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Technical Specification

Telecommunications and Internet Converged Services and Protocols for Advanced Networking (TISPAN); Communication HOLD (CH); Part 1: Protocol Implementation Conformance Statement (PICS)



Reference

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Keywords

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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 the Communication Hold (CH) as described below:

- Part 1: "Protocol Implementation Conformance Statement (PICS)";**
- Part 2: "Test Suite Structure and Test Purposes (TSS&TP)";
- Part 3: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification".

1 Scope

The present document specifies the Protocol implementation conformance statement (PICS) for the Communication Hold service (HOLD) NGN Basic Service, TS 183 010 [4].

A further part of the present document specifies the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma based on the present document.

Within the TISPAN NGN Release 1 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).

The Communication Hold supplementary service enables a user to suspend the media stream(s) of an established IP multimedia session, and resume the media stream(s) at a later time.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- 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.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

- [1] ETSI TS 181 002: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Multimedia Telephony with PSTN/ISDN simulation services".
- [2] ETSI ES 283 003: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); IP Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) Stage 3 [3GPP TS 24.229 (Release 7), modified]".
- [3] IETF RFC 3515: "The Session Initiation Protocol (SIP) Refer Method".
- [4] ETSI TS 183 010: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); NGN Signalling Control Protocol; Communication HOLD (HOLD); PSTN/ISDN simulation services".
- [5] ETSI ES 283 027: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Endorsement of the SIP-ISUP Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks [3GPP TS 29.163 (Release 7), modified]".
- [6] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [7] ISO/IEC 9646-3: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".
- [8] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [9] IETF RFC 3264: "An Offer/Answer Model with the Session Description Protocol (SDP)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

abstract test case: Refer to ISO/IEC 9646-1.

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1.

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1.

implicit send event: Refer to ISO/IEC 9646-3.

lower tester: Refer to ISO/IEC 9646-1.

Point of Control and Observation (PCO): Refer to ISO/IEC 9646-1.

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1.

PICS proforma: Refer to ISO/IEC 9646-1.

Protocol Implementation eXtra Information for Testing (PIXIT): Refer to ISO/IEC 9646-1.

PIXIT proforma: Refer to ISO/IEC 9646-1.

system under test: Refer to ISO/IEC 9646-1.

Test Purpose (TP): Refer to ISO/IEC 9646-1.

3.2 Abbreviations

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

AS	Application Server
CN	Core Network
CS	Circuit Switched
CSCF	Call Session Control Function
HOLD	Communication session Hold
IP	Internet Protocol
ISDN	Integrated Service Data Network
n/a	not applicable
NGN	Next Generation Network
PSTN	Public Switched Telephone Network
SDP	Session Description Protocol
SIP	Session Initiation Protocol
UE	User Equipment

4 Protocol Implementation Conformance Statement (PICS) 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 clauses 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 specifications [19] to [5] may provide information about the implementation in a standardized manner.

The PICS proforma is subdivided into clauses 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 information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [8].

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 HOLD specification [4], except where explicitly stated otherwise.

Status column:

The following notations, defined in ISO/IEC 9646-7, 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 [5].

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, 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 ICS 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 Network capabilities

Table 1: Network capabilities

Item	Item description	Reference	Status	Support
1	Does the network support the hold and resume of media streams in the early dialogue?	RFC 3264 [9]	o	
2	Does the network support the hold and resume of media streams using the UPDATE method in the confirmed dialogue?	4.5.2.1/ [4]	o	
3	Does the AS of the invoking UE initiate the procedures for the provision of an announcement to the held user?	4.5.2.4/ [4]	o	

History

Document history		
V1.1.1	October 2006	Publication