

ITU-T

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STANDARDIZATION SECTOR
OF ITU

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SERIES Q: SWITCHING AND SIGNALLING

Testing specifications – Testing specifications for SIP-IMS

Communication HOLD using IP multimedia core network subsystem; Conformance Testing – Part 1: Network side and user side; Protocol implementation conformance statement

Recommendation ITU-T Q.4003.1

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Recommendation ITU-T Q.4003.1

Communication HOLD using IP multimedia core network subsystem; Conformance Testing – Part 1: Network side and user side; Protocol implementation conformance statement

Summary

Recommendation ITU-T Q.4003.1 v.1 (2016) specifies Part 1 of a multi-part deliverable covering conformance test specification for communication HOLD.

The version number, v.1, indicates that this is version one of Recommendation ITU-T Q.4003.1 and that it relates to Release 10 of the relevant 3GPP/ETSI standard.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T Q.4003.1 v.1	2016-02-13	11	11.1002/1000/12733

Keywords

HOLD, IP multimedia subsystem, IMS, network side, protocol implementation conformance statement, PICS, session description protocol, SDP, session initiation protocol, SIP, testing, user side.

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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Recommendation ITU-T Q.4003.1

Communication HOLD using IP multimedia core network subsystem; Conformance Testing – Part 1: Network side and user side; Protocol implementation conformance statement

1 Scope

This Recommendation specifies Part 1 of a multi-part deliverable covering conformance test specification for communication HOLD, as identified below:

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

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

Part 3: "User side, Test Suite Structure and Test Purposes (TSS&TP)".

This Recommendation can be used for compliance testing against [ITU-T Q.3619 v.1] "Communication HOLD using IP multimedia core network subsystem. Protocol specification" on the user side and network side.

The version number, v.1, indicates that this is version one of Recommendation ITU-T Q.4003.1 and that it relates to Release 10 of the relevant 3GPP/ETSI standard.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

- | | |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [ITU-T Q.3619 v.1] | Recommendation ITU-T Q.3619 v.1 (2016), <i>Communication HOLD using IP multimedia core network subsystem – Protocol specification</i> . |
| [ITU-T X.290] | Recommendation ITU-T X.290 (1995), <i>OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – General concepts</i> . |
| [ITU-T X.296] | Recommendation ITU-T X.296 (1995), <i>OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Implementation conformance statements</i> . |
| [IETF RFC 3264] | IETF RFC 3264 (2002), <i>An Offer/Answer Model with the Session Description Protocol (SDP)</i> . |

3 Definitions

For the purposes of this Recommendation, the terms and definitions given in [ITU-T Q.3619 v.1], [ITU-T X.290], [ITU-T X.296] and the following apply:

In particular, the following terms and definitions defined in [ITU-T X.290] apply:

3.1 Implementation Conformance Statement (ICS): Statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have

been implemented. The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

3.2 ICS pro forma: Document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS.

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

NOTE – This may contain additional information.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

ICS Implementation Conformance Statement

IUT Implementation Under Test

PICS Protocol ICS

SCS System Conformance Statement

SUT System Under Test

5 Protocol Implementation Conformance Statement (PICS) proforma

If it claims to conform to this Recommendation, the actual PICS pro forma to be filled in by a supplier shall be technically equivalent to the text of the PICS pro forma given in clause 5, and shall preserve the numbering/naming and ordering of the pro forma items.

A PICS which conforms to this Recommendation shall be a conforming PICS pro forma completed in accordance with the guidance for completion given in clause 5.1.

5.1 Guidance for completing the PICS pro forma

5.1.1 Purposes and structure

The purpose of this PICS pro forma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in [ITU-T Q.3619 v.1] may provide information about the implementation in a standardized manner.

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

- guidance for completing the PICS pro forma;
- identification of the implementation;
- identification of the <reference specification type>;
- global statement of conformance;
- *roles*;
- *user role*;
 - major capabilities;
- network role;
 - major capabilities.

The PICS pro forma contained in this clause is comprised of information in tabular form in accordance with the guidelines presented in [ITU-T X.296].

