



# **NATIONAL EMERGENCY CALL SERVICES GUIDELINE**



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## **1.0 Background**

Amongst all the revolutionary and innovative Information and Communication Technology (ICT) surfacing continuously, emergency should be a priority for every person not only to provide service/technology experiences but to safeguard personnel and property in terms of loss from man-made and natural catastrophes and to save human life when it is threatened. These have contributed to the development of National Emergency Call Service Guidelines which principally deal with short codes or numbers which can be easily remembered and dialled in cases of emergencies.

The intense interest in the Emergency Guideline concept can be attributed primarily to the recognition of characteristics of modern society, i.e., increased incidence of crimes, accidents, and medical emergencies, inadequacy of existing emergency reporting methods, and the continued growth and mobility of the population.

The Emergency Codes were chosen because they best fit the needs of all parties involved. First, and foremost, an emergency code meets public requirements because it is brief, easily remembered, and can be dialled quickly with short turn-around time. Second, because it is a unique number, never having been authorized as an office code, area code, or service code, it best meets the long range numbering plans and switching configurations of the Public Switched Telephone Network (PSTN) and mobile networks.

Emergency services should be accessible nationwide, regardless of the location, the network or the service provider to whom the caller subscribes to.

It is the responsibility of network operators or the service providers to provide caller information through their networks without restrictions or alterations to the caller's data.

NICTA is mandated by the *NICT Act 2009* under **section 184** to develop, monitor and administer the national numbering plan of which Emergency Service is allocated a three digit code for the provisioning of these services.

It is imperative from the fore-mentioned that this Guideline is written so the frame work of implementation by the network provider and or service provider should give special attention to this Guideline and to implement accordingly.

## **2.0 Introduction**

- 2.1** In accordance with its ICT policy, NICTA is mandated by the Government of Papua New Guinea to formulate and administer the country's National Numbering Plan (NNP) which amongst its prime elements provides for Emergency Call Services.
- 2.2** The new NNP consists of geographic and non-geographic numbers and Short codes, ref doc: (1260.1B) developed in close consultation with ITU-T Recommendation E.164.

- 2.3 Within the short codes *Emergency Call* services are allocated codes for the benefit of the general public of Papua New Guinea to access Emergency Services nationwide.
- 2.4 The three-digit "11x" range has been designated as the "Emergency Code" for every citizen throughout Papua New Guinea and any resident foreigners and or new foreigners arriving into PNG who need to request emergency assistance. They are intended as nationwide special numbers and give the public fast and easy access to a correct and exact point of contact in times of emergency.
- 2.5 Relevant stakeholders including Ambulance Services, the PNG Fire Services, National Maritime, PNG Air Services, and the National Surveillance Coordination Centre are involved in the efficient and effective implementation of the Emergency Services.

### **3.0 Objective**

- 3.1 The purpose of the Guideline is to give every public communication operator clear guidelines in setting up of their Emergency call services on their own networks.
- 3.2 To ensure emergency codes or services are accessed nationwide by every citizen of Papua New Guinea on a 24/7 basis, no Emergency service should be unreachable at any time of the day or night even under the worst failure condition(s) or outage(s) of the networks.
- 3.3 Emergency calls should be answered and attended to promptly and in addition to that, emergency service centers are to be adequately manned with full line capacity 24 hours, 7 days a week.
- 3.4 Fixed and mobile service providers and/or intending operator are obliged to program their networks so that emergency services can be accessible by their users.
- 3.5 It is also a requirement to make possible call set ups from subscribers and users connected to different public communications networks to the public emergency call services.

