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Universal Mobile Telecommunications System (UMTS);
LTE;
Technical Specification Group working methods
(3GPP TR 21.900 version 13.1.0 Release 13)**



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Foreword

This Technical Report (TR) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

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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.

Introduction

In order to ensure correctness and consistency of the specifications (i.e., technical specifications and technical reports) under responsibility of the Technical Specification Groups (TSG) of the 3rd Generation Partnership Project (3GPP), clear, manageable and efficient mechanisms are necessary to handle version control, change control, document updating, distribution and management.

Also, the fact that the specifications are/will be implemented by industry almost in parallel with the writing of them requires strict and fast procedures for handling of changes to the specifications.

It is very important that the changes that are brought into the standard, from the past, at present and in the future, are well documented and controlled, so that technical consistency and backwards tracing are ensured.

The 3GPP TSGs, and their sub-groups together with the Support Team are responsible for the technical content and consistency of the specifications whilst the Support Team alone is responsible for the proper management of the entire documentation, including specifications, meeting documents, administrative information and information exchange with other bodies.

1 Scope

This document outlines the working methods to be used by the 3GPP Technical Specification Groups and their Working Groups and their Sub-Groups, and by the 3GPP Support Team in relation to document management, i.e. handling of specifications, updating procedures, Change Request procedures, version control mechanisms, specifications status information etc. It complements the rules and procedures defined for 3GPP. This document does not stipulate the details of the internal working of the TSG Sub-Groups. From the Technical Specification Group point of view, a task and responsibility is given to a Working Group directly answering to the Technical Specification Group. In practice, the work/task may be carried out in a subgroup of that Working Group.

1A 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 21.801: "Specification drafting rules".
- [2] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [3] 3GPP TS 21.101: "Technical Specifications and Technical Reports for a UTRAN-based 3GPP system".
- [4] 3GPP TS 41.101: "Technical Specifications and Technical Reports for a GERAN-based 3GPP system".
- [5] ITU-T Recommendation I.130: "Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".

2 Definitions and abbreviations

For the purposes of the present document, the following terms and those in 3GPP TR 21.905 [2] apply.

building block: sub-division of a feature, representing a coherent set of technical functionality which would generally be expected to reside in a single system element.

change control: procedure whereby proposed modifications to a specification are presented for approval to the TSG as formal Change Requests.

closed: specification status in which no changes of any kind to the specification are permitted.

Change Request (CR): formal proposal presented on a standard form to modify a specification which is under change control.

draft: specification status prior to change control, in which changes may be made without formal Change Requests.

early implementation: implementation of a particular feature on a platform of a release earlier than the release that contains the feature.

feature: new or substantially enhanced functionality which represents added value to the existing system.

frozen: specification status in which only essential corrections are permitted.

functionality: normative text contained in one or more Technical Specifications, corresponding either to a feature or to some portion of a feature.

Group: TSG or TSG Sub-Group.

major version: For version x.y.z of a specification, x is called the major version.

Example: For version 3.2.0 of a specification, the major version is 3.

specification: generic term standing for Technical Specification and Technical Report.

Study Item: type of Work Item which will conduct feasibility studies and will result in a Technical Report

TSG: Technical Specification Group.

TSG change control: specification status in which the Technical Specification Group is responsible for approval of Change Requests.

TSG Sub-Group: Working Group or subgroup of a Working Group or of a Sub-Group.

Working Group (WG): official subgroup of a TSG reporting to that TSG.

WG Change Control: specification status in which the Working Group is responsible for agreeing Change Requests for submission to the TSG for approval.

version: unique identifier in the form x.y.z for a specification at a given point in time.

Example: version 3.12.3.

withdrawn: specification status in which the given version of the specification no longer belongs to the appropriate set of valid specifications.

Work Item (WI): description of an enhancement to a technical area, which may be categorized as Study Item, Feature, Building Block or Work Task.

Work Item description (WID): description of a Work Item in a standard Work Item Description sheet.

work task: sub-division of a building block, representing a self-contained, well-scoped and well-scheduled item of work.

3 General responsibilities of the Support Team

3.1 Specifications, meetings and liaisons

The Support Team is responsible for the management of the work of the TSGs. This includes editorship and management of specifications once they have been put under TSG change control. It also includes preparation of and support for the meetings (including meeting reports) of the TSGs and their Working Groups, and subgroups in descending priority.

It furthermore includes liaison with other bodies and relevant groups and institutions.

3.2 Registration of code points

In the course of 3GPP's work, it will from time to time be necessary to register code points in protocols maintained by bodies other than 3GPP, for example, Multipurpose Internet Mail Extensions (MIME) types registered with the Internet Assigned Numbers Authority (IANA, <http://www.iana.org/>).

Wherever possible, registration of such code points shall be entrusted to the 3GPP Support Team rather than being performed by an individual delegate. Since 3GPP is not a legally constituted entity, the Support Team shall register such code points in the name of one of the Organizational Partners on behalf of all the Organizational Partners of 3GPP.

4 Handling of Specifications

4.0 Numbering scheme

The specifications shall be numbered according to the following scheme:

3GPP TS aa.bbb (for Technical Specifications); or

3GPP TR aa.bbb (for Technical Reports).

The fields aa and bbb shall be selected according to the nature of the specification as given in tables 1 and 2. The provisions of table 1 shall be strictly enforced, but those of table 2 should be used for guidance: it is acceptable to deviate from these provisions for backwards compatibility or other reasons.

