

AS/ACIF S038:2001

AUSTRALIAN COMMUNICATIONS INDUSTRY FORUM

Australian Standard

Requirements for ISDN Primary Rate Access Interface

For adoption for regulatory purposes



Australian Communications Authority

Standards Australia

Australian Standard—Requirements for ISDN Primary Rate Access Interface

This Standard was issued in draft form for public comment as DR AS/ACIF S038.

First published as AS/ACIF S038:1999.

This Standard was gazetted on 12 September 2001 and commenced on that day.

ISBN 1 74000 157 5

© Copyright Australian Communications Industry Forum PO Box 444 Milsons Point NSW 1565

Disclaimers

- 1 Notwithstanding anything contained in this Standard:
 - (a) ACIF disclaims responsibility (including where ACIF or any of its officers, employees, agents or contractors has been negligent) for any direct or indirect loss, damage, claim, or liability any person may incur as a result of any:
 - (i) reliance on or compliance with this Standard;
 - (ii) inaccuracy or inappropriateness of this Standard; or
 - (iii) inconsistency of this Standard with any law; and
 - (b) ACIF disclaims responsibility (including where ACIF or any of its officers, employees, agents or contractors has been negligent) for ensuring compliance by any person with this Standard.
- 2 The above disclaimers will not apply to the extent they are inconsistent with any relevant legislation.

Copyright

This document is copyright. You may reproduce it only as necessary for the purposes of you or your organisation considering or pursuing compliance with this Standard. You must not alter or amend this Standard.

FOREWORD

General

This Standard was prepared by the ACIF Working Committee CECRP/WC6 on Digital Standards for Customer Equipment. It is one of a series of Telecommunication Standards developed under the Memorandum of Understanding between the Australian Communications Authority and the Australian Communications Industry Forum.

This Standard is the result of a consensus among representatives on the ACIF Working Committee to produce it as an Australian Standard.

This Standard is based on the Australian Communications Authority ACA TS 038 — 1997 *Requirements for ISDN Primary Rate Access Interface.*

The requirements in this Standard are consistent with the aims of s376 of the *Telecommunications Act 1997*. Specifically these aims are—

- (a) protecting the integrity of a telecommunications network or facility;
- (b) protecting the health and safety of persons;
- (c) ensuring access to emergency services; and
- (d) ensuring interoperability with a standard telephone service.

It should be noted that some Customer Equipment (CE) may require demonstration of compliance with requirements in other Standards.

Applicable electrical safety Standards and Electromagnetic Compatibility (EMC) Standards may apply under Commonwealth or State laws, or both.

Intellectual property rights

Equipment which is manufactured to comply with this Standard may require the use of technology which is protected by patent rights in Australia. Questions about the availability of such technology, under licence or otherwise, should be directed to the patent holder or Australian licensee (if known) or through enquiry at IP Australia which incorporates the Patent, Designs and Trade Marks Offices. Further information can be found at www.ipaustralia.gov.au.

Standards revision

Australian Standards developed by the Australian Communications Industry Forum (AS/ACIF Standards) are updated, according to the needs of the industry, by amendments or revision. Users of AS/ACIF Standards should make sure that they possess the latest amendments or editions. Representations concerning the need for a change to this AS/ACIF Standard should be addressed to:

The Project Manager Customer Equipment and Cable Reference Panel The Australian Communications Industry Forum PO Box 444 Milsons Point NSW 1565

Regulatory notice

This notice is to advise that this Standard is subject to regulatory adoption by the Australian Communications Authority (ACA) under Commonwealth Law.

The ACA is a Federal Government body with statutory powers to impose requirements concerning telecommunications Customer Equipment and Customer Cabling.

The ACA requires Australian manufacturers and importers of specified items of Customer Equipment and Customer Cabling to establish compliance with Standards such as this. Items are required to be labelled to the applicable labelling notices.