### **4.0 Scope**

This Guideline:

- Describes the interfaces to be used for connection to the public emergency services;
- Describes the supported dialling patterns for emergency calls;
- Describes the different routing cases for emergency calls;
- Describes the type of information to be transmitted/transferred in the emergency call;
- Includes guidelines for setting of the city, town or district code transferred in the emergency call;
- End-User's rights;
- Describes testing of emergency calls;
- Describes the caller's locality when using mobile phones, based on ITU-T Recommendation Q.214;

- Is applicable for a national interconnect ISDN User Part (ISUP) between public communications networks based on ITU-T Recommendation Q.763;
- Outlines details on confidentiality of call Identification
- The legal implications of confidentiality

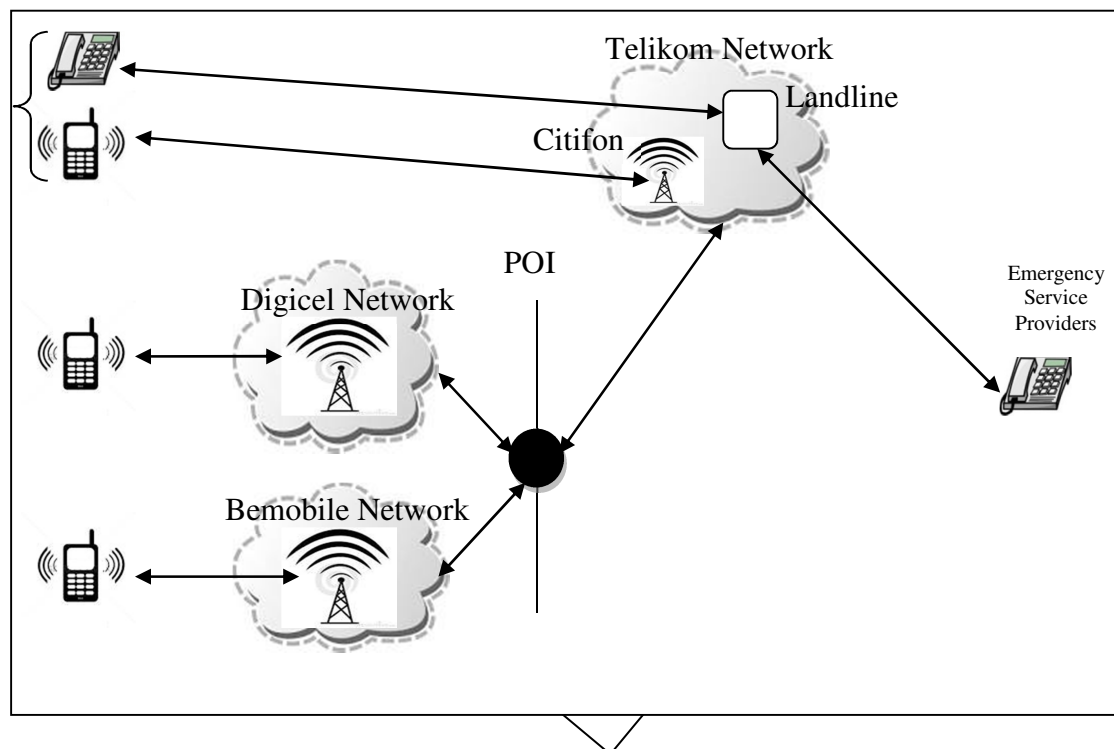
## **5.0 Definitions**

<b>ISDN</b>	:	Integrated Services Digital Network
<b>POI</b>	:	Point Of Interconnection
<b>CLI</b>	:	Calling Line Identification
<b>CLIR</b>	:	Calling Line Identification Rejection
<b>CLIP</b>	:	Calling Line Identification Presentation
<b>PLMN</b>	:	Public Land Mobile Network
<b>IP</b>	:	Internet Protocol
<b>PSTN</b>	:	Public Switched Telephone Network
<b>PABX</b>	:	Public Automatic Branch Exchange
<b>PPDR</b>	:	Public Protection and Disaster Recovery
<b>ACR</b>	:	Anonymous Call Rejection
<b>COL</b>	:	Connected Line identification
<b>SCCP</b>	:	Signalling Connection Control Part
<b>ESP</b>	:	Emergency Service Provider
<b>TSP</b>	:	Telecommunication Service Provider
<b>NTP</b>	:	Network Termination Point
<b>SOS-NTP</b>	:	Emergency Network Termination Point
<b>ISUP</b>	:	ISDN User Part
<b>MCS</b>	:	Master Control Station
<b>SIP</b>	:	Session Initiation Protocol
<b>VoIP</b>	:	Voice over Internet Protocol
<b>MSC</b>	:	Mobile Switching Centre

