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| 3GPP TR 33.839 V0.0.0 (2020-08) | |
| Technical Report | |
| 3rd Generation Partnership Project;  Technical Specification Group Services and System Aspects;  Study on Security Aspects of Enhancement of Support for Edge Computing in 5GC  (Release 17) | |
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Contents

Foreword 5

Introduction 6

1 Scope 7

2 References 7

3 Definitions of terms, symbols and abbreviations 7

3.1 Terms 7

3.2 Symbols 7

3.3 Abbreviations 8

4 Examples for Styles 8

4.1 Heading Styles 8

4.2 Other common styles 8

"TSG <Name>" on the front page 9

Page setup parameters 9

Proforma copyright release text block 11

X.1 The right to copy 11

Abstract Test Suite (ATS) text block 12

Y Abstract Test Suite (ATS) 12

Y.1 Introduction 12

Y.2 The TTCN Graphical form (TTCN.GR) 12

Y.3 The TTCN Machine Processable form (TTCN.MP) 12

Annex <A> (normative): <Normative annex for a Technical Specification> 13

Annex <B> (informative): <Informative annex for a Technical Specification> 14

B.1 Heading levels in an annex 14

Annex <B>: <Informative annex title for a Technical Report> 15

Annex <C> (informative): Bibliography 16

Annex <D> (informative): Index 17

Annex <X> (informative): Change history 18

# Foreword

This Technical Report 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.

# Introduction

# 1 Scope

The present document …

Editor’s Note: This clause contains the scope of the study.

# 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].

**example:** text used to clarify abstract rules by applying them literally.

Editor’s Note: Example needs to be deleted

## 3.2 Symbols

For the purposes of the present document, the following symbols apply:

<symbol> <Explanation>

Editor’s Note: Example needs to be deleted

## 3.3 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].

<ABBREVIATION> <Expansion>

Editor’s Note: Example needs to be deleted

# 4 Overview of Edge Computing (EC)

Editor’s Note: This clause will contain a brief overview on edge computing

# 5 Key issues

Editor’s Note: This clause will contain the agreed key issues

## 5.1 Key issue #1: <Key issue name>

### 5.1.1 Key issue details

Editor’s Note: This clause provides details of the key issue

### 5.1.2 Security Threats

Editor’s Note: This clause list the threats derived from the key issue details

### 5.1.3 Potential security requirements

Editor’s Note: This clause list the potential security requirements derived from the threats

Editor’s Note: This below provides a generic set of headings for a new key issue and need to be deleted before the TR goes for approval

## 5.X Key issue #X: <Key issue name>

### 5. X.1 Key issue details

### 5. X.2 Security Threats

### 5. X.3 Potential security requirements

# 6 Proposed solutions

Editor’s Note: This clause will contain the proposed solutions

## 6.0 Mapping of Solutions to Key Issues

Table 6.0-1: Mapping of Solutions to Key Issues

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Solutions | Key Issues | | | |
| 1 | X |  |  |
| #1: <Solution name> | X |  |  |  |
| #X: <Solution name> | X |  |  |  |

Editor’s Note: This clause provides the mapping of Solutions to Key Issues.

## 6.1 Solution #1: <Solution name>

### 6.1.1 Solution overview

Editor’s Note: This clause starts with the (part of) the key issue(s) addressed and is followed with a brief overview of the solution

### 6.1.2 Solution details

Editor’s Note: This clause provides the details of the solution

### 6.1.3 Solution evaluation

Editor’s Note: This clause provides the evaluation of the solution

Editor’s Note: This below provides a generic set of headings for a new solution and need to be deleted before the TR goes for approval

## 6.X Solution #X: <Solution name>

### 6.X.1 Solution overview

### 6.X.2 Solution details

### 6.X.3 Solution evaluation

# 7 Conclusions

Editor’s Note: This clause will contain the conclusion of the TR

Annex <A>:  
<Informative annex title for a Technical Report>

Annex <X> (informative):  
Change history

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Change history** | | | | | | | |
| **Date** | **Meeting** | **TDoc** | **CR** | **Rev** | **Cat** | **Subject/Comment** | **New version** |
|  |  |  |  |  |  |  |  |

