COMMUNICATIONS

ALLIANCE LTD

INDUSTRY SPECIFICATION

G557.3:2022

LOCATION INDEPENDENT COMMUNICATIONS
SERVICE LOCATION INDICATOR FOR EMERGENCY
SERVICES SIGNALLING SPECIFICATION

G557.3:2022 Location Independent Communications Service Location Indicator for Emergency Services Signalling Specification

First published as ACIF G629:2006
Second edition as G557.3:2014
Third edition as G557.3:2017
This edition as G557.3:2022

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INTRODUCTORY STATEMENT

The ***Location Independent Communications Service Location Indicator for Emergency Services Signalling Specification*** (G557.3:2022) replaces the ***Location Independent Communications Service Location Indicator for Emergency Services Signalling Specification*** (G557.3:2017).

G557.3:2022 is designed to set out the industry procedures for the transfer of correct caller location information from Providers of Location Independent Communications Services (LICS) SPs and their respective Transit Service Deliverers (TrSDs) to the Emergency Call Person (ECP) for LICS calls to Emergency Service Numbers (ESNs) 000 and 106.

The purpose of this change is to update document references and make editorial clarifications.

James Duck
Chair
Mobile Location Information *Working Committee*

APRIL 2022

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1 GENERAL

1.1 Introduction

1.1.1 The development of the Specification has been facilitated by the Communications Alliance through a Working Committee comprised of representatives from the telecommunications industry and Government regulatory agencies.

1.1.2 The Specification should be read in the context of other relevant Communications Alliance Codes, Specifications, Guidelines and documents, including ACIF G500 and ACIF G549, C555 and other parts of G557.

> *NOTE: The 2000 versions of ACIF G500 and ACIF G549 are based upon I-ISUP signalling and are implemented in Australian Telecommunications Networks. Both documents were amended in 2020 to allow the transfer of international CLI.*

1.1.3 The Code should be read in conjunction with related legislation, including:

(a) the *Telecommunications Act 1997* (the Act);

(b) the *Telecommunications (Consumer Protection and Service Standards) Act 1999*; and

(c) the *Telecommunications (Emergency Call Service) Determination 2019*; and

(d) the *Telecommunications Numbering Plan 2015*.

1.1.4 If there is a conflict between the requirements of the Specification and any requirements imposed on a LICS SP or its respective TrSD by statute, the LICS SP or its respective TrSD will not be in breach of the Specification by complying with the requirements of the statute.

1.1.5 Compliance with this Specification does not guarantee compliance with any legislation. The Code is not a substitute for legal advice.

1.1.6 Statements in boxed text are a guide to interpretation only and not binding as Specification rules.

1.2 Reference by the ACMA

The Specification may be referenced by the Australian Communications and Media Authority (ACMA). Readers should check the ACMA website (http://www.acma.gov.au/) for more information.

1.3 Scope

1.3.1 The Specification applies to LICS SPs or their respective TrSDs that:

(a) are Carriers or Carriage Service Providers (CSPs); and

(b) supply a LICS that supports Emergency Calls to the ESNs 000 or 106.

1.3.2 The Specification is not applicable to Emergency Calls to the ESN 112.

NOTE: 112 is a secondary ESN for PMTS in the Telecommunications Numbering Plan 2015.

1.3.3 The Specification is not applicable to Emergency Calls from a:

(a) PMTS; or

(b) Satellite Service; or

(c) Fixed Local Service.

NOTE: 'ABC' codes for these services are separately defined in G557.2.

1.3.4 The Specification defines the caller location information to be provided to the ECP by a LICS SP or its respective TrSD by using a signalling interface across an ECP POI that:

(a) is based on I-ISUP; and

(b) supports calls via a LICS to ESNs 000 and 106.
by incorporating the correct "ABC" code from G557.2 in the Service Digits (SD) passed across an ECP POI.

1.4 Objectives

The objective of the Specification is to set out the industry procedures for the transfer of correct caller location information from LICS SPs and their respective TrSDs to the ECP for calls via a LICS to ESNs 000 and 106.

NOTE: The Specification may also be used for other nomadic services.

1.5 Specification review

The Specification will be reviewed every 5 years, or earlier in the event of significant developments that affect the Code/Guideline or a chapter within the Code/Guideline.