## **6.0 Current National Emergency Call Service**

Currently, Emergency call services are provided via Telikom PNG's PSTN network. With every emergency service a PSTN telephone number is associated. Short codes allocated to emergency centres or providers are mapped to a PSTN telephone number of the emergency service centre in the telephone exchange. Therefore, when an Emergency call is made, the short code is translated in the telephone exchanges to a real PSTN telephone number; thus, the routing of the emergency call to the correct emergency service centre is realized.

## Schematic diagram of current network on Emergency calls



### 6.1 Emergency Service Providers (ESPs) & Roles

**6.1.1** ESPs are those organizations who provide vital Emergency services to and for the general public in Papua New Guinea during times of emergencies.

It is also the responsibility of each individual ESP to conduct test calls for their emergency code during their routine checks as part of their daily activities. Any abnormalities detected during the routine check must be addressed by the ESP and the Operator concerned. Otherwise, NICTA may be contacted for guidance to find a solution..

ESP's should be reminded that any changes and/or any other circumstances encountered which relate to the emergency landline numbers must be made known to NICTA and other network operators. This is so that an appropriate course of action must be taken to remedy the situation at hand immediately.

**6.1.2** A number of relevant ESPs provide emergency services;

- ***PNG Fire Service:***

Provides fire extinguishing services to buildings & other properties when there is an evidence of a fire starting.

- ***St John Ambulance:***

Provide first aid and transport service for the sick to and from hospitals.

- ***Police:***

Provide and protect the general safety of all people and property by enforcing law and order in the country.

- ***National Disaster Centre (24 hrs):***

Provides the medium for relief supplies to reach affected areas in disaster situations in a timely manner.

- **National Surveillance Co-ordination Centre (24 hrs):**  
Monitors the Papua New Guinea economic zones or boundaries.
- **General Hospital (National):**  
Provides necessary assistance during health related emergencies such as a medevac.
- **Power Hotline (National):**  
Provides 24 hours power maintenance for the general public and assists during an emergency such as when someone is electrocuted and a power line is seen lying dangerously low or on the ground.
- **Search & Rescue Co-ordination Centre (National):**  
Provides search and rescue services for person(s) lost either at sea or on land.
- **Defence Force Operations (National):**  
Providing assistance in relief activities in times of disaster, droughts etc. Other duties include but are not limited to providing security duties for the country usually by means of surveillance.
- **Marine Search & Rescue (National):**  
This is more like the same function of the *Search & Rescue Co-ordination Centre* service.

## 6.2 **Telecommunications Service Providers (TSPs) & its Roles**

- 6.2.1** TSPs are those organizations whose primary role is to provide the medium or network infrastructure for the public to use for communicating with one another and to access other essential services first among them being the emergency services.
- 6.2.2** Shall ensure an update switching equipment databases with current emergency service information, e.g. digit analysis tables, routing tables, charging tables etc. when the information is made available.
- 6.2.3** Every carrier or operator should forward calling line identification to the emergency service provider without restrictions or alterations through their networks as prescribed in section 7.1.
- 6.2.4** All providers of telecommunication networks and/or services shall ensure programming of their equipment and/or enable their networks for the provisioning of emergency calls **“free of charge”** nationwide. This includes any emergency calls with the associated short codes **only** that transverse over the **point of interconnect (POI)** for billing purposes.
- Included in this category is High Frequency (HF) radio communications. All HF outstations shall be furnished with all the Emergency Call Services codes. (National Health Services Radio Network)
- Maritime sector dealing with Ship- to- Shore Communication (STSC) shall deliver the same information to their land stations through the Coastal Radio Station (CRS) facility.
- 6.2.5** Shall ensure that all existing emergency services, when their codes are dialled, are reachable at any time of the day or night even under the worse failure condition(s) or outage(s) of the networks. All emergency short code calls shall be programmed in the switches as having **highest priority** over all other calls during disaster situations within the networks.

