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TECHNICAL SPECIFICATION

**Core Network and Interoperability Testing (INT);
Message Waiting Indication (MWI) using
IP Multimedia (IM) Core Network (CN) subsystem;
Conformance Test Specification (3GPP™ Release 12);
Part 2: Test Suite Structure and Test Purposes (TSS&TP)**

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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 2 of a multi-part deliverable covering the Conformance Test Specification of Message Waiting Indication (MWI) using IP Multimedia (IM) Core Network (CN) subsystem, 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) proforma specification".

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document specifies the Test Suite Structure and Test Purposes (TSS&TP) of the Message Waiting Indication (MWI) service, based on 3GPP stage three Protocol Description of the MWI service, based on stage one and two of the ISDN MWI supplementary services.

2 References

2.1 Normative 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 referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at https://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.

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

[1]   ETSI TS 124 606: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Message Waiting Indication (MWI) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.606 Release 12) ".

[2]   ETSI TS 102 891-1: "Core Network and Interoperability Testing (INT); Message Waiting Indication (MWI) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification (3GPP™ Release 12); Part 1: Protocol Implementation Conformance Statement (PICS)".

[3]   IETF RFC 3842: "A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP)".

[4]   IETF RFC 3265: "Session Initiation Protocol (SIP)-Specific Event Notification".

[5]   ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

2.2 Informative 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 referenced document (including any amendments) applies.

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

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 ETSI TS 124 606 [1] and the following apply:

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1 [5].

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [5].

PICS pro forma: Refer to ISO/IEC 9646-1 [5].

point of control and observation: Refer to ISO/IEC 9646-1 [5].

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1 [5].

System Under Test (SUT): Refer to ISO/IEC 9646-1 [5].

Test Purpose (TP): Refer to ISO/IEC 9646-1 [5].

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI TS 124 606 [1] and the following apply:

ATS	Abstract Test Suite
IUT	Implementation Under Test
PICS	Protocol Implementation Conformance Statement
SUT	System Under Test
TP	Test Purpose
TSS	Test Suite Structure
TSS&TP	Test Suite Structure and Test Purposes

4 Test Suite Structure (TSS)

4.0 Table of Test suite Structure

Table 1: Test Suite Structure (TSS)

UserEquipment			
			MWI_U01_xxx
Network			
	AS_ServedUser		MWI_N01_xxx

4.1 Configuration

The scope of the present document is to test the signalling and procedural aspects of the stage 3 requirements as described in ETSI TS 124 606 [1]. The stage 3 description respects the requirements to several network entities and also to requirements regarding to end devices. Therefore several interfaces (reference points) are addressed to satisfy the test of the different entities.

Therefore to test the appropriate entities the configurations below are applicable:

Testing of the Application Server: This entity is responsible to perform the service. Hence the ISC interface is the appropriate access point. Figure 1 points to this.
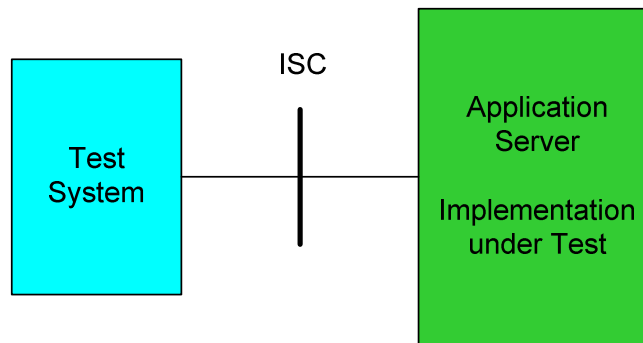
Figure 1: Applicable interface to test AS functionalities

