

# ETSI TS 134 229-2 V5.1.0 (2006-10)

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*Technical Specification*

**Universal Mobile Telecommunications System (UMTS);  
Internet Protocol (IP) multimedia call control protocol  
based on Session Initiation Protocol (SIP)  
and Session Description Protocol (SDP);  
Part 2: Implementation Conformance Statement (ICS)  
specification  
(3GPP TS 34.229-2 version 5.1.0 Release 5)**

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Reference

RTS/TSGR-0534229-2v510

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Keywords

UMTS

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## Foreword

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## Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called an Implementation Conformance Statement (ICS).

The present document is 2<sup>nd</sup> part of a multi-part conformance test specification for UE and is *valid for 3GPP Release 5*. The specification contains the UE IMS CC capability and the applicability of the UE IMS CC conformance test cases.

3GPP TS 34.229-1 [5]: Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification.

**3GPP TS 34.229-2 (the present document): "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification" - current document.**

3GPP TS 34.229-3 [6]: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 3: Abstract Test Suites (ATS)".

Note: For conformance testing of the UTRAN requirements refer to 3GPP TS 34.123 Parts 1 to 3 [2] [3] [4].

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# 1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for 3<sup>rd</sup> Generation User Equipment (UE) supporting the Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP), in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [8] and ETS 300 406 [9].

The present document also specifies a recommended applicability statement for the test cases included in TS 34.229-1 [5]. These applicability statements are based on the features implemented in the UE.

The present document is valid for UE implemented according to 3GPP releases starting from Release 5 up to the Release indicated on the cover page of the present document.

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# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document.
  - For a Release 5 UE, references to 3GPP documents are to version 5.x.y, when available

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 34.123-1: "User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".
- [3] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".
- [4] 3GPP TS 34.123-3: "User Equipment (UE) conformance specification; Part 3: Abstract Test Suites (ATS)".
- [5] 3GPP TS 34.229-1: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".
- [6] 3GPP TS 34.229-3: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 3: Abstract Test Suites (ATS)".
- [7] ISO/IEC 9646-1: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [8] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [9] ETSI ETS 300 406: "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [10] 3GPP TS 24.229: "IP Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

- [11] 3GPP TS 26.234: "Transparent end-to-end Packet-switched Streaming Service (PSS); Protocols and codecs".
- [12] 3GPP TS 33.203: "Access security for IP-based services".
- [13] 3GPP TS 23.221: "Architectural requirements".
- [14] 3GPP TS 26.235: "Packet switched conversational multimedia applications; Default codecs".
- [15] RFC 3261: "SIP: Session Initiation Protocol".
- [16] 3GPP TS 24.141: "Presence service using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".
- [17] 3GPP TS 24.247: "Messaging using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".
- [18] 3GPP TR 23.981: "Interworking aspects and migration scenarios for IPv4-based IP Multimedia Subsystem (IMS) implementations".
- [19] 3GPP TS 24.147: "Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3".
- [20] RFC 3455: "Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3rd-Generation Partnership Project (3GPP)"
- [21] RFC 3608: "Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration".
- [22] RFC 3327: "Session Initiation Protocol Extension Header Field for Registering Non-Adjacent Contacts".
- [23] RFC 3329: "Security Mechanism Agreement for the Session Initiation Protocol (SIP)".
- [24] RFC 3680: "A Session Initiation Protocol (SIP) Event Package for Registrations".
- [25] RFC 3486: 'Compressing the Session Initiation Protocol (SIP)'
- [26] RFC 3312: "Integration of Resource Management and Session Initiation Protocol (SIP)".
- [27] RFC 3262: "Registration of provisional responses in Session Initiation Protocol (SIP)".
- [28] RFC 3265: "Session Initiation Protocol (SIP) Specific Event Notification".
- [29] RFC 3515: "The Session Initiation Protocol (SIP) REFER method".
- [30] RFC 3311: "The Session Initiation Protocol (SIP) UPDATE method".
- [31] RFC 3313: "Private Session Initiation Protocol (SIP) Extensions for Media Authorization".
- [32] RFC 3323: "A Privacy Mechanism for the Session Initiation Protocol (SIP)".
- [33] RFC 3325: "Private Extensions to the Session Initiation Protocol (SIP) for Network Asserted Identity within Trusted Networks".
- [34] RFC 3428: "Session Initiation Protocol (SIP) Extension for Instant Messaging".
- [35] RFC 3326: "The Reason Header Field for the Session Initiation Protocol (SIP)".
- [36] RFC 3841: "Caller Preferences for the Session Initiation Protocol (SIP)"
- [37] RFC 3903: "An Event State Publication Extension to the Session Initiation Protocol (SIP)".
- [38] RFC 4028: "Session Timers in the Session Initiation Protocol (SIP)".
- [39] RFC 3892: "The Session Initiation Protocol (SIP) Referred-By Mechanism".
- [40] RFC 3891: "The Session Initiation Protocol (SIP) "Replaces" Header".

- [41] RFC 3911: "The Session Initiation Protocol (SIP) "Join" Header".
- [42] RFC 3840: "Indicating User Agent Capabilities in the Session Initiation Protocol (SIP)"
- [43] RFC 3857: "A Watcher Information Event Template Package for the Session Initiation Protocol (SIP)".
- [44] RFC 3856: "A Presence Event Package for the Session Initiation Protocol (SIP)".
- [45] draft-ietf-sipping-config-framework-07 (July 2005): "A Framework for Session Initiation Protocol User Agent Profile Delivery".

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

- [46] draft-ietf-sipping-conference-package-12 (July 2005): "A Session Initiation Protocol (SIP) Event Package for Conference State"

Editor's note: The above document cannot be formally referenced until it is published as an RFC.

- [47] RFC 2403 "The Use of HMAC-MD5-96 within ESP and AH".
- [48] RFC 2404 "The Use of HMAC-SHA-1-96 within ESP and AH".
- [49] RFC 3388: "Grouping of Media Lines in Session Description Protocol".
- [50] RFC 3524: "Mapping of Media Streams to Resource Reservation Flows".
- [51] RFC 3556: "Session Description Protocol (SDP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth".
- [52] 3GPP TR 33.978: "Security aspects of early IP Multimedia Subsystem (IMS)".

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## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply, in addition to those in TR 21.905 [1]:

- terms defined in the relevant 3GPP core specifications (see normative references);
- terms defined in ISO/IEC 9646-1 [7] and in ISO/IEC 9646-7 [8].

In particular, the following terms defined in ISO/IEC 9646-1 [7] apply:

**Implementation Conformance Statement (ICS):** statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented  
The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

**ICS proforma:** document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

|     |                                      |
|-----|--------------------------------------|
| ICS | Implementation Conformance Statement |
| SCS | System Conformance Statement         |



UEUT

User Equipment Under Test

---

## 4 Recommended test case applicability

The applicability of each individual test is identified in the table 1. This is just a recommendation based on the purpose for which the test case was written.

The applicability of every test is formally expressed by the use of Boolean expression that are based on parameters (ICS) included in annex A of the present document.

The columns in table 1 have the following meaning:

### Clause

The clause column indicates the clause number in TS 34.229-1 [5] that contains the test body.

### Title

The title column describes the name of the test.

### Release

The release column indicates the earliest release from which each testcase is applicable, except if otherwise stated of an individual test case.

