



**Core Network and Interoperability Testing (INT);  
Conformance tests according to 3GPP™ 29.235 Release 10;  
Interworking between SIP-I based circuit-switched core  
network and other networks;  
Part 1: Protocol Implementation Conformance  
Statement (PICS)**

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Reference

DTS/INT-00055-1

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Keywords

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## Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Core Network and Interoperability Testing (INT).

The present document is part 1 of a multi-part deliverable covering SIP NNI - SIP-I Interworking described in the clauses 7.2 and 7.3 of TS 129 235 (Release 10) [1], as identified below:

**Part 1: "Protocol Implementation Conformance Statement (PICS)";**

Part 2: " SIP-I / SIP NNI Test Suite Structure and Test Purposes (TSS&TP)".

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# 1 Scope

The present document specifies the Test Suite Structure and Test Purposes for SIP NNI - SIP-I Interworking described in the clauses 7.2 and 7.3 of TS 129 235 (Release 10) [1].

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# 2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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## 2.1 Normative references

The following referenced documents are necessary for the application of the present document.

- [1] ETSI TS 129 235: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Interworking between SIP-I based circuit-switched core network and other networks (3GPP TS 29.235 version 10.1.0 Release 10)".
- [2] ETSI TS 129 163: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks (3GPP TS 29.163 Release 8)".
- [3] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

## 2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] Recommendation ITU-T Q.730: "ISDN User Part supplementary services".
- [i.2] Recommendations ITU-T Q.731.1 to Q.731.8: "Stage 3 description for number identification supplementary services using Signalling System No. 7".
- [i.3] Recommendations ITU-T Q.732.2 to Q.732.7: "Stage 3 description for call offering supplementary services using Signalling System No. 7".
- [i.4] Recommendations ITU-T Q.733.1 to Q.733.5: "Stage 3 description for call completion supplementary services using Signalling System No. 7".
- [i.5] Recommendations ITU-T Q.734.1 to Q.734.2: "Stage 3 description for multiparty supplementary services using Signalling System No. 7".
- [i.6] Recommendations ITU-T Q.735.1 to Q.735.6: "Stage 3 description for community of interest supplementary services using Signalling System No. 7".
- [i.7] Recommendations ITU-T Q.736.1 to Q.736.3: "Stage 3 description for charging supplementary services using Signalling System No. 7".
- [i.8] Recommendation ITU-T Q.737.1: "Stage 3 description for additional information transfer supplementary services using Signalling System No. 7 : User-to-user signalling (UUS)".

- [i.9] ISO/IEC 9646-7: "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 7: Implementation Conformance Statements".
- [i.10] ETSI TS 124 229: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3 (3GPP TS 24.229)".

## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in [2], [3], [i.9] and the following apply:

**PICS proforma:** document, in the form of a questionnaire, which when completed for an implementation or system becomes a PICS

**Protocol ICS (PICS):** ICS for an implementation or system claimed to conform to a given protocol specification

**Protocol Implementation Conformance Statement (PICS):** statement made by the supplier of an implementation or system claimed to conform to a given protocol specification, stating which capabilities have been implemented

NOTE: This may contain additional information.

### 3.2 Symbols

For the purposes of the present document, the symbols given in [2] apply.

### 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in [2] and the following apply:

ACR	Anonymous Call Rejection
APRI	Address Presentation Restriction Indicator
BICC	Bearer Independent Call Control
CB	Call Barring
CCBS	Call Completion on Busy Subscriber
CCNR	Call Completion No Reply supplementary service
CD	Call Diversion
CDIV	Call DIVersion

NOTE: This is used to refer collectively to the CD, CFB, CFNR and CFU services.