If the ISC interface is not accessible it is also applicable to perform the test of the AS using any NNI (Mw, Mg, Mx) interface (consider figure 2). In case only the Gm interface is accessible this shall be used instead. In this case, be aware that the verification of several requirements is impeded.
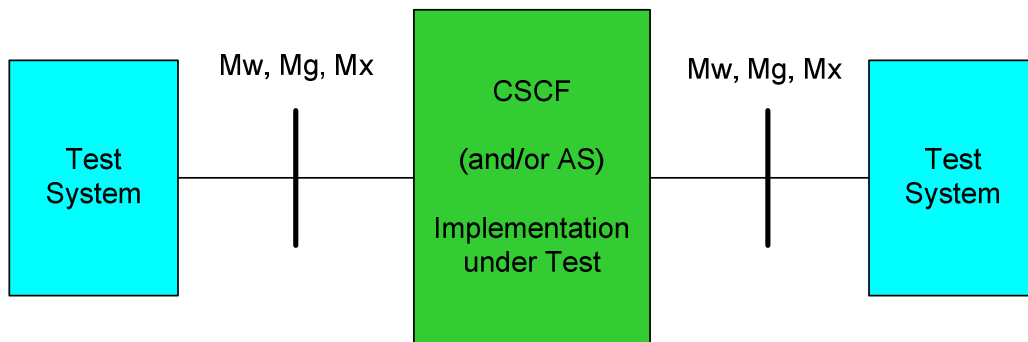
Figure 2: Applicable interfaces to test using the (generic) NNI interface

Figure 3 illustrates the usage of any NNI interface.

Testing of User Equipment: There are several requirements regarding to the end devices. Therefore a special configuration appears.
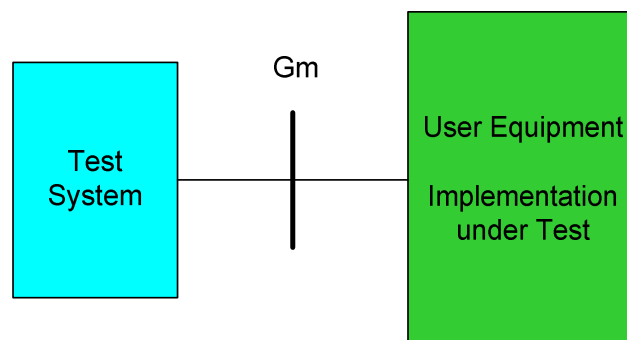
Figure 3: Applicable configuration to test the User Equipment

5   Test Purposes (TP)

5.1   Introduction

5.1.1   TP naming convention

TPs are numbered, starting at 001, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite and whether it applies to the network or the user (see table 2).

Table 2: TP identifier naming convention scheme

Identifier: **<ss>_<iut><group>_<nnn>**				
<ss>	=	supplementary service:	e.g. "MWI"	
<iut>	=	type of IUT:	U N	User - equipment Network
<group>	=	group	2 digit field representing group reference according to TSS	
<nnn>	=	3 digit sequential number	(001-999)	

5.1.2   Test strategy

As the base standard ETSI TS 124 606 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the PICS specification ETSI TS 102 891-1 [2]. The criteria applied include the following:

- whether or not a test case can be built from the TP is not considered.

5.1.3   Reference column "MWI reference"

The column "MWI reference" makes reference to ETSI TS 124 606 [1], except where explicitly stated otherwise.

5.2   Invocation and operation

5.2.1   Actions at the UE

TSS UserEquipment	TP MWI_U01_001	MWI reference 4.7.2.1	Selection expression PICS 4.5.1/1 AND PICS 4.6.1/1
Test purpose: *Initial subscription for a public user identity using the public service identity* Ensure that the user equipment is able to subscribe to the MWI service. A SUBSCRIBE message is sent. The Request line contains the public service identity of the MA. The Event header is set to 'message-summary', the Expires header is set to a proper value, Accept header is set to 'application/simple-message-summary'.			

SIP header: SUBSCRIBE sip: **public service identity**@server SIP/2.0
              Event: message-summary
              Expires: <a valid value>
              Accept: application/simple-message-summary			

Comments:
      User Equipment   **Test Equipment**
                                            ➔   SUBSCRIBE
                                            ⬅ 200 OK (SUBSCRIBE)			

TSS	TP	MWI reference	Selection expression
UserEquipment	MWI_U01_003	4.7.2.1, 3.6/[3]	PICS 4.5.1/1

Test purpose:

Re-Subscription before subscription is expired

Ensure that the user equipment is able to re-subscribe the current subscription before the subscription expires. A SUBSCRIBE message is sent. The Event header is set to 'message-summary', the Expires header is set to a proper value, Accept header is set to 'application/simple-message-summary'. The Call-ID is equal to the Call-ID of the initial subscription.

