

**COMMUNICATIONS
ALLIANCE LTD**



INDUSTRY GUIDELINE

G673:2024

TRANSPORT OF SESSION INITIATION PROTOCOL
(SIP) INFORMATION ASSOCIATED WITH
NON-MOBILE ORIGINATED EMERGENCY CALLS

**G673:2024 Transport of Session Initiation Protocol (SIP)
Information Associated With Non-Mobile Originated
Emergency Calls Industry Guideline**

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INTRODUCTORY STATEMENT

The ***Transport of Session Initiation Protocol (SIP) Information Associated With Non-Mobile Originated Emergency Calls*** Guideline (G673:2024) is designed to enable, when a SIP interface is used for the delivery of Emergency Calls, the transfer of data associated with Emergency Calls from non-mobile Customer Equipment (CE) to the Emergency Call Person (ECP) for 000 and 112 or to the ECP for 106, in SIP fields including but not limited to:

- Calling Line Identification (CLI);
- Location information; and
- Device type (i.e. user agent info).

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SIP Transport for Non-Mobile Originated Emergency Calls Working Committee

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1 GENERAL

1.1 Introduction

- 1.1.1 The development of the Guideline has been facilitated by Communications Alliance through a Working Committee comprised of representatives from the telecommunications industry.
- 1.1.2 The Guideline should be read in the context of other relevant codes, guidelines and documents.
- 1.1.3 The Guideline should be read in conjunction with related legislation, including:
 - (a) the *Telecommunications Act 1997* (the Act); and
 - (b) The *Telecommunications (Emergency Call Service) Determination 2019* (the Determination).
- 1.1.4 If there is a conflict between the requirements of the Guideline and any requirements imposed on a Carrier by statute, the Carrier will not be in breach of the Guideline by complying with the requirements of the statute.
- 1.1.5 Compliance with this Guideline does not guarantee compliance with any legislation. The Guideline is not a substitute for legal advice.
- 1.1.6 Statements in boxed text are a guide to interpretation only.

1.2 Scope

- 1.2.1 The Guideline applies to the following sections of the telecommunications industry under section 110 of the Act:
 - (a) Carriers; and
 - (b) Carriage Service Providers (CSPs).
- 1.2.2 It deals with the following telecommunications activities as defined in section 109 of the Act:
 - (a) Carrying on business as a Carrier; or
 - (b) Supplying goods or service(s) for use in connection with the supply of a Listed Carriage Service.
- 1.2.3 The Guideline only applies to:
 - (a) Carriers;
 - (b) CSPs;
 - (c) the Emergency Call Person (ECP) for 000 and 112; and
 - (d) the Emergency Call Person for 106.

1.2.4 The Guideline does not apply to Emergency Service Organisations (ESOs).

1.2.5 The Guideline does not apply to CE suppliers.

NOTE: A CE supplier may be obliged to comply with other requirements for Emergency Calls e.g. AS/CA S003.

1.2.6 The Guideline deals with Emergency Calls that are:

- (a) to Emergency Service Numbers (ESNs) 000, 106 or 112;
- (b) originating inside Australia; and
- (c) originating from non-mobile devices or endpoints.

NOTES:

1. The nature of the access termination point will determine if an Emergency Call is of non-mobile origin. This would include but not be limited to Emergency Calls originating from a:

- (a) Satellite Service;*
- (b) Fixed Local Service that uses IP i.e. VoIP;*
- (c) Fixed Local Service that uses a circuit switching access network (e.g. PSTN) that converts the call to IP; or*
- (d) Location Independent Communications Service.*

2. Emergency calls to 106 only apply for calls from fixed networks. Attempts to call 106 originating via a satellite service, a mobile service, or via a 4G failover from a fixed service are expected to be unsuccessful.

1.2.7 The Guideline does not deal with calls that do not activate the Emergency Call procedure, including:

- (a) voice calls that are not Emergency Calls (e.g. 'regular' voice traffic); or
- (b) non-voice emergency communications (e.g. Short Message Service (SMS) to 000, 106 or 112).

1.2.8 The Guideline does not deal with voice calls originating outside Australia.

NOTE: An attempt to call ESN 000 or ESN 106 from outside Australia is usually blocked by the recipient Transit CSP and will not be transferred to the Relevant Termination Point.