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 [ITU-T X.296], 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.

Reference column

The reference column makes reference to [ITU-T Q.3619 v.1], 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 [ITU-T X.296], 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).

Prerequisite line

A prerequisite line takes the form: Prerequisite: <predicate>.

A prerequisite line after a clause or table title indicates that the whole clause or the whole table is not required to be completed if the predicate is FALSE.

5.1.2 Instructions for completing the PICS pro forma

The supplier of the implementation shall complete the PICS pro forma in each of the spaces provided. In particular, an explicit answer shall be entered, in each of the support column boxes provided, using the notation described in clause 5.1.1.

However, the tables containing in "user role" clause shall only be completed for user implementations, and the tables containing in "network role" clause shall only be completed for network implementations.

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 pro forma.

5.2 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.

5.2.1 Date of the statement

.....

5.2.2 Implementation Under Test (IUT) identification

IUT name:

.....
.....

IUT version:

.....

5.2.3 System Under Test (SUT) identification

SUT name:

.....
.....

Hardware configuration:

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

Operating system:

.....

5.2.4 Product supplier

Name:

.....

Address:

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

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

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

5.2.5 Client (if different from product supplier)

Name:

.....
Address:

.....
.....

Telephone number:
.....

Facsimile number:
.....

E-mail address:
.....

Additional information:
.....
.....

5.2.6 PICS contact person

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

Name:
.....

Telephone number:
.....

Facsimile number:
.....

E-mail address:
.....

Additional information:
.....
.....
.....

5.3 Identification of ITU-T Q.3619 v.1

This PICS pro forma applies to the following standard:

- ITU-T Q.3619 v.1

5.4 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No)

NOTE – Answering "No" to this question indicates non-conformance to the <reference specification type> specification. Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conforming, on pages attached to the PICS pro forma.

5.5 Roles

Table 5.1 – Roles

Item	Item description	Reference	Status	Support
1	User	Clause 4.5.2.1 of [ITU-T Q.3619 v.1]	o.1	
2	Network	Clause 4.5.2.4 of [ITU-T Q.3619 v.1]	o.1	
o.1: It is mandatory to support exactly one of these items.				

Comments:

5.6 User role

5.6.0 Introduction

This clause contains the PICS pro forma tables related to the user role. They need to be completed only for user implementations:

Prerequisite: 5.1/1 -- user role

5.6.1 Major capabilities

Table 5-2 – User related requirements and options

Item	Item description	Reference	Status	Support
1	Does the User Equipment supports the hold and resume of media streams in the early dialogue?	[IETF RFC 3264]	o	
2	Does the User Equipment supports the hold and resume of media streams using the UPDATE method in the confirmed dialogue?	Clause 4.5.2.1 of [ITU-T Q.3619 v.1]	o	

Comments:

5.7 Network role

5.7.0 Introduction

This clause contains the PICS proforma tables related to the Network role. They need to be completed only for network implementations:

Prerequisite: 5.1/2 -- network role

5.7.1 Major capabilities

Table 5-3 – Network related requirements and options

Item	Item description	Reference	Status	Support
1	Does the network support the hold and resume of media streams in the early dialogue?	[IETF RFC 3264]	o	
2	Does the network support the hold and resume of media streams using the UPDATE method in the confirmed dialogue?	Clause 4.5.2.1 of [ITU-T Q.3619 v.1]	o	
3	Does the AS of the invoking UE initiate the procedures for the provision of an announcement to the held user?	Clause 4.5.2.4 of [ITU-T Q.3619 v.1]	o	
4	Does the AS of the invoking UE supports for each media stream marked "recvonly" lower the bandwidth by setting the "b=AS:" parameter to a small value?	Clause 4.5.2.4 of [ITU-T Q.3619 v.1]	o	
5	Does the AS of the invoking UE supports for each media stream marked "inactive" lower the bandwidth by setting the "b=AS:" parameter to a small value?	Clause 4.5.2.4 of [ITU-T Q.3619 v.1]	o	

Comments:

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