SIP header: SUBSCRIBE
    Event: message-summary
    Expires: 500
    Accept: application/simple-message-summary

Comments:

User Equipment		Test Equipment
	➔	SUBSCRIBE
	⬅	200 OK (SUBSCRIBE)
Before subscription expires		
	➔	SUBSCRIBE
	⬅	200 OK (SUBSCRIBE)

TSS	TP	MWI reference	Selection expression
UserEquipment	MWI_U01_004	4.7.2.1, 3.6/[3]	PICS 4.5.1/1

Test purpose:

Subscription after re-subscription fails

Ensure that the user equipment is able to subscribe to the MWI service after a re-subscription failed. A SUBSCRIBE message is sent. The Event header is set to 'message-summary', the Expires header is set to a proper value, Accept header is set to 'application/simple-message-summary'.

SIP header: SUBSCRIBE 1
    Event: message-summary
    Expires: 500
    Accept: application/simple-message-summary
  SUBSCRIBE 2
    Call-ID: <different from Call-ID of SUBCRIBE 1>
    Event: message-summary
    Expires: 500
    Accept: application/simple-message-summary

Comments:

User Equipment		Test Equipment
	➔	SUBSCRIBE
	⬅	200 OK (SUBSCRIBE)
Before subscription expires		
	➔	SUBSCRIBE 1
	⬅	500
	➔	SUBSCRIBE 2
	⬅	200 OK (SUBSCRIBE)

TSS UserEquipment	TP MWI_U01_005	MWI reference 4.7.2.1, 3.1.4.3/[4]	Selection expression PICS 4.5.1/1

Test purpose:

Unsubscribe from MWI service

Ensure that the user equipment is able to unsubscribe the current subscription. A SUBSCRIBE message is sent. The Event header is set to 'message-summary', the Expires header is set to zero, Accept header is set to 'application/simple-message-summary'. The Call-ID is equal to the Call-ID of the initial subscription.

SIP header: SUBSCRIBE 2
           Event: message-summary
           Expires: 0
           Accept: application/simple-message-summary

Comments:

User Equipment		Test Equipment
	➔	SUBSCRIBE 1
	←	200 OK (SUBSCRIBE)
	➔	SUBSCRIBE 2
	←	200 OK (SUBSCRIBE)

TSS UserEquipment	TP MWI_U01_006	MWI reference 4.7.2.1, IETF RFC 3842 [3] 3.9	Selection expression PICS 4.5.1/1

Test purpose:

Reception of status information after subscription

Upon receipt of a valid NOTIFY request after subscription, the user equipment accepts the information and sends a 200 OK response [4].

SIP header: NOTIFY
           Event: message-summary
           Subscription-State: active
           Content-Type: application/simple-message-summary

           Messages-Waiting: yes
           Message-Account: sip:**served_user**@Server
           Voice-Message: 4/1 (2/0)
           Video-Message: 3/1 (1/0)
           Fax-Message: 2/1 (0/1)

Comments:

User Equipment		Test Equipment
	➔	SUBSCRIBE
	←	200 OK (SUBSCRIBE)
Status information indicate to the user	←	NOTIFY
	➔	200 OK (NOTIFY)

TSS UserEquipment	TP MWI_U01_007	MWI reference 4.7.2.1, 3.9/[3]	Selection expression PICS 4.5.1/1

Test purpose:

Reception of subsequent status information after state change

Upon receipt of a valid NOTIFY request to refresh the status of deposited messages, the user equipment accepts the information and sends a 200 OK response.

SIP header: NOTIFY 1

   Event: message-summary
   Subscription-State: active
   Content-Type: application/simple-message-summary

   Messages-Waiting: yes
   Message-Account: sip:**served_user**@Server
   Voice-Message: 4/1 (2/0)
   Video-Message: 3/1 (1/0)
   Fax-Message: 2/1 (0/1)

  NOTIFY 2
   Event: message-summary
   Subscription-State: active
   Content-Type: application/simple-message-summary

   Messages-Waiting: yes
   Message-Account: sip:**served_user**@Server
   Voice-Message: 5/1 (2/0)
   Video-Message: 3/1 (1/0)
   Fax-Message: 2/1 (0/1)

Comments:

User Equipment		**Test Equipment**
	➔	SUBSCRIBE
	⬅	200 OK (SUBSCRIBE)
Status information indicate to the user	⬅	NOTIFY 1
	➔	200 OK (NOTIFY)
	New voice message in the account	
Status information indicate to the user	⬅	NOTIFY 2
	➔	200 OK (NOTIFY)

5.2.2 Actions at the AS

TSS Network/AS_ServedUser	TP MWI_ N01_001	MWI reference 4.7.2.5, 3.4/[3], 3.1.4.1, 3.1.6.2/[4]	Selection expression PICS 4.5.1/2
Test purpose: *Subscription to the message waiting service, all relevant headers present* Verify that the SUBSCRIBE request will be accepted with following Subscribe-specific headers: Event, Expires and Accept. The 200 OK (SUBSCRIBE) contains the Expires header indicating the subscription duration for the MWI service. A NOTIFY is sent immediately the actual state of a message account. The From header tag and the Call-ID in the NOTIFY are equal to the values in the SUBSCRIBE.			