Details on current compliance arrangements can be obtained from the ACA website at http://www.aca.gov.au or by contacting the ACA below at:

Australian Communications Authority PO Box 13112 Law Courts PO Melbourne VIC 8010 Australia

Telephone: +61 3 9963 6800 Facsimile: +61 3 9963 6899 TTY: +61 3 9963 6948

TABLE OF CONTENTS

1	INTE	RPRET	ATION	3
	1.1	Catego	ories of requirements	3
	1.2	Compl	liance statements	3
	1.3	Definit	tions, expressions and terms	3
	1.4	Notes		3
	1.5	Refere	ences	3
	1.6	Units a	and symbols	3
2	SCO	PE		5
3	REF	ERENCE	ES	7
4	ABB	ABBREVIATIONS AND DEFINITIONS		11
	4.1	Abbreviations		11
	4.2	2 Definitions		11
		4.2.1	Carrier	11
		4.2.2	Customer Equipment (CE)	11
		4.2.3	Data Link Layer (Layer 2)	11
		4.2.4	Facility	11
		4.2.5	Integrated Services Digital Network (ISDN)	12
		4.2.6	Network Layer (Layer 3)	12
		4.2.7	Physical Layer (Layer 1)	12
		4.2.8	Telecommunications Network	12
5	REQUIREMENTS		13	
	5.1	Genera	al	13
		5.1.1	Fail-safe operation	13
		5.1.2	Emergency services access	13
	5.2	Physic	cal Layer (Layer 1)	13
		5.2.1	General	13
		5.2.2	ITAAB Advisory Note	14
	5.3	Data Link Layer (Layer 2)		14
		5.3.1	General	14
		5.3.2	ITAAB Advisory Note	14
	5.4	Netwo	rk Layer (Layer 3)	14
		5.4.1	General	14
		5.4.2	Variation/additional requirements	14
6	TES	TING		17
	6.1	Genera	al	17
	6.2	Standa	ard test conditions	17
	6.3	Fail-sa	ife operation	17
	6.4	Emergency calling		17
	6.5	Physical Layer (Layer 1) 17		
	6.6	Data L	ink Layer (Layer 2)	18
	6.7	Network Layer (Layer 3)		18
		6.7.1	General	18
		6.7.2	Variation/additional tests	18

PARTICIPANTS

The ACIF Working Committee that developed this Standard consisted of the following organisations:

Organisation	Membership
Australian Communications Authority	Non-voting
Alcatel	Voting
Australian Telecommunications Industry Association	Voting
Comtest Laboratories	Voting
Envision Communications	Voting
Ericsson	Voting
Lucent Technologies	Voting
NEC Australia	Voting
Nortel	Voting
Siemens	Voting
Telstra	Voting

Mike Johns of ACIF provided project management support.

1 INTERPRETATION

1.1 Categories of requirements

This Standard contains mandatory requirements as well as provisions that are recommended only. Mandatory requirements are designated by the words '**shall**' or '**shall not**'. All other provisions are voluntary.

1.2 Compliance statements

Compliance statements, in italics, suggest methodologies for demonstrating CE's compliance with the requirements.

1.3 Definitions, expressions and terms

If there is any conflict between the definitions used in this Standard and the definitions used in the *Telecommunications Act 1997*, the definitions in the Act take precedence.

1.4 Notes

Text denoted as 'Note' is for guidance in interpretation and is shown in smaller size type.

1.5 References

- 1.5.1 Applicable editions (or versions) of other documents referred to in this Standard are referenced documents and are specified in Section 3: REFERENCES.
- 1.5.2 If a referenced document refers to another document, the other document is a sub-referenced document.
- 1.5.3 Where the edition (or version) of the sub-referenced document is uniquely identified in the reference document, then that edition (or version) applies.
- 1.5.4 Where the edition (or version) of the sub-referenced document is not uniquely identified in the reference document, then the applicable edition (or version) of a legislated document is that which is current at the date the reference document is legislated under the applicable regulatory framework or otherwise comes into effect, or for a non-legislated document, the date upon which the document is published by the relevant standards organisation.
- 1.5.5 A number in square brackets '[]' refers to a document listed in Section 3: REFERENCES.
- 1.5.6 In the event of a discrepancy between this Standard and a referenced or sub-referenced document, this Standard **shall** take precedence.