2 ACRONYMS, DEFINITIONS AND INTERPRETATIONS

2.1 Acronyms

For the purposes of the Specification:

ACIF

means Australian Communications Industry Forum.

ACMA

means the Australian Communications and Media Authority.

CLI

means Calling Line Identification.

CSP

means Carriage Service Provider.

ECP

means Emergency Call Person.

ESN

means Emergency Service Number.

ESO

means Emergency Service Organization.

I-ISUP

means Interconnection ISUP.

IP

means Internet Protocol.

IPND

means Integrated Public Number Database.

ISDN

means Integrated Service Digital Network.

ISUP

means ISDN User Part.

LICS

means Location Independent Communications Service.

LICS SP

means a SP providing a LICS.

MoLI

means Mobile Location Information.

POI

means Point of Interconnection.

PSTN

means Public Switched Telephone Network.

SD

means Service Digit.

SMSA

means Standardized Mobile Service Area.

SP

means Service Provider.

TrSD

means Transit Service Deliverer.

2.2 Definitions

For the purposes of the Specification:

Act

means the *Telecommunications Act 1997 (Cth)*.

Carriage Service Provider

has the meaning given by section 87 of the Act.

Carrier

has the meaning given by section 7 of the Act.

Determination

means the *Telecommunications (Emergency Call Service) Determination 2019*.

ECP POI

means the POI between:

(a)   the ECP and a LICS SP; or

(b)   the ECP and a LICS SP's respective TrSD

using a signalling interface based upon I-ISUP.

Emergency Call

has the meaning given by the Determination.

Emergency Call Person

has the meaning given by section 7 of the Act.

> NOTE: At time of publication of this Specification, the ECP for 000 and 112 is Telstra and the ECP for 106 is Concentrix Services Pty Ltd. Calls from a LICS SP or TrSD to 000 or 106 are handed over to Telstra under existing industry arrangements.

Emergency Service Number

has the meaning given by Part 3 of the *Telecommunications Numbering Plan 2015.*

Emergency Service Organization

has the meaning given by the Determination.

Fixed Local Service

has the meaning given by the Determination.

Location Independent Communication Service

has the meaning given by the *Telecommunications Numbering Plan 2015.*

Public Mobile Telecommunications Service

has the meaning given by section 32 of the Act.

Satellite Service

has the meaning given by the Determination.

Standard Emergency Telephone Service

has the meaning given by the Determination.

Telecommunications Network

has the meaning given by section 7 of the Act.

Transit POI

means the POI between a LICS SP and its respective TrSD.

> *NOTE: This choice of signalling interface at a Transit POI is subject to bilateral agreement.*

Transit Service Deliverer

means a service deliverer contracted through an interconnection agreement to provide a transit service between service deliverers.

> *NOTES:*
>
> *1: This definition is consistent with the definition for "TrSD" in G520.*
>
> *2: For the purpose of this Specification, the TrSD provides a transit service to LICS SPs for routing their Emergency Calls to the ECP.*

2.3   Interpretations

In the Specification, 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   REQUIREMENTS

3.1   List of 'ABC' codes for a LICS

The list of 'ABC' codes for a LICS from G557.2 is in Table 1 below.

<div align="center">

TABLE 1

List of 'ABC' codes for a LICS from G557.2

</div>

SMSA Name/ Collection Area	State / Territory	ABC
Location Independent Unknown	UNK	980
Location Independent ACT	ACT	981
Location Independent NSW	NSW	982
Location Independent VIC	VIC	983
Location Independent TAS	TAS	984
Location Independent NT	NT	985
Location Independent QLD	QLD	987
Location Independent SA	SA	988
Location Independent WA	WA	989

NOTES:

1. 'ABC' code 986 is not allocated in G557.2.