1.2.9 The Guideline does not deal with Emergency Calls from mobile CE.

1.3 Objectives

The objectives of the Guideline are to:

- (a) help identify and locate non-mobile CE making an Emergency Call;
- (b) identify and capture the data associated with Emergency Calls received from non-mobile CE and from the Carrier's network such as identity and location information (where available);

NOTE: Non-mobile CE are not obliged to provide a geolocation Header Field and PIDF-LO information in an AS/CA Standard.

- (c) identify and capture non-mobile CE identity and location identifiers (where available) that can be used by the ECP for 000 and 112 or the ECP for 106 to:
 - (i) identify and flag Non-genuine Calls or Distributed Denial of Service (DDoS) Emergency Calls presented with a default CLI;
 - (ii) identify and flag Non-genuine Calls or DDoS Emergency Calls presented with the CLI associated with the Emergency Calls; and
 - (iii) conduct automated validation checks against the information it receives from other channels (e.g. the Integrated Public Number Database) with the goal of eventually removing the requirement on ESOs to obtain verbal confirmation from emergency caller about their location; and
- (d) propose standard/non-standard SIP Header Fields for conveyance of identity and location information by the Carrier to the ECP for 000 and 112 or the ECP for 106.

1.4 Guideline review

The Guideline will be reviewed every 5 years, or earlier in the event of significant developments that affect the Guideline.

2 ACRONYMS, DEFINITIONS AND INTERPRETATIONS

2.1 Acronyms

For the purposes of the Guideline:

ACMA

Australian Communications and Media Authority.

CLI

Calling Line Identification.

CSP

Carriage Service Provider.

DDoS

Distributed Denial of Service.

ECP

Emergency Call Person.

ESN

Emergency Service Number.

ESO

Emergency Service Organisation.

IEEE

Institute of Electrical and Electronic Engineers.

IETF RFC

Internet Engineering Task Force Request for Comment.

IMS

IP Multimedia Subsystem.

IP

Internet Protocol.

ITU

International Telecommunications Union.

ITU-T

ITU Telecommunications standardisation sector.

PANI

P Access Network Identifier.

PIDF

Presence Information Data Format.

PIDF-LO

Presence Information Data Format Location Object.

SIP

Session Initiation Protocol

TR

Technical Report.

TS

Technical Specification.

VoWiFi

Voice over Wi-Fi.

Wi-Fi

Wireless Fidelity.

2.2 Definitions

For the purposes of the Guideline:

Act

means the *Telecommunications Act 1997 (Cth)*.

Calling Line Identification

means the data generated by a Telecommunications Network which relates to the Public Number of the A-Party.

NOTE: A CLI delivered by a Carrier or CSP to the ECP for 000 and 112 or the ECP for 106 may be in one of several formats, including a:

(a) 9-digit national non-mobile number; or

(b) 10-digit national non-mobile number including a leading zero.

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 Equipment

has the meaning given by section 21 of the Act.

Determination

means the Telecommunications (Emergency Call Service) Determination 2019.

Emergency Call

has the meaning given by the Determination.

Emergency Call Person for 000 and 112

has the meaning given by the Determination.

Emergency Call Person for 106

has the meaning given by the Determination.

Emergency Service Number

has the meaning given by section 30 of the *Telecommunications Numbering Plan 2015*.

Emergency Service Organisation

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

Fixed Local Service

has the meaning given by the Determination.

Header Field

has the meaning given by IETF RFC 3261.

Location Independent Communications Service

means a carriage service that:

- (a) is capable of voice telephony; and
- (b) for a call to the Emergency Service Number 000 or 106 — identifies a point of termination for the call; and
- (c) is none of the following:
 - (i) a Fixed Local Service;
 - (ii) a Public Mobile Telecommunications Service;
 - (iii) a Satellite Service.

Non-genuine Call

has the meaning given by the Determination.

Public Mobile Telecommunications Service

has the meaning given by section 32 of the Act.

Public Number

means a number specified in the *Telecommunications Numbering Plan 2015*.

Relevant Termination Point

has the meaning given by the Determination.

Resource Priority

has the meaning given by IETF RFC 7135.