COLP	Called Line Identification Presentation
CONF	Conference (as in Conference; Add on or 3-Party) (Supplementary Service)
COT	Continuity message
CPG	Call Progress message (ISUP)
CUG	Closed User Group
CW	Call Waiting
ECT	Explicit Call Transfer
GVNS	Global Virtual Network Service
ICS	Implementation Conformance Statement
IM-MGW	IP Multimedia - Media GateWay
IMS	IP Multimedia Subsystem
INF	Information
INR	Information Request
ISDN	Integrated Service Data Network
IUT	Implementation Under Test
MCID	Malicious Call Identification
MGCF	Media Gateway Control Function

MGW	Media Gateway
MLPP	Multi Level Precedence and Preemption
MTAS	Multimedia Telephony Application Server
MWI	Message Wait Indication
NNI	Network - Network - Interface
OIP	Originating Identification Presentation
OIR	Originating Identification Restriction
PDU	Protocol Data Unit
PICS	Protocol ICS
PSTN	Public Switch Telephone Network
REV	REVerse charging supplementary service
SCS	System Conformance Statement
SIP	Session Initiated Protocol
SIP-I	Session Initiation Protocol with encapsulated ISDN User Part
SUB	Subaddressing
SUT	System Under Test
TIP	Terminating Identification Presentation
TIR	Terminating Identification Restriction
TMR	Transmission Medium Requirement
URL	Unified Resource Locator
UUS	User to User Supplementary service
XML	eXtended Markup Language

### 3.4 Conformance to this PICS proforma specification

If it claims to conform to the present document, the actual PICS proforma to be filled in by a supplier shall be technically equivalent to the text of the PICS proforma given in clause 4, and shall preserve the numbering/naming and ordering of the proforma items.

A PICS which conforms to the present document shall be a conforming PICS proforma completed in accordance with the guidance for completion given in clause 4.1.

---

## 4 PICS proforma for clauses 7.2 and 7.3 of TS 129 235

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the PICS proforma in this clause so that it can be used for its intended purposes and may further publish the completed PICS.

### 4.1 Guidance for completing the PICS proforma (purposes and structure)

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in clauses 7.2 and 7.3 of TS 129 235 [1] may provide information about the implementation in a standardized manner.

The PICS proforma is subdivided into clauses for the following categories of information:

- guidance for completing the PICS proforma;
- identification of the implementation;
- identification of the <reference specification type>;
- global statement of conformance;
- roles.

## 4.2 Abbreviations and conventions

The PICS proforma contained in this clause is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [i.9].

### Item column

The item column contains a number which identifies the item in the table.

### Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

### Status column

The following notations, defined in ISO/IEC 9646-7 [i.9], are used for the status column:

m	mandatory - the capability is required to be supported.
o	optional - the capability may be supported or not.
n/a	not applicable - in the given context, it is impossible to use the capability.
x	prohibited (excluded) - there is a requirement not to use this capability in the given context.
o.i	qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies a unique group of related optional items and the logic of their selection which is defined immediately following the table.
ci	conditional - the requirement on the capability ("m", "o", "x" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying a unique conditional status expression which is defined immediately following the table.

### Reference column

The reference column makes reference to TS 129 163 [2], except where explicitly stated otherwise.

### Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [i.9], are used for the support column:

Y or y	supported by the implementation.
N or n	not supported by the implementation.
N/A, n/a or -	no answer required (allowed only if the status is n/a, directly or after evaluation of a conditional status).

If this PICS proforma is completed in order to describe a multiple-profile support in a system, it is necessary to be able to answer that a capability is supported for one profile and not supported for another. In that case, the supplier shall enter the unique reference to a conditional expression, preceded by "?" (e.g. ?3). This expression shall be given in the space for comments provided at the bottom of the table. It uses predicates defined in the SCS, each of which refers to a single profile and which takes the value TRUE if and only if that profile is to be used.

EXAMPLE:    ?3: IF prof1 THEN Y ELSE N

In case of protocol, the following text should be added:

NOTE:    As stated in ISO/IEC 9646-7 [i.9], support for a received PDU requires the ability to parse all valid parameters of that PDU. Supporting a PDU while having no ability to parse a valid parameter is non-conformant. Support for a parameter on a PDU means that the semantics of that parameter are supported.