1.6 Units and symbols

In this Standard the International System (SI) of units and symbols is used in accordance with Australian Standard AS ISO 1000 [2].

2 SCOPE

2.1	This Standard specifies the technical conditions and performance requirements, at the Physical, Data Link and Network Layers (Layers 1, 2 and 3), for CE that is intended for connection to an ETSI Integrated Services Digital Network (ISDN) Primary Rate Access Digital Subscriber Signalling No. 1 (DDS 1) interface for the purpose of receiving information from, or transmitting information to, the ISDN at the T reference point.
2.2	CE is not excluded from the scope of this Standard by reason only that it is capable of performing functions additional to those listed above.
2.3	For additional technical requirements applying to CE, this Standard should be read in conjunction with those ACA Technical Standards and other documents listed in Clause 3: REFERENCES of this Standard.
21	Where CE is also intended to connect to the ISDN Primary Pate Access

2.4 Where CE is also intended to connect to the ISDN Primary Rate Access services based on ACA Technical Standard 014 [1], then CE is to also meet the requirements specified in ACA Technical Standard 014 [1].

3 **REFERENCES**

	Publication	Title
	ACA Technical Standards	
]	Technical Standard 014	General Requirements for Customer Equipment Connected to an ISDN Primary Rate Interface
	Australian Standards	
	AS ISO 1000—1998	The International System of Units (SI) and its application
	ITU–T Recommendations	
	X.200:1994	Information technology - Open Systems Interconnection - Basic reference model
	European Commission	
	CTR004 (Am1)	98/518/EC, Commission Decision of 17 June 1998 on a common technical regulation for the pan-European Integrated Services Digital Network (ISDN) Primary Rate Access (Amendment 1)
	European Telecommunication	ons Standards Institute (ETSI)
	ETSI EN 300 089: 1992	Integrated Services Digital Network (ISDN); Calling Line Identification Presentation (CLIP) supplementary service—Service description
	ETSI EN 300 090: 2000	Integrated Services Digital Network (ISDN); Calling Line Identification Restriction (CLIR) supplementary service—Service description
	ETSI EN 300 092-1: 2001	Integrated Services Digital Network (ISDN); Calling Line Identification Presentation (CLIP) supplementary service Digital Subscriber Signalling System No. one (DSS 1) protocol
	ETSI EN 300 093-1: 1998	Integrated Services Digital Network (ISDN); Calling Line Identification Restriction (CLIR) supplementary service Digital Subscriber Signalling System No. one (DSS 1) protocol
	ETSI EN 300 128: 1992	Integrated Services Digital Network (ISDN); Malicious Call Identification (MCID) supplementary service—Service description
)]	ETSI EN 300 130-1: 1998	Integrated Services Digital Network (ISDN); Malicious Call Identification (MCID) supplementary service Digital Subscriber Signalling System No. one (DSS 1) protocol, Part 1: Protocol specification

[11]	ETSI EN 300 130-3: 1998	Integrated Services Digital Network (ISDN); Malicious Call Identification (MCID) supplementary service Digital Subscriber Signalling System No. one (DSS 1) protocol, Part 3: Test Suite Structure and Test Purposes (TSS&TP) specification for the user
	ISDN Approval Advisory Bo	ard (ITAAB)
[12]	Advisory Note 055:1998	Value of the state used in STATUS message
[13]	Advisory Note 066	Test case selection to be performed for Basic Access and for Primary Rate Access for layers 2 and 3
[14]	Advisory Note 067	Testing to be performed for Primary Rate Access layer 1
[15]	Advisory Note 068	CRC processing and generation of CRC error reports: Monitoring contiguous E bits
[16]	Advisory Note 070	CRC processing Test Procedure change
[17]	Advisory Note 072:1998	Requirements to EURO-ISDN primary rate access terminal equipment capable of handling only incoming or only outgoing calls
[18]	Advisory Note 075	Approval of TE's capable of automatic inter- working between equipment with and without CRC-4 capability
[19]	Advisory Note 080	Use of preferred/exclusive bit in the RESTART ACK PDU in TC19003
[20]	Advisory Note 082	Connection of the simulator to the IUT
[21]	Advisory Note 083	Layer 3 default DF69901
[22]	Advisory Note 084	Layer 3 response time in layer 2 tests
[23]	Advisory Note 085	Information element checking in layer 3 TC20002
[24]	Advisory Note 086	Layer 2 test case TC27031
[25]	Advisory Note 087:1998	Handling of IUT's supporting En-bloc sending without using the Sending Complete IE, or supporting more than one dialling mode
[26]	Advisory Note 105	Test method for TBR 4 Clause B.3.2 - Immunity to attenuation and reflections
[27]	Advisory Note 107	CRC processing Test Procedure Change
[28]	Advisory Note 110	Incidental non-compliances and unexpected PDUs
[29]	Advisory Note 114	Clarification of the term "Mains Powered", used in the TBR-RT's for selection of Protection tests
[30]	Advisory Note 123	Problems in layer 2 preambles for terminal equipment unstable in state 4