**6.2.6 All TSPs shall ensure alternative form of Access to the ESPs including Radio Access Applications of PPDR which are available for deployment during major outage or disaster situations.**

**6.3 The Regulator (NICTA) & Roles**

**6.3.1** NICTA is required to make a national numbering plan for the numbering of ICT services in Papua New Guinea, the use of numbers in connection with the supply of ICT services and, to the extent considered appropriate by NICTA, obligations relating to the supply of ICT services that use certain numbers.

**6.3.2** *NICT Act 2009, (PART IX Section 184)* provides for the implementation of the numbering Plan,

**6.3.3** NICTA is responsible for the allocation of all national emergency numbers.

**6.3.4** NICTA has allocated “11x” as the access code range for emergency services and this is in accordance with ITU-T standards for numbering worldwide.

**6.3.5** NICTA must ensure such services are maintained to the highest standards practicable and that all carriers give priority and dedicate a sufficient amount of capacity on their networks to ensure the continuous transmission of emergency calls to appropriate ESPs on the network.

**6.3.6** NICTA to ensure that all emergency short codes should be routed through the *point of interconnection (POI) free of charge*. As such all network operator should indicate in their billing system accordingly.

**6.3.7** NICTA must ensure compliance with section 266 of the NICT Act 2009 which ensures protection of all ICT services including emergency services from abuse including annoyance, indecent, obscene or false information that would cause inconvenience to ESPs.

**6.3.8** NICTA may conduct general public awareness in the media for the introduction of emergency codes. The awareness shall outline the uses/purposes of the codes and associated consequences if and when the services or codes are misused or abused by the general public.

**6.3.9** The *Emergency Services* and their associated codes have been allocated as per the NNP for PNG;

<b>FIRE</b>	-	<b>110</b>
<b>AMBULANCE</b>	-	<b>111</b>
<b>POLICE</b>	-	<b>112</b>
<b>NATIONAL DISASTER CENTRE (24 Hrs)</b>	-	<b>113</b>
<b>NATIONAL SURVEILLANCE CO-ORDINATION CENTER (24 Hrs)</b>	-	<b>114</b>
<b>GENERAL HOSPITAL (NATIONAL)</b>	-	<b>115</b>
<b>POWER HOTLINE (NATIONAL)</b>	-	<b>116</b>
<b>SEARCH &amp; RESCUE CO-ORDINATION CENTRE (NATIONAL)</b>	-	<b>117</b>
<b>DEFENCE FORCE OPERATIONS (NATIONAL)</b>	-	<b>118</b>
<b>MARINE SEARCH &amp; RESCUE (NATIONAL)</b>	-	<b>119</b>



Emergency Service Provider	Short Codes	Mapped PSTN Number
Fire	110	See separate listing
Ambulance	111	See separate listing
Police	112	See separate listing
National Disaster Centre	113	301 1111
National Surveillance Co-ordination Centre (24 hrs)	114	321 3468
General Hospital (National)	115	See separate listing
Power Hotline (National)	116	See separate listing
Search & Rescue Co-ordination Centre (National)	117	325 6885
Defence Force Operations (National)	118	324 2412
Marine Search & Rescue (National)	119	321 3051

**Table 1: ESP and their associated short code and PSTN number**

## **7.0 General description of mandatory and optional information**

The efficient operation of emergency services requires that necessary information concerning the caller is made available. The mandatory information components are:

- i. Calling Line Identity (CLI)
- ii. Caller Location

An Originating Network Operator or service provider has the obligation to convey an emergency call even if any of the mandatory information components is not available. How a Caller Location can be made available to the emergency services can be referred to in section 7.2.