If the ICS proforma does not contain tables with "values allowed" columns and "values supported" columns, the two following column descriptions shall be removed.

#### Values allowed column

The values allowed column contains the type, the list, the range, or the length of values allowed. The following notations are used:

- range of values:            <min value> .. <max value>  
  example:                    5 .. 20
- list of values:             <value1>, <value2>, ..., <valueN>  
  example:                    2, 4, 6, 8, 9  
  example:                    '1101'B, '1011'B, '1111'B  
  example:                    '0A'H, '34'H, '2F'H
- list of named values:    <name1>(<val1>), <name2>(<val2>), ..., <nameN>(<valN>)  
  example:                    reject(1), accept(2)
- length:                    size (<min size> .. <max size>)  
  example:                    size (1 .. 8)

#### Values supported column

The values supported column shall be filled in by the supplier of the implementation. In this column, the values or the ranges of values supported by the implementation shall be indicated.

### 4.3 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided. In particular, an explicit answer shall be entered, in each of the support or supported column boxes provided, using the notation described in clause 4.2.

If necessary, the supplier may provide additional comments in space at the bottom of the tables or separately.

More detailed instructions are given at the beginning of the different clauses of the PICS proforma.

---

## 5 Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides (the System Under Test (SUT)) should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

### 5.1 Date of the statement

.....

### 5.2 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

### 5.3 System Under Test (SUT) identification

SUT name:

.....  
.....

Hardware configuration:

.....  
.....  
.....

Operating system:

.....

### 5.4 Product supplier

Name:

.....

Address:

.....  
.....  
.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....  
.....  
.....

## 5.5 Client (if different from product supplier)

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

## 5.6 PICS contact person

(A person to contact if there are any queries concerning the content of the ICS)

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

## 5.7 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No) .....

NOTE: Answering "No" to this question indicates non-conformance to the [2] specification. Non-supported mandatory capabilities are to be identified in the ICS, with an explanation of why the implementation is non-conforming, on pages attached to the PICS proforma.

## 6 Statement of conformance of clauses 7.2 and 7.3 of TS 129 235 and TS 129 163

### 6.1 Major capabilities

**Table 6.1.1: Major capabilities**

Item	Item description	Reference	Status	Support
1	The System Under Test is interconnected with an SIP-I network	TS 129 235 [1], clauses 7.2 and 7.3	m	
2	The System Under Test is interconnected with an IMS network as defined in TS 124 229 [i.10]	TS 129 235 [1], clauses 7.2 and 7.3	m	
Comments:				

### 6.2 Basic call capabilities

**Table 6.2.1: Basic call capabilities**

Item	Item description	Reference	Status	Support
1	The System is able to support preconditions requested in the Supported header or Require header?	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.1	o	
2	The SUT sends the encapsulated IAM indicating the COT procedure immediately after the reception of the INVITE and precondition extension is included in the SIP Supported or Require header	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.1	c7211	
3	The SUT sends the INVITE request without waiting for the completion of the resource reservation procedure	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.1.2	o.2	
4	The SUT defers sending the INVITE request until receiving the completion of the resource reservation procedure	TS 129 163 [2], clause 7.2.3.2.3	o.2	
5	The SUT supports the PSTN XML Schema to be used for providing the BearerCapability, Low Layer Compatibility, High Layer Compatibility and Progress indicator embedded as body in SIP messages	TS 129 235 [1], clause 7.2, 7.3 and F.2	o	
6	The Forward call indicators Interworking indicator is set to '0', ISDN user part/BICC indicator is set to '1', ISDN access indicator is set to '1' if the TMR in the IAM is sent with the value '64 kbit/s unrestricted'	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2.3	o	
7	The sending of the User Teleservice Information parameter is supported driven from the PSTN XML HighLayerCharacteristics element	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2.5	c7212	
8	The HOP counter procedure is supported and mapping from/to the Max-Forwards header is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2.9	o	
9	The P-Early-Media header is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.2.3.1.4, 7.2.3.1.4A and 7.2.3.1.4B	o	
10	The SUT generates a Call-Info header field, or an Alert-Info header field to provide media instead of the in-band media received from the PSTN	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.2.3.1.4 and 7.2.3.1.4A	o	

