**

means a payphone managed by a Carrier or Carriage Service Provider located in a Public Place. It excludes payphones leased from a Carrier or Carriage Service Provider.

**Public Place**

has the meaning given by the Determination.

**Subscriber Identity Module (SIM)**

means an application residing on the UICC used for accessing services provided by mobile networks, which the application is able to register on with the appropriate security.

**Telephone Typewriter**

means the device used by people who are deaf, hearing-impaired or speech-impaired to call Emergency Service Organisations from a standard telephone service via the National Relay Service by calling 106. The device can be either:

- (a) a telephone typewriter (TTY); or
- (b) a computer with a modem to access the telephone network with TTY imitation software.

**Universal Integrated Circuit Card (UICC)**

means a physically secure device, an IC card (or 'smart card'), that can be inserted and removed from the terminal. It may contain one or more applications. One of the applications may be a USIM. Refer to ETSI TR 121 905.

**Universal Subscriber Identity Module (USIM)**

means an application residing on the UICC used for accessing services provided by mobile networks, which the application is able to register on with the appropriate security. Refer to ETSI TR 121 905.

**VoIP Out Only service**

means a Location Independent Communications Service that is not a standard telephone service as it applies in section 14 of the Determination.

**2.3 Interpretations**

In the Code, unless the contrary appears:

- (a) headings are for convenience only and do not affect interpretation;
- (b) a reference to a statute, ordinance, code or other law includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of any of them;
- (c) words in the singular includes the plural and vice versa;
- (d) words importing persons include a body whether corporate, politic or otherwise;
- (e) where a word or phrase is defined, its other grammatical forms have a corresponding meaning;
- (f) mentioning anything after include, includes or including does not limit what else might be included;
- (g) words and expressions which are not defined have the meanings given to them in the Act; and
- (h) a reference to a person includes a reference to the person's executors, administrators, successors, agents, assignees and novatees.

### 3 HOW THE EMERGENCY CALL SERVICE OPERATES

#### 3.1 Emergency Service Numbers in Australia

- 3.1.1 Australia's primary Emergency Service Number (ESN) is Triple Zero (000), which can be accessed from an ETS anywhere in Australia.
- 3.1.2 There are also two secondary ESNs:
  - (a) 106, which is an ESN for the delivery of Emergency Calls to the NRSP; and
  - (b) 112, which is an international emergency service number available on a range of mobile devices.
- 3.1.3 When a caller makes an Emergency Call for assistance, the call is first answered by the Emergency Call Person (ECP). The ECP is currently Telstra for 000/112 and Australian Communication Exchange (ACE) for text (TTY) emergency 106. For calls from a Fixed Local service, the ECP operator receives on their screen the calling line identification (CLI) and, sourced from the Integrated Public Number Database (IPND), the service address, which may be the location or address of the service from which the call is being made.

#### 3.2 Caller Location for calls to Emergency Service Numbers

- 3.2.1 For calls from an ETS where the address may not reflect the location of the caller (i.e. mobile or VoIP services) the ECP operator receives on their screen the CLI associated with the call and standardised location information. The service or Customer address information is then passed to the ESO (police, fire or ambulance) by a data link along with the call.

*NOTE: The Telecommunications (Emergency Call Service) Amendment Determination 2011 (No. 1) requires mobile carriers to provide the most precise location information they have available on request.*

- 3.2.2 For services other than a Fixed Local service the ECP operator and ESOs are dependent upon the caller providing details of their location for accurate connection of the call. For these calls, the operator will ask two questions of the caller:

- (a) Do you require police, fire or ambulance? and
- (b) In which State and Town is the emergency?

Verification of State is necessary as there are many instances of multiple localities with the same name in different States and Territories within Australia. Due to this, the ECP must verify the State to ensure correct connection to the required ESO.

- 3.2.3 CLI and address details are very important to the ESO call-taker when managing the call. The details received are displayed on

the operating screen in front of the ESO operator taking the call. In many cases the location details of the caller are superimposed on the ESO location mapping and tasking screens based on the data feed derived from the IPND.

### **3.3 Data Accuracy**

- 3.3.1 In emergency situations, human behaviour is not always as logical and controlled as at normal times. Therefore ESOs need to be able to confirm details about the emergency.
- 3.3.2 There are some occasions when emergency callers hang up on the ESO or get disconnected before all details have been acquired including the exact location and nature of the emergency to ensure the most appropriate response team is tasked. The CLI (sourced from the network) and addressing information (derived from the IPND) may be used by the ESO call-taker to call back in order to re-establish contact with the caller.
- 3.3.3 In real emergencies, time is of the essence. Accurate timely data is essential in order to task ESO response teams as rapidly as possible and with all relevant detail. Refer to the Determination for timeframes for the updating of IPND records.
- 3.3.4 The key to this process is deriving accurate up-to-date data from the IPND. Any difficulties with data can quickly extend response times, resulting in delays in help being sent. This can be life threatening.