Satellite Service

has the meaning given by the Determination.

Session Initiation Protocol (SIP)

has the meaning given by IETF RFC 3261.

SIP Priority

has the meaning given by "Priority" in IETF RFC 3261.

Telecommunications Network

has the meaning given by section 7 of the Act.

2.3 Interpretations

In the Guideline, 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 BACKGROUND INFORMATION

3.1 Introduction

Emergency Calls from non-mobile CE without an identifier are a concern for multiple reasons including:

- (a) their use in Non-genuine Calls. This diverts resources of an ECP and/or an ESO from responding to a genuine Emergency Call.
- (b) valid non-mobile CE and service identifiers can assist an ECP and ESOs to identify the emergency caller and despatch resources in an efficient and timely manner.

3.2 Regulatory Obligations

3.2.1 Section 23 of the Determination requires Carriers and CSPs to forward "the most precise location information available" associated with an Emergency Call. This is to help:

- (a) the ECP identify the appropriate ESOs to respond to a request for assistance; and
- (b) the ESO(s) to locate the caller for a timely response to a request for assistance.

3.2.2 Section 23 of the Determination requires that Carriers and CSPs must, as far as practicable, "transfer information about the public number" from which an Emergency Call is made i.e. the A-party CLI.

*NOTE: The B-party number for an Emergency Call to the
(a) ECP for 000 and 112 is ESN 000 or 112; and
(b) ECP for 106 is ESN 106
(sent in the appropriate number format).*

3.2.3 Section 21 of the Determination requires that CSPs should ensure an Emergency Call to 000 or 112 "is transferred to the Relevant Termination Point with the highest priority". This implies a CSP should not unnecessarily delay initiating an Emergency Call e.g. to wait for a position estimate.

3.3 Security

Carriers and CSPs should refer to the C536 industry code which obliges Carriers and CSPs to:

- (a) make every effort to identify potential calls associated with a cyber-attack (e.g. DDoS attack); and
- (b) have processes in place to detect, investigate and eliminate (i.e. remove or block) Non-genuine Calls to the ECP as soon as practicable.

4 REQUIREMENTS

4.1 Information for transport

- 4.1.1 A SIP INVITE or UPDATE for an Emergency Call to the ECP for 000 and 112 or the ECP for 106 should include as many of the following data fields as possible including but not limited to:
- (a) a SIP Priority Header Field;
 - (b) a Resource Priority Header Field;
 - (c) non-mobile network originated location information;
 - (d) non-mobile CE originated location information (where available); and
 - (e) available service or CE identifiers if provided to the Carrier or CSP by the non-mobile CE in accordance with a relevant Standard.

NOTES:

1. An initial position estimate could assist with connecting the Emergency Call by the ECP for 000 and 112 or the ECP for 106 to the appropriate ESO answer point.
2. As inferred in 3.1.2, an Emergency Call SIP INVITE should not be delayed unnecessarily e.g. to wait several seconds for an initial estimation of location information. Location information, either an initial or improved estimate, could be conveyed in a SIP UPDATE.
3. A Carrier or CSP is not able to provide or pass on this information where the information is not available from non-mobile CE as a data source.
4. Some non-mobile CE may not have a capability to originate and supply location information.

- 4.1.2 Where the non-mobile CE does not supply the information listed in 4.1.1 in the Emergency Call set up message (i.e. SIP INVITE), a Carrier or CSP should continue to deliver the Emergency Call to the ECP for 000 and 112 or the ECP for 106, as appropriate.

NOTE: Refer to Section 3.2 for more information on regulatory obligations, including for a CSP to transfer an Emergency Call to 000 and 112 to the Relevant Termination Point with the highest priority.

- 4.1.3 When:
- (a) using a SIP interface for the delivery of Emergency Calls to the ECP for 000 and 112 or the ECP for 106; and
 - (b) sending or forwarding either a SIP INVITE or a SIP UPDATE associated with an Emergency Call;

a Carrier or CSP should:

- (c) forward without modification a SIP INVITE or SIP UPDATE received from non-mobile CE as a data source; and
- (d) include as part of a SIP INVITE or SIP UPDATE data associated with an Emergency Call that was received from a non-mobile network as a data source.