Item	Item description	Reference	Status	Support
11	The SUT sends an INR message to request the calling party number and not send the INVITE request until receiving an INF message with calling party number. If no calling party number is received in the incoming IAM message	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.1.3	o	
12	If no calling party number is received in the INF message the SUT rejects the communication	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.1.3	c7213	
13	The sending of 'dai' parameter is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.2B.2	o	
14	The SUT has the knowledge that the call is transited to a PSTN network, the SUT decides not to generate the awaiting answer indication when receiving the 180 Ringing message and backward early media is not authorized	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.4	o	
15	The SUT is supporting capabilities associated with the Alert-Info header field	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.4	o	
16	the SUT <b>initiates</b> the sending of the awaiting answer indication if the header authorizes backward early media	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.4	o	
17	the SUT <b>terminates</b> the sending of the awaiting answer indication if the header authorizes backward early media	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.4	o	
18	The Backward call indicators Interworking indicator is set to '0', ISDN user part/BICC indicator is set to '1', ISDN access indicator is set to '1' if the TMR in the IAM was received with the value '64 kbit/s unrestricted'	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.5.1	o	
19	Does the SUT instruct the MGW to send media available at the associated URL to the PSTN leg of the communication if a reINVITE is received containing a Call-Info header field?	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.11A	o	
20	Does the SUT supporting the capabilities associated with the Error-Info header field the SUT instruct the IM-MGW to play out media available at the associated URL towards PSTN	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.12	o	
21	The PSTN XML sendingCompleteIndication, if present, is mapped to the sending terminated digit (hexadecimal digit F) in the address signals field of the Called Party Number parameter	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2.1	o	
o.1: It is optional to support exactly one of these items.				
c7211: IF 7.2.1/1 THEN o ELSE n/a				
c7212: IF 7.2.1/5 THEN o ELSE n/a				
c7213: IF 7.2.1/11 THEN o ELSE n/a				
Comments:				

Table 6.2.2: Number portability and Carrier based routing

Item	Item description	Reference	Status	Support
1	Number Portability Separate Directory Number Addressing Method is used	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2A.1.1	o.3	
2	Number Portability Concatenated Addressing Method is used	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2A.1.2	o.3	
3	Number Portability Separate Network Routing Number Addressing Method is used	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2A.1.3	o.3	
4	Number Portability Forward Information parameter is sent	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2A.2	o	
5	Carrier-based routing supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.2.3.1.2B and 7.2.3.2.2B	o	
6	The Transit Network Selection parameter is sent	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2B.1	c7221	
7	The Carrier Selection Information parameter is sent	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.2B.2	c7221	

Item	Item description	Reference	Status	Support
8	The sending of 'cic' parameter supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.2B1	c7221	
9	The sending of 'dai' parameter is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.2B.2	c7221	
o.2: It is optional to support exactly one of these items.				
c7221: IF TS 129 163, clause 7.2.2/5 THEN o ELSE n/a				

Table 6.2.3: Overlap capability

Item	Item description	Reference	Status	Support
1	The 'In-dialogue Method' is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.3A.2	o	
2	The 'Multiple INVITE Method' is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.3A.3	o	
3	If the end of the address signalling is determined the SUT inserts the PSTN XML sendingCompleteIndication	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.2.1.4	c7231	
c7231: IF 7.2.1/5 THEN o ELSE n/a				

Table 6.2.4: ISDN bearer capabilities

Item	Item description	Reference	Status	Support
1	The SUT supports the interworking of a CLEARMODE codec in the received INVITE request and PSTN XML Bearer Capability element is present	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.1.1	o	
2	The SUT supports the interworking of Transmission Medium Requirement 64 kbit/s received in the IAM	TS 129 163 [2], clause 7.2.3.2.1	o	