### Applicability

The following notations are used for the applicability column:

|     |   |
|-----|---|
| R   | recommended - the test case is recommended  |
| O   | optional – the test case is optional  |
| N/A | not applicable - in the given context, the test case is not recommended.  |
| Ci  | conditional - the test is recommended ("R") or not ("N/A") depending on the support of other items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." is used to avoid ambiguities. |

### Comments

This column contains a verbal description of the condition included in the applicability column.

Table 1: Applicability of tests

| Clause                           | Title  | Release | Applicability | Comments  |
|----------------------------------|--|---------|---------------|---|
| <b>PDP Context Activation</b>    |  |         |               |   |
| 6.2                              | General Purpose PDP Context Establishment (UE Requests for a Dedicated PDP Context)                                  | Rel-5   | C04           | UE supporting 3GPP IMS and capable of being configured to initiate Dedicated PDP Context  |
| 6.3                              | Dedicated PDP Context Establishment  | Rel-5   | C04           | UE supporting 3GPP IMS and capable of being configured to initiate Dedicated PDP Context  |
| <b>P-CSCF Discovery</b>          |  |         |               |   |
| 7.1                              | P-CSCF Discovery via PDP Context   | Rel-5   | C05           | UE supporting 3GPP IMS and capable of being configured to initiate P-CSCF Discovery via PCO   |
| 7.2                              | P-CSCF Discovery via DHCP – IPv4   | Rel-5   | C06           | UE supporting IPv4 and capable of being configured to initiate P-CSCF Discovery via DHCPv4  |
| 7.3                              | P-CSCF Discovery via DHCP – IPv4 (UE Requests P-CSCF discovery via PCO)  | Rel-5   | C07           | UE supporting IPv4, supporting P-CSCF Discovery via PCO and DHCPv4 and capable of being configured to initiate P-CSCF Discovery via PCO                             |
| 7.4                              | P-CSCF Discovery by DHCP – IPv6  | Rel-5   | C08           | UE supporting 3GPP IMS and capable of being configured to initiate P-CSCF Discovery via DHCPv6  |
| 7.5                              | P-CSCF Discovery by DHCP-IPv6 (UE Requests P-CSCF discovery by PCO)  | Rel-5   | C09           | UE supporting 3GPP IMS and supporting P-CSCF Discovery via PCO and DHCPv6 and capable of being configured to initiate P-CSCF Discovery via PCO                      |
| 7.6                              | P-CSCF Discovery by DHCP – IPv6 (UE does not Request P-CSCF discovery by PCO, SS includes P-CSCF Address(es) in PCO) | Rel-5   | C10           | UE supporting 3GPP IMS and supporting P-CSCF Discovery via PCO and DHCPv6 and capable of being configured to initiate P-CSCF Discovery via DHCPv6                   |
| 7.7                              | P-CSCF Discovery (UE Receives list of FQDNs / IPv6 addresses)  | Rel-5   | C00           | UE supporting 3GPP IMS  |
| 7.8                              | P-CSCF Discovery (UE Receives list of FQDNs / IPv4 addresses)  | Rel-5   | C12           | UE supporting IPv4  |
| <b>Registration</b>              |  |         |               |   |
| 8.1                              | Initial registration   | Rel-5   | C00           | UE supporting 3GPP IMS  |
| 8.2                              | User Initiated Re-Registration   | Rel-5   | C00           | UE supporting 3GPP IMS  |
| 8.3                              | Mobile Initiated Deregistration  | Rel-5   | C00           | UE supporting 3GPP IMS  |
| 8.4                              | Invalid Behaviour – 423 Interval Too Brief   | Rel-5   | C00           | UE supporting 3GPP IMS  |
| <b>Authentication</b>            |  |         |               |   |
| 9.1                              | Invalid Behaviour – MAC Parameter Invalid  | Rel-5   | C00           | UE supporting 3GPP IMS  |
| 9.2                              | Invalid Behaviour – SQN out of range   | Rel-5   | C00           | UE supporting 3GPP IMS  |
| <b>Subscription</b>              |  |         |               |   |
| 10.1                             | Invalid Behaviour – 503 Service Unavailable  | Rel-5   | C00           | UE supporting 3GPP IMS  |
| <b>Notification</b>              |  |         |               |   |
| 11.1                             | Network-initiated deregistration   | Rel-5   | C00           | UE supporting 3GPP IMS  |
| 11.2                             | Network initiated re-authentication  | Rel-5   | C00           | UE supporting 3GPP IMS  |
| <b>Call Control</b>              |  |         |               |   |
| 12.1                             | MO Call Successful   | Rel-5   | C03           | UE supporting 3GPP IMS and capable of initiating a session and supporting preconditions   |
| 12.2                             | MO Call – 503 Service Unavailable  | Rel-5   | C01           | UE supporting 3GPP IMS and capable of initiating a session  |
| 12.3                             | MO Call – 488 Not Acceptable Here  | Rel-5   | C02           | UE supporting 3GPP IMS and capable of sending new INVITE request upon reception of a 488 (Not Acceptable Here) response and supporting more than one media or codec |
| 12.4                             | Call initiation – mobile terminating case  | Rel-5   | C03           | UE supporting 3GPP IMS and capable of initiating a session and supporting preconditions   |
| <b>SIP Compression (SigComp)</b> |  |         |               |   |
| 13.1                             | SigComp in the Initial registration  | Rel-5   | C00           | UE supporting 3GPP IMS  |
| <b>Emergency Service</b>         |  |         |               |   |
| 14.1                             | Emergency Call Initiation – Using CS domain  | Rel-5   | C11           | UE supporting 3GPP IMS and supporting Emergency speech call   |
| 14.2                             | Emergency Call Initiation – 380 Alternative Service  | Rel-5   | [FFS]         | [FFS]   |
| <b>Conditions/Options</b>        |  |         |               |   |
| C00                              | IF A.0/1 THEN R ELSE N/A   |         |               | 3GPP IMS  |

| Clause | Title  | Release | Applicability | Comments   |
|--------|--|---------|---------------|--|
| C01    | IF A.0/1 AND A.4/2B THEN R ELSE N/A                        |         |               | 3GPP IMS AND Initiating session  |
| C02    | IF A.0/1 AND A.12/1 AND A.12/11 THEN R ELSE N/A            |         |               | 3GPP IMS AND Sending new INVITE request upon reception of 488 response AND supporting more than one media or codec           |
| C03    | IF A.0/1 AND A.4/2B AND A.4/16 THEN R ELSE N/A             |         |               | 3GPP IMS AND Initiating session AND preconditions  |
| C04    | IF A.0/1 AND A.12/4 THEN R ELSE N/A                        |         |               | 3GPP IMS AND Dedicated PDP Context   |
| C05    | IF A.0/1 AND A.12/5 THEN R ELSE N/A                        |         |               | 3GPP IMS AND P-CSCF Discovery via PCO  |
| C06    | IF A.7/1 AND A.13/1 THEN R ELSE N/A                        |         |               | IPv4 AND configured to initiate P-CSCF discovery via DHCPv4  |
| C07    | IF A.7/1 AND A.12/8 AND A.13/2 AND A.12/5 THEN R ELSE N/A  |         |               | IPv4 AND P-CSCF discovery via PCO AND P-CSCF discovery via DHCPv4 AND configured to initiate P-CSCF discovery via PCO        |
| C08    | IF A.0/1 AND A.12/7 THEN R ELSE N/A                        |         |               | 3GPP IMS AND Configured to initiate P-CSCF discovery via DHCPv6  |
| C09    | IF A.0/1 AND A.12/8 AND A.12/10 AND A.12/5 THEN R ELSE N/A |         |               | 3GPP IMS AND P-CSCF Discovery via PCO AND P-CSCF discovery via DHCPv6 AND configured to initiate P-CSCF discovery via PCO    |
| C10    | IF A.0/1 AND A.12/8 AND A.12/10 AND A.12/7 THEN R ELSE N/A |         |               | 3GPP IMS AND P-CSCF Discovery via PCO AND P-CSCF discovery via DHCPv6 AND configured to initiate P-CSCF discovery via DHCPv6 |
| C11    | IF A.0/1 AND [3] A.2/2 THEN R ELSE N/A                     |         |               | 3GPP IMS AND Emergency speech call   |
| C12    | IF A.7/1 THEN R ELSE N/A                                   |         |               | IPv4   |

