

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.4009.1

(08/2016)

SERIES Q: SWITCHING AND SIGNALLING

Testing specifications – Testing specifications for SIP-IMS

Completion of communications to busy subscriber and completion of communications by no reply using IP multimedia core network subsystem; Conformance test specification – Part 1: Protocol implementation conformance statement

Recommendation ITU-T Q.4009.1

ITU-T Q-SERIES RECOMMENDATIONS
SWITCHING AND SIGNALLING

SIGNALLING IN THE INTERNATIONAL MANUAL SERVICE	Q.1–Q.3
INTERNATIONAL AUTOMATIC AND SEMI-AUTOMATIC WORKING	Q.4–Q.59
FUNCTIONS AND INFORMATION FLOWS FOR SERVICES IN THE ISDN	Q.60–Q.99
CLAUSES APPLICABLE TO ITU-T STANDARD SYSTEMS	Q.100–Q.119
SPECIFICATIONS OF SIGNALLING SYSTEMS No. 4, 5, 6, R1 AND R2	Q.120–Q.499
DIGITAL EXCHANGES	Q.500–Q.599
INTERWORKING OF SIGNALLING SYSTEMS	Q.600–Q.699
SPECIFICATIONS OF SIGNALLING SYSTEM No. 7	Q.700–Q.799
Q3 INTERFACE	Q.800–Q.849
DIGITAL SUBSCRIBER SIGNALLING SYSTEM No. 1	Q.850–Q.999
PUBLIC LAND MOBILE NETWORK	Q.1000–Q.1099
INTERWORKING WITH SATELLITE MOBILE SYSTEMS	Q.1100–Q.1199
INTELLIGENT NETWORK	Q.1200–Q.1699
SIGNALLING REQUIREMENTS AND PROTOCOLS FOR IMT-2000	Q.1700–Q.1799
SPECIFICATIONS OF SIGNALLING RELATED TO BEARER INDEPENDENT CALL CONTROL (BICC)	Q.1900–Q.1999
BROADBAND ISDN	Q.2000–Q.2999
SIGNALLING REQUIREMENTS AND PROTOCOLS FOR THE NGN	Q.3000–Q.3709
SIGNALLING REQUIREMENTS AND PROTOCOLS FOR SDN	Q.3710–Q.3899
TESTING SPECIFICATIONS	Q.3900–Q.4099
Testing specifications for next generation networks	Q.3900–Q.3999
Testing specifications for SIP-IMS	Q.4000–Q.4039
Testing specifications for Cloud computing	Q.4040–Q.4059

For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T Q.4009.1

Completion of communications to busy subscriber and completion of communications by no reply using IP multimedia core network subsystem; Conformance test specification – Part 1: Protocol implementation conformance statement

Summary

Recommendation ITU-T Q.4009.1 v.1 (2016) specifies the testing requirements for supplementary service "Completion of communications to busy subscriber (CCBS) and completion of communications by no reply (CCNR) using IP multimedia (IM) core network (CN) subsystem; Conformance test specification – Part 1: Protocol implementation conformance statement (PICS)".

The version number, v.1, indicates that this is version one of Recommendation ITU-T Q.4009.1, and that it relates to Release 10 of the relevant 3GPP/ETSI standard.

This Recommendation endorses ETSI TS 101 588-1 V5.1.1 (2012-10); "IMS Network Testing (INT); Completion of Communications to Busy Subscriber (CCBS) and Completion of Communications by No Reply (CCNR) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification; Part 1: Protocol Implementation Conformance Statement (PICS)".

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T Q.4009.1 v.1	2016-08-29	11	11.1002/1000/12999

Keywords

IP multimedia subsystem, IMS, session description protocol, SDP, session initiation protocol, SIP, interworking, testing.

* 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

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

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.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure, e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

© ITU 2016

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

Recommendation ITU-T Q.4009.1

Completion of communications to busy subscriber and completion of communications by no reply using IP multimedia core network subsystem; Conformance test specification – Part 1: Protocol implementation conformance statement

1 Scope

This Recommendation specifies the testing requirements for supplementary service "Completion of communications to busy subscriber (CCBS) and completion of communications by no reply (CCNR) using IP multimedia (IM) core network (CN) subsystem; Conformance test specification – Part 1: Protocol implementation conformance statement (PICS)".

This Recommendation endorses [ETSI TS 101 588-1 V5.1.1] (2012-10); "IMS Network Testing (INT); Completion of Communications to Busy Subscriber (CCBS) and Completion of Communications by No Reply (CCNR) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification; Part 1: Protocol Implementation Conformance Statement (PICS) ".

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.

[ETSI TS 101 588-1 V5.1.1] ETSI TS 101 588-1 V5.1.1 (2012-10), *IMS Network Testing (INT); Completion of Communications to Busy Subscriber (CCBS) and Completion of Communications by No Reply (CCNR) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification; Part 1: Protocol Implementation Conformance Statement (PICS)*.

3 Definitions

None.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

IMS	IP Multimedia Subsystem
IP	Internet Protocol
SIP	Session Initiation Protocol
SDP	Session Description Protocol

5 Conventions

None.

6 Endorsement

[ETSI TS 101 588-1 V5.1.1]

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Environment and ICTs, climate change, e-waste, energy efficiency; construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Terminals and subjective and objective assessment methods
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks, Internet of Things and smart cities
Series Z	Languages and general software aspects for telecommunication systems