### **7.1 Calling Line Identity**

The CLI is used by the emergency services for two purposes.

- i. Making it possible for the emergency operator to call back
- ii. Can be used for finding the address and/or location of the caller (see 7.2)

The CLI shall always be transferred without modification through the network and over to the Emergency Service centre irrespective of the parameter settings of the Calling Line Identification Presentation (CLIP) or Calling Line Identification Restriction (CLIR).

### **7.2 Caller Location**

Location of the caller is used for two purposes.

1. To facilitate routing of an emergency call to the appropriate ESP centre.
2. To geographically locate the caller in enabling extension of emergency service(s) to the nearest appropriate ESP centre.

A fixed telephone normally has a geographical address (e.g. street) and might also have coordinates representing the same address. A mobile telephone

might have a billing address that is geographical (e.g. street), but also a location from where the call is made which normally is not the same as the billing address, but a cell site.

### **7.3 Routing information**

Routing information is used to route the emergency call to the appropriate ESP centre. The routing information is assigned to the emergency call in the Originating Operator network. In the case the assignment is done by the Originating Operator, the city or town Identity Code shall represent the network termination point.

The procedure for assignment and routing are.

1. The User or the Originating Operator network assigns the routing information
2. If applicable, a transit network transfers and uses the routing information
3. The relevant ESP centre receives the routing information

### **7.4 Geographical Address Information**

Geographical address information is used by the ESP for locating the caller. It can be a geographical address, e.g. street name and number or a position expressed in coordinates (longitude and latitude).

The address can be retrieved using two methods.

1. The CLI is used as an identifier in a request to a database where mapping of CLI into address or location (for mobile terminals) is made available. The location of a mobile is achieved depending on the antenna direction to the caller. Several antennas are mounted on a particular tower and the location of the mobile terminal can be determined by the antenna which is in the direction of the incoming mobile call. This may not show a specific location but an estimated area of the caller can be established.
2. The address information is received in the incoming emergency call.

The geographical address can be of two types:

- a. Local termination point of a telephone line,
- b. Address related to the subscription that might be home or billing address of subscriber.

### **7.5 Other Information**

**7.5.1** Subscriber information can be used by the ESP for improvement of the emergency service. The subscriber information can be retrieved using two methods.

1. The CLI is used as an identifier in a request to a database where mapping of CLI into subscriber information is made available.
2. The subscriber information is received in the incoming emergency call.

**7.5.2** The subscriber information can be of different types. Some examples are given;

- a. Personal Identification Number or Organization Number
- b. Name of subscriber or company
- c. Type of subscription (E.g. subscriber line, PBX)
- d. Type of access (PSTN, PLMN, IP)
- e. Unlisted (ex-directory) number

## **8.0 Protocols for connection to the emergency services**

### **8.1 General**

A public communications network operator can either connect to the emergency services directly or transit via another public communications operator. In both cases there are two protocols that can be used:

1. ISUP
2. SIP (with VoIP)

In this Guideline only ISUP connection is recommended and is described.

### **8.2 Transfer of information using ISUP**

To make it possible for the emergency services to get the necessary information described in section 7.0 and the subsequent sections the following information has to be transferred in ISUP.

Element	Transferred in
<b><u>Mandatory information</u></b>	
Calling Party Number (A-number in national or international E.164 format)	Calling Party Address parameter in the Initial Address Message
Called Party Number (B-number in national E.164-format)	Called Party Address parameter in the Initial Address Message
Geographical reference (Identity of MSC in E.214-format. Note <sup>1</sup>	Location Number parameter in the Initial Address Message Note <sup>1</sup>

**Table.2. Information elements using ISUP**

<sup>1</sup> This field is only generated for emergency calls from mobile telephones

## 9.0 Interconnection using ISUP

When interconnection over ISUP is chosen, three information elements are mandatory in the signalling interface.