SIP header: SUBSCRIBE
       Event: message-summary
       Expires: 7200
       Accept: application/simple-message-summary
       NOTIFY			

Preconditions: An arrangement exists with the service provider to deliver state changes			
Comments: **ISC** **SUT** SUBSCRIBE ➔ **CASE A** 200 OK (SUBSCRIBE) ⬅ **CASE B** 202 Accepted ⬅ NOTIFY ⬅ 200 OK (NOTIFY) ➔			

TSS Network/AS_ServedUser	TP MWI_N01_002	MWI reference 4.7.2.5, 3.1.4.3/[4]	Selection expression PICS 4.5.1/2
Test purpose: *The user is able to unsubscribe the service* Verify that the SUBSCRIBE request will be accepted with Expires header with value zero; Check that the 200 response to the unsubscription contains also an Expires header with value zero. A NOTIFY is sent.			

SIP header: SUBSCRIBE
       Event: message-summary
       Expires: 0
       Accept: application/simple-message-summary
     200 OK (SUBCRIBE)
       Expires: 0
     NOTIFY
       Event: message-summary
       Subscription-State: terminated(; reason=timeout)			

Preconditions: An arrangement exists with the service provider to deliver state changes			
Comments: **ISC** **SUT** SUBSCRIBE ➔ 200 OK (SUBSCRIBE) ⬅ NOTIFY ⬅ 200 OK (NOTIFY) ➔			

TSS Network/AS_ServedUser	TP MWI_N01_003	MWI reference 4.7.2.5, 3.1.6.2/[4]	Selection expression PICS 4.5.1/2
Test purpose: *Refresh of current subscription* Verify that a SUBSCRIBE request will be accepted at any time before the original subscription expires when From header tag and the Call-ID in the subsequent SUBSCRIBE are equal to the values in the original SUBSCRIBE request. A NOTIFY is sent.			

SIP header: SUBSCRIBE 1
             To-header with tag=tag_value1
             CallId=callId_value1
         SUBSCRIBE 2
             To-header with tag=tag_value1
             CallId=_callId_value1			

Preconditions: An arrangement exists with the service provider to deliver state changes			
Comments: **ISC** **SUT** SUBSCRIBE 1 → **CASE A** 200 OK (SUBSCRIBE) ← **CASE B** 202 Accepted ← NOTIFY ← 200 OK (NOTIFY) → **Refreshing of Subscription** SUBSCRIBE 2 → **CASE A** 200 OK (SUBSCRIBE) ← **CASE B** 202 Accepted ← NOTIFY ← 200 OK (NOTIFY) →			

TSS Network/AS_ServedUser	TP MWI_N01_004	MWI reference 4.7.2.5, 3.1.4.2/[4]	Selection expression PICS 4.5.1/2
Test purpose: *Unsuccessful refresh of subscription* Verify that a SUBSCRIBE request will be rejected with a "481 Call/Transaction Does Not Exist" response after expiry of the subscription when the subsequent SUBSCRIBE request uses the same dialog (From tag, CallId) as the actual expired subscription.			

SIP header: SUBSCRIBE 1
             To-header with tag=tag_value1
             CallId=_callId_value1
         SUBSCRIBE 2
             To-header with tag=tag_value1
             CallId=callId_value1			

Preconditions: An arrangement exists with the service provider to deliver state changes			
Comments: **ISC** **SUT** SUBSCRIBE 1 → **CASE A** 200 OK (SUBSCRIBE) ← **CASE B** 202 Accepted ← NOTIFY ← 200 OK (NOTIFY) → **Subscription time expired** SUBSCRIBE 2 → 481 Call/Transaction Does Not Exist ←			

TSS Network/AS_ServedUser	TP MWI_N01_005	MWI reference 4.7.2.5, 3.2.2/[4]	Selection expression PICS 4.5.1/2

