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Technical Specification

**Technical Committee for IMS Network Testing (INT);
Message Waiting Indication (MWI) using
IP Multimedia (IM) Core Network (CN) subsystem;
Part 1: Protocol Implementation
Conformance Statement (PICS)**



Reference

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Foreword

This Technical Specification (TS) has been produced by IMS Network Testing (INT).

The present document is part 1 of a multi-part deliverable covering the test specification for Message Waiting Indication (MWI), as identified 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).

Introduction

The present document (TS) has been produced by ETSI Technical Committee IMS Network Testing (INT). To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

1 Scope

The present document specifies the Protocol Implementation Conformance Statement of the Message Waiting Indication (MWI) service, based on 3GPP stage three Protocol Description of the Message Waiting Indication (MWI) service, based on stage one and two of the ISDN MWI supplementary services.

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.

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

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2.1 Normative references

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

- [1] ETSI TS 124 406 (2008): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); TISPAN; PSTN/ISDN simulation services; Message Waiting Indication (MWI): Protocol specification (3GPP TS 24.406 Release 8)".
- [2] ISO/IEC 9646-1: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [3] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [4] IETF RFC 3842: "A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP)".

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.

Not applicable.

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 124 406 [1], ISO/IEC 9646-1 [2], ISO/IEC 9646-7 [3] 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

NOTE: This may contain additional information.

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

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TS 124 406 [1] and the following apply:

ICS	Implementaion Conformance Statement
IUT	Implementation Under Test
MA	Message Account
MIME	Multipurpose Internet Mail Extensions
MNUA	MWI Notifier User Agent
MSUA	MWI Subscriber User Agent
MWI	Message Waiting Indication
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
SCS	System Conformance Statement
SUT	System Under Test

Annex A (normative): PICS proforma for TS 124 406

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 ICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed ICS.

A.1 Guidance for completing the ICS proforma

A.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 TS 124 406 [1] may provide information about the implementation in a standardized manner.

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

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

A.1.2 Abbreviations and conventions

The PICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [3].

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 [3], 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 124 406 [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 ISO/IEC 9646-7 [3], 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 1: ?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 [3], 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.

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.

A.1.3 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 column boxes provided, using the notation described in clause A.1.2.

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 proforma.

A.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.

A.2.1 Date of the statement

.....

A.2.2 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

A.2.3 System Under Test (SUT) identification

SUT name:

.....

.....

Hardware configuration:

.....

.....

.....

Operating system:

.....

A.2.4 Product supplier

Name:

.....

Address:

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

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

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

A.2.5 Client (if different from product supplier)

Name:

.....

Address:

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

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....
.....

A.2.6 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:

.....

.....

.....

A.3 Identification of the MWI specification

This PICS proforma applies to the following standard:

ETSI TS 124 406 (2008): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); TISPA; PSTN/ISDN simulation services; Message Waiting Indication (MWI): Protocol specification (3GPP TS 24.406 Release 8)".

A.4 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No)

NOTE: Answering "No" to this question indicates non-conformance to the MWI 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 proforma.

A.5 Roles

Table A.1: Roles

Item	Role	Reference	Status	Support
1	MWI Subscriber User Agent (MSUA)	4.4.1	o	
2	MWI Notifier User Agent (MNUA)	4.4.2	m	
3	Message Account (MA)	4.4.3	m	

Comments:

A.6 User role

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

Prerequisite: A.1/1 -- user role

A.6.1 Major capabilities

Table A.2: MWI Subscriber User Agent capabilities

Item	Item description	Reference	Status	Support
1	The user Equipment is able to address the message account using the public service identity	4.4.3.2	o.1	
2	The user Equipment is able to address the message account using the public user identity	4.4.3.2	o.1	

o.1: It is mandatory to support at least one of these items.

Comments:

A.7 Network role

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

Prerequisite: A.1/2 network role

Table A.3: MWI Notifier User Agent (MNUA) capabilities

Item	Item description	Reference	Status	Support
1	The MNUA includes the message account in the MIME body to identify the served user	3.5 [4]	o	
2	The MNUA includes the message summary line in the MIME body to identify the served user	3.5 [4]	o	
3	The MNUA append message headers, which further describe newly added messages as "opt-msg-headers"	3.5 [4]	o	

Annex B (informative): Bibliography

ETSI ETS 300 406 (1995): "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

History

Document history		
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