	Additional References	
[31]	TBR 004	Technical Basis for Regulation TBR 004 November 1995, Integrated Services Digital Network (ISDN); Attachment requirements for terminal equipment to connect to an ISDN using ISDN primary access
[32]	TBR 004/A1	Technical Basis for Regulation TBR 004 Amendment A1 December 1997, Integrated Services Digital Network (ISDN); Attachment requirements for terminal equipment to connect to an ISDN using ISDN primary access



4 ABBREVIATIONS AND DEFINITIONS

For the purposes of this Standard, the following abbreviations and definitions apply.

4.1 Abbreviations

ACA	Australian Communications Authority
ACIF	Australian Communications Industry Forum
AS	Australian Standard
CE	Customer Equipment
CLI	Calling Line Identification
CLIP	Calling Line Identification Presentation
CLIR	Calling Line Identification Restriction
CTR	Common Technical Regulations
DSS 1	Digital Subscriber Signalling No. 1
DUT	Device Under Test
EC	European Commission
EMC	Electromagnetic Compatibility
ETSI	European Telecommunications Standards Institute
IA5	International Alphabet No. 5
IE	Information Element
ISDN	Integrated Services Digital Network
ITAAB	ISDN Type Approval Advisory Board
MCID	Malicious Call IDentification
SI	International System
TN	Telecommunications Network
TTCN	Tree and Tabular Combined Notation

4.2 Definitions

4.2.1	Carrier
	Refer to the Telecommunications Act 1997.
4.2.2	Customer Equipment (CE)
	Refer to the Telecommunications Act 1997.
4.2.3	Data Link Layer (Layer 2)
	Layer 2 refers to the Data Link Layer as defined by the OSI Reference Model specified in ITU-T Rec. X.200 [3].
	Note: The term 'Data Link Layer' is used to represent 'Layer 2'. These terms are used interchangeably.
4.2.4	Facility
	Refer to Section 374(2) of the Telecommunications Act 1997.

4.2.5	Integrated Services Digital Network (ISDN)
	A digital network in which the same digital switches and digital paths are used to establish connections for different services, for example, telephony, data.
4.2.6	Network Layer (Layer 3)
	Layer 3 refers to the Network Layer as defined by the OSI Reference Model specified in ITU-T Rec. X.200 [3].
	Note: The term 'Network Layer' is used to represent 'Layer 3'. These terms are used interchangeably.
4.2.7	Physical Layer (Layer 1)
	Layer 1 refers to the Physical Layer as defined by the OSI Reference Model specified in ITU-T Rec. X.200 [3].
	Note: The term 'Physical Layer' is used to represent 'Layer 1'. These terms are used interchangeably.
4.2.8	Telecommunications Network
	Refer to Section 374(1) of the <i>Telecommunications Act 1997</i> .