2. The preferred 'ABC' code is the one that reflects the approximate location of the caller.

3.2   Routing of calls from a LICS to Emergency Service Numbers 000 and 106 with 'ABC' codes

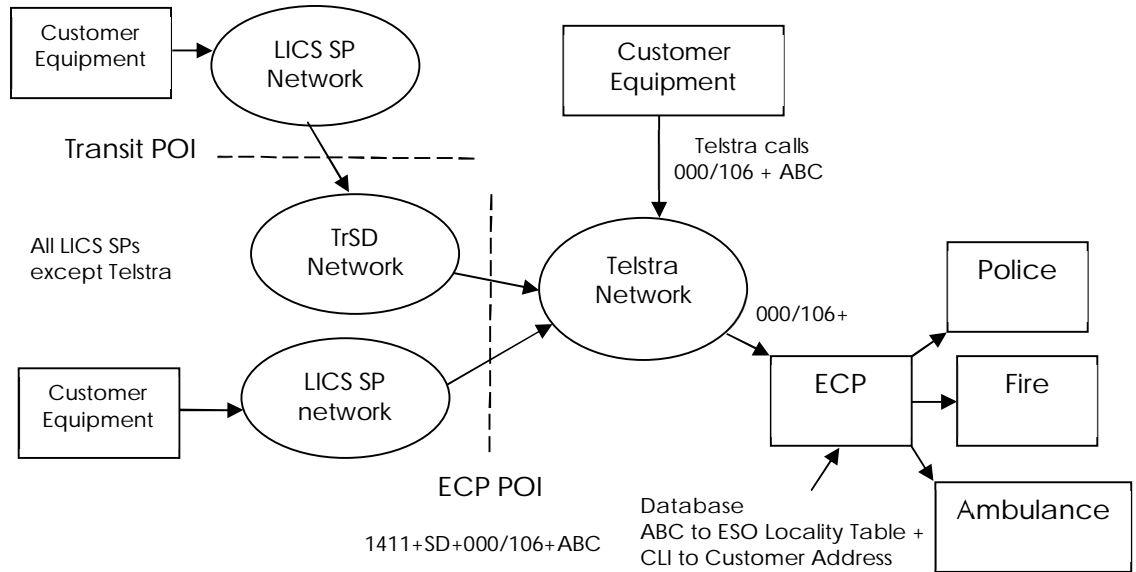3.2.1   See Figure 1 for routing of calls from a LICS to ESNs 000 and 106.

FIGURE 1

Call from a LICS to Emergency Service Numbers 000 and 106 with 'ABC' codes

3.2.2   Address Structure.

The correct called party address structure for calls from a LICS to ESNs 000 and 106 from a LICS SP or its respective TrSD (other than Telstra as the ECP for 000 and 112) is:

1411 + 62 + 000/106 + ABC

The correct called party address structure for calls from a LICS to ESNs 000 and 106 from Telstra (as it is also the ECP for 000 and 112) is:

000/106 + ABC

where:

'1411' =   Telstra carrier access code

'62'   =   SD indicating 'ABC' information is included.

'000' =   ESN;

'106' =   ESN

'ABC' =   3 digit code relating to caller's location as per G557.2.

> *NOTES:*
>
> *1. These address structures are derived from G549.*
>
> *2. Refer to G549 for definitions of SDs. SD '62' was originally defined only for "Mobile location indicator – non-ported, non-geographic- however it has been extended for industry use with additional ABC codes for non-mobile services, including LICS.*

3.2.3   The common inter-Carrier/CSP Emergency Call address structure (i.e. 1411+2+000/106 from G549) should not be used by LICS SPs or their respective TrSDs for calls from a LICS to 000 and 106.

> *NOTE: Emergency Calls received with this address structure at an ECP POI are assumed not to have the ABC code available and Telstra adds "990" as a default 'ABC' code for Fixed Local Service (i.e. Fixed Location Unknown) from G557.2 - however this does not identify that these Emergency Calls are calls from a LICS.*

3.3   Inclusion of 'ABC' code for calls from a LICS to Emergency Service Numbers 000 and 106

3.3.1   When a LICS SP hands over a call from a LICS across an ECP POI and:

(a)   the call is to ESN 000 or 106; and

(b)   the LICS SP is able to identify the caller location (e.g. the state or territory in Australia)

then the LICS SP should include in the I-ISUP signalling digits the correct 'ABC' code from G557.2 that reflects the caller's approximate location.