Change history of this template:

|  |  |  |
| --- | --- | --- |
| 2001-07 | Copyright date changed to 2001; space character added before TTC in copyright notification; space character before first reference deleted. | 1.3.3 |
| 2002-01 | Copyright date changed to 2002. | 1.3.4 |
| 2002-07 | Extra Releases added to title area. | 1.3.5 |
| *2002-12* | *"TM" added to 3GPP logo.* | *1.3.6* |
| *2003-02* | *Copyright date changed to 2003.* | *1.3.7* |
| *2003-12* | *Copyright date changed to 2004. Chinese OP changed from CWTS to CCSA* | *14.0* |
| *2004-04* | *North American OP changed from T1 to ATIS* | *1.5.0* |
| *2005-11* | *Stock text of clause 3 includes reference to 21.905.* | *1.6.0* |
| *2005-11* | *Caters for new TSG structure. Minor corrections.* | *1.6.1* |
| *2006-01* | *Revision marks removed.* | *1.6.2* |
| *2008-11* | *LTE logo line added, © date changed to 2008, guidance on keywords modified; acknowledgement of trade marks; sundry editorial corrections and cosmetic improvements* | *1.7.0* |
| *2010-02* | *3GPP logo changed for cleaner version, with tag line; LTE-Advanced logo line added;  © date changed to 2010; editorial change to cover page footnote text; trade marks acknowledgement text modified; additional Releases added on cover page; proforma copyright release text block modified* | *1.8.0* |
| *2010-02* | *Smaller 3GPP logo file used.* | *1.8.1* |
| *2010-07* | *Guidance note concerning use of LTE-Advanced logo added.* | *1.8.2* |
| *2011-04-01* | *Guidance of use of logos on cover page modified; copyright year modified.* | *1.8.3* |
| *2013-05-15* | *Changed File Properties to MCC macro default.*  *Removed R99, added Rel-12/13.*  *Modified Copyright year.*  *Guidance on annex X Change history.* | *1.8.4* |
| *2014-10-27* | *Updated Release selection on cover. In clause 3, added "3GPP" to TR 21.905.* | *1.8.5* |
| *2015-01-06* | *New Organizational Partner TSDSI added to copyright block. Old Releases removed.* | *1.9.0* |
| *2015-12-03* | *Provision for LTE Advanced Pro logo  Update copyright year to 2016* | *1.10.0* |
| *2016-03-08* | *Standarization of the layout of the Change History table in the last annex.(Unreleased)* | *1.11.0* |
| *2016-06-15* | *Minor adjustment to Change History table heading* | *1.11.1* |
| *2017-03-13* | *Adds option for 5G logo on cover* | *1.12.0* |
| *2017-05-03* | *Smaller 5G logo to reduce file size* | *1.12.1* |
| *2019-02-25* | *Replacement of frames on cover pages by in-line text.*  *Clarification of help text on when to use 5G logo. Removal of defunct keywords frame on page 2. Add Rel-16, Rel-17 options, eliminated earlier, frozen, Releases (cover page, below title) Corrections to some guidance text, addition of guidance text concerning automatic page headers under Word 2016 ff. Use of modal auxiliary verbs added to Foreword. More explicit guidance on Bibliography and Index annexes. Converted to .docx format.* | *1.13.0* |
| *2019-09-12* | *Cover page table outline shown dotted for ease of logo selection. (Author to hide outline after logo selection.) User now needs to delete whole table rows instead of individual cells, which proved to be tricky.*  *Change of style for "notes" in the Foreword to normal paragraphs.*  *Insertion of new bookmarks, correction of location of existing bookmarks. (To improve navigation.)*  *Improvements to guidance text.* | *1.13.1* |