---

# Annex A (normative): ICS proforma for 3<sup>rd</sup> Generation User Equipment supporting IP multimedia call control based on SIP and SDP

Notwithstanding the provisions of the copyright related to the text of the present document, The Organizational Partners of 3GPP grant that users of the present document may freely reproduce the ICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed ICS.

---

## A.1 Guidance for completing the ICS proforma

### A.1.1 Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in relevant specifications may provide information about the implementation in a standardised manner.

The ICS proforma is subdivided into clauses for the following categories of information:

- instructions for completing the ICS proforma;
- identification of the implementation;
- identification of the protocol;
- ICS proforma tables (for example: UE roles specific to additional capabilities, Major capabilities etc).

### A.1.2 Abbreviations and conventions

This annex does not reflect dynamic conformance requirements but static ones. In particular, a condition for support of a PDU parameter does not reflect requirements about the syntax of the PDU (i.e. the presence of a parameter) but the capability of the implementation to support the parameter.

In the sending direction, the support of a parameter means that the implementation is able to send this parameter (but it does not mean that the implementation always sends it).

In the receiving direction, it means that the implementation supports the whole semantic of the parameter that is described in the main part of this specification.

As a consequence, PDU parameter tables in this annex are not the same as the tables describing the syntax of a PDU in the reference specification, e.g. RFC 3261 [15] tables 2 and 3. It is not rare to see a parameter which is optional in the syntax but mandatory in subclause below.

The ICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [8].

#### Item column

The item column contains a number which identifies the item in the table.

#### Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means 'is <item description> supported by the implementation?'.  

---

### Reference column

The reference column gives reference to the relevant 3GPP core specifications.

### Status column

The various statii used in this annex are in accordance with the rules in table A.1.

**Table A.1: Key to status codes**

| Status code | Status name        | Meaning  |
|-------------|--------------------|--|
| m           | mandatory          | the capability shall be supported. It is a static view of the fact that the conformance requirements related to the capability in the reference specification are mandatory requirements. This does not mean that a given behaviour shall always be observed (this would be a dynamic view), but that it shall be observed when the implementation is placed in conditions where the conformance requirements from the reference specification compel it to do so. For instance, if the support for a parameter in a sent PDU is mandatory, it does not mean that it shall always be present, but that it shall be present according to the description of the behaviour in the reference specification (dynamic conformance requirement). |
| O           | optional           | the capability may or may not be supported. It is an implementation choice.  |
| n/a         | not applicable     | it is impossible to use the capability. No answer in the support column is required.   |
| C <integer> | conditional        | the requirement on the capability ('m', 'o' or 'n/a' ) depends on the support of other <b>optional or conditional</b> items. <integer> is the identifier of the conditional expression.  |
| o.<integer> | qualified optional | for mutually exclusive or selectable options from a set. <integer> is the identifier of the group of options, and the logic of selection of the options.   |

### Release column

The release column indicates the earliest release from which the capability or option is relevant.

### Mnemonic column

The Mnemonic column contains mnemonic identifiers for each item.

### Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [8], are used for the support column:

|               |  |
|---------------|--|
| Y or y        | supported by the implementation  |
| N or n        | not supported by the implementation  |
| N/A, n/a or - | no answer required (allowed only if the status is N/A, directly or after evaluation of a conditional status) |

### References to items

For each possible item answer (answer in the support column) within the ICS proforma there exists a unique reference, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table.

EXAMPLE: A.5/4 is the reference to the answer of item 4 in table A.5.

## A.1.3 Instructions for completing the ICS proforma

The supplier of the implementation may complete the ICS proforma in each of the spaces provided. More detailed instructions are given at the beginning of the different clauses of the ICS proforma.

## A.2 Identification of the User Equipment

Identification of the User Equipment should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

### A.2.1 Date of the statement

.....

### A.2.2 User Equipment Under Test (UEUT) identification

UEUT name:

.....  
.....

Hardware configuration:

.....  
.....  
.....

Software configuration:

.....  
.....  
.....

### A.2.3 Product supplier

Name:

.....

Address:

.....  
.....  
.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....  
.....  
.....

## A.2.4 Client

Name:

.....

Address:

.....  
.....  
.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....  
.....  
.....

## A.2.5 ICS contact person

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....  
.....

## A.3 Identification of the protocol

This ICS proforma applies to the 3GPP standards listed in the normative references clause of the present document.

## A.4 ICS proforma tables

NOTE: Tables A.2 to A.5, A.317 and A.318 have been based on tables with the same number in TS 24.229 [10]. In order to facilitate traceability, table and item numbers are the same as those in the corresponding tables in TS 24.229 [10].

### A.4.0 IMS support

**Table A.0: IMS support**

| Item | IMS support  | Reference   | Status | Release | Support |
|------|--|-------------|--------|---------|---------|
| 1    | UE supports all mandatory capabilities listed in the present Annex A | 24.229 [10] | o      | Rel-5   |         |

### A.4.1 Roles

**Table A.2: Roles**

| Item | UE roles   | Reference                        | Status | Release | Support |
|------|------------|----------------------------------|--------|---------|---------|
| 1    | User agent | 24.229 [10], A.2.1 RFC 3261 [15] | m      | Rel-5   |         |

**Table A.3A: UE roles specific to additional capabilities**

| Item | UE roles                         | Reference        | Status | Release | Support |
|------|----------------------------------|------------------|--------|---------|---------|
| 2    | Presence user agent              | 24.141 [16]      | o      | Rel-6   |         |
| 4    | Watcher                          | 24.141 [16]      | o      | Rel-6   |         |
| 12   | Conference participant           | 24.147 [19]      | o      | Rel-6   |         |
| 13   | Messaging conference participant | 24.247 [17], 5,3 | o      | Rel-6   |         |