## 6.3 Simulation service capabilities

Table 6.3.1: Simulation service major capabilities

Item	Item description	Reference	Status	Support
1	The SUT behaviour is related to supplementary services as defined in Recommendations ITU-T Q.730 [i.1] to Q.737 [i.8] when interworking with an IMS which does not use a Multimedia Telephony Application Server (MTAS) providing supplementary services according to 3GPP	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4	o	
2	the SUT behaviour is related to supplementary services as defined in Recommendations ITU-T Q.730 [i.1] to Q.737 [i.8] when interworking with an IMS which uses a Multimedia Telephony Application Server (MTAS) providing supplementary services according to 3GPP	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.5	o	

**Table 6.3.2: Simulation service interworking capabilities**

Item	Item description	Reference	Status	Support
1	The interworking of Calling line identification presentation/restriction (CLIP/CLIR) respectively Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.4.1 and 7.5.1	o	
2	Connected line presentation and restriction (COLP/COLR) respectively Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.4.2 and 7.5.2	o	
3	The interworking of Malicious call identification respectively Malicious Communication Identification (MCID) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.4.4 and 7.5.9	o	
4	The interworking of Subaddressing (SUB) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.5	o	
5	The interworking of Call Forwarding Busy (CFB)/ Call Forwarding No Reply (CFNR)/Call Forwarding Unconditional (CFU)/Call Deflection (CD) respectively Communication Diversion (CDIV) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.4.6, 7.4.7 and 7.5.4	o	
6	The interworking of Explicit Call Transfer (ECT) respectively is supported	TS 129 163 [2], clause 7.4.8	o	
7	The interworking of Call Waiting (CW) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.9	o	
8	The interworking of Call Waiting (CW) is supported	TS 129 163 [2], clause 7.5.12	o	
9	The interworking of Call Hold (HOLD) respectively Communication Hold (HOLD) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.4.10 and 7.5.5	o	
10	The interworking of Call Completion on busy subscriber (CCBS) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.11	o	
11	The interworking of Completion of Calls on No Reply (CCNR) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.12	o	
12	The interworking of Terminal Portability (TP) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.13	o	
13	The interworking of Conference calling (CONF)/ Three-Party Service (3PTY) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.14	o	
14	The interworking of Closed User Group (CUG) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.16	o	
15	The interworking of Multi-Level Precedence and Pre-emption (MLPP) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.17	o	
16	The interworking of Global Virtual Network Service (GVNS) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.18	o	
17	The interworking of Reverse charging (REV) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.20	o	
18	The interworking of User-to-User Signalling (UUS) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.21	o	
19	The interworking of Anonymous Call rejection (ACR) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.23	o	
20	The interworking Conference call (CONF) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.5.6	o	
21	The interworking of Anonymous Communication Rejection (ACR) and Communication Barring (CB) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.5.7	o	
22	The interworking of Message Waiting Indication (MWI) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.5.8	o	
23	The interworking of Closed User Group (CUG) is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.5.10	o	
24	The interworking of CCBS/CCNR is supported	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.5.11	o	

**Table 6.3.3: OIP interworking capabilities**

Item	Item description	Reference	Status	Support
1	The SUT include a network provided E.164 Calling party number if no P-Asserted-Identity was received	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.5.1 and 7.2.3.1.2.6	c7331	
2	The SUT omits the Address signals of the Calling party number if no P-Asserted-Identity was received	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.5.1 and 7.2.3.1.2.6	c7331	
3	The SUT set the APRI of the Calling party number to 'Address not available' if no P-Asserted-Identity was received	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.5.1 and 7.2.3.1.2.6	c7332	
4	The SUT sets the APRI of the Calling party number to 'presentation restricted by network' instead of the 'presentation restricted' if no P-Asserted-Identity was received	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.5.1 and 7.2.3.1.2.6	o	
5	The SUT omits the additional calling party number parameter if the Calling party number has been omitted if no P-Asserted-Identity was received	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.5.1 and 7.2.3.1.2.6	c7332	
6	The SUT omits the additional calling party number parameter if the P-Asserted-Identity has been received	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.5.1 and 7.2.3.1.2.6	o	
o.3:	It is mandatory to support exactly one of these items.			
c7331	IF 7.3.3/1 THEN o.4 ELSE n/a			
c7332	IF 7.3.3/2 THEN o ELSE n/a			