## 4 CODE RULES

### 4.1 Arrangements among Carriers and Carriage Service Providers

Carriers and CSPs must cooperate to resolve complaints or investigations relating to a matter or matters raised by an Emergency Call.

*NOTE: In cooperating, it is expected that an acknowledgment of request is received within 24 hours and a response within 48 hours.*

### 4.2 Data Fill of Identity Modules

4.2.1 CSPs must ensure that new Identity Modules supplied by CSPs to their Customers are correctly programmed with 000 and 112 in the Emergency Calling Code (ECC) field of the Identity Module.

*NOTE: This complements the handset requirements specified in section 5.2 of AS/CA S042.1:2010 Requirements for connection to an air interface of a Telecommunications Network (Standard).*

4.2.2 CSPs must ensure each new Identity Module is supplied with the Emergency Service Number 000 and 112 stored in the ECC field.

### 4.3 Not Introducing Delays to Emergency Calls

4.3.1 In meeting its obligations under section 24 of the Determination, a CSP must not introduce delays during carriage of an Emergency Call under normal network conditions, including through the use of any:

- (a) advertising;
- (b) call answering;
- (c) recorded messages; or
- (d) interactive voice response systems.

4.3.2 A Carrier must not introduce delays during carriage of an Emergency Call under normal network conditions, including through the use of any:

- (a) advertising;
- (b) call answering;
- (c) recorded messages; or
- (d) interactive voice response systems.

### 4.4 Handling calls to Emergency Service Numbers

4.4.1 To help meet the obligation in Section 19 of the Determination on a CSP to give an end user access to emergency call services,

Carriers and CSPs must employ network management strategies to meet reasonably foreseeable peaks in demand, including where the CSP is made aware of special promotions which may affect their network(s).

**NOTES:**

1. Section 19 of the Determination requires the controlled network and controlled facilities of a CSP to, if technically feasible, make available access to the Emergency Call Service whether or not a number is currently issued to an end user in relation to the service.

2. Examples of where it may not be technically feasible for a CSP to meet its obligations under section 19 of the Determination include:

- (a) failure of equipment or use of non-standard subscriber equipment located at the end user's premises (including outage due to the loss of electrical power);
- (b) in-building wiring outages; or
- (c) subscriber line failure (failure of the line between the end user's premises and the local exchange).

3. CSPs may not be able to meet their obligations under section 19 of the Determination where an end user's service has been isolated at police request under section 315 of the Act.

- 4.4.2 Carriers must employ network management strategies to ensure the protection of calls to emergency services where mass calling of non-genuine calls to the ECS is identified by the ECP.
- 4.4.3 Carriers and CSPs must take reasonable steps to avoid impacts on the Access to the ECS of end users of other CSPs.
- 4.4.4 Carriers, CSPs and the NRSP should ensure that the networks used for the carriage of Emergency Calls have:
  - (a) diversity;
  - (b) redundancy;
  - (c) transmission quality, including echo control; and
  - (d) the use of dedicated circuits.
- 4.4.5 CSPs providing Access to a Fixed Local Service must terminate calls to 112 made on that network on a recorded message advising the number is not available.

## **4.5 Publicity and Customer Information**

- 4.5.1 CSPs providing an ETS must take reasonable and appropriate steps to ensure that not only their Customers, but also members of the public who use telephony services, are informed in a manner which promotes awareness of the following matters:

- (a) the ESN(s);
- (b) the availability and coverage of the ESN(s);
- (c) that Emergency Calls can be made without charge to the caller where the service is:
  - (i) active;
  - (ii) suspended;
  - (iii) disconnected;
  - (iv) out of credit for a prepaid service;
  - (v) indicating a capability on the user's device (e.g. display of "Emergency Call only"); or
  - (vi) enabling a dial tone;
- (d) the ESOs to which the ESN(s) provide Access;
- (e) that the ECS should only be used when seeking a response from an ESO in a life threatening and/or time critical event.

*NOTES: CSPs are encouraged to refer Customers to [www.triplezero.gov.au](http://www.triplezero.gov.au) for more information on the circumstances under which a person should make a call to Triple Zero.*

- (f) the disclosure of information to ESOs regardless of calling number display blocking, including number, name of Customer and, where available, service location.

