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| Technical Specification | |
| 3rd Generation Partnership Project;  Technical Specification Group Core Network and Terminals;  IMS Data Channel applications;  Protocol specification;  (Release 18) | |
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# Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

In the present document, modal verbs have the following meanings:

**shall** indicates a mandatory requirement to do something

**shall not** indicates an interdiction (prohibition) to do something

The constructions "shall" and "shall not" are confined to the context of normative provisions, and do not appear in Technical Reports.

The constructions "must" and "must not" are not used as substitutes for "shall" and "shall not". Their use is avoided insofar as possible, and they are not used in a normative context except in a direct citation from an external, referenced, non-3GPP document, or so as to maintain continuity of style when extending or modifying the provisions of such a referenced document.

**should** indicates a recommendation to do something

**should not** indicates a recommendation not to do something

**may** indicates permission to do something

**need not** indicates permission not to do something

The construction "may not" is ambiguous and is not used in normative elements. The unambiguous constructions "might not" or "shall not" are used instead, depending upon the meaning intended.

**can** indicates that something is possible

**cannot** indicates that something is impossible

The constructions "can" and "cannot" are not substitutes for "may" and "need not".

**will** indicates that something is certain or expected to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

**will not** indicates that something is certain or expected not to happen as a result of action taken by an agency the behaviour of which is outside the scope of the present document

**might** indicates a likelihood that something will happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

**might not** indicates a likelihood that something will not happen as a result of action taken by some agency the behaviour of which is outside the scope of the present document

In addition:

**is** (or any other verb in the indicative mood) indicates a statement of fact

**is not** (or any other negative verb in the indicative mood) indicates a statement of fact

The constructions "is" and "is not" do not indicate requirements.

# 1 Scope

Editor's note: This clause will provide the scope of the specification.

# 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*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

# 3 Definitions of terms, symbols and abbreviations

## 3.1 Terms

For the purposes of the present document, the terms given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP 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 3GPP TR 21.905 [1].

# 4 General

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Editor's note: This clause will provide description on the enhancements of IMS to support IMS data channel, including enhancement of IMS architecture and functions and the enhancements to IMS Multimedia Telephony communication services.

# 5 Functional entities

Editor's note: This clause will specify the functionalities of the functional entities for IMS data channel services.

# 6 Service provision

Editor's note: This clause will provide the details on service provision from operational view, including IMS data channel subscription, IMS data channel applicationsubscription and provision.

Editor's note: Whether a generic subscription and provision applying to all IMS data channel applications need to be specified is FFS.

# 7 Basic communication

Editor's note: This clause will provide the details on the enhancement to the basic communication of IMS Multimedia Telephony communication services, focusing on key issues (e.g. IMS communication service identifier) and new requirements. So far, IMS communication service identifier, IMS data channel capability indication/negotiation and session control aspects are considered.

# 8 IMS Data Channel applications support in IMS

Editor's note: This clause will provide the detailed requirements of IMS data channel applications on UE, AS and IMS CN.

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# 9 Signalling Procedures

Editor's note: This clause will provide the signalling procedures for IMS data channel subscription, IMS data channel capability indication/negotiation, IMS data channel setup and so on, involving UE, AS, IMS CN nodes, SBI/non SBI, including normal/abnormal scenarios, different use cases of IMS data channel, activation or modification of QoS flow, new requirements for basic IMS procedures (e.g. IMS registration, IMS session establishment/modification, media control.)

Editor's note: The structure of this clause is FFS.

Annex A (informative):  
Signalling flows

Editor's note: This annex will provide the signalling flows related to clause 9.

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# Annex <X> (informative): Change history

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| **Change history** | | | | | | | |
| **Date** | **Meeting** | **TDoc** | **CR** | **Rev** | **Cat** | **Subject/Comment** | **New version** |
| 2023-04 | CT1#141 | C1-230abc |  |  |  | Draft skeleton provided by the rapporteur. | 0.0.0 |