4.1.4 When sending or forwarding either a SIP INVITE or SIP UPDATE associated with an Emergency Call a Carrier or CSP should do so in a manner consistent with Table 1.

4.2 Location Information

4.2.1 Location information associated with an Emergency Call provided by:

- (a) non-mobile CE and transferred by a Carrier or CSP; or
- (b) a Carrier or CSP;

to the ECP for 000 and 112 or the ECP for 106, in a SIP request, should include, where available:

- (c) Latitude;
- (d) Longitude;
- (e) Timestamp; and
- (f) Location source (non-mobile CE or non-mobile network).

NOTE: At the time of publication, detailed location information like latitude and longitude is not available with some Emergency Calls of non-mobile origin.

4.2.2 Location information, where available, should be conveyed using SIP Header Field "geolocation" which points to a location object (i.e. PIDF-LO) containing actual location information.

4.2.3 Location information in a SIP Header Field may include enhanced information such as an altitude or a civic address.

NOTE: Enhanced location information the non-mobile network could provide (e.g. an altitude, a civic address) is for future study.

4.3 Alignment with Standards

Information forwarded in SIP Header Fields by the Carrier or CSP should align with relevant standards (e.g. IETF RFCs).

4.4 Information from Customer Equipment

- 4.4.1 A Carrier or CSP should pass through, unmodified, any SIP messages originating from non-mobile CE e.g. SIP INVITE, SIP UPDATE.

NOTE: Location information that originates from non-mobile CE can give a high level of accuracy and precision which is valuable to an ESO responding to an Emergency Call.

- 4.4.2 Refer to Table 1 for more information on general requirements.

TABLE 1
General requirements

	Non-mobile CE as Data Source	Network as Data Source	Potential Use by ECP for 000 and 112	Potential Use by ECP for 106	Potential Use by ESO	Example(s) / Comments	Reference / source document
Uniform Resource Name (URN)	✓		✓	✓		service:sos / emergency call identifier	IETF RFC 5031
Priority	✓	✓	✓	✓		Priority: emergency	IETF RFC 3261
Resource Priority		✓	✓			Resource-Priority: esnet.4	IETF RFC 7135
Equipment Identifier	✓		✓	✓	✓	Not possible for non-mobile CE on VoIP networks.	IETF RFC 8464
Service Identifier	✓		✓	✓	✓	Not possible for non-mobile CE on VoIP networks.	
User-Agent	✓		✓	✓	✓	Example: User-Agent: PolycomV VX-V VX_410-UA/5.8.1.7407_0004f2d3c407	IETF RFC 3840 Proprietary
P Access network Information (PANI)	✓	✓	✓	✓	✓	Refer to Table 3 for more details on PANI. See Notes 2 and 3. Examples: For VoWiFi: IEEE-802.11;country=AU;i-wlan-node-id=ffffffff;local-time-zone="2016-07-29T15:08:18+10:00" See Appendices A and B for more information.	IETF RFC 7315 IETF RFC 7913

	Non-mobile CE as Data Source	Network as Data Source	Potential Use by ECP for 000 and 112	Potential Use by ECP for 106	Potential Use by ESO	Example(s) / Comments	Reference / source document
P-Visited Network ID	✓	✓	✓	✓	✓	Scenarios include: (i) to identify a transit network used by a reseller CSP. (ii) . (iii). Not generally available from non-mobile origins.	IETF RFC 7315 IETF RFC 7913
P-Asserted-Identity (PAI)	✓	✓	✓	✓	✓	Access network provider, Carriers, Relay Provider and Privacy Indicator.	IETF RFC 3325 IETF RFC 3261

NOTES:

1. IETF RFC 5491 on geopriv is for future study. It includes making "recommendations on how to constrain, represent, and interpret locations in a PIDF-LO".
2. Where a Carrier or CSP is able to supply PIDF-LO, PANI or P-Visited Network ID, it should do so consistent with this Guideline.
3. The PANI supplied by non-mobile CE as data source may contain radio access technology information. This information (e.g. on radio access network type) can be useful for managing a DDOS attack.

