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SERIES Q: SWITCHING AND SIGNALLING

Signalling requirements and protocols for the NGN –
Testing for next generation networks

**Conformance tests specification for the session
initiation protocol – Part 3: Abstract test suite
and partial protocol implementation extra
information for testing (PIXIT) proforma**

Recommendation ITU-T Q.3946.3

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Recommendation ITU-T Q.3946.3

Conformance tests specification for the session initiation protocol – Part 3: Abstract test suite and partial protocol implementation extra information for testing (PIXIT) proforma

Summary

Recommendation ITU-T Q.3946.3 proposes an abstract test suite (ATS) and partial protocol implementation extra information for testing (PIXIT) proforma for the SIP protocol as described in RFC 3261, "Session Initiation Protocol". This Recommendation endorses technical specification ETSI TS 102 027-3.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T Q.3946.3	2014-08-29	11	11.1002/1000/12222

* 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 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.

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Recommendation ITU-T Q.3946.3

Conformance tests specification for the session initiation protocol – Part 3: Abstract test suite and partial protocol implementation extra information for testing (PIXIT) proforma

1 Scope

This Recommendation proposes the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the SIP protocol as described in [IETF RFC 3261], "Session Initiation Protocol".

The present document is part 3 of a multi-part deliverable covering Conformance Test Specification for SIP [IETF RFC 3261], as identified below:

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

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".

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.

[IETF RFC 2224] IETF RFC 2224, *NFS URL Scheme*.

[IETF RFC 3261] IETF RFC 3261, *SIP: Session Initiation Protocol*.

[ETSI ES 201 873-1] ETSI ES 201 873-1, *Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 1: TTCN-3 Core Language*.

[ETSI ES 201 873-5] ETSI ES 201 873-5, *Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 5: TTCN-3 Runtime Interface (TRI)*.

[ETSI TS 102 027-3] ETSI TS 102 027-3, *Methods for Testing and Specification (MTS); Conformance Test Specification for SIP (IETF RFC 3261); Part 3: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma*.

3 Definitions

For the purpose of this Recommendation the definitions given in [IETF RFC 3261], [ES 201 873-1] and [ES 201 873-5] apply.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

ATM	Abstract Test Method
ATS	Abstract Test Suite
ETS	Executable Test Suite
IP	Internet Protocol
IUT	Implementation Under Test
PA	Platform Adapter
PCTR	Protocol Conformance Test Report
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation extra Information for Testing
SIP	Session Initiation Protocol
SUT	System Under Test
TCP	Transmission Control Protocol
TP	Test Purpose
TS	Test System
TSS	Test Suite Structure
TTCN-3	Testing and Test Control Notation (version 3)
UDP	User Datagram Protocol

5 Conventions

None.

6 Abstract test method (ATM)

This clause describes the ATM used to test Draft IETF SIP RFC as defined in [IETF RFC 3261].

6.1 Network architecture

The basic SIP network architecture is defined in Figure 1. The ATS defines test cases for the IUT being in the role of each displayed entity.

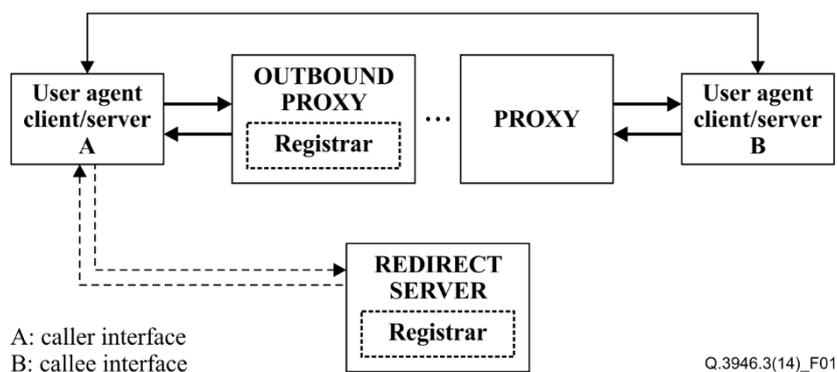


Figure 1 – SIP network architecture

6.2 Protocol architecture

The implementation under test (IUT) for which this test case specification applies consists of the SIP protocol (see Figure 2).

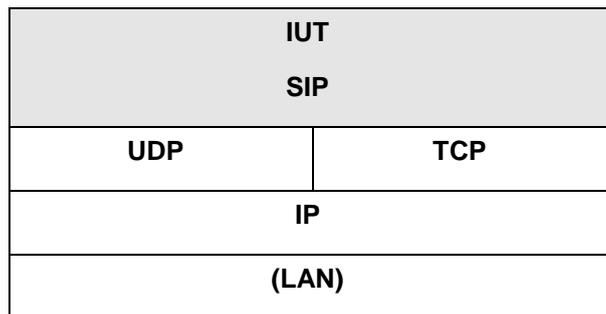


Figure 2 – SIP protocol architecture

6.3 Test system architecture

Test systems that implement this ATS shall conform to the requirements as defined in clause 4.3 of [ETSI TS 102 027-3].

7 Untestable test purposes (TP)

Clause 5 of [ETSI TS 102 027-3] applies.

8 ATS conventions

Clause 6 of [ETSI TS 102 027-3] applies.

9 PCTR conformance

Clause 7 of [ETSI TS 102 027-3] applies.

10 PIXIT conformance

Clause 8 of [ETSI TS 102 027-3] applies.

11 ATS conformance

Clause 9 of [ETSI TS 102 027-3] applies.

Annex A

Abstract test suite (ATS)

(This annex forms an integral part of this Recommendation.)

Annex A of [ETSI TS 102 027-3] applies.

Annex B

Partial PIXIT proforma

(This annex forms an integral part of this Recommendation.)

Clause 6 of [ETSI TS 102 027-3] applies.

Annex B of [ETSI TS 102 027-3] applies.

Annex C

PCTR proforma

(This annex forms an integral part of this Recommendation.)

Annex C of [ETSI TS 102 027-3] applies.

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