Test purpose:
NOTIFY request after initial subscription

Verify that after a successfully subscription a NOTIFY request is sent containing a "Subscription-State" header with the value "active" and an "expires" parameter which indicates the time remaining on the subscription. The From header tag and the Call-ID in the NOTIFY are equal to the values in the SUBSCRIBE.
The NOTIFY includes:
- Event header set to message-summary
- Subscription-State header set to active (optional) expires parameter set to the time remaining on the subscription
- Content-Type header set to application/simple-message-summary
MIME body:
- Messages-Waiting: yes
- Message-Account: identifying the served user (optional)
- msg-summary-line(s) (optional)

SIP header: SUBSCRIBE
    Event: message-summary
    Expires: 7200
    Accept: application/simple-message-summary
   NOTIFY
    Event: message-summary
    Subscription-State: active; expires= <a valid value>
    Content-Type: application/simple-message-summary
    Messages-Waiting: yes
    ….

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments:
ISC   **SUT**
SUBSCRIBE   →
CASE A
200 OK (SUBSCRIBE)   ←
CASE B
202 Accepted   ←

NOTIFY   ←
200 OK (NOTIFY)   →

TSS Network/AS_ServedUser	TP MWI_N01_006	MWI reference 4.7.2.5, 3.2.2/[4]	Selection expression PICS 4.5.1/2

Test purpose:
Subscription terminates after 481 response to NOTIFY request

Verify that a non-200 response (e. g. 481) after a received NOTIFY request will remove the corresponding subscription; Check that no further NOTIFY responses will be received.

SIP header: SUBSCRIBE
    Event: message-summary
    Expires: 7200
    Accept: application/simple-message-summary

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments:
ISC   **SUT**
SUBSCRIBE   →
CASE A
200 OK (SUBSCRIBE)   ←
CASE B
202 Accepted   ←

NOTIFY   ←
481 Call/Transaction Does Not Exist →
    Action causes in a message summary state change
      No subsequent NOTIFY is sent

TSS	TP	MWI reference	Selection expression
Network/AS_ServedUser	MWI_N01_007	4.7.2.5, 3.5, 5.2/[3]	PICS 4.5.1/2

Test purpose:
Message indicated in the NOTIFY request after initial subscription

Verify that after a successfully subscription, when a message is waiting, a NOTIFY request is sent with a body containing a message summary indicating "Messages-Waiting: yes".

SIP header: SUBSCRIBE
        Event: message-summary
        Expires: 7200
        Accept: application/simple-message-summary
      NOTIFY
        Event: message-summary
        Subscription-State: active; expires= <a valid value>
        Content-Type: application/simple-message-summary
        Messages-Waiting: yes

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments:
ISC   **SUT**
SUBSCRIBE   →
CASE A
200 OK (SUBSCRIBE)   ←
CASE B
202 Accepted   ←

NOTIFY   ←
200 OK (NOTIFY)   →

TSS	TP	MWI reference	Selection expression
Network/AS_ServedUser	MWI_N01_008	4.7.2.5, 3.5, 5.2/[3]	PICS 4.5.1/2 AND PICS 4.7.1/1

Test purpose:
Message indicated in the NOTIFY request after initial subscription, msg-account present

Verify that after a successfully subscription, when a message is waiting, a NOTIFY request is sent with a body containing a message summary indicating "Messages-Waiting: yes" and containing an "msg-account" line.

SIP header: SUBSCRIBE
        Event: message-summary
        Expires: 7200
        Accept: application/simple-message-summary
      NOTIFY
        Event: message-summary
        Subscription-State: active
        Content-Type: application/simple-message-summary
        Messages-Waiting: yes
        Message-Account: sip:<URI of served MWI user>

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments:
ISC   **SUT**
SUBSCRIBE   →
CASE A
200 OK (SUBSCRIBE)   ←
CASE B
202 Accepted   ←

NOTIFY   ←
200 OK (NOTIFY)   →

TSS Network/AS_ServedUser	TP MWI_N01_009	MWI reference 4.7.2.5, 3.5, 5.2/[3]	Selection expression PICS 4.5.1/2 AND PICS 4.7.1/2

Test purpose:
Message indicated in the NOTIFY request after initial subscription, msg-summary-line present

Verify that after a successfully subscription, when a message is waiting, a NOTIFY request is sent with a body containing a message summary indicating "Messages-Waiting: yes" and containing a "msg-summary-line" line indicated as message-context-class values according table 3.