*NOTES:*

*1. CSPs are encouraged to use the logos featured in Appendix D to promote the ESNs in appropriate circumstances. Permission to use the emergency service logos (000 and 106) must be obtained from Emergency Management Australia.*

*2. Appendix C contains an outline of the functionality of ESNs.*

*3. Section 14 of the Determination includes provisions on providers of VoIP Out Only services either to provide Access to Triple Zero or to adequately inform their customers that Access is not available. Refer to Appendix G for an example of text that can be used where VoIP providers do not provide access to an emergency call service.*

- 4.5.2 Public Number Directory Producers must include in printed Public Number Directories they publish which list, or would reasonably be expected by the public to list, ESO contact information, the following information in a prominent position:

- (a) the ESN(s);

- (b) the availability and coverage of the ESN(s);
- (c) that Emergency Calls can be made without charge to the caller where the service is:
  - (i) active;
  - (ii) suspended;
  - (iii) disconnected;
  - (iv) out of credit for a prepaid service;
  - (v) indicating a capability on the user's device (e.g. display of "Emergency Call only"); or
  - (vi) enabling a dial tone;
- (d) the ESOs to which the ESN(s) provide Access;
- (e) that Emergency Calls should only be made when seeking a response from an ESO in a life threatening and/or time critical event; and
- (f) the disclosure of information to ESOs regardless of calling number display blocking, including number, name of Customer and, where available, service location.

4.5.3 Where practicable to do so, Public Number Directory Producers must include in their digital or electronic Public Number Directories which list, or would reasonably be expected by the public to list, ESO contact information, the information set out in 4.5.2(a)-(f) in an appropriate position, having regard to the format in which the information is provided, the purpose of the Directory and the device on which the Directory is intended to be used.

**NOTES:**

1. *Public Number Directory Producers are encouraged to use the logos featured in Appendix D to promote the ESNs in appropriate circumstances. Permission to use the emergency service logos (000 and 106) must be obtained from Emergency Management Australia.*

2. *Public Number Directory Producers are encouraged to use the text in Appendix E in printed Public Number Directories.*

3. *Digital or electronic Public Number Directories which are accessible in an unsuitable format, such as a mobile device screen or via a Directory Assistance operator, are not required to provide the information at 4.5.2 (a)-(f).*

4. *"Public Number Directories which list, or would reasonably be expected by the public to list ESO contact information" are*

*intended to exclude specialised, category or segment specific or "vertical" directories that do not relate to emergency services.*

- 4.5.4 Carriers and CSPs providing Public Payphones generally accessible to the public must ensure that information is prominently displayed adjacent to or on the Payphone, which covers the following matters:
- (a) the ESN(s) to which the Payphone gives access;
  - (b) that Emergency Calls can be made without charge to the caller;
  - (c) the ESOs to which the ESN(s) provide Access; and
  - (d) the disclosure of information to ESOs including Public Payphone identification number and service location.

- 4.5.5 Where information referred to in clause 4.5.4 is removed or obscured, the CSP must replace it as soon as reasonably practicable after becoming aware that it has been removed or obscured.

*NOTE: Carriers and CSPs are encouraged to use the logos featured in Appendix D to promote the ESNs in appropriate circumstances. Permission to use the emergency service logos (000 and 106) must be obtained from Emergency Management Australia.*

- 4.5.6 CSPs providing Calling Card Services must take reasonable and appropriate steps to ensure that not only their Customers, but also members of the public who use Calling Card Services, are informed in a manner which promotes awareness of the following matters:
- (a) the ESN(s);
  - (b) the availability and coverage of the ESN(s);
  - (c) that Emergency Calls can be made without charge to the caller;
  - (d) that Emergency Calls can be made directly from a Fixed Local Service without using a Calling Card;
  - (e) the ESOs to which the ESN(s) provide Access;
  - (f) that the ECS should only be used when seeking a response from an ESO in a life threatening and/or time critical event.
  - (g) the disclosure of information to ESOs regardless of calling number display blocking, including number, name of Customer and, where available, service location.
  - (h) If a Customer requests information from the CSP about the ESN(s), the CSP must give this information to the Customer.

**NOTES:**

*1. CSPs are encouraged to use the logos featured in Appendix D to promote the ESNs in appropriate circumstances. Permission to use the emergency service logos (000 and 106) must be obtained from Emergency Management Australia.*

*2. Appendix C contains an outline of the functionality of Emergency Service Numbers.*

## **4.6 Communication of operational difficulties**

- 4.6.1 Where a Carrier becomes aware of a significant network failure that affects its ability to provide effective delivery of Emergency Calls then it must identify the impact of the failure (refer to Appendix F).
- 4.6.2 Where a Carrier identifies under 4.6.1 a significant impact on its ability to provide effective delivery of Emergency Calls then it must assess if Customer(s) were affected (e.g. there was a confirmed attempt to call an ESN that did not connect to an ECP).
- 4.6.3 Where a Carrier becomes aware of a significant network failure that affects its ability to provide effective delivery of Emergency Calls to affected Customers then the Carrier must:
- (a) inform the relevant CSPs; and
  - (b) provide information on the scope and effect of the significant network failure to the ACMA via phone or email on or before the next Business Day.