1. Calling Party Number (for all types of calls)
2. Called Party Number
3. Location Number (for calls from mobile terminals)

Detailed information about setting of parameters in the Initial Address Message is given below.

### 9.1 Calling Party Number

Calling Party number shall always be present when the A-number is available at the Originating Operator network.

Coding of the parameter shall be according to ITU-T Recommendation Q.763 with Nature of Address indicator (NOA) = 3 (or 4) and Numbering Plan Indicator (NPI) = 1.

### 9.2 Called Party Number

To establish a call over two networks, the Called Party Number must be transferred across the POI interface. The Called Party Number is a mandatory parameter and is the information used to identify the called party. It shall be applied according to Table 3.

Subfield name	Subfield value
Odd/ even indicator	odd/ even
Nature Of Address indicator	3 (National (significant) number)
Internal network number indicator	allowed/not allowed
Numbering Plan Indicator	1 (E.164)
Address signals	E.g. xxx 11x XYZ Note <sup>2</sup>

**Table. 3 Called Party Number parameter and settings for 11x-calls**

This type of number information is sent across the POI with a subscriber dialling:

- The emergency number 11x

The subfields *Nature of Address* and *Address signals* shall be applied as shown in Table 2. It does not matter if a subscriber has dialled 11x or 000 for the public emergency service. The originating operator shall replace the dialled number with a number according to Table 3.

### 9.3 Dialling patterns

<sup>2</sup> xxx Routing number for short codes 11X

11x Short code for public emergency service

XYZ City/town Identity Code i.e. geographical origin of call according to NNP - ref doc 1260.1B

The following dialling patterns shall be supported:

- 11x

In the case of the disabilities and for convenience to the general public, all emergency codes shall be programmed in the telephone or mobile phone handsets. This is so that upon depression of a key pad a particular ESP intended shall be reached.

Mobile phones and other terminals (notebook, PC etc.) may support more types of procedures. In this Guideline only ISUP connection is recommended.

#### **9.4 Location Number**

The use of the parameter Location Number for mobile calls is described in ITU-T Recommendation E.214.

In order to permit land mobile subscribers to roam, there is a need to transfer information, e.g., the mobile subscriber roaming number between Public Land Mobile Networks (PLMNs). This transfer of information can be accomplished by the use of Transaction Capabilities (TC) and the Signalling Connection Control Part (SCCP) of Signalling System No. 7 (SS7). When a land mobile subscriber roams to a foreign PLMN, it registers with a Visited Location Register (VLR) within that PLMN. The only information available to the VLR to address the mobile's Home Location Register (HLR) is its International Mobile Subscriber Identity (IMSI).

### **10.0 Procedures for routing of emergency calls**

The originating user or Originating Operator network has to assign the correct city/town Identity Code. The code has two purposes:

- 1 To route the emergency call to the appropriate ESP centre.
- 2 To convey information to the ESP centre concerning geographical location and type of access the emergency call was made from.

### **11.0 Testing of emergency calls**

Testing emergency calls is important and shall be carried out by the originating network operator to ascertain that an emergency call can be established, is routed correctly and conveys the expected information. The use of separate city or town Identity Codes for tests are intended for system tests when setting up a telecommunications service. Testing of real emergency calls should preferably be done without using city or town Identity Codes and after an agreement with one or more ESP centres.

This is mandatory to the ESP's as part of their daily routine checks. Only through regular routine checks then a more sound and operational emergency service is provided to the public in times of urgency when a real emergency takes place.