SIP header:	SUBSCRIBE
	Event: message-summary
	Expires: 7200
	Accept: application/simple-message-summary
	NOTIFY
	Event: message-summary
	Subscription-State: active
	Content-Type: application/simple-message-summary
	Messages-Waiting: yes
	message-context-class: < newmsgs > **/** < oldmsgs >

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments: The "new-urgentmsgs SLASH old-urgentmsgs" is optional

ISC		SUT
SUBSCRIBE	→	
CASE A		
200 OK (SUBSCRIBE)	←	
CASE B		
202 Accepted	←	
NOTIFY	←	
200 OK (NOTIFY)	→	

TSS Network/AS_ServedUser	TP MWI_N01_009A	MWI reference 4.7.2.5, 3.5, 5.2/[3]	Selection expression PICS 4.5.1/2 AND PICS 4.7.1/2 AND PICS 4.7.1/4

Test purpose:
Message indicated in the NOTIFY request after initial subscription, msg-summary-line present

Verify that after a successfully subscription, when a message is waiting, a NOTIFY request is sent with a body containing a message summary indicating "Messages-Waiting: yes" and containing a "msg-summary-line" line indicated as message-context-class values according table 3.

SIP header:	SUBSCRIBE
	Event: message-summary
	Expires: 7200
	Accept: application/simple-message-summary
	NOTIFY
	Event: message-summary
	Subscription-State: active
	Content-Type: application/simple-message-summary
	Messages-Waiting: yes
	message-context-class: < newmsgs > **/** < oldmsgs > **(** <new-urgentmsgs > **/** < old-urgentmsgs > **)**

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments: The "new-urgentmsgs SLASH old-urgentmsgs" is optional

ISC		SUT
SUBSCRIBE	→	
CASE A		
200 OK (SUBSCRIBE)	←	
CASE B		
202 Accepted	←	
NOTIFY	←	
200 OK (NOTIFY)	→	

TSS Network/AS_ServedUser	TP MWI_N01_010	MWI reference 4.7.2.5, 3.5, 5.2/[3]	Selection expression PICS 4.5.1/2

Test purpose:

NOTIFY indicates state change due to a message after successful subscription

Verify that after a successfully subscription a NOTIFY message is sent immediately. Afterwards verify that an additional NOTIFY request is sent with a body containing a message summary indicating "Messages-Waiting: yes" when a change in the subscribed state occurs, e.g. a new message has been received at the Message account. The From header tag and the Call-ID in the two NOTIFY requests are equal.

SIP header: SUBSCRIBE
    Event: message-summary
    Expires: 7200
    Accept: application/simple-message-summary
    NOTIFY 1
    Event: message-summary
    Subscription-State: active; expires=<a valid value>
    Content-Type: application/simple-message-summary
    NOTIFY 2
    Event: message-summary
    Subscription-State: active; expires=<a valid value>
    Content-Type: application/simple-message-summary
    Messages-Waiting: yes

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments:
ISC   **SUT**
SUBSCRIBE →
CASE A
200 OK (SUBSCRIBE) ←
CASE B
202 Accepted ←

NOTIFY 1 ←
200 OK (NOTIFY) →
Action causes in a message summary state change
NOTIFY 2 ←
200 OK (NOTIFY) →

TSS Network/AS_ServedUser	TP MWI_N01_011	MWI reference 4.7.2.5, 3.5, 5.2/[3]	Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3

Test purpose:

NOTIFY indicates state change due to a message after successful subscription, opt-msg-headers are present

Verify that after a successfully subscription a NOTIFY message is sent immediately. Afterwards verify that an additional NOTIFY request is sent with a body containing a message summary indicating "Messages-Waiting: yes", containing a "msg-summary-line" line indicated as message-context-class values according table 3 and containing opt-msg-headers that describe newly added message(s) when a change in the subscribed state occurs, e.g. a new message has been received at the Message account. The From header tag and the Call-ID in the two NOTIFY requests are equal.

