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Technical Specification

**Telecommunications and Internet converged Services and
Protocols for Advanced Networking (TISPAN);
PSTN/ISDN simulation services;
Communication Waiting (CW);
Part 1: Protocol Implementation Conformance
Statement (PICS)**



Reference

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN).

The present document is part 1 of a multi-part deliverable covering PSTN/ISDN simulation services; Communication Waiting (CW), as identified below:

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

Part 2: "Test Suite Structure and Test Purposes (TSS&TP)";

1 Scope

The present document specifies the protocol implementation conformance statement of the Communication Waiting (CW) service, based on stage three of the IMS simulation services. Within the Next Generation Network (NGN) the stage 3 description is specified using the IP-Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP).

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.
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2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

- [1] ETSI TS 124 615 (V8.0.1): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Communication Waiting (CW) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol Specification (3GPP TS 24.615 version 8.0.1 Release 8)".
- [2] ISO/IEC 9646-7: "Information Technology - Open Systems Interconnection - conformance Testing Methodologie and framework; Part 7 - Implementation Conformance Statements".

2.2 Informative references

The following referenced documents are not essential to the use of the present document but they assist the user with regard to a particular subject area. For non-specific references, the latest version of the referenced document (including any amendments) applies.

- [i.1] ETSI TS 181 002: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Multimedia Telephony with PSTN/ISDN simulation services".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 181 002 [i.1].

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ACK	ACKnowledgement
CUG	Closed User Group
CW	Communication Waiting
HOLD	communication HOLD
IFC	Initial Filter Criteria
IMS	IP Multimedia Subsystem
IP	Internet Protocol
ISDN	Integrated Service Data Network
NGN	Next Generation Network
OCB	Outgoing Communication Barring
PSTN	Public Switched Telephone Network
SDP	Session Description Protocol
SIP	Session Initiation Protocol
XML	eXtensible Markup Language
IUT	Implementation Under Test
SUT	System Under Test

4 Protocol Implementation Conformance Statement proforma

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 Instructions for completing the PICS proforma

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

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided. If necessary, the supplier may provide additional comments separately in clause 5.

4.1.1.1 Purposes and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in reference specification [1] to [2] may provide information about the implementation in a standardized manner.

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

- instructions for completing the PICS proforma;
- identification of the implementation;

- identification of the reference protocol specification;
- PICS proforma tables (containing the global statement of conformance).

4.1.2 Abbreviations and conventions

The PICS proforma is composed of an information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [2].

Item column

It contains a number that identifies the item in the table.

Item description column

It describes each respective item (e.g. parameters, timers, etc.).

Reference column

It gives reference to the CW specification [1], except where explicitly stated otherwise.

Status column

The following notations, defined in ISO/IEC 9646-7 [2], are used for the status column:

- m mandatory - the capability is required to be supported.
- n/a not applicable - in the given context, it is impossible to use the capability. No answer in the support column is required.
- o optional - the capability may be supported or not.
- 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" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying a unique conditional status expression that is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." shall be used to avoid ambiguities. If an ELSE clause is omitted, "ELSE n/a" shall be implied.

NOTE: Support of a capability means that the capability is implemented in conformance to the specification(s) [1] to [2].

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 [2], are used for the support column:

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

4.2 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 PICS should be named as the contact person.

4.2.1 Date of the statement

Date of the statement:	
-------------------------------	--

4.2.2 Implementation Under Test (IUT) identification

IUT name:	
IUT version:	

4.2.3 System Under Test (SUT) identification

SUT name:	
Hardware configuration:	
Operating system:	

4.2.4 Product supplier

Name:	
Address:	
Telephone number:	
Facsimile number:	
Additional information:	

4.2.5 Client

Name:	
Address:	
Telephone number:	
Facsimile number:	
Additional information:	

4.2.6 PICS contact person

Name:	
Telephone number:	
Facsimile number:	
Additional information:	

4.3 PICS proforma tables

4.3.1 Global statement of conformance

	(Yes/No)
Are all mandatory capabilities implemented?	

4.3.2 Roles and network capabilities

Table 1: Roles and network capabilities

Item	Item description	Reference	Status	Support
1	Is the CW condition determined by the AS based on the receipt of a 180 (Ringing) response with a Alert-Info header field set to "urn:alert:service:call-waiting"?	4.5.5.2	o1	
2	Is the CW condition determined by the AS based on validation of the "approaching NDUB" condition?	4.5.5.2	o1	
3	Does the AS initiate the procedures for the provision of an announcement to the calling?	4.5.5.2	o	
4	Does the Application Server starts the timer T_{AS-CW} timer?	4.5.5.2	o	
o1: At least one of the these options shall be used.				

Table 2: User Equipment capabilities

Item	Item description	Reference	Status	Support
1	Does the User Equipment of the user B indicate to the user that the outgoing communication is being treated as a waiting communication?	4.5.5.3.2	o	
2	Does the User Equipment of the user C indicate to the user that the outgoing communication is being treated as a waiting communication?	4.5.5.3.4	o	
3	Is the User Equipment of the user B able to send a Communication Waiting indication in a 180 Ringing and send the Alert-Info header with the value <urn:alert:service:call-waiting>?	4.5.5.3.2	o	
4	Does the User Equipment accept and understand the XML CW MIME attachment and notify the user?	4.5.5.3.2	o	

Table 3: Timer

Item	Item description	Reference	Status	Support	Values	
					allowed	Supported [sec]
1	Timer T_{AS-CW}	4.7/ [1]	o		Service provider option	
2	Timer T_{UE-CW}	4.5.5.3.2/ [1]	o		manufacturer option	

5 Additional informations for PICS

If necessary, the supplier may provide additional comments in this clause.

History

Document history		
V2.1.1	July 2009	Publication