5 **REQUIREMENTS**

5.1 General

5.1.1 Fail-safe operation

- 5.1.1.1 CE **shall not** cause harm or damage to a Telecommunications Network or Facility if any of the following events, or a consequential event, occurs:
 - (a) Failure of any single mechanical or electrical component in the CE.
 - (b) Failure of any power supply (including AC mains voltage and local battery) to the CE.
 - (c) Incorrect manual operation of the CE.
- 5.1.1.2 CE should not cause harm or damage to a Telecommunications Network or Facility when CE is operated outside the range of operating voltage and environmental conditions specified by the manufacturer.
- 5.1.1.3 When the battery voltage of battery-powered CE varies, the CE **shall** fail safe before causing any harm to a Telecommunications Network or Facility.
 - Note: This Clause is intended to preclude out-of-specification operation, due to battery discharge, when such operation threatens network integrity.

Compliance with Clause 5.1.1 should be checked by using the methods described in Clause 6.3.

5.1.2 Emergency services access

- 5.1.2.1 CE capable of establishing speech circuits **shall** support emergency number '000' and '106' dialling.
- 5.1.2.2 CE capable of establishing speech circuits, should not support barring of access to emergency number '000' and '106'.
- 5.1.2.3 Mains powered CE capable of establishing speech circuits, should continue to support emergency number '000' and '106' dialling for at least 30 minutes following loss of mains power.
 - Note: CE that does not continue to support emergency dialling after loss of mains power, should include in the accompanying documentation a warning notice. A suggested wording for such a warning notice is as follows:



Compliance with Clause 5.1.2 should be checked by using the methods described in Clause 6.4.

5.2 Physical Layer (Layer 1)

5.2.1 General

CE **shall** comply with the Layer 1 requirements of the Common Technical Regulation CTR004 (Am1) [4].

Note: CTR004 (Am1) [4] references ETSI Technical Basis for Regulation TBR 004 [31] as amended by TBR 004/A1 [32] for requirements and testing.

Compliance with Clause 5.2 should be checked by using the methods described in Clause 6.5.

AS/ACIF S038:2001 COPYRIGHT JULY 2001

5.2.2 ITAAB Advisory Note

Where applicable, the CE **shall** comply with the requirements specified in ITAAB Advisory Note 072 [17].

Compliance with Clause 5.2.2 should be checked by using the methods described in Clause 6.5.

5.3 Data Link Layer (Layer 2)

5.3.1 General

CE **shall** comply with the Layer 2 requirements of the Common Technical Regulation CTR004 (Am1) [4].

Note: CTR004 (Am1) [4] references ETSI Technical Basis for Regulation TBR 004 [31] as amended by TBR 004/A1 [32] for requirements and testing.

Compliance with Clause 5.3 should be checked by using the methods described in Clause 6.6.

5.3.2 ITAAB Advisory Note

Where applicable, the CE **shall** comply with the requirements specified in ITAAB Advisory Note 072 [17].

Compliance with Clause 5.3.2 should be checked by using the methods described in Clause 6.6.

5.4 Network Layer (Layer 3)

5.4.1 General

CE shall comply with the Layer 3 requirements of the Common Technical Regulation CTR004 (Am1) [4].

Note: CTR004 (Am1) [4] references ETSI Technical Basis for Regulation TBR 004 [31] as amended by TBR 004/A1 [32] for requirements and testing.

Compliance with Clause 5.4.1 should be checked by using the methods described in Clause 6.7.1.

5.4.2 Variation/additional requirements

Variation and additions to the requirements specified in Clause 5.4.1 are set out in Clauses 5.4.2.1 to 5.4.2.5.

5.4.2.1 Malicious Call IDentification (MCID)

- 5.4.2.1.1 The capability of supporting the Malicious Call IDentification (MCID) supplementary service for speech and 3.1 kHz audio bearer services is optional.
- 5.4.2.1.2 If the MCID supplementary service is supported, the CE shall comply with the ETSI Malicious Call Identification (MCID) functional procedures specified in EN 300 128 [9] and EN 300 130-1 [10].
 - Note 1: ETSI Functional Procedures are subject to carrier or carriage service provider availability.
 - Note 2: Alternate carrier or carriage service provider specific provisions may be used to identify a malicious call.

Compliance with Clause 5.4.2.1 should be checked by using the methods described in Clause 6.7.2.2.

