ITU-T

Q.3403

TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU (02/2016)

SERIES Q: SWITCHING AND SIGNALLING

Signalling requirements and protocols for the NGN – Service and session control protocols

IP multimedia call control protocol based on the session initiation protocol and the session description protocol – Basic call: Requirements for the user side and the network side

Recommendation ITU-T Q.3403



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.3899
General	Q.3000-Q.3029
Network signalling and control functional architecture	Q.3030-Q.3099
Network data organization within the NGN	Q.3100-Q.3129
Bearer control signalling	Q.3130-Q.3179
Signalling and control requirements and protocols to support attachment in NGN environments	Q.3200-Q.3249
Resource control protocols	Q.3300-Q.3369
Service and session control protocols	Q.3400-Q.3499
Service and session control protocols – supplementary services	Q.3600-Q.3616
Service and session control protocols – supplementary services based on SIP-IMS	Q.3617-Q.3639
NGN applications	Q.3700-Q.3849
TESTING SPECIFICATIONS	Q.3900-Q.4099

 $For {\it further details, please refer to the list of ITU-T Recommendations.}$

Recommendation ITU-T Q.3403

IP multimedia call control protocol based on the session initiation protocol and the session description protocol – Basic call: Requirements for the user side and the network side

Summary

The IP multimedia subsystem (IMS) became one of the popular technical solutions which operators use to migrate from circuit switching networks to packet switching networks. Initially the IMS platform was created at the request of mobile operators, but nowadays fixed operators are also actively implementing the IMS platform.

Furthermore, the regulations of some countries/regions demand that operators continue to provide the set of services that were available over the former circuit switching technologies (e.g., signalling system 7, intelligent networks, etc.).

There are different implementations of the SIP-IMS protocols. Operators expressed their interest in establishing the universal requirements that end-user equipment and network equipment should meet.

The version number, v.1, indicates that this is version one of Recommendation ITU-T Q.3403, and that it relates to Release 10 of the relevant 3GPP/ETSI standard.

Recommendation ITU-T Q.3403 (2016) endorses ETSI TS 124 229 V10.20.0 (2015-07), "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3" (3GPP TS 24.229 version 10.20.0 Release 10). It contains requirements for establishing the basic call using the IMS platform at the user and network sides.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T Q.3403 v.1	2016-02-13	11	11.1002/1000/12715

Keywords

IMS, network side, SDP, SIP, testing, user side.

^{*} 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.3403

IP multimedia call control protocol based on the session initiation protocol and the session description protocol – Basic call: Requirements for the user side and the network side

1 Scope

This Recommendation describes the requirements for user and network side for establishing the basic call using the IMS platform as described in ETSI TS 124 229 V10.20.0 (2015-07), "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3" (3GPP TS 24.229 version 10.20.0 Release 10).

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 124 229 V10.20.0]

ETSI TS 124 229 V10.20.0 (2015-07), Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3 (3GPP TS 24.229 version 10.20.0 Release 10).

3 Definitions

None.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

IMS IP Multimedia Subsystem

IP Internet Protocol

SDP Session Description Protocol

SIP Session Initiation Protocol

5 Conventions

None.

6 Endorsement

[ETSI TS 124 229 V10.20.0]

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