

# ITU-T

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STANDARDIZATION SECTOR  
OF ITU

## Q.4011.3

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SERIES Q: SWITCHING AND SIGNALLING

Testing specifications – Testing specifications for SIP-IMS

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**Closed user group using IP multimedia core network subsystem; Conformance test specification – Part 3: Test suite structure and test purposes; User side**

Recommendation ITU-T Q.4011.3

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## Recommendation ITU-T Q.4011.3

### Closed user group using IP multimedia core network subsystem; Conformance test specification – Part 3: Test suite structure and test purposes; User side

#### Summary

Recommendation ITU-T Q.4011.3 v.1 (2016) provides the testing requirements for the supplementary service "Closed user group (CUG) using IP multimedia (IM) core network (CN) subsystem; Conformance test specification – Part 3: Test suite structure and test purposes (TSS&TP); User side" (based on Recommendation ITU-T Q.3627 v.1).

The version number, v.1, indicates that this is version one of Recommendation ITU-T Q.4011.3 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.4011.3 v.1	2016-08-29	11	<a href="http://handle.itu.int/11.1002/1000/13006">11.1002/1000/13006</a>

#### Keywords

IMS, IP multimedia subsystem, malicious communication identification, MCID, testing, test suite structure and test purposes, TSS&TP.

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\* 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>.

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# Recommendation ITU-T Q.4011.3

## **Closed user group using IP multimedia core network subsystem; Conformance test specification – Part 3: Test suite structure and test purposes; User side**

### **1 Scope**

This Recommendation is part 3 of a multi-part deliverable covering closed user group (CUG) using IP multimedia (IM) core network (CN) subsystem – Conformance test specification, as identified below:

Part 1: "Protocol implementation conformance statement (PICS)";

Part 2: "Test suite structure and test purposes (TSS&TP); Network side";

**Part 3: "Test suite structure and test purposes (TSS&TP); User side".**

### **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.3627 v.1] Recommendation ITU-T Q.3627 v.1 (2016), *Closed user group using IP multimedia core network subsystem – Protocol specification*.

[ITU-T Q.4011.1 v.1] Recommendation ITU-T Q.4011.1 v.1 (2016), *Closed user group using IP multimedia core network subsystem; Conformance test specification – Part 1: Protocol implementation conformance statement*.

### **3 Definitions**

#### **3.1 Terms defined elsewhere**

None.

#### **3.2 Terms defined in this Recommendation**

None.

### **4 Abbreviations and acronyms**

This Recommendation uses the following abbreviations and acronyms:

CUG Closed User Group

IMS IP Multimedia Subsystem

IP Internet Protocol

IUT Implementation Under Test

OA Outgoing Access

PIXIT Protocol Implementation extra Information for Testing

SS	Supplementary Services
SIP	Session Initiation Protocol
TP	Test Purposes
TSS	Test Suite Structure
UA	User Agent
UE	User Equipment

**5 Conventions**

None.

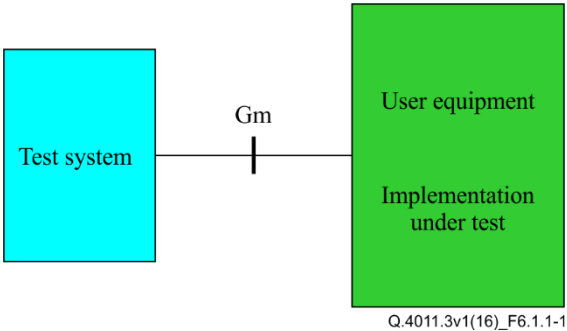
**6 Test suite structure**

**Table 6-1 – Test suite structure**

CUG			
	originating_UE		CUG_U01_xxx

**6.1.1 Testing of the user equipment**

There are special clauses in the protocol standard describing the procedures that apply at the originating and terminating user equipment (UE) as shown in the test configuration in Figure 6.1.1-1.



**Figure 6.1.1-1 – Applicable configuration to test UE functionalities**

**7 Test purpose**

**7.1 Introduction**

For each test requirement a test purpose (TP) is defined.

**7.1.1 TP naming convention**

Test purposes (TPs) are numbered, starting at 001, within each group. Groups are organized according to the test suite structure (TSS). Additional references are added to identify the actual test suite and whether it applies to the network or the user (see Table 1).



**Table 1 – TP identifier naming convention scheme**

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

### 7.1.2 Test strategy

As the base standard [ITU-T Q.3627 v.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 [ITU-T Q.4011.1]. The criteria applied include the following:

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

## 7.2 Test purposes for closed user group

### 7.2.1 Actions at the originating UA

TSS	TP	CUG reference	Selection expression
CUG/originating_UE	CUG_U01_001	Clause 4.5.2.1 of [ITU-T Q.3627 v.1]	PICS 4.5.1/1 AND PICS 4.6.1/1
<b>Test purpose</b> Explicit request of CUG service outgoing access (OA). The originating user requests explicitly the CUG service by including in the initial INVITE an xml CUGrequestType containing the preferred CUG and an outgoing access request set to "true".			
<b>Preconditions:</b>			
<b>SIP header values:</b> INVITE: <cug> <cugCallOperation> <outgoingAccessRequest>TRUE</outgoingAccessRequest> <cugIndex>[PIXIT]</cugIndex> </cugCallOperation> </cug>			
<b>Comments:</b> User equipment <div style="float: right; text-align: right;"> <b>Test equipment</b>            → INVITE requesting CUG explicitly         </div>			

TSS	TP	CUG reference	Selection expression
CUG/originating_UE	CUG_U01_002	Clause 4.5.2.1 of [ITU-T Q.3627 v.1]	PICS 4.5.1/1 AND PICS 4.6.1/1
<b>Test purpose</b> Explicit request of CUG service without outgoing access. The originating user requests explicitly the CUG service by including in the initial INVITE an xml CUGrequestType containing the preferred CUG and an outgoing access request set to "false".			
<b>Preconditions:</b>			
<b>SIP header values:</b> INVITE: <cug> <cugCallOperation> <outgoingAccessRequest>FALSE</outgoingAccessRequest> <cugIndex>[PIXIT]</cugIndex> </cugCallOperation> </cug>			
<b>Comments:</b> User equipment <div style="float: right; text-align: right;"> <b>Test equipment</b>            → INVITE requesting CUG explicitly         </div>			

<b>TSS</b> CUG/originating UE	<b>TP</b> CUG_U01_003	<b>CUG reference</b> clause 4.5.2.1 of [ITU-T Q.3627 v.1]	<b>Selection expression</b> PICS 4.5.1/1 AND PICS 4.6.1/1 AND PICS 4.6.1/2
<b>Test purpose</b> <i>Explicit request of CUG service without CUG index.</i> The originating user requests explicitly the CUG service by including in the initial INVITE an xml CUGrequestType containing the preferred CUG and no 'cugIndex' element is present.			
<b>Preconditions:</b>			
<b>SIP header values:</b> INVITE: <cug> <cugCallOperation> <outgoingAccessRequest>FALSE</outgoingAccessRequest> <cugIndex>[PIXIT]</cugIndex> </cugCallOperation> </cug>			
<b>Comments:</b>			
<b>User equipment</b>		<b>Test equipment</b> → INVITE requesting CUG explicitly	







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