- 5.4.2.2 Calling Line Identification Restriction (CLIR)
- 5.4.2.2.1 Calling Line Identification Restriction (CLIR) procedures provide the Calling Party with the ability to restrict presentation of the Calling Party's ISDN number and subaddress to the called party.
- 5.4.2.2.2 CLIR is supported as two user subscription options in the Telecommunication Networks. These options are 'Normally Present' and 'Normally Restrict'. Both options can be controlled on a call by call basis, overriding the network default. ETSI define these modes as the following:
 - (a) 'Temporary Mode with default of presentation not restricted' (Temporary Mode 1).
 - (b) 'Temporary Mode with default of presentation restricted' (Temporary Mode 2).
- 5.4.2.2.3 The capability of supporting CLIR supplementary service is optional, however if supported, the CE **shall** support either Temporary Mode 1 or 2, or both variants, as described below:
 - (a) Temporary Mode 1

Upon invocation of CLIR, CE **shall** send an indication to the network, advising the network to restrict presentation on a per call basis (i.e. CE action is required for each call to invoke the service).

(b) Temporary Mode 2

Upon invocation of CLIR, CE **shall** send an indication to the network, advising the network to allow presentation on a per call basis (i.e. CE action is required for each call to invoke the service).

- 5.4.2.2.4 If either Temporary Mode 1 or Temporary Mode 2 is supported by CE, the CE **shall** provide Functional procedures to allow restriction of CLI on a per call basis in accordance with the following ETSI specifications:
 - (a) EN 300 090 [6] (Stage 1).
 - (b) EN 300 093-1 [8] (Stage 3).

Compliance with Clause 5.4.2.2 should be checked by using the methods described in Clause 6.7.2.3.

- 5.4.2.3 Calling Line Identification Presentation (CLIP)
- 5.4.2.3.1 Calling Line Identification Presentation (CLIP) procedures provide the called party with the possibility of receiving the Calling Party identity.
- 5.4.2.3.2 Where CE is capable of supporting CLIP, CE **shall** comply with CLIP requirements specified in following ETSI specifications:
 - (a) EN 300 089 [5] (Stage 1).
 - (b) EN 300 092-1 [7] (Stage 3).
 - Note 1: Some network carriers or carriage service provider may not support the CLIP supplementary service.
 - Note 2: If the Calling Party number is not available at the destination interface or only partial CLI is available, the 'Not Available due to Interworking' codepoint will be sent in the Calling Party Number IE, without any address digits.
 - Note 3: If the CLI is restricted from presentation (e.g. Calling Party activates CLIR or Calling Party is connected to an exchange or network which does not have CLIR capability) then the 'Presentation Restricted' codepoint will be sent in the Calling Party Number IE.
 - Note 4: The number formats will be in accordance with the individual carrier or carriage service provider specifications.

AS/ACIF S038:2001 COPYRIGHT JULY 2001

Compliance with Clause 5.4.2.3 should be checked by using the methods described in Clause 6.7.2.4.

5.4.2.4 ITAAB Advisory Note

Where applicable, the CE **shall** comply with the requirements specified in ITAAB Advisory Notes 055 [12], 072 [17] and 087 [25].

Compliance with Clause 5.4.2.4 should be checked by using the methods described in Clause 6.7.

- 5.4.2.5 Initiation of automatic repeated outgoing call attempts
- 5.4.2.5.1 CE **shall** provide a minimum off-line period of 2 seconds between successive automatically initiated calls from any channel(s) on the interface to the required number.
- 5.4.2.5.2 In any 30 minute period, a CE **shall not** automatically initiate more than ten calls from any channel(s) on the interface to any single called party number, unless a call is successful (i.e. a CONNECT message is received), in which case a new 30 minute period will commence when the next automatically initiated call attempt is made from any channel(s) on the interface to the same required number.

Compliance with Clause 5.4.2.5 should be checked by using the methods described in Clause 6.7.2.5.