**NOTES:**

*1. A CSP, on becoming aware of a significant network failure that affects its ability to provide effective delivery of Emergency Calls, should, where appropriate and practical, attempt to contact any of its Customers known to have been affected by having made unsuccessful Emergency Calls.*

*2. A Carrier should make information available to the community on the status of its networks in instances where its networks have been seriously disrupted.*

## **4.7 Contact Points**

- 4.7.1 CSPs must supply Communications Alliance with their nominated contact point for assistance requested by ESOs and keep that information current. Details include:
- (a) a contact name and Public Number for liaison in relation to life threatening or time critical events; or

- (b) a business hours contact name and Public Number for arranging the tracing of calls made to the ECS.

*NOTE: Communications Alliance will maintain an industry list with the contact information that will only be available to nominated representatives of ESOs.*

- 4.7.2 CSPs must notify Communications Alliance of any changes to their nominated contacts, in writing, within five Business Days of any changes to that information.
- 4.7.3 The NRSP should supply Communications Alliance with its nominated contact point for assistance requested by ESOs and keep that information current. Details include:
  - (a) a contact name and Public Number for liaison in relation to life threatening or time critical events; or
  - (b) a business hours contact name and Public Number for arranging the tracing of calls made to the ECS.
- 4.7.4 The NRSP should notify Communications Alliance of any changes to its nominated contacts, in writing, within five Business Days of any changes to that information.

## **5 CODE ADMINISTRATION AND COMPLIANCE**

### **5.1 Code Administration and Compliance Scheme**

Under Communications Alliance Industry Code signatory arrangements, Signatories to this Industry Code are subject to the Code Administration and Compliance Scheme (G514:2003) Industry Guideline (the Scheme). Accordingly, all signatories who are bound by the Code are also bound by the Scheme.

### **5.2 Powers of the Telecommunications Industry Ombudsman to handle complaints under the Code**

The Code does not confer powers or functions on the Telecommunications Industry Ombudsman under section 114 of the Act.

## 6 REFERENCES

Publication	Title
<b>Australian/CA Standard</b>	
AS/CA S042.1:2010	Requirements for connection to an air interface of a Telecommunications Network (Standard) – Part 1: General  <a href="http://commsalliance.com.au/Documents/all/Standards/s042.1">http://commsalliance.com.au/Documents/all/Standards/s042.1</a>
<b>Industry Guidelines</b>	
ACIF G514:2003	Code Administration and Compliance Scheme  <a href="http://commsalliance.com.au/Documents/all/guidelines/g514">http://commsalliance.com.au/Documents/all/guidelines/g514</a>
<b>3GPP Specifications</b>	
3GPP TS 22.101	Service aspects; Service principles  <a href="http://www.3gpp.org/ftp/specs/html-info/22101.htm">http://www.3gpp.org/ftp/specs/html-info/22101.htm</a>
<b>ETSI Technical Reports</b>	
ETSI TR 121 905	Universal Mobile Telecommunications System (UMTS);Vocabulary for 3GPP Specification  <a href="http://www.3gpp.org/ftp/Specs/html-info/21905.htm">http://www.3gpp.org/ftp/Specs/html-info/21905.htm</a>
<b>Legislation and Determinations</b>	
<i>Telecommunications Act 1997</i>  <a href="http://www.comlaw.gov.au/Series/C2004A05145">http://www.comlaw.gov.au/Series/C2004A05145</a>	
<i>Telecommunications (Consumer Protection and Service Standards) Act 1999</i>  <a href="http://www.comlaw.gov.au/Series/C2004A00441">http://www.comlaw.gov.au/Series/C2004A00441</a>	
<i>Telecommunications (Emergency Call Service) Determination 2009</i>  <a href="http://www.comlaw.gov.au/Series/F2009L04720">http://www.comlaw.gov.au/Series/F2009L04720</a>	
<i>Telecommunications (Emergency Call Service) Amendment Determination 2011 (No. 1)</i>  <a href="http://www.comlaw.gov.au/Details/F2011L00157">http://www.comlaw.gov.au/Details/F2011L00157</a>	
<i>Telecommunications Integrated Public Number Database Scheme 2007</i>  <a href="http://www.acma.gov.au/WEB/STANDARD/339854/pc=PC_101035">http://www.acma.gov.au/WEB/STANDARD/339854/pc=PC_101035</a>	

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*Telecommunications Numbering Plan 1997*