## A.4.2 ICS related to SIP

### A.4.2.1 Major capabilities

**Table A.4: Major capabilities**

| Item                                     | Does the implementation support  | Reference  | Status | Release                     | Support |
|--|--|--|--------|-----------------------------|---------|
| <b>Capabilities within main protocol</b> |  |  |        |                             |         |
| 1  | client behaviour for registration?   | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 10.2              | m      | Rel-5                       |         |
| 2A                                       | registration of multiple contacts for a single address of record   | 24.229 [10], A.2.1.2<br>RFC 3261 [15],<br>10.2.1.2, 16.6 | o      | Rel-6                       |         |
| 2B                                       | initiating a session?  | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 13                | o      | Rel-5                       |         |
| 3  | client behaviour for INVITE requests?  | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 13.2              | c18    | Rel-5                       |         |
| 4  | server behaviour for INVITE requests?  | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 13.3              | c18    | Rel-5                       |         |
| 5  | session release?   | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 15.1              | c18    | Rel-5                       |         |
| 6  | timestamping of requests?  | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 8.2.6.1           | o      | Rel-5                       |         |
| 7  | authentication between UA and UA?  | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 22.2              | o      | Rel-5                       |         |
| 8A                                       | authentication between UA and proxy?   | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 20.28,<br>22.3    | o      | Rel-5                       |         |
| 9  | server handling of merged requests due to forking?   | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 8.2.2.2           | m      | Rel-5                       |         |
| 10                                       | client handling of multiple responses due to forking?  | 24.229 [10], A.2.1.2<br>RFC 3261 [15],<br>13.2.2.4       | m      | Rel-5                       |         |
| 11                                       | insertion of date in requests and responses?   | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 20.17             | o      | Rel-5                       |         |
| 12                                       | downloading of alerting information?   | 24.229 [10], A.2.1.2<br>RFC 3261 [15], 20.4              | o      | Rel-5                       |         |
| <b>Extensions</b>                        |  |  |        |                             |         |
| 14                                       | reliability of provisional responses in SIP?   | 24.229 [10], A.2.1.2<br>RFC 3262 [27]                    | c18    | Rel-5                       |         |
| 15                                       | the REFER method?  | 24.229 [10], A.2.1.2<br>RFC 3515 [29]                    | o      | Rel-5                       |         |
|  |  |  | c33    | Rel-6                       |         |
| 16                                       | integration of resource management and SIP? (use of preconditions)   | 24.229 [10], A.2.1.2<br>RFC 3312 [26]                    | c18    | Rel-5<br>[FFS for<br>Rel-6] |         |
| 17                                       | the SIP UPDATE method?   | 24.229 [10], A.2.1.2<br>RFC 3311 [30]                    | c18    | Rel-5<br>[FFS for<br>Rel-6] |         |
| 19                                       | SIP extensions for media authorization?  | 24.229 [10], A.2.1.2<br>RFC 3313 [31]                    | m      | Rel-5                       |         |
| 20                                       | SIP specific event notification?   | 24.229 [10], A.2.1.2<br>RFC 3265 [28]                    | m      | Rel-5                       |         |
| 22                                       | acting as the notifier of event information?   | 24.229 [10], A.2.1.2<br>RFC 3265 [28]                    | o      | Rel-5                       |         |
| 23                                       | acting as the subscriber to event information?   | 24.229 [10], A.2.1.2<br>RFC 3265 [28]                    | m      | Rel-5                       |         |
| 24                                       | session initiation protocol extension header field for registering non-adjacent contacts?                          | 24.229 [10], A.2.1.2<br>RFC 3327 [22]                    | m      | Rel-5                       |         |
| 25                                       | private extensions to the Session Initiation Protocol (SIP) for network asserted identity within trusted networks? | 24.229 [10], A.2.1.2<br>RFC 3325 [33]                    | m      | Rel-5                       |         |
| 26                                       | a privacy mechanism for the Session Initiation Protocol (SIP)?   | 24.229 [10], A.2.1.2<br>RFC 3323 [32]                    | m      | Rel-5                       |         |
| 26A                                      | request of privacy by the inclusion of a   | 24.229 [10], A.2.1.2                                     | o      | Rel-5                       |         |

|                           |  |   |     |  |  |
|---------------------------|--|---|-----|--|--|
|                           | Privacy header indicating any privacy option?  | RFC 3323 [32]                           |     |  |  |
| 27                        | a messaging mechanism for the Session Initiation Protocol (SIP)?   | 24.229 [10], A.2.1.2 RFC 3428 [34]      | m   | Rel-5  |  |
| 28                        | session initiation protocol extension header field for service route discovery during registration?                          | 24.229 [10], A.2.1.2 RFC 3608 [21]      | m   | Rel-5  |  |
| 29                        | compressing the session initiation protocol?   | 24.229 [10], A.2.1.2 RFC 3486 [25]      | m   | Rel-5  |  |
| 30                        | private header extensions to the session initiation protocol for the 3 <sup>rd</sup> -Generation Partnership Project (3GPP)? | 24.229 [10], A.2.1.2 RFC 3455 [20]      | m   | Rel-5  |  |
| 31                        | the P-Associated-URI header extension?   | 24.229 [10], A.2.1.2 RFC 3455 [20], 4.1 | m   | Rel-5  |  |
| 32                        | the P-Called-Party-ID header extension?  | 24.229 [10], A.2.1.2 RFC 3455 [20], 4.2 | o   | Rel-5  |  |
| 34                        | the P-Access-Network-Info header extension?  | 24.229 [10], A.2.1.2 RFC 3455 [20], 4.4 | m   | Rel-5  |  |
| 37                        | security mechanism agreement for the session initiation protocol?  | 24.229 [10], A.2.1.2 RFC 3329 [23]      | m   | Rel-5  |  |
| 38                        | the Reason header field for the session initiation protocol?   | 24.229 [10], A.2.1.2 RFC 3326 [35]      | o   | Rel-6  |  |
| 40                        | caller preferences for the session initiation protocol?  | 24.229 [10], A.2.1.2 RFC 3841 [36]      | c29 | Rel-6  |  |
| 40A                       | the proxy-directive within caller-preferences?   | 24.229 [10], A.2.1.2 RFC 3841 [36], 9.1 | o.5 | Rel-6  |  |
| 40B                       | the cancel-directive within caller-preferences?  | 24.229 [10], A.2.1.2 RFC 3841 [36], 9.1 | o.5 | Rel-6  |  |
| 40C                       | the fork-directive within caller-preferences?  | 24.229 [10], A.2.1.2 RFC 3841 [36], 9.1 | m   | Rel-6  |  |
| 40D                       | the recurse-directive within caller-preferences?   | 24.229 [10], A.2.1.2 RFC 3841 [36], 9.1 | o.5 | Rel-6  |  |
| 40E                       | the parallel-directive within caller-preferences?  | 24.229 [10], A.2.1.2 RFC 3841 [36], 9.1 | m   | Rel-6  |  |
| 40F                       | the queue-directive within caller-preferences?   | 24.229 [10], A.2.1.2 RFC 3841 [36], 9.1 | o.5 | Rel-6  |  |
| 41                        | an event state publication extension to the session initiation protocol?   | 24.229 [10], A.2.1.2 RFC 3903 [37]      | c30 | Rel-6  |  |
| 42                        | SIP session timer?   | 24.229 [10], A.2.1.2 RFC 4028 [38]      | c19 | Rel-6  |  |
| 43                        | the SIP Referred-By mechanism?   | 24.229 [10], A.2.1.2 RFC 3892 [39]      | c33 | Rel-6  |  |
| 44                        | the Session Initiation Protocol (SIP) 'Replaces' header?   | 24.229 [10], A.2.1.2 RFC 3891 [40]      | c19 | Rel-6  |  |
| 45                        | the Session Initiation Protocol (SIP) 'Join' header?   | 24.229 [10], A.2.1.2 RFC 3911 [41]      | c19 | Rel-6  |  |
| 46                        | the callee capabilities?   | 24.229 [10], A.2.1.2 RFC 3840 [42]      | o   | Rel-6  |  |
| <b>Conditions/Options</b> |  |   |     |  |  |
| c18                       | IF A.4/2B THEN m ELSE n/a  |   |     | initiating sessions.   |  |
| c29                       | IF A.4/40A OR A.4/40B OR A.4/40C OR A.4/40D OR A.4/40E OR A.4/40F THEN m ELSE n/a  |   |     | support of any directives within caller preferences for the session initiation protocol. |  |
| c30                       | IF A.3A/2 THEN m ELSE o  |   |     | presence user agent.   |  |
| c19                       | IF A.4/2B THEN o ELSE n/a  |   |     | initiating sessions.   |  |
| c33                       | IF A.3A/12 OR A.4/44 THEN m ELSE o   |   |     | conference participant or the Session Initiation Protocol (SIP) "Replaces" header.       |  |
| o.5                       | At least one of these capabilities is supported.   |   |     |  |  |