**Table 6.3.4: COLP interworking capabilities**

Item	Item description	Reference	Status	Support
1	The SUT invokes the COLP service by setting the "Connected Line Identity Request indicator" field of the "Optional forward call indicators" parameter in the sent IAM to "requested"	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.2.1.1	o	

**Table 6.3.5: CDIV interworking capabilities**

Item	Item description	Reference	Status	Support
1	The SUT maps the escaped Reason header in the second last hi-targeted-uri into the Event indicator of the CPG national values	TS 129 163 [2], clauses 7.4.6.2.2, table and 7.4.6.2.2.7	o	
2	The SUT maps the Redirecting reason in the Call diversion information into the Reason header in the second last hi-targeted-to-uri in the History-Info header	TS 129 163 [2], clauses 7.4.6.3.3, table, 7.4.6.3.3.3, table, 7.4.6.3.3.4, table and 7.4.6.3.3.5	o	
3	The SUT maps the cause parameter in the last hi-targeted-uri into the Event indicator national values	TS 129 163 [2], clauses 7.5.4.2.1, table and 7.5.4.2.1.7	o	

**Table 6.3.6: HOLD interworking capabilities**

Item	Item description	Reference	Status	Support
1	The SUT allows to hold and retrieve a session in the early dialogue	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.10	o	

**Table 6.3.7: REV interworking capabilities**

Item	Item description	Reference	Status	Support
1	The SUT discards the REV service invocation without affect the call	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.20	o.5	
2	The SUT returns explicit rejection of the REV service invocation	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.4.20	o.5	
o.4:	It is optional to support exactly one of these items.			



**Table 6.3.8: User-to-user interworking capabilities**

Item	Item description	Reference	Status	Support
1	The MGCF supports the User-to-user indicator (the User-to-user indicator is recognized)	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clauses 7.4.21.2, 7.4.21.3 and 7.4.21.4	o	

**Table 6.3.9: CONF interworking capabilities**

Item	Item description	Reference	Status	Support
1	The conference event package option is implemented	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.5.6.2	o	

**Table 6.3.10: CUG interworking capabilities**

Item	Item description	Reference	Status	Support
1	The IMS network does not support the CUG supplementary service	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.5.6.2	o	

## 6.4 Timers

**Table 6.4.1: Timers**

Item	Item description	Reference	Status	Support	Values [seconds]	
					Allowed	Supported
1	Ti/w1	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.3	m		4 to 6 (default 4)	
2	Ti/w2	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.3	m		4 to 20 (default 4)	
3	Ti/w3	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.3	m		4 to 6 (default 4)	
4	T <sub>TIR1</sub>	TS 129 235 [1], clauses 7.2 and 7.3 TS 129 163 [2], clause 7.2.3.3	o		0,1 to 2 (default 0,1)	

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## Annex A (informative): Bibliography

ETSI TS 102 710-1: "IMS Network Testing (INT); Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks (Release 8); Part 1: Protocol Implementation Conformance Statement (PICS)".

Recommendation ITU-T T.38: "Procedures for real-time Group 3 facsimile communication over IP networks".

Recommendation ITU-T Q.850: "Usage of cause and location in the Digital Subscriber Signalling System No. 1 and the Signalling System No. 7 ISDN user part".

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## History

<b>Document history</b>		
V1.1.1	October 2013	Publication