5 REFERENCES

Publication	Title
AS/CA Standards	
AS/CA S003:2010	Requirements for Customer Access Equipment for connection to a Telecommunications Network https://commsalliance.com.au/Documents/all/Standards
Industry Codes	
C536:2020	Emergency Call Service Requirements https://www.commsalliance.com.au/Documents/all/codes/c536
IETF RFCs	
RFC 3261	SIP: Session Initiation Protocol https://www.rfc-editor.org/info/rfc3261
RFC 3325	Private Extensions to the Session Initiation Protocol (SIP) for Asserted Identity within Trusted Networks https://www.rfc-editor.org/info/rfc3325
RFC 3840	Indicating User Agent Capabilities in the Session Initiation Protocol (SIP) https://www.rfc-editor.org/info/rfc3840
RFC 5031	A Uniform Resource Name (URN) for Emergency and Other Well-Known Services https://www.rfc-editor.org/info/rfc5031
RFC 7135	Registering a SIP Resource Priority Header Field Namespace for Local Emergency Communications https://www.rfc-editor.org/info/rfc7135
RFC 7315	Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3GPP https://www.rfc-editor.org/info/rfc7315
RFC 7913	P-Access-Network-Info ABNF Update https://www.rfc-editor.org/info/rfc7913

RFC 8464 A URN Namespace for Device Identity and Mobile
Equipment Identity (MEID), September 2018

<https://www.rfc-editor.org/info/rfc8464>

ISO Standards

ISO 8601 Date and Time Format
Representations for information interchange

<https://www.iso.org/iso-8601-date-and-time-format.html>

Legislation

Telecommunications Act 1997

<https://www.legislation.gov.au/Series/C2004A05145>

Telecommunications (Emergency Call Service) Determination 2019

<https://www.legislation.gov.au/Series/F2019L01509>

Telecommunications Numbering Plan 2015

<https://www.legislation.gov.au/Series/F2015L00319>

APPENDIX

A EXAMPLES OF PANI RELATED FIELDS (INFORMATIVE)

A.1.1 Refer to Table 4 for PANI related fields.

TABLE 2
PANI related fields

Field / Descriptor	Non-mobile CE as Data Source	Network as Data Source	Potential Use by ECP for 000 and 112	Potential Use by ESO	Example(s) / Comments	Reference / source document
Network provided location		✓		✓	For VoWiFi: IEEE-802.11;country=AU;i-wlan-node-id=ffffffff;local-time-zone="2016-07-29T15:08:18+10:00"	
Access-type Network-Info Header Field		✓	✓		Access network type: P-Access-Network-Info: GSTN	
local-time-zone (text string)	✓		✓	✓	local-time-zone="2016-07-29T15:08:18+10:00" UTC±[hh]:[mm]. [hh] is two digits, and [mm] is two digits from four values: "00", "15", "30" or "45"	RFC 7315 ISO 8601
daylight-saving-time (within access-info)	✓		✓	✓	[hh]. [hh] is a two digits value from three values "00", "01" or "02" indicating the positive adjustment in hours;	

Field / Descriptor	Non-mobile CE as Data Source	Network as Data Source	Potential Use by ECP for 000 and 112	Potential Use by ESO	Example(s) / Comments	Reference / source document
network operator-specific-GI			✓	✓	P-Access-Network-Info: GSTN;network-provided;operator-specific-GI=982	

APPENDIX

B EXAMPLES OF NON-MOBILE CE COMMUNICATING WITH A NETWORK (INFORMATIVE)

B1 Introduction

This informative Appendix includes some sample content from call traces as examples of the information sent with an Emergency Call via SIP.

B2 Emergency Call originated via VoIP

- B.2.1 Below is an example of a call trace for a SIP INVITE in a VoIP Emergency Call to the ESN 000.

NOTE: The originating DNS entries and IP addresses have been removed.

- B.2.2 The digit string for the originating service number is replaced here with the alphanumeric string +612xxxxxxx where:

- (a) "61" is the country code for Australia;
- (b) "2" is an area code for the state of New South Wales; and
- (c) "xxxxxxx" is a geographic number in New South Wales.

- B.2.3 The digits for an IPv4 address are replaced with the string "x.x.x.x".

- B.2.4 The PANI header contains an 'ABC' value of '982'. This is for a VoIP call that originates in New South Wales.

NOTE: Refer to G557.2 for a list of SMSA and ABC Codes.