Table A.4A: Supported event packages

| Item                      | Does the implementation support             | Reference   | Subscriber |         |         | Notifier                                     |         |         |
|---------------------------|---|---|------------|---------|---------|--|---------|---------|
|                           |   |   | Status     | Release | Support | Status                                       | Release | Support |
| 1                         | reg event package?                          | 24.229 [10],<br>5.1.1.3,<br>A.2.1.2<br>RFC 3680<br>[24] | m          | Rel-5   |         | n/a  | Rel-5   |         |
| 2                         | refer package?                              | 24.229 [10],<br>A.2.1.2<br>RFC 3515<br>[29], 3          | c13        | Rel-6   |         | c13  | Rel-6   |         |
| 3                         | presence package?                           | 24.229 [10],<br>A.2.1.2<br>RFC 3856<br>[44], 6          | c5         | Rel-6   |         | c2   | Rel-6   |         |
| 4                         | eventlist with underlying presence package? | 24.229 [10],<br>A.2.1.2<br>RFC 3856<br>[44], 6          | c5         | Rel-6   |         | c2   | Rel-6   |         |
| 5                         | presence.winfo template-package?            | 24.229 [10],<br>A.2.1.2<br>RFC 3857<br>[43], 4          | c9         | Rel-6   |         | c2   | Rel-6   |         |
| 6                         | ua-profile package?                         | 24.229 [10],<br>A.2.1.2<br>[45], 3                      | o          | Rel-6   |         | c2   | Rel-6   |         |
| 7                         | conference package?                         | 24.229 [10],<br>A.2.1.2<br>[46], 3                      | c21        | Rel-6   |         | c2   | Rel-6   |         |
| <b>Conditions/Options</b> |   |   |            |         |         |  |         |         |
| c2                        | IF A.4/22 THEN o ELSE n/a                   |   |            |         |         | acting as the notifier of event information. |         |         |
| c5                        | IF A.3A/4 THEN m ELSE o                     |   |            |         |         | watcher.                                     |         |         |
| c9                        | IF A.3A/2 THEN m ELSE o                     |   |            |         |         | presence user agent                          |         |         |
| c13                       | IF A.4/15 THEN m ELSE n/a                   |   |            |         |         | the REFER method                             |         |         |
| c21                       | IF A.3A/12 THEN m ELSE o                    |   |            |         |         | conference participant                       |         |         |

## A.4.2.2 PDUs

Table A.5: Supported methods

| Item                      | PDU  | Reference            | Sending       |         |         | Receiving                                       |         |         |
|---------------------------|--|----------------------|---------------|---------|---------|---|---------|---------|
|                           |  |                      | Status        | Release | Support | Status  | Release | Support |
| 1                         | ACK request  | RFC 3261 [15], 13    | c10           | Rel-5   |         | c11   | Rel-5   |         |
| 2                         | BYE request  | RFC 3261 [15], 15.1  | c12           | Rel-5   |         | c12   | Rel-5   |         |
| 3                         | BYE response   | RFC 3261 [15], 15.1  | c12           | Rel-5   |         | c12   | Rel-5   |         |
| 4                         | CANCEL request   | RFC 3261 [15], 9     | m             | Rel-5   |         | m   | Rel-5   |         |
| 5                         | CANCEL response  | RFC 3261 [15], 9     | m             | Rel-5   |         | m   | Rel-5   |         |
| 8                         | INVITE request   | RFC 3261 [15], 13    | c10           | Rel-5   |         | c11   | Rel-5   |         |
| 9                         | INVITE response  | RFC 3261 [15], 13    | c11           | Rel-5   |         | c10   | Rel-5   |         |
| 9A                        | MESSAGE request  | RFC 3428 [34], 4     | m             | Rel-5   |         | m   | Rel-5   |         |
| 9B                        | MESSAGE response   | RFC 3428 [34], 4     | m             | Rel-5   |         | m   | Rel-5   |         |
| 10                        | NOTIFY request   | RFC 3265 [28], 8.1.2 | c4            | Rel-5   |         | m   | Rel-5   |         |
| 11                        | NOTIFY response  | RFC 3265 [28], 8.1.2 | m             | Rel-5   |         | c4  | Rel-5   |         |
| 12                        | OPTIONS request  | RFC 3261 [15], 11    | m             | Rel-5   |         | m   | Rel-5   |         |
| 13                        | OPTIONS response   | RFC 3261 [15], 11    | m             | Rel-5   |         | m   | Rel-5   |         |
| 14                        | PRACK request  | RFC 3262 [27], 6     | c5            | Rel-5   |         | c5  | Rel-5   |         |
| 15                        | PRACK response   | RFC 3262 [27], 6     | c5            | Rel-5   |         | c5  | Rel-5   |         |
| 16                        | REFER request  | RFC 3515 [29], 3     | c1            | Rel-5   |         | c1  | Rel-5   |         |
| 17                        | REFER response   | RFC 3515 [29], 3     | c1            | Rel-5   |         | c1  | Rel-5   |         |
| 18                        | REGISTER request   | RFC 3261 [15], 10    | m<br>(note)   | Rel-5   |         | n/a<br>(note)                                   | Rel-5   |         |
| 19                        | REGISTER response  | RFC 3261 [15], 10    | n/a<br>(note) | Rel-5   |         | m<br>(note)                                     | Rel-5   |         |
| 20                        | SUBSCRIBE request  | RFC 3265 [28], 8.1.1 | m             | Rel-5   |         | c4  | Rel-5   |         |
| 21                        | SUBSCRIBE response   | RFC 3265 [28], 8.1.1 | c4            | Rel-5   |         | m   | Rel-5   |         |
| 22                        | UPDATE request   | RFC 3312 [26], 6.1   | c6            | Rel-5   |         | c6  | Rel-5   |         |
| 23                        | UPDATE response  | RFC 3312 [26], 6.2   | c6            | Rel-5   |         | c6  | Rel-5   |         |
| <b>Conditions/Options</b> |  |                      |               |         |         |   |         |         |
| c1                        | IF A.4/15 THEN m ELSE n/a  |                      |               |         |         | the REFER method extension.                     |         |         |
| c4                        | IF A.4/22 THEN m ELSE n/a  |                      |               |         |         | notifier of event information.                  |         |         |
| c5                        | IF A.4/14 THEN m ELSE n/a  |                      |               |         |         | reliability of provisional responses extension. |         |         |
| c6                        | IF A.4/17 THEN m ELSE n/a  |                      |               |         |         | the SIP update method extension.                |         |         |
| c10                       | IF A.4/3 THEN m ELSE n/a   |                      |               |         |         | client behaviour for INVITE requests.           |         |         |
| c11                       | IF A.4/4 THEN m ELSE n/a   |                      |               |         |         | server behaviour for INVITE requests.           |         |         |
| c12                       | IF A.4/5 THEN m ELSE n/a   |                      |               |         |         | session release.                                |         |         |
| NOTE:                     | No statement is included in TS 24.229 [10], Rel-5. It is assume to be the same as in TS 24.229 [10], Rel-6 |                      |               |         |         |   |         |         |

