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Technical Specification

Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services; Anonymous Communication Rejection (ACR) and Communication Barring (CB); 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 Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN).

The present document is part 2 of a multi-part deliverable covering the Anonymous Communication Rejection (ACR) and Communication Barring (CB) simulation services, 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 Protocol Implementation eXtra Information for Testing (PIXIT)".

1 Scope

The present document specifies the test suite structure and test purposes of the Anonymous Communication Rejection (ACR) and Communication Barring (CB) simulation service, based on stage three of the IMS simulation service Anonymous Call Rejection (ACR), Incoming Communication Barring (ICB) and Outgoing Communication Barring (OCB). Within the 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).

2 References

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.

- Non-specific reference may be made only to a complete document or a part thereof and only in the following cases:

    - if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;

    - for informative references.

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2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

[1] ETSI TS 183 011: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services: Anonymous Communication Rejection (ACR) and Communication Barring (CB); Protocol specification".

[2] ETSI TS 181 002: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Multimedia Telephony with PSTN/ISDN simulation services".

[3] IETF RFC 3261: "SIP: Session Initiation Protocol".

2.2 Informative references

The following referenced documents are not essential to the use of the present document but they assist the user with regard to a particular subject area**.** For non-specific references, the latest version of the referenced document (including any amendments) applies.

[i.1] ETSI TS 186 017-1: "Telecommunications and Internet Converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services: Anonymous Communication Rejection (ACR) and Communication Barring (CB); Part 1: Protocol Implementation Conformance Statement (PICS)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 181 002 [2] and the following apply:

escaped character: See RFC 3261 [3].

NOTE: This may contain additional information.

3.2 Abbreviations

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

ACK	ACKnowledgement
ACR	Anonymous Communication Rejection
AS	Application Server
CB	Communication Barring
CDIV	Communication DIVersion services
HOLD	communication HOLD
ICB	Incoming Communication Barring
IMS	IP Multimedia Subsystem
IP	Internet Protocol
ISUP	ISDN User Part
ISDN	Integrated Service Data Network
NGN	Next Generation Network
OCB	Outgoing Communication Barring
OIP	Originating Identification Presentation
PSTN	Public Switched Telephone Network
SDP	Session Description Protocol
SIP	Session Initiation Protocol
SUB	SUBaddressing
TP	Test Purposes
TSS	Test Suite Structure
UA	User Agent

4 Test Suite Structure (TSS)

ACR-CB			
	ACR_terminating_AS		ACR-CB_N01_xxx
	OBC_originating_AS		ACR-CB_N02_xxx
	IBC_terminating_AS		ACR-CB_N03_xxx
	interaction_OIP		ACR-CB_N04_xxx
	interaction_CDIV		ACR-CB_N05_xxx
ISUP-SIP			
	SS	ACR	TP612xxx
SIP-ISUP			
	SS	ACR	TP515xxx

5 Test Purposes (TP)

5.1 Introduction

For each test requirement a TP is defined.

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 1).

Table 1: TP identifier naming convention scheme

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

5.1.2 Test strategy

As the base standard TS 183 011 [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 TS 186 017-1 [i.1]. The criteria applied include the following:

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

5.2   TPs for Anonymous Communication Rejection (ACR)

5.2.1   Action for ACR at the terminating AS

TSS ACR_CB/ACR_terminating_AS	TP ACR-CB_N01_001	CB reference TS 183 011, clause 4.5.2.6.2 [1]	Selection expression PICS 1/2
Test purpose *ACR service rejects an anonymous communication, Privacy value is id.* Ensure that the ACR service rejects the incoming communication where the request includes the P-Asserted-Identity header AND the Privacy header indicating "**id**". Ensure that the ACR is sending a 433 (Anonymity Disallowed) response when the communication is rejected.			
Preconditions: incoming-communication-barring active=true conditions: sub element **anonymous** is evaluate to "true" actions: sub element **allow** is evaluate to "false"			
Comments:			

UA C		SUT	UA S
INVITE	→		
100 Trying	←		
433 Anonymity Disallowed	←		
ACK	→		

TSS ACR_CB/ACR_terminating_AS	TP ACR-CB_N01_002	CB reference TS 183 011, clause 4.5.2.6.2 [1]	Selection expression PICS 1/2 AND PICS 1/4
Test purpose *ACR service rejects an anonymous communication, Privacy value is id. An announcement is provided.* Ensure that the ACR service rejects the incoming communication where the request includes the P-Asserted-Identity header AND the Privacy header indicating "**id**". Ensure that the **ACR service provides an announcement to the originating user** before sending a 433 (Anonymity Disallowed) response when the communication is rejected.			
Preconditions: incoming-communication-barring active=true conditions: sub element **anonymous** is evaluate to "true" actions: sub element **allow** is evaluate to "false"			
Comments:			

UA C		SUT	UA S
INVITE	→		
100 Trying	←		
	Announcement		
433 Anonymity Disallowed	←		
ACK	→		

TSS ACR_CB/ACR_terminating_AS	TP ACR-CB_N01_003	CB reference TS 183 011, clause 4.5.2.6.2 [1]	Selection expression PICS 1/2 AND PICS 1/5
Test purpose *ACR service forwards an anonymous communication, Privacy value is id.* Ensure that the ACR service rejects the incoming communication where the request includes the P-Asserted-Identity header AND the Privacy header indicating "**id**". Ensure that the **communication is forwarded to voice message service** instead of rejecting the communication with a 433 (Anonymity Disallowed) final response.			
Preconditions: incoming-communication-barring active=true conditions: sub element **anonymous** is evaluate to "true" actions: sub element **allow** is evaluate to "false"			

Comments:

UA C		SUT	UA S
INVITE	→		
100 Trying	←		
200 OK INVITE	←		
ACK	→		
	Voice message		
BYE	→		
200 OK BYE	←		

TSS ACR_CB/ACR_terminating_AS	TP ACR-CB_N01_004	CB reference TS 183 011, clause 4.5.2.6.2 [1]	Selection expression PICS 1/2
Test purpose *ACR service rejects an anonymous communication, Privacy value is header.* Ensure that the ACR service rejects the incoming communication where the request includes the P-Asserted-Identity header AND the Privacy header indicating "**header**". Ensure that the ACR is sending a 433 (Anonymity Disallowed) response when the communication is rejected.			
Preconditions: incoming-communication-barring active=true conditions: sub element **anonymous** is evaluate to "true" actions: sub element **allow** is evaluate to "false"			

Comments:

UA C		SUT	UA S
INVITE	→		
100 Trying	←		
433 Anonymity Disallowed	←		
ACK	→		