SIP header: SUBSCRIBE
      Event: message-summary
      Expires: 7200
      Accept: application/simple-message-summary
    NOTIFY 1
      Event: message-summary
      Subscription-State: active
      Content-Type: application/simple-message-summary
      Messages-Waiting: yes
    NOTIFY 2
      Event: message-summary
      Subscription-State: active
      Content-Type: application/simple-message-summary
      Messages-Waiting: yes
      message-context-class: < newmsgs > **/** < oldmsgs >
      To: <user1_public1@home1.net>
      From: <user3_public1@home1.net>
      Message-ID: <a valid value>>
      Message-Context: voice-message

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments: Any set of opt-msg-headers is acceptable for this test, the above code serves only as an example

ISC		SUT
SUBSCRIBE	➜	
CASE A		
200 OK (SUBSCRIBE)	⬅	
CASE B		
202 Accepted	⬅	
NOTIFY 1	⬅	
200 OK (NOTIFY)	➜	
Action causes in a message summary state change		
NOTIFY 2	⬅	
200 OK (NOTIFY)	➜	

TSS Network/AS_ServedUser	TP MWI_N01_011A	MWI reference 4.7.2.5, 3.5, 5.2/[3]	Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3 AND PICS 4.7.1/4

Test purpose:
NOTIFY indicates state change due to a message after successful subscription, opt-msg-headers are present

Verify that after a successfully subscription a NOTIFY message is sent immediately. Afterwards verify that an additional NOTIFY request is sent with a body containing a message summary indicating "Messages-Waiting: yes", containing a "msg-summary-line" line indicated as message-context-class values according table 3 and containing opt-msg-headers that describe newly added message(s) when a change in the subscribed state occurs, e.g. a new message has been received at the Message account. The From header tag and the Call-ID in the two NOTIFY requests are equal.

SIP header: SUBSCRIBE
             Event: message-summary
             Expires: 7200
             Accept: application/simple-message-summary
         NOTIFY 1
             Event: message-summary
             Subscription-State: active
             Content-Type: application/simple-message-summary
             Messages-Waiting: yes
         NOTIFY 2
             Event: message-summary
             Subscription-State: active
             Content-Type: application/simple-message-summary
             Messages-Waiting: yes
             message-context-class: < newmsgs > **/** < oldmsgs > **(**<new-urgentmsgs > **/** < old-urgentmsgs > **)**
             To: <user1_public1@home1.net>
             From: <user3_public1@home1.net>
             Message-ID: <a valid value>>
             Message-Context: voice-message

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments: Any set of opt-msg-headers is acceptable for this test, the above code serves only as an example
ISC   **SUT**
SUBSCRIBE   ➔
CASE A
200 OK (SUBSCRIBE)   ⬅
CASE B
202 Accepted   ⬅

NOTIFY 1   ⬅
200 OK (NOTIFY)   ➔
                    Action causes in a message summary state change
NOTIFY 2   ⬅
200 OK (NOTIFY)   ➔

TSS	TP	MWI reference [3],	Selection expression
Network/AS_ServedUser	MWI_N01_012	3.1.4.2/[4]	PICS 4.5.1/2

Test purpose:

Refresh of subscription in a new dialogue

Verify that at any time before a subscription expires the subscription will be successfully refreshed by sending of a SUBSCRIBE request on a different dialog (different Call-Id and From-Tag) as the existing subscription. The From header tag and the Call-ID in the SUBCRIBE 1 are unequal to the values in the SUBSCRIBE 2.

SIP header: SUBSCRIBE 1
　　　　　　　Event: message-summary
　　　　　　　Expires: 7200
　　　　　　　Accept: application/simple-message-summary
　　　　　SUBSCRIBE 2
　　　　　　　Event: message-summary
　　　　　　　Expires: 7200
　　　　　　　Accept: application/simple-message-summary

Preconditions: An arrangement exists with the service provider to deliver state changes

Comments:

ISC   **SUT**

SUBSCRIBE 1   ➔

CASE A

200 OK (SUBSCRIBE)   ⬅

CASE B

202 Accepted   ⬅

NOTIFY   ⬅

200 OK (NOTIFY)   ➔

Refreshing of Subscription

SUBSCRIBE 2   ➔

CASE A

200 OK (SUBSCRIBE)   ⬅

CASE B

202 Accepted   ⬅

NOTIFY   ⬅

200 OK (NOTIFY)   ➔

Table 3: message-context-class values used in the message-summary MIME type

VA	message-context-class values
VA_1	voice-message
VA_2	video-message
VA_3	fax-message
VA_4	pager-message
VA_5	multimedia-message
VA_6	text-message
VA_7	none

History

Document history		
V3.1.1	July 2010	Publication
V3.2.1	August 2011	Publication
V4.1.1	June 2018	Publication