6 TESTING

6.1 General

- 6.1.1 Compliance with all mandatory requirements applicable to the CE as specified in the Requirements Clauses is to be verified. This verification may be through direct measurements, modelling and analysis, or inspection.
- 6.1.2 Methods for demonstrating compliance of CE with Requirements Clauses specified in this Standard are described in Clauses 6.2 to 6.7. Alternative methods of demonstrating compliance to those described may be used if the risk of passing non-compliant CE is not increased because of increased measurement uncertainty.

6.2 Standard test conditions

- 6.2.1 Unless this Standard provides otherwise, testing for compliance with this Standard should be conducted at the nominal supply voltage of the CE and within the following ranges of atmospheric conditions:
 - (a) An ambient temperature in the range of 15°C to 25°C inclusive.
 - (b) A relative humidity in the range of 30% to 75% inclusive.
 - (c) An air pressure in the range of 86 kPa to 106 kPa inclusive.
- 6.2.2 Where elements in a test circuit are variable, the test should be carried out over the indicated range for that element.
- 6.2.3 Unless indicated elsewhere within this Standard, the accuracy level of all measurements should be better than $\pm 2\%$ for voltage and current, $\pm 0.25\%$ for frequency and $\pm 0.5\%$ for time.
- 6.2.4 Unless indicated elsewhere within this Standard for an individual test, all component values in the test configuration should have a tolerance of—
 - (a) $\pm 1\%$ for resistance;
 - (b) $\pm 1\%$ for capacitance; and
 - (c) -0%, +25% for inductors.

6.3 Fail-safe operation

Compliance with the requirements of fail-safe operation specified in Clause 5.1.1 should be checked by operation and inspection.

6.4 Emergency calling

Compliance with the Emergency Calling requirements specified in Clause 5.1.2 should be checked by operation and inspection.

6.5 Physical Layer (Layer 1)

Compliance with the requirements of Physical Layer (Layer 1) specified in Clause 5.2 should be demonstrated in accordance with the testing requirements specified in the Common Technical Regulation CTR004 (Am1) [4] and the testing requirements specified in ITAAB Advisory Notes 067 [14], 068 [15], 070 [16], 072 [17], 075 [18], 082 [20], 105 [26], 107 [27], 110 [28] and 114 [29].

Note: CTR004 (Am1) [4] references ETSI Technical Basis for Regulation TBR 004 [31] as amended by TBR 004/A [32] for requirements and testing.

AS/ACIF S038:2001 COPYRIGHT JULY 2001

6.6 Data Link Layer (Layer 2)

Compliance with the requirements of Data Link Layer (Layer 2) specified in Clause 5.3 should be demonstrated in accordance with the testing requirements specified in the Common Technical Regulation CTR004 (Am1) [4] and the testing requirements specified in ITAAB Advisory Notes 066 [13], 072 [17], 084 [22], 086 [24], 110 [28] and 123 [30].

Note: CTR004 (Am1) [4] references ETSI Technical Basis for Regulation TBR 004 [31] as amended by TBR 004/A [32] for requirements and testing.

6.7 Network Layer (Layer 3)

6.7.1 General

- 6.7.1.1 Compliance with the requirements of Network Layer (Layer 3) specified in Clause 5.4 should be demonstrated in accordance with the testing requirements specified in the Common Technical Regulation CTR004 (Am1) [4] and the testing requirements specified in ITAAB Advisory Notes 055 [12], 066 [13], 072 [17], 080 [19], 083, [21], 085 [23], 087 [25] and 110 [28].
 - Note: CTR004 (Am1) [4] references ETSI Technical Basis for Regulation TBR 004 [31] as amended by TBR 004/A1 [32] for requirements and testing.
- 6.7.1.2 Any variations or additional testing requirements specified in Clause 6.7.2 are to be complied with.
- 6.7.2 Variation/additional tests
- 6.7.2.1 General

In addition to the tests specified in Clause 6.7.1, the CE should comply with the test requirements specified in Clauses 6.7.2.2, 6.7.2.3, 6.7.2.4 and 6.7.2.5.