- B.2.5 Call trace example

INVITE <sip:+61000@nsw.telstra.x;user=phone;transport=tcp> SIP/2.0

Record-Route: <sip:x.x.x.x;transport=tcp;r2=on;l>

Record-Route: <sip:x.x.x.x;r2=on;l>

From: "612xxxxxxx" <sip:+612xxxxxxx@telstra.x;user=phone>;tag=ds-7b8d82-616120c30992e

To: <sip:+61000@nsw.telstra.x;user=phone>

Contact: <sip:CallAgent@symbio.x:5060;transport=udp>

Call-ID: MGMyNmQ5OTI1EjAyMzI3MGI1YjFjNTIjODExYjU2Mzc.

CSeq: 9081919 INVITE

Content-Length: 261

Content-Type: application/sdp

Allow: PRACK, INVITE, ACK, BYE, CANCEL, UPDATE, INFO, NOTIFY, REFER, OPTIONS

P-Asserted-Identity: [sip:+612xxxxxxx@symbio.x;user=phone](tel:sip:+612xxxxxxx@symbio.x;user=phone)

P-Access-Network-Info: GSTN;network-provided;operator-specific-GI=982

P-Charging-Vector: icid-value=4226066431159894;icid-generated-at=x.x.x.x;orig-
ioi=nsw.symbio

P-Early-Media: supported

Session-ID: 0a1564080000f0ccda38be23800fec5

Supported: timer

Supported: 100rel

Supported: norefersub

Max-Forwards: 32

Session-Expires: 1800;refresher=uac

Via: SIP/2.0/TCP

x.x.x.x;branch=z9hG4bK2195.07a61b07078e5390fa1a3f82991cebd2.0

Via: SIP/2.0/UDP x.x.x.x:5060;branch=z9hG4bK3d67be26-fc84-11ee-83be-
dc3dc51cfb11

v=0

o=OCA 4236061500229894 1 IN IP4 x.x.x.x

s=ENSResip

c=IN IP4 x.x.x.x

t=0 0

m=audio 16272 RTP/AVP 8 3 101

a=rtpmap:8 PCMA/8000

a=rtpmap:3 GSM/8000

a=rtpmap:101 telephone-event/8000

a=fmtp:101 0-15

a=sendrecv

a=rtcp:16273

a=ptime:20

B3 Emergency Call via satellite

- B.3.1 The example below is for an Emergency Call to 000 via a satellite service. It demonstrates the sending of location information.
- B.3.2 In the example below the digit string for the service number is replaced here with the alphanumeric string +611471xxxxx where:
 - (a) "61" is the country code for Australia; and
 - (b) "1471xxxx" is the partially masked, nine digit calling number.
- B.3.3 The digits for an IPv4 address are replaced with the string "x.x.x.x".
- B.3.4 The alphanumeric string for an IPv6 address is replaced with the string "XXXX-XXXX-XXXX-XXXX".
- B.3.5 The PANI header contains an 'ABC' value of '726'. This is for a call via a satellite service that originates in 'West Victoria'.

<i>NOTE: Refer to G557.2 for a list of SMSA and ABC Codes.</i>
--

- B.3.6 Call trace example

SIP: ----- Session Initiation Protocol

Request-Line = INVITE tel: +61000 SIP/2.0

Message-Header

Max-Forwards = 64

Via = SIP/2.0/TCP x.x.x.x;branch=z9hG4bK5ejdqku5e333kqo5bhtrhii5y

To = <tel:+61000726>

From = <tel:+611471xxxx;tag=h7g4Esbg_06070008782281

Call-ID = 10fv6574416170v9bjGhefMpAqD0g@BC01.NNIJ-MGCF-01.CIMS.CORP.TELSTRA.COM

CSeq = 813461953 INVITE

Contact = <[sip: x.x.x.x;transport=tcp](mailto:sip:x.x.x.x;transport=tcp)>

Record-Route = <[sip: x.x.x.x;transport=tcp](mailto:sip:x.x.x.x;transport=tcp);lr>