## **12.0 End-Users privacy rights**

### **12.1 The rights of calling End-Users are that:**

- 12.1.1** They must be able, using a simple means and free of charge, to prevent the display of their number at the point where their call terminates – this option may be exercised by all users on a call-by-call basis and by subscribers on a more permanent basis by preventing the display of CLI information on all calls made from a particular line or cell phone.

### **12.2 The rights of called End-Users are that:**

- 12.2.1** They must be able, using a simple means and free of charge for reasonable use, to prevent the display of CLI information relating to incoming calls (so that help-lines are able to offer an assurance of anonymity to people who call them).
- 12.2.2** Where CLI information is displayed before a call is established, end-users must be able, using a simple means, to reject calls where the caller has been;
- (a) given the option of preventing the display of their CLI information and
  - (b) has deliberately chosen to exercise this option. The service is commonly known as anonymous call rejection (ACR).
- 12.2.3** Where connected line identification (COL) is in use end-users must be able, using a simple means and free of charge, to prevent the display to the caller of the actual number to which an incoming call has been connected.

## **13.0 Exceptions to the caller's privacy rights**

- 13.1** With Emergency codes all the privacy rights are set aside, a caller's general right to prevent the display of their CLI information where calls are made to the ESP or where the law enforcement authorities investigate and trace malicious or nuisance calls.

## **14.0 Confidentiality of the caller's ID**

- 14.1** Confidentiality of caller information is very important therefore, the information cannot be disclosed to a third party without prior approval of the caller.
- 14.2** There can be serious repercussions if the ID of the caller is somehow made known to a third party for example in some cases those who are arrested may take revenge on the caller who reported the crime.
- 14.3** Because the caller's ID will be made known to the ESPs, there would be possibilities of abuse. One possible scenario is, if a caller is a female, male staff at the emergency service centres would like to make unnecessary calls to the caller's number at any time of the day just to be a nuisance or to harass her.
- 14.4** Other scenarios like, where a person was willing to help save a life or prevent a crime by making an emergency call to the appropriate ESP but who does not want to stand as a witness for instance, his/her right not to attend legal standings should be respected by all ESPs. No person should be forced against their will by ESPs to give extra evidence thus exposing his/her identity to the public or others of concern.
- 14.5** Negligence on the confidentiality of caller ID by the ESP will not only defeat the meaning of confidentiality but the usage rate of the emergency call

service by the general public may decrease due to loss of public confidence in the system.

## **15.0 Legality of Confidentiality**

- 15.1** It is in the best interest of the end-user caller that such information of identification should be confidential secret under all circumstances.
- 15.2** ESPs and anyone who is part and partial of the emergency service should adhere to ID confidentiality as per section 14.0.

## **16.0 Penalties**

- 16.1** A party or anyone who is in breach of caller ID confidentiality shall be dealt with in accordance with the relevant laws of PNG.
- 16.2** The penalties prescribed in the NICTA Act 2009 may or will be applied in such a case as and when seen to be fit. *Refer to Part XIV – Offences, Penalties and Enforcement, section 267 – Protection of Communications as per the ACT mentioned above,*

## **7.0 Document Administration**

### **17.1 Consistency of the Code**

All carriers, service providers and the general public shall comply with this Guideline and NICTA may penalize violators of this Guideline in accordance with the NICTA Act 2009 and in accordance to the laws of PNG.

### **17.2 Change to the Code**

NICTA may review the Guideline as stated in Section 218 and make changes it feels necessary and appropriate as and when required. All stakeholders including the ICCO, all licensed carriers and other telecommunications industry players shall be consulted before any changes to the Guideline are proposed and confirmed.

### **17.3 Enforcement and Compliance of the Guideline**

NICTA is responsible for administering this Guideline and shall consult the stakeholders as and when appropriate.