### A.4.2.3 Security

**Table A.6: Security capabilities**

| Item | Security capabilities                              | Reference                                | Status | Release | Support |
|------|--|--|--------|---------|---------|
| 1    | 'ipsec-3gpp' security mechanism                    | RFC 3329 [23]<br>24.229 [10], 5.1.1.2    | m      | Rel-5   |         |
| 2    | IMS-AKA authentication protocol                    | 33.203 [12], 5.1.1                       | m      | Rel-5   |         |
| 3    | IPSec ESP integrity protection                     | 33.203 [12], 6.3                         | m      | Rel-5   |         |
| 4    | HMAC-MD5-96 integrity algorithm                    | RFC 2403 [47]<br>24.229 [10], 5.1.1.2    | m      | Rel-5   |         |
| 5    | HMAC-SHA-1-96 integrity algorithm                  | RFC 2404 [48]<br>24.229 [10], 5.1.1.2    | m      | Rel-5   |         |
| 6    | IPSec protocol Transport mode                      | 33.203 [12], annex H                     | m      | Rel-5   |         |
| 7    | Setup of two pairs of security associations        | 33.203 [12], 6.1<br>24.229 [10], 5.1.1.2 | m      | Rel-5   |         |
| 8    | Procedures to announce support of IPSec algorithms | RFC 3329 [23]<br>24.229 [10], 5.1.1.2    | m      | Rel-5   |         |
| 9    | Early IMS security                                 | 33.978 [52]                              | o      | Rel-5   |         |

### A.4.2.4 Addressing

**Table A.7: IP address format**

| Item | IP address format | Reference        | Status | Release | Mnemonic | Support |
|------|-------------------|------------------|--------|---------|----------|---------|
| 1    | IPv4              | 23.221 [13], 5.1 | o      | Rel-5   |          |         |
| 2    | IPv6              | 23.221 [13], 5.1 | m      | Rel-5   |          |         |

NOTE 1: For testing purposes, at least one of these IP address format has to be supported by the UE.

### A.4.2.5 SIP Compression

**Table A.8: SIP Compression**

| Item |   | Reference          | Status | Release | Support |
|------|---|--------------------|--------|---------|---------|
| 1    | SigCom                                  | 24.229 [10], 8.1.1 | m      | Rel-5   |         |
| 2    | SIP dictionary                          | 24.229 [10], 8.1.1 | m      | Rel-5   |         |
| 3    | Compression of transmitted SIP messages | 24.229 [10], 8.1.2 | o      | Rel-5   |         |
| 4    | Decompression of received SIP messages  | 24.229 [10], 8.1.2 | m      | Rel-5   |         |

## A.4.3 ICS related to SDP

## A.4.3.1 Major capabilities

Table A.317: Major capabilities

| Item  | Does the implementation support                        | Reference                             | Status     | Release | Support |
|---|--|---------------------------------------|------------|---------|---------|
|   | <b>Capabilities within main protocol</b>               |                                       |            |         |         |
|   | -  |                                       |            |         |         |
|   | <b>Extensions</b>                                      |                                       |            |         |         |
| 22  | Integration of resource management and SIP?            | 24.229 [10], A.3.2.1<br>RFC 3312 [26] | m          | Rel-5   |         |
| 23  | Grouping of media lines                                | 24.229 [10], A.3.2.1<br>RFC 3388 [49] | m          | Rel-5   |         |
| 24  | Mapping of Media Streams to Resource Reservation Flows | 24.229 [10], A.3.2.1<br>RFC 3524 [50] | m          | Rel-5   |         |
| 25  | SDP Bandwidth Modifiers for RTCP Bandwidth             | 24.229 [10], A.3.2.1<br>RFC 3556 [51] | o (NOTE 1) | Rel-5   |         |
| NOTE 1: For "video" and "audio" media types that utilise RTP/RTCP, it shall be specified. For other media types, it may be specified. |  |                                       |            |         |         |

## A.4.3.2 SDP types

Table A.318: SDP types

| Item  | Type                                      | Reference               | Sending       |         |         | Receiving      |         |         |
|---|---|-------------------------|---------------|---------|---------|----------------|---------|---------|
|   |   |                         | Status        | Release | Support | Status         | Release | Support |
| <b>Session level description</b>  |   |                         |               |         |         |                |         |         |
| 1   | v= (protocol version)                     | 24.229 [10],<br>A.3.2.2 | m             | Rel-5   |         | m              | Rel-5   |         |
| 2   | o= (owner/creator and session identifier) | 24.229 [10],<br>A.3.2.2 | m             | Rel-5   |         | m              | Rel-5   |         |
| 3   | s= (session name)                         | 24.229 [10],<br>A.3.2.2 | m             | Rel-5   |         | m              | Rel-5   |         |
| 4   | i= (session information)                  | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 2) | Rel-5   |         | m<br>(NOTE 2)  | Rel-5   |         |
| 8   | c= (connection information)               | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 2) | Rel-5   |         | m<br>(NOTE 2)  | Rel-5   |         |
| 9   | b= (bandwidth information)                | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 1) | Rel-5   |         | m<br>(NOTE 2)  | Rel-5   |         |
| <b>Time description (one or more per description)</b>   |   |                         |               |         |         |                |         |         |
| 10  | t= (time the session is active)           | 24.229 [10],<br>A.3.2.2 | m             | Rel-5   |         | m              | Rel-5   |         |
| <b>Session level description (continued)</b>  |   |                         |               |         |         |                |         |         |
| 13  | k= (encryption key)                       | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 2) | Rel-5   |         | o<br>(NOTE 2)  | Rel-5   |         |
| 14  | a= (zero or more session attribute lines) | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 2) | Rel-5   |         | m<br>(NOTE 2)  | Rel-5   |         |
| <b>Media description (zero or more per description)</b>   |   |                         |               |         |         |                |         |         |
| 15  | m= (media name and transport address)     | 24.229 [10],<br>A.3.2.2 | o             | Rel-5   |         | m              | Rel-5   |         |
| 16  | i= (media title)                          | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 2) | Rel-5   |         | o<br>(NOTE 2)  | Rel-5   |         |
| 17  | c= (connection information)               | 24.229 [10],<br>A.3.2.2 | c1            | Rel-5   |         | c1<br>(NOTE 2) | Rel-5   |         |
| 18  | b= (bandwidth information)                | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 1) | Rel-5   |         |                | Rel-5   |         |
| 19  | k= (encryption key)                       | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 2) | Rel-5   |         | o<br>(NOTE 2)  | Rel-5   |         |
| 20  | a= (zero or more media attribute lines)   | 24.229 [10],<br>A.3.2.2 | o<br>(NOTE 2) | Rel-5   |         | m<br>(NOTE 2)  | Rel-5   |         |
| <b>Conditions/Options</b>   |   |                         |               |         |         |                |         |         |
| c1  | IF A.318/15 THEN m ELSE n/a               |                         |               |         |         |                |         |         |
| NOTE 1: For "video" and "audio" media types that utilise RTP/RTCP, it shall be specified. For other media types, it may be specified. |   |                         |               |         |         |                |         |         |
| NOTE 2: No statement is included in TS 24.229 [10], Rel-5. It is assume to be the same as in TS 24.229 [10], Rel-6                    |   |                         |               |         |         |                |         |         |