6.7.2.2 Malicious Call IDentification (MCID) testing

If supported, compliance with the requirements of Malicious Call IDentification (MCID) using functional procedures as specified in EN 300 128 [9] and EN 300 130-1 [10] should be demonstrated in accordance with test methods specified in EN 300 130-3 [11].

- 6.7.2.3 Calling Line Identification Restriction (CLIR) testing
- 6.7.2.3.1 If supported, compliance with the requirements of Calling Line Identification Restriction (CLIR) specified in Clause 5.4.2.2 should be demonstrated in accordance with the procedures in Clauses 6.7.2.3.2 and 6.7.2.3.3.
- 6.7.2.3.2 CE should be tested to confirm CLIR supplementary service requirements by conducting the following procedure:
 - (a) From the DUT initiate a call to the test equipment with the CLIR Temporary Mode 1 service invoked for that call.
 - (b) Clear the call attempt down.
 - (c) Initiate a second call to the test equipment, this time without attempting to restrict CLI presentation.
 - (d) Clear the call attempt down.
 - (e) From the DUT, initiate a call to the test equipment with the CLIR Temporary Mode 2 service invoked for that call.

AS/ACIF S038:2001 COPYRIGHT JULY 2001

- 6.7.2.3.3 Verify the following:
 - (a) A SETUP message with a Calling Party Number IE with the Presentation Indicator set to 'Presentation Restricted' is initiated by the procedure described in Clause 6.7.2.3.2(a).
 - (b) In accordance with the procedure described in Clause 6.7.2.3.2(c), a SETUP message is initiated with any of the following:
 - (i) No Calling Party Number IE.
 - (ii) A Calling Party Number IE with the Presentation Indicator set to 'Presentation Allowed'.
 - (iii) A Calling Party Number IE without optional octet 3a included.
 - (c) in accordance with procedures described in Clause 6.7.2.3.2(e), a SETUP message is initiated and includes a Calling Party Number IE with the Presentation Indicator set to 'Presentation allowed'.

6.7.2.4 Calling Line Identification Presentation (CLIP) testing

Compliance with the requirements of Calling Line Identification Presentation (CLIP) specified in Clause 5.4.2.3 should be demonstrated in accordance with the testing requirements specified the Common Technical Regulation CTR004 (Am1) [4].

6.7.2.5 Initiation of repeated outgoing call attempts

Compliance with the requirements of Initiation of Repeated Outgoing Call Attempts specified in Clause 5.4.2.5 should be checked by operation and inspection.

ACIF is an industry owned, resourced and operated company established by the telecommunications industry in 1997 to implement and manage communication self-regulation within Australia.

ACIF's role is to develop and administer technical and operating arrangements to foster a thriving, effective communications industry serving the Australian community through

- the timely delivery of Standards, Codes and other documents to support competition and protect consumers;
- driving widespread compliance; and
- the provision of facilitation, coordination and implementation services to enable the cooperative resolution of strategic and operational industry issues.

ACIF comprises a Board, an Advisory Assembly, seven standing Reference Panels, various task specific Working Committees, a number Industry Facilitation/Coordination Groups and a small Executive.

The ACIF Standards and Codes development process involves the ACIF Board, Reference Panels, Working Committees and the ACIF Executive. The roles and responsibilities of all these parties and the required operating processes and procedures are specified in the ACIF Operating Manual.

ACIF Standards, Codes and other documents are prepared by Working Committees made up of experts from industry, consumer, government and other bodies. The requirements or recommendations contained in ACIF published documents are a consensus of views of representative interests and also take into account comments received from other stakeholders. Care should be taken to ensure that material used is from the current version of the Standard or Code and that it is updated whenever the Standard or Code is amended or revised. The number and date of the Standard or Code should therefore be clearly identified. If in doubt please contact ACIF.



Published by:

THE AUSTRALIAN COMMUNICATIONS INDUSTRY FORUM LTD

Level 9, 32 Walker Street North Sydney NSW 2060

Correspondence: PO Box 444 Milsons Point NSW 1565

Telephone: (02) 9959 9111 Facsimile: (02) 9954 6136 TTY (02) 9923 1911

E-mail: acif@acif.org.au

Web Site: http://www.acif.org.au/