<http://www.comlaw.gov.au/Series/F2005B00940>

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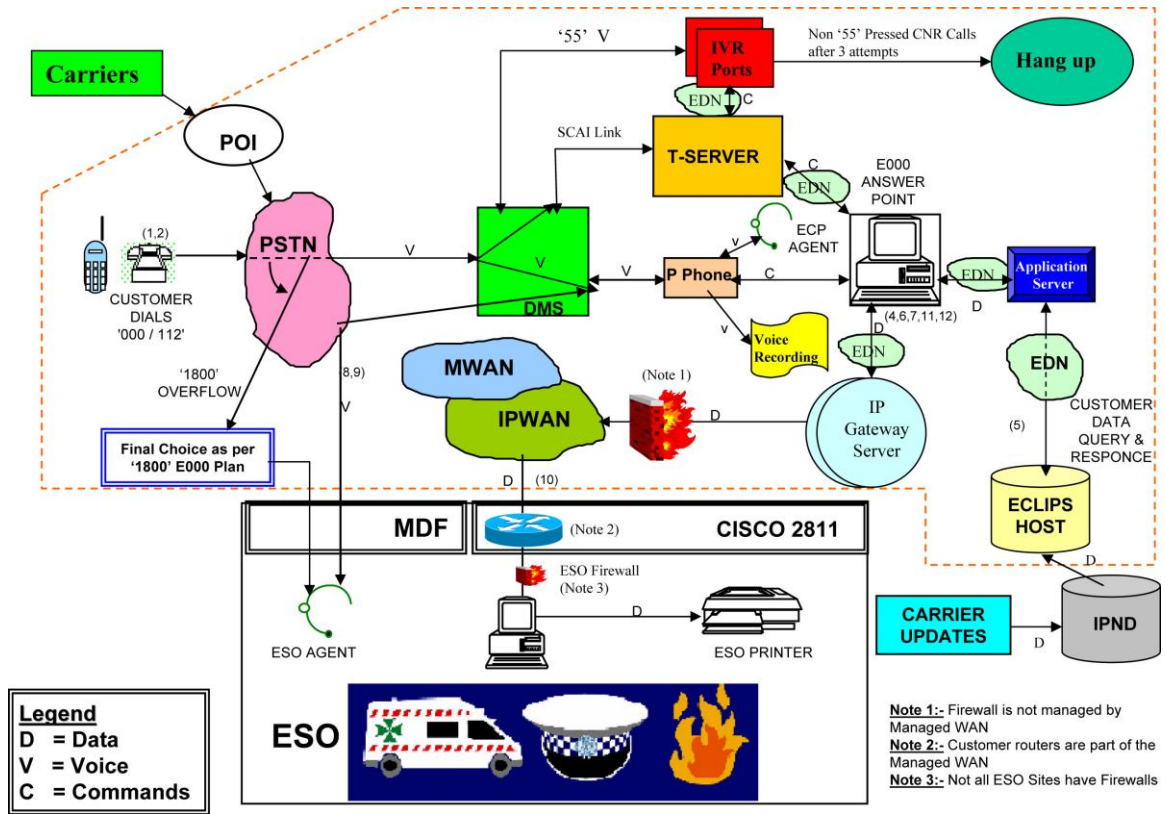
*Telecommunications (Section of the Telecommunications Industry)  
Determination 2007*

<http://www.comlaw.gov.au/Series/F2007L01242>

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APPENDIX

A SCHEMATIC OF EMERGENCY CALL SERVICE FOR 000/112 (INFORMATIVE)