## A.4.4 ICS related to Packet-switched Streaming Service (PSS) media types

### A.4.4.1 PSS media types supported by the UE

**Table A.9: PSS media types supported by the UE**

| Item | PSS media types supported by the UE | Ref.              | Status | Release | Mnemonic | Support |
|------|-------------------------------------|-------------------|--------|---------|----------|---------|
| 1    | Narrow-band speech                  | 26.234 [11], 7.2  | o      | Rel-5   |          |         |
| 2    | Wideband speech                     | 26.234 [11], 7.2  | o      | Rel-5   |          |         |
| 3    | Audio                               | 26.234 [11], 7.3  | o      | Rel-5   |          |         |
| 4    | Synthetic audio                     | 26.234 [11], 7.3a | o      | Rel-5   |          |         |
| 5    | Video                               | 26.234 [11], 7.4  | o      | Rel-5   |          |         |
| 6    | Still images                        | 26.234 [11], 7.5  | o      | Rel-5   |          |         |
| 7    | Bitmap graphics                     | 26.234 [11], 7.6  | o      | Rel-5   |          |         |
| 8    | Vector graphics                     | 26.234 [11], 7.7  | o      | Rel-5   |          |         |
| 9    | Text                                | 26.234 [11], 7.8  | o      | Rel-5   |          |         |
| 10   | Timed text                          | 26.234 [11], 7.9  | o      | Rel-5   |          |         |
| 11   | Real time text                      | 26.235 [14], 6.3  | o      | Rel-5   |          |         |
| 12   | Speech Enabled Service              | 26.235 [14], 6.5  | o      | Rel-6   |          |         |

### A.4.4.2 Media Data Transport

**Table A.10: Media Data Transport**

| Item                      | Media Data Transport   | Reference        | Status | Release | Mnemonic   | Support |
|---------------------------|--|------------------|--------|---------|--|---------|
| 1                         | UDP  | 26.234 [11], 6.2 | c01    | Rel-5   |  |         |
| 2                         | TCP  | 26.234 [11], 6.3 | c02    | Rel-5   |  |         |
| <b>Conditions/Options</b> |  |                  |        |         |  |         |
| c01                       | IF A.9/1 OR A.9/2 OR A.9/3 OR A.9/5 THEN m ELSE o                    |                  |        |         | speech, audio, video   |         |
| c02                       | IF A.9/4 OR A.9/6 OR A.9/7 OR A.9/8 OR A.9/9 OR A.9/10 THEN m ELSE o |                  |        |         | synthetic audio, still images, bitmap graphics, vector graphics, text, timed text. |         |



## A.4.4.3 Codecs supported by the UE

Table A.11: Codecs supported by the UE

| Item                      | Codecs supported by the UE                              | Ref.                                 | Status | Release    | Mnemonic  | Support |
|---------------------------|---|--------------------------------------|--------|------------|---|---------|
| 1                         | AMR narrowband  | 26.234 [11], 7.2<br>26.235 [14], 6.2 | c01    | Rel-5      |   |         |
| 2                         | AMR wideband  | 26.234 [11], 7.2                     | c02    | Rel-5      |   |         |
| 3                         | MPEG-4 AAC Low Complexity (AAC-LC)                      | 26.234 [11], 7.3                     | o03    | Rel-5      |   |         |
| 4                         | MPEG-4 AAC Long Term Prediction (AAC-LTP)               | 26.234 [11], 7.3                     | o03    | Rel-5      |   |         |
| 5                         | Enhanced aacPlus  | 26.234 [11], 7.3                     | o03    | Rel-6      |   |         |
| 6                         | Extended AMR-WB   | 26.234 [11], 7.3                     | o03    | Rel-6      |   |         |
| 7                         | Scalable Polyphony MIDI (SP-MIDI)                       | 26.234 [11], 7.3a                    | o04    | Rel-5      |   |         |
| 8                         | Mobile DLS  | 26.234 [11], 7.3a                    | o04    | Rel-6      |   |         |
| 9                         | Mobile XMF  | 26.234 [11], 7.3a                    | o04    | Rel-6      |   |         |
| 10                        | ITU-T H.263 Profile 0 Level 10                          | 26.234 [11], 7.4<br>26.235 [14], 6.2 | o05    | Rel-5 only |   |         |
| 11                        | ITU-T H.263 Profile 3 Level 10                          | 26.234 [11], 7.4<br>26.235 [14], 6.2 | o06    | Rel-5 only |   |         |
| 12                        | MPEG-4 Visual Simple Profile Level 0                    | 26.234 [11], 7.4                     | o06    | Rel-5 only |   |         |
| 13                        | ITU-T H.263 Profile 0 Level 45                          | 26.234 [11], 7.4<br>26.235 [14], 6.2 | c05    | Rel-6      |   |         |
| 14                        | ITU-T H.263 Profile 3 Level 45                          | 26.234 [11], 7.4<br>26.235 [14], 6.2 | o06    | Rel-6      |   |         |
| 15                        | MPEG-4 Visual Simple Profile Level 0b                   | 26.234 [11], 7.4                     | o06    | Rel-6      |   |         |
| 16                        | ITU-T H.264 (AVC) Baseline Profile Level 1b             | 26.234 [11], 7.4<br>26.235 [14], 6.2 | o06    | Rel-6      |   |         |
| 17                        | ISO/IEC JPEG  | 26.234 [11], 7.5                     | c07    | Rel-5      |   |         |
| 18                        | JFIF  | 26.234 [11], 7.5                     | c07    | Rel-5      |   |         |
| 19                        | GIF87a  | 26.234 [11], 7.6                     | o08    | Rel-5      |   |         |
| 20                        | GIF89a  | 26.234 [11], 7.6                     | o08    | Rel-5      |   |         |
| 21                        | PNG   | 26.234 [11], 7.6                     | o08    | Rel-5      |   |         |
| 22                        | SVG Tiny 1.1  | 26.234 [11], 7.7                     | c09    | Rel-5 only |   |         |
| 23                        | SVG Basic profile                                       | 26.234 [11], 7.7                     | o10    | Rel-5 only |   |         |
| 24                        | SVG Tiny 1.2  | 26.234 [11], 7.7                     | c09    | Rel-6      |   |         |
| 25                        | ECMAScript  | 26.234 [11], 7.7                     | c09    | Rel-6      |   |         |
| 26                        | XHTML Mobile Profile                                    | 26.234 [11], 7.8                     | c11    | Rel-5      |   |         |
| 27                        | SMIL 2.0  | 26.234 [11], 7.8                     | c11    | Rel-5      |   |         |
| 28                        | UTF-8   | 26.234 [11], 7.8                     | c11    | Rel-5      |   |         |
| 29                        | UCS-2   | 26.234 [11], 7.8                     | c11    | Rel-5      |   |         |
| 30                        | Timed text format                                       | 26.234 [11], 7.9                     | c12    | Rel-5      |   |         |
| 31                        | ITU-T T.140   | 26.235 [14], 6.3                     | o13    | Rel-5      |   |         |
| 32                        | DSR   | 26/235 [14]. 6.5                     | o14    | Rel-6      |   |         |
| <b>Conditions/Options</b> |   |                                      |        |            |   |         |
| c01                       | IF A.9/1 OR A.9/3 THEN m ELSE IF A.9/12 THEN o ELSE n/a |                                      |        |            | Narrow-band speech, Audio, Speech Enabled Service |         |
| c02                       | IF A.9/2 THEN m ELSE IF A.9/12 THEN o ELSE n/a          |                                      |        |            | Wideband speech, Speech Enabled Service           |         |
| o03                       | IF A.9/3 THEN o ELSE n/a A                              |                                      |        |            | Audio   |         |
| o04                       | IF A.9/4 THEN o ELSE n/a                                |                                      |        |            | Synthetic audio                                   |         |
| o05                       | IF A.9/5 THEN m ELSE n/a                                |                                      |        |            | Video   |         |
| o06                       | IF A.9/5 THEN o ELSE n/a                                |                                      |        |            | Video   |         |
| c07                       | IF A.9/6 THEN m ELSE n/a                                |                                      |        |            | Still images                                      |         |
| o08                       | IF A.9/7 THEN o ELSE n/a                                |                                      |        |            | Bitmap graphics                                   |         |
| c09                       | IF A.9/8 THEN m ELSE n/a A                              |                                      |        |            | Vector graphics                                   |         |
| o10                       | IF A.9/8 THEN o ELSE n/a                                |                                      |        |            | Vector graphics                                   |         |
| c11                       | IF A.9/9 THEN m ELSE n/a                                |                                      |        |            | Text  |         |
| c12                       | IF A.9/10 THEN m ELSE n/a                               |                                      |        |            | Timed text  |         |
| o13                       | IF A.9/11 THEN o ELSE n/a                               |                                      |        |            | Real time text                                    |         |