> *NOTES:*
>
> *1. The 'ABC' code for a call from a LICS is typically in the format 98x where '98' is a call identifier for a LICS and 'x' is the state or territory identifier digit.*
>
> *2. Refer to G557.2 for the current full list of SMSAs and 'ABC' codes.*
>
> *3. Refer to section 3.1 for a list of applicable 'ABC' codes for calls from a LICS (extracted from G557.2 at the time of publication of this Specification).*

3.3.2   When a LICS SP hands over a call from a LICS across an ECP POI and:

(a)   the call is to ESN 000 or 106; and

(b)   the LICS SP is unable to identify the caller location (e.g. nomadic services)

then the LICS SP should include in the I-ISUP signalling digits the 'ABC' code "980" corresponding to "Location Independent Unknown" from G557.2.

3.3.3   When a LICS SP hands a call from a LICS across a Transit POI and the call is to ESN 000 or 106, then the LICS SP should provide the correct 'ABC' code from G557.2 to its respective TrSD in accordance with the requirements of clauses 3.1.1 and 3.1.2.

3.3.4   When a LICS SP's respective TrSD receives a call via a LICS from the LICS SP in accordance with clause 3.1.3 and the call is to ESN 000 or 106, the TrSD should not alter the 'ABC' code from G557.2

which had been provided by the LICS SP when the TrSD subsequently hands over that call across an ECP POI.

3.4   IPND Provisioning

Refer to Appendix A for information on important considerations for IPND provisioning procedures by LICS SPs relating to calls from a LICS to ESNs 000 and 106.

4 REFERENCES

Publication	Title
Industry Codes	
C555:2020	Integrated Public Number Database (IPND) Data Provider, Data User and IPND Manager
	http://commsalliance.com.au/Documents/all/codes/c555
Industry Guideline	
G557:2022	Location Information for Emergency Calls
	Part 1: General
	Part 2: Standardised Mobile Service Area and Location Indicator Register
	Part 3: Location Independent Communications Service Location Indicator for Emergency Services Signalling
	Part 4: Mobile Location Information (MOLI) Processes For Emergency Calling And Rescue Coordination
	Part 5: Push Mobile Location Information (MoLI) Interface To Enhanced Calling Line Identification Processing System (ECLIPS)
	http://commsalliance.com.au/Documents/all/guidelines/g557
G619:2017	IPND Data
	http://commsalliance.com.au/Documents/all/guidelines/g619
Industry Specifications	
ACIF G500:2000 and Amdt No. 1/2020 to ACIF G500:2000	Signalling System No. 7 - Interconnection ISUP
	http://commsalliance.com.au/Documents/all/Specifications/G500_2000
G520:2005	Local Number Portability - Network Plan
	http://commsalliance.com.au/Documents/all/Specifications/G520
ACIF G549:2000 and Amdt No 1/2020 to ACIF G549:2000	Interconnection Implementation Plan
	http://commsalliance.com.au/Documents/all/Specifications/G549_2000

Legislation
Competition and Consumer Act 2010   https://www.legislation.gov.au/Series/C2004A00109
Telecommunications Act 1997   https://www.legislation.gov.au/Series/C2004A05145
Telecommunications (Consumer Protection and Service Standards) Act 1999   https://www.legislation.gov.au/Series/C2004A00441
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   IPND PROVISIONING PROCEDURES BY LICS SPs RELATING TO CALLS FROM A LICS TO EMERGENCY SERVICE NUMBERS 000 and 106 (INFORMATIVE)

A1   Important considerations

A.1.1   The data provided to the IPND is explained in G619. Specifically, refer to:

      (a)   Section 6.7 for information about CSP codes; and

      (b)   Section 6.9 in relation to the alternate address flag.

A.1.2   For all services via a LICS, the alternate address flag should be set to true.

PARTICIPANTS

The Network Reference Panel, constituted as a Working Committee, responsible for the revisions made to this Specification consisted of the following organisations and their representatives:

Organisation	Membership	Representative
Cisco Systems	Voting	Kim Yan
nbn™	Voting	Murray James
Optus	Voting	Sam Mangar
Telstra	Voting	Geoff Gerrand
Vocus	Voting	Justin Martin
TPG Telecom	Voting	Angus Clearie
ACCC	Non-voting	James Park
ACMA	Non-voting	Cuong Nguyen

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.

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