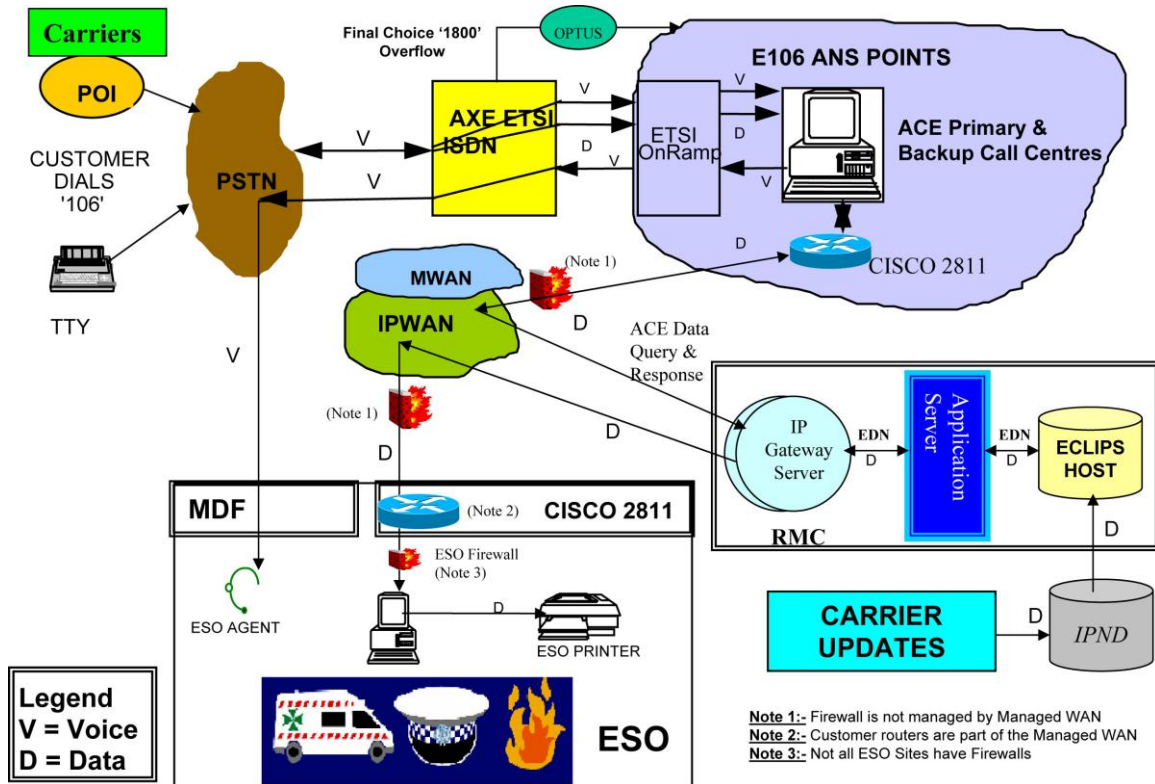


**FIGURE 1**

Schematic of Emergency Call Service for 000/112

APPENDIX

B SCHEMATIC OF EMERGENCY CALL SERVICE FOR 106 (INFORMATIVE)



**FIGURE 2**

**Schematic of Emergency Call Service for 106**

## APPENDIX

### C CALLING EMERGENCY SERVICES

#### C1 000 and 112

Within Australia the universal access number for all three emergency services, police, fire and ambulance is '000'. This number should be available free of charge from all ETSS connected to a network even when the phone is disconnected from normal services, e.g. in a vacant rental flat. For a Fixed Local service a reasonable assumption is that where dial tone exists there should be access to 000. If there is any doubt in a specific instance then consult the Service Provider.

There are a small number of exceptions to the use of this Emergency Service Number and these relate to mobile devices.

For mobile devices the international standard for access to emergency services is 112.

For mobile devices manufactured before 2003 and equipped with Identity Modules manufactured before 2003 and supplied by Australian mobile CSPs, 112 may have some advantage over 000 for calls to the ECS when the mobile device:

- has been locked with a personal security code that has not been entered into the device. In this case the users of the mobile device should make themselves familiar with the device features as the exact working will be dependent on the particular brand and model. The majority of mobile devices should allow the calling of '112', thus overriding the security lock without entry of the security code;
- is out of the coverage area for the Customer's own network but where coverage is available from another network; or
- has had the Identity Module removed.

In these last two cases the display on the mobile device will say "112 only", "Emergency Calls only" or something equivalent.

For mobile devices manufactured after 2003 and equipped with Identity Modules manufactured after 2003 and supplied by Australian mobile CSPs, 112 has no advantage over 000. Calls to 112 or 000 made from these mobile devices will be accepted by the device irrespective of its state (i.e. pin lock or security lock) and generate an emergency call signal that will be accepted by any mobile network in Australia and the call delivered to the Emergency Service Answer Point (ESAP).

If Customers have any doubt about the mobile device, it is recommended that the user contact their CSP for information regarding the use (making of an Emergency Call) of their specific mobile device on their CSP's network.

For satellite phones (GMPCS - Global Mobile Personal Communications by Satellite) the Customer must confirm the access codes with their CSP as sometimes emergency access is only available by the use of special codes or features.

There is one additional feature which differs between Fixed Local Service phones and mobile devices. For Fixed Local Service phones Telstra's ECS automatically

uses the calling phone number to find the address of the phone service. This is then used to select the correct ESO based on the caller's location. The ECP then automatically forwards the information to the ESO for use in circumstances where the caller is either unable to provide the location or is unsure of the location or where verification of location is required.

A similar process applies to emergency calls that originate from mobile devices and location independent communication services (i.e. VoIP) however the technology is unable to provide the caller's location to a sufficient degree of accuracy to avoid all ambiguity. Therefore the caller should be very clear when providing the ECP operator with location details and include both the State and Town / Suburb information. This reduces the possibility of confusion as there are many locations (i.e. suburbs, towns, etc.) that either have the same name or sound very similar; e.g. Burwood (Brisbane, Sydney and Melbourne), Coolangatta (QLD and NSW). Of course this advice must also be followed when providing verbal details to the ESO operator as the ESOs themselves cannot rely solely on the electronic information as its accuracy is not sufficient to allow despatch of assistance based on the network provided location.

*NOTE: Calls to the ECS from outside Australia (e.g. calls from offshore call centres, calls trunked via switching centres outside Australia) may or may not be allowed to progress to the ECP as they might be out of jurisdiction.*

## **C2 – 106**

The 106 text (TTY)based Emergency Call Service provides access for people who are deaf, hearing-impaired or speech-impaired to fire, police and ambulance services and is available 24 hours a day, every day.

This service is delivered through the National Relay Service (NRS) and all calls are relayed with the highest of confidentiality. However, all 106 and 000 emergency calls that are connected via the NRS are recorded so that emergency services such as the police can track events if necessary.