### **17.4 Availability of the Code**

The updated version of the Guideline can be accessed from the NICTA website: <http://www.nicta.gov.pg> or enquiries may be made to the following:

Engineering and Resource Planning Department  
PO Box 8227  
BOROKO  
National Capital District  
Papua New Guinea

Telephone: + (675) 3033200  
Fax: + (675) 3004829



# Annex A

## References

### Normative references

The following normative documents contain provisions, which by reference in this text constitute provisions of this policy. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this policy are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document applies.

- |                                       |   |
|---------------------------------------|---|
| ITU-T Recommendation Q.763<br>(02/05) | Transfer of number information in national interconnection based on ISUP                    |
| ITU-T Recommendation Q.763<br>(02/05) | PSTN-ISDN-PLMN ISUP signalling interface  |
| ITU-T Recommendation E.214<br>(02/05) | Positioning of Mobile Terminals at Emergency Calls  |
| ITU-T Recommendation E.164<br>(02/05) | The international public telecommunication numbering plan                                   |
| ITU-T Recommendation E.214<br>(02/05) | Structure of the land mobile global title for the signalling connection control part (SCCP) |



# Annex B

List of Emergency Service Provider PSTN real numbers

ESP Centre(s)	Hospital (115)	Power (116)	Police (112)	Fire (110)	Ambulance (111)
Aitpe	457 2166	857 2073			
Alotau	641 1200	641 1002	641 1222	641 1055	111 <sup>1</sup>
Bialla	983 1038	983 1049			111 <sup>1</sup>
Boroko			112 <sup>1</sup>	325 5188	111 <sup>1</sup>
Buka	978 9771	973 9634			111 <sup>1</sup>
Bulolo	474 5239		474 5222		111 <sup>1</sup>
Daru	645 9166	645 9046	645 9022		111 <sup>1</sup>
Finchaffan	474 7066	474 7017	474 7022		111 <sup>1</sup>
Gerehu			112 <sup>1</sup>	326 1053	111 <sup>1</sup>
Goroka	732 1166	732 1978	732 1443	732 1111	111 <sup>1</sup>
Kainantu	737 1066	737 1187			111 <sup>1</sup>
Kavieng	984 2040	984 2188	984 2054	984 2029	111 <sup>1</sup>
Kerema	648 1273	648 1145	648 1123		111 <sup>1</sup>
Kimbe	983 5142	983 5139	983 5422	983 5411	111 <sup>1</sup>
Kiunga	548 1166		548 1011		111 <sup>1</sup>
Kokopo	982 8294	982 9065	982 8222	982 8662	111 <sup>1</sup>
Kundiawa	735 1066	735 1035	735 1133		111 <sup>1</sup>
Kwikila	329 5011	329 5068			111 <sup>1</sup>
Lae	473 2100	472 4027	479 1068	472 4333	111 <sup>1</sup>
Lorengau	470 9055	470 9028	470 9143		111 <sup>1</sup>
Madang	452 2022	452 2451	452 3233	452 2777	111 <sup>1</sup>
Maprik	458 1266	458 1226			111 <sup>1</sup>
Mendi	549 1166	549 1225	549 1333		111 <sup>1</sup>
Mt Hagen	542 1168	542 1722	542 1233	542 1311	111 <sup>1</sup>
Paunda		542 1536			111 <sup>1</sup>
Port Moresby	324 8200	324 3299			111 <sup>1</sup>
Popondetta	329 7066	329 7054	329 7333	329 7172	111 <sup>1</sup>
Samarai		642 1160			111 <sup>1</sup>
Vanimo	457 1080	457 1176	457 1033		111 <sup>1</sup>
Wabag	547 1233	547 1126	547 1022		111 <sup>1</sup>
Waigani			112 <sup>1</sup>	323 0495	111 <sup>1</sup>
Wau		474 6338			111 <sup>1</sup>
Wewak	456 2168	456 2111	456 2633	456 2122	111 <sup>1</sup>
Yonki		730 3255			

<sup>1</sup> Indicates that the emergency code shall be mapped to the PSTN number as it is currently done.