|     |                           |                        |
|-----|---------------------------|------------------------|
| o14 | IF A.9/12 THEN o ELSE n/a | Speech Enabled Service |
|-----|---------------------------|------------------------|

## A.4.5 Additional information

**Table A.12: Additional information**

| Item | Additional information   | Ref.                             | Status | Release | Mnemonic | Support |
|------|--|----------------------------------|--------|---------|----------|---------|
| 1    | UE sends new INVITE request upon reception of a 488 (Not Acceptable Here) response | 24.229 [10], 5.1.3.1             | o      | Rel-5   |          |         |
| 2    | UE compresses the initial REGISTER message   | 24.229 [10], 8.1.1 RFC 3486 [25] | o      | Rel-5   |          |         |
| 3    | UE compresses upon receiving the first compressed message                          | 24.229 [10], 8.1.1 RFC 3486 [25] | o      | Rel-5   |          |         |
| 4    | UE capable of being configured to initiate Dedicated PDP Context                   | 24.229 [10], 9.2.1               | o      | Rel-5   |          |         |
| 5    | UE capable of being configured to initiate P-CSCF discovery via PCO                | 24.229 [10], 9.2.1               | o      | Rel-5   |          |         |
| 6    | Void   |                                  |        |         |          |         |
| 7    | UE capable of being configured to initiate P-CSCF discovery via DHCPv6             | 24.229 [10], 9.2.1               | o      | Rel-5   |          |         |
| 8    | UE supports P-CSCF discovery via PCO   | 24.229 [10], 9.2.1               | o      | Rel-5   |          |         |
| 9    | Void   |                                  |        |         |          |         |
| 10   | UE supports P-CSCF discovery via DHCPv6  | 24.229 [10], 9.2.1               | o      | Rel-5   |          |         |
| 11   | UEs supports more than one media or codec  | 24.229 [10], 6.1                 | o      | Rel-5   |          |         |

## A.4.6 Additional information for Early IMS

**Table A.13: Additional information for IPv4**

| Precondition: This table is only applicable if A.7/1 IPv4 is supported |  |                    |        |         |          |         |
|--|--|--------------------|--------|---------|----------|---------|
| Item   | Additional information for IPv4  | Ref.               | Status | Release | Mnemonic | Support |
| 1  | UE capable of being configured to initiate P-CSCF discovery via DHCPv4 | 23.981 [18], 5.2.1 | o      | Rel-5   |          |         |
| 2  | UE supports P-CSCF discovery via DHCPv4                                | 23.981 [18], 5.2.1 | o      | Rel-5   |          |         |

**Table A.14: Additional information for Early IMS security**

| Precondition: This table is only applicable if A.6/9 Early IMS security is supported |   |      |        |         |          |         |
|--|---|------|--------|---------|----------|---------|
| Item   | Additional information for Early IMS security | Ref. | Status | Release | Mnemonic | Support |
|  | FFS   |      |        |         |          |         |

## Annex B (informative): Change history

| Meeting<br>-1st-<br>Level | Doc-1st-<br>Level | CR | Rev | Subject   | Cat | Version<br>-<br>Current | Version<br>-New | Doc-2nd-<br>Level |
|---------------------------|-------------------|----|-----|---|-----|-------------------------|-----------------|-------------------|
| RP-31                     | RP-060053         | -  | -   | Update to version 1.0.0 and present to RAN#31 for information   | -   | 0.0.1                   | 1.0.0           | R5-060523         |
| -                         | -                 | -  | -   | Update to version 2.0.0 during RAN5#31 e-mail agreement procedure   | -   | 1.0.0                   | 2.0.0           | R5-061399         |
| RP-32                     | RP-060320         | -  | -   | MCC Editorial clean up version 2.0.1 - and present to RAN#32 for approval to go under revision control (as version 5.0.0) | -   | 2.0.0                   | 2.0.1           | -                 |
| -                         | -                 | -  | -   | Update to version 5.0.0 after RAN#32  | -   | 2.0.1                   | 5.0.0           | -                 |
| RP-33                     | RP-060565         | 1  | -   | Applicability for new P-CSCF Discovery List test cases  | F   | 5.0.0                   | 5.1.0           | R5-062365         |
| RP-33                     | RP-060565         | 2  | -   | CR to 34.229-2: Update applicability table for IMSCC test   | F   | 5.0.0                   | 5.1.0           | R5-062026         |

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# History

| <b>Document history</b> |              |             |
|-------------------------|--------------|-------------|
| V5.0.0                  | June 2006    | Publication |
| V5.1.0                  | October 2006 | Publication |
|                         |              |             |
|                         |              |             |
|                         |              |             |