People who are deaf, hearing-impaired or speech-impaired and who use:

- a TTY (telephone typewriter); or
- a computer with a modem to access the telephone network with TTY imitation software

can call ESOs via the NRS by calling the number '106'.

### **How 106 Works**

The NRS user calls 106. This is a free call.

The NRS user will be asked to advise to which service they wish to be connected – police, fire or ambulance.

The NRS user will respond by typing PPP for police, FFF for fire and AAA for ambulance. Under normal operating circumstances a user of the 'speak and read' service via 106 can verbally request police, fire or ambulance.

The NRS relay officer will call the requested service and stay on line to relay the NRS user's conversation with the emergency service.

### **C3 – EMERGENCY NUMBERS**

Many countries have a single emergency telephone number that allows an emergency caller to contact the local ESOs for assistance in life threatening and/or time critical situations. The emergency telephone number may differ from country to country. It is typically a three digit number so that it can be easily remembered and accessed quickly. Some countries have a different emergency number for each of the different emergency services. These emergency numbers often differ only by the last digit. Inside the European Union, 112 has been introduced as a common emergency service number. Other emergency service numbers used around the world today include 911, 999, 110, 08, 118 and 119 (these numbers may terminate on an RVA if used in Australia).

Most GSM mobile devices have the following emergency numbers 112, 000, 110, 118, 119, 999 and 911 pre-programmed into the devices (refer to 3GPP TS 22.101).

The Identity Module issued by the CSP can contain additional country specific emergency numbers that can be used even when roaming abroad. The GSM network can also update the list of well-known emergency numbers when the phone registers to it.

Most GSM mobile devices can call the ETS even when the phone keyboard is locked, the device is without an Identity Module, or an emergency number is entered instead of the PIN.

When the Emergency Service Numbers 000 and 112 are used to call an emergency service, the GSM mobile devices and networks do not undertake a standard analysis of the emergency number but set the ECC which places a special priority on the routing of the emergency calls through the mobile networks.

When a caller uses a Telephone Typewriter (TTY) to make an emergency call, the caller must use 106 as their Emergency Service Number. When the caller calls 106, the call is routed to the NRS, and a NRS relay officer then connects the call to the correct ESO, and relays communications between the caller and the ESO.

In the future the Australian Communications and Media Authority (ACMA) may declare new ESNs for specific purposes. Information about these numbers would be available from the ACMA or the particular CSP.

## APPENDIX

### D EMERGENCY SERVICE LOGOS (000 AND 106)

#### D1 Logos

The following logos have been reproduced with permission from Emergency Management Australia.



**FIGURE 3**

**Emergency Service Logos (000 and 106)**

#### D2 Permission to use logos

Permission to use the logos must be obtained from:  
Emergency Management Australia  
Attorney-General's Department  
3-5 National Circuit Barton ACT 2600

Telephone (02) 6141 6666

Facsimile (02) 6273 7972

[http://ema.gov.au/www/emaweb/emaweb.nsf/Page/Contact\\_Us](http://ema.gov.au/www/emaweb/emaweb.nsf/Page/Contact_Us)

## APPENDIX

### E TEXT TO APPEAR IN PUBLIC NUMBER DIRECTORIES

**TABLE 1**

**Text to Appear in Public Number Directories**

Place 000 Logo here	<b>Emergency Call</b> Call 000. Tell the operator what you need – police, fire or ambulance. If the operator asks you will need to provide the state and town of the emergency. Wait to be connected.
Place 106 Logo here	<b>TTY Emergency Call</b> Call 106 using a TTY (telephone teletypewriter). You will be connected to emergency services via the National Relay Service.  This service is only for people who use a TTY (e.g. people who are deaf, hearing-impaired or speech-impaired).
Calls to 000 and 106 are free. Only call 000 or 106 if you are seeking an urgent emergency response for a life threatening or time critical event from police, fire or ambulance services. When reporting an emergency by calling 000 or 106, the telephone number and your address are available to the Emergency Service so they can respond quickly. This will occur even if there is a block in place to prevent display of the calling number to the recipients of calls. The content of calls to 000 and 106 are recorded and may be disclosed in accordance with relevant legislation.	