P-Access-Network-Info: GSTN;operator-specific-GI=726;network-provided

access-type = GSTN

operator-specific-GI=726
network-provided
P-Asserted-Identity - <tel:+611471xxxxxx>
P-Asserted-ID URI = tel:+611471xxxxxx
P-Charging-Vector = icid-value=VXS5-TDCT-tng000.cims.corp.telstra.com-35DCFD00A1-0417-16445705;term-ioi=tng000.mnc001.mcc505.3gppnetwork.org;4226066431159894;icid-generated-at=XXXX-XXXX-XXXX-XXXX
P-Early-Media = supported
Supported = 100rel
Supported = precondition
Supported = histinfo
Content-Type = application/sdp
Content-Length = 523
Allow = INVITE, ACK, OPTIONS, BYE, CANCEL, PRACK, UPDATE
Accept = application/sdp
Message -Body

B4 Emergency Call from NBN fixed service via 4G failover backup

- B.4.1 The example below is for an Emergency Call to 000 via a 4G failover backup for an NBN fixed service. It demonstrates the sending of location information.
- B.4.2 In the example below the digit string for the service number is replaced here with the alphanumeric string +613980xxxxxx where:
 - (a) "61" is the country code for Australia; and
 - (b) "3980xxxx" is the partially masked, nine digit calling number.
- B.4.3 The digits for an IPv4 address are replaced with the string "x.x.x.x".
- B.4.4 The alphanumeric string for an IPv6 address is replaced with the string "XXXX-XXXX-XXXX-XXXX".
- B.4.5 The PANI header contains an 'ABC' value of '034'. This is for a call via a Public Mobile Telecommunications Service that originates in Melbourne, Victoria.

<i>NOTE: Refer to G557.2 for a list of SMSA and ABC Codes.</i>
--

B.4.6 Call trace example

SIP: ----- Session Initiation Protocol -----

Request-Line = INVITE tel: +61000 SIP/2.0

Message-Header

Max-Forwards = 68

Via = SIP/2.0/TCP N.N.N.N:5060;branch=z9hG4bKdo7vyrwby6hw6l2m7ed83211r

To = <urn:service:sos>

From =

<sip:+613980xxxxx@connect.telstra.com>;tag=h7g4EsbG_3206076b03f59adff0fc90d8864 added2c

Call-ID = f95dcc2e9d7de0a3cbcf0dc1dc7c79c2

CSeq: 863456867 INVITE

Contact = <sip:sgc_c@x.x.x.x;transport=tcp>

Record-Route = <sip:x.x.x.x;transport=tcp;lr>

Accept-Contact = *;+g.3gpp.icsi-ref="urn%3Aurn-7%3A3gpp-service.ims.icsi.mmtel"

Min-Se = 900

P-Access-Network-Info: GSTN;operator-specific-GI=034;network-provided

access-type = GSTN

operator-specific-GI=034

network-provided

P-Asserted-Identity - <tel:+613980xxxxx>

P-Asserted-ID URI = sip:+613980xxxxx@connect.telstra.com

P-Charging-Vector: icid-value=VXS5-ibcf-tng000.cims.corp.telstra.com-1715-913856-607826;term-ioi=tng000.mnc001.mcc505.3gppnetwork.org;icid-generated-at=XXXX-XXXX-XXXX-XXXX

P-Visited-Network-ID = cims.corp.telstra.com

P-Early-Media = supported

Priority = emergency

Session-Expires = 1800

Supported = 100rel

Supported = replaces

Supported = precondition

Supported = histinfo

Supported = tdialog

User-Agent = EatfUacAgent

Content-Type = application/sdp

Content-Length = 747

P-Preferred-Service = urn:urn-7:3gpp-service.ims.icsi.mmtel

Allow = INVITE, ACK, CANCEL, BYE, UPDATE, PRACK, MESSAGE, REFER, NOTIFY,
INFO, OPTIONS

Accept = application/sdp

PARTICIPANTS

The Working Committee that developed the Guideline consisted of the following organisations and their representatives:

Organisation	Membership	Representative
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Concentrix	Non-voting	Andrew Brennan
Concentrix	Non-voting	Gavin Fullerton
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Optus	Non-voting	Monica Liem
Optus	Non-voting	Sam Mangar
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Telstra	Voting	Jane Elkington
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This Working Committee was chaired by James Duck of Communications Alliance who also provided project management support.

Communications Alliance was formed in 1997 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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