## APPENDIX

### F TYPES OF NETWORK FAILURES AND IMPACTS

**TABLE 2**  
**Types Of Network Failures and Impacts**

Type of Failure	Impact to Customer	If no impact, why?
Failure of Individual mobile base transmitting station (BTS)	Nil	Call will be relayed by an adjacent BTS in whose coverage area the mobile resides. This BTS can belong to either its Home network or the mobile network of another national carrier
Congestion of Individual mobile BTS. Unable to be allocated an RF channel over which the communication could be delivered across the air interface to the mobile phone tower.	Nil	Call will be relayed by an adjacent BTS in whose coverage area the mobile resides. This BTS can belong to either its Home network or the mobile network of another national carrier
Failure of transmission link between BTS and Base Station Controller (BSC (2G)) or Radio Network Controller (RNC (3G))	Call will fail	
Failure of transmission link between BSC/RNC and MSC or Media Gateway	Call will fail	
Congestion between BTS and Base Station Controller (BSC (2G)) or Radio Network Controller (RNC (3G))	Call will fail	
Congestion between BSC/RNC and MSC or Media Gateway	Call will fail	
Hardware or software failure of BSC/RNC	Call will fail	
Hardware or software failure of Mobile Switching Centre (MSC)	Call will fail	
Failure of links to Signalling Transfer Point (STP)	Call will fail	
Failure of signalling link to the carrier network interfaced to and/or from the ECP network	Nil	Call should be switched via alternate signalling route to the carrier network interfaced to the ECP network
Failure of one of more transmission links to VoIP Service Provider from supporting carrier network	Calls that are in progress may fail and/or congestion may occur	Call should be switched via alternate signalling route to the supporting carrier network
Failure of ALL transmission links to VoIP Service Provider from supporting carrier network	Calls that are in progress may fail and/or congestion may occur	

<b>Type of Failure</b>	<b>Impact to Customer</b>	<b>If no impact, why?</b>
Failure of transmission link to the carrier network interfaced to and/or from the ECP network	Calls that are in progress may fail and/or congestion may occur	Call should be switched via alternate transmission path to the carrier network interfaced to the ECP network
Failure of one or multiple switches or transmission links within the carrier network interfaced to and/or from the ECP network	Calls that are in progress may fail and/or congestion may occur	Call should be switched via alternate transmission path or switching network elements to ESAP and/or ESO
Complete ECP Network failure	Calls that are in progress will fail and any new calls will overflow Police 1800 numbers in call originating State	Police will process calls and work with other ESOs to resolve.

*NOTE: In the future VoIP calls to the ECS may be delivered directly to the ECP network via a message gateway but this is not currently the case as the ECP Network is a switched delivery network.*

## APPENDIX

### G TEXT WHERE VOIP OUT ONLY PROVIDERS DO NOT PROVIDE ACCESS TO AN EMERGENCY CALL SERVICE

Section 14 of the Determination includes provisions on providers of VoIP Out Only services either to:

- provide Access to Triple Zero; or
- adequately inform their customers that Access is not available e.g. with written notice.

Providers should familiarise themselves with section 14 of the Determination, but in summary, where a VoIP Out Only service cannot be used to make an Emergency Call the provider must give a written notice to potential customers at the time of offering to supply the service. The notice must state that the service cannot be used to make an Emergency Call and give examples of the types of services that can be used to make an Emergency Call. If the internet is used as one way of offering to supply the service, and is used to enable customers to enter into an arrangement for supply of the service, the provider must prominently display the notice on each webpage that it uses to offer to supply the service. Examples of the information that could be included in the notice to customers is in Table 3.

**TABLE 3**

#### **Examples of Notice by a Provider of a VoIP Out Only Service Without Access to Triple Zero**

<p><b>No Access To Triple Zero</b></p> <p>This VoIP Out Only service does not provide access to the Emergency Service Number Triple Zero. Emergency calls can be made using fixed or mobile phone services.</p>
<p><b>No Access To Triple Zero</b></p> <p>Please note that your VoIP Out Only service cannot be used to make an Emergency Call to Triple Zero. Please ensure that you have access to a landline (i.e. fixed) or mobile telephone to dial emergency services.</p>

## **PARTICIPANTS**

The Working Committee responsible for the revisions made to this Code consisted of the following organisations and their representatives:

<b>Organisation</b>	<b>Membership</b>	<b>Representative</b>
Vodafone Hutchison Australia	Chair (Non-voting)	Alexander Osborne
Australian Communications Consumer Action Network	Voting	Dani Fried
Australian Communication Exchange	Voting	Simon Davey
NBN Co	Non-voting	Peter Bull
Optus	Voting	Martin Green
Telstra	Voting	Jane Elkington
Victoria Police	Voting	Peter Ferguson
Vodafone Hutchison Australia	Voting	Brian Currie
Telstra	Non-voting	Michael Ryan

This Working Committee was chaired by Alexander Osborne of Vodafone Hutchison Australia. James Duck of Communications Alliance provided project management support.

Communications Alliance was formed in 2006 to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services.

In pursuing its goals, Communications Alliance offers a forum for the industry to make coherent and constructive contributions to policy development and debate.

Communications Alliance seeks to facilitate open, effective and ethical competition between service providers while ensuring efficient, safe operation of networks, the provision of innovative services and the enhancement of consumer outcomes.

It is committed to the achievement of the policy objective of the *Telecommunications Act 1997* - the greatest practicable use of industry self-regulation without imposing undue financial and administrative burdens on industry.



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