Table 1: Specification number ranges aa

Range for GSM up to and including Release 1999	Range for GSM Release 4 onwards	Range for UMTS Release 1999 onwards	Use	Remarks
01.bb	41.bbb	21.bbb	Requirements specifications	Often transient specifications containing requirements leading to other specifications; may become obsolete when technical solutions have been fully specified; they could then, e.g., be replaced by reports describing the performance of the system, they could be deleted without replacement, or be kept for historical reasons but treated as background material.
02.bb	42.bbb	22.bbb	Service aspects	Services, service features, building blocks or platforms for services (a service feature or service building block may provide certain generic functionality for the composition of a service, including the control by the user; a platform may comprise one or more network elements, e.g. UIM, mobile terminal, auxiliary system to the core network etc.); also appropriate stage 1 specifications; also reports defining services which can be realized by generic building blocks etc.
03.bb	43.bbb	23.bbb	Technical realization	Mainly stage 2 specifications (or specifications of a similar nature describing interworking over several interfaces, the behaviour in unexceptional cases, etc.).
04.bb	44.bbb	24.bbb	Signalling protocols (UE to CN)	Detailed and bit-exact stage 3 specifications of protocols between MS/UE and the Core Network.
05.bb	45.bbb	25.bbb	Radio access aspects	25.1bb: UTRAN radio performance 25.2bb: UTRA layer 1 25.3bb: UTRA layers 2 & 3 25.4bb: UTRAN Iub, Iur & Iu interfaces
06.bb	46.bbb	26.bbb	Codecs	Speech and other codecs (video etc.).
07.bb	47.bbb	27.bbb	Data	Functions necessary to support data applications.
08.bb	48.bbb	28.bbb	Signalling protocols (RSS to CN)	Detailed and bit-exact stage 3 specifications of protocols between radio subsystem (eg BSS) and periphery of CN (eg MSC). (Not used in Release 1999.)
09.bb	49.bbb	29.bbb	Core Network signalling protocols	Detailed and bit-exact stage 3 specifications of protocols within the Core Network.
10.bb	50.bbb	30.bbb	Programme management	3 rd Generation Mobile System, project plans / project work programme and stand-alone documents for major Work Items.

Range for GSM up to and including Release 1999	Range for GSM Release 4 onwards	Range for UMTS Release 1999 onwards	Use	Remarks
11.bb	51.bbb	31.bbb	SIM / UIM	Subscriber / User Identity Module and the interfaces between it and other entities.
12.bb	52.bbb	32.bbb	Charging and OAM&P (Operations, Administration, Maintenance & Provisioning)	Application of TMN for the 3GPP 3 rd Generation Mobile System and other functions for operation, administration and maintenance of a 3 rd Generation Mobile System network.
13.bb				<i>Regulatory test specifications. (Transferred from ETSI TC SMG to ETSI TC MSG.)</i>
		33.bbb	Security aspects	
		34.bbb	Test specifications	
	55.bbb	35.bbb	Algorithms	Specifications of encryption algorithms for confidentiality and authentication, etc.
		36.bbb	Evolved Universal Terrestrial Radio Access (Network)	Introduced in Release 8 for the so-called "Long Term Evolution" of the radio technology. A similar subdivision to that used for the 25-series above is used.
<p>NOTE: Column 1 refers to the original GSM specification series used up to Release 1999. Column 2 refers to the specifications peculiar to GSM implementations for Release 4 onwards – that is, those specifications relating solely to GSM/EDGE radio access. Column 3 refers to the specifications created by 3GPP for Release 1999 onwards implementations having a UTRAN radio access. Many of these are common to GSM/EDGE and UTRAN systems (see table 2). Separate specifications list the specs required to implement Releases GSM/EDGE and UTRAN systems (3GPP TSs 21.101 [3], 01.01 / 41.101 [4]).</p>				

Table 2: Specification number ranges bbb

Range	Use	Remarks
aa.bb	Specification applicable to pre-Release-4 GSM systems.	Continue to be maintained by 3GPP. Not propagated beyond Release 1999.
aa.0bb	Specifications applicable to both 2G (GSM) and 3G systems.	<p>aa in range 21 to 39: For most specifications in this range for a given Release, a GSM specification numbered [aa - 20].[bb] will have existed for earlier Releases. Example: 3GPP TS 28.032 replaces GSM 08.32 for Release 1999 onwards.</p> <p>aa in range 41 to 59: Direct equivalent to aa.bb GSM specification for previous Releases.</p>
aa.1bb	Specification either (a) derived from earlier 2G (GSM) specification, but with technical modification; or (b) new specifications.	<p>aa in range 21 to 39: For most specifications in this range for a given Release, a GSM specification numbered [aa - 20].[bbb - 100] will have existed for earlier Releases, and may continue to exist (in parallel) for the same Release. Example: 3GPP TS 28.133 will have been based on GSM 08.33, but both specifications exist for Release 1999 onwards.</p> <p>aa in range 41 to 59: New GSM specification for Release 4 or later.</p>
aa.2bb to aa.7bb	New specifications.	Not, in general, derived from pre-Release 4 GSM predecessors. NOTE: See table 1 for specific allocation within 25.bbb series.
aa.8bb	Technical Reports not intended for publication.	Working documents of 3GPP Groups not intended to be transposed into publications by the Partner Organizations.
aa.9bb	Technical Reports intended for publication.	As distinct from those of the aa.8bb series.

4.0A Version nomenclature

Each specification is associated with a "version number" in the form x.y.z which uniquely identifies the document. The significance of the three fields is defined in table 3.

Table 3: Version number fields

Field	Use	Remarks
x	major also referred to as "release"	0: draft 1: presented to TSG for information (specification estimated by prime responsible Group to be at least 60% stable) 2: presented to TSG for approval (specification estimated by prime responsible Group to be at least 80% stable) 3 or greater: approved by TSG and under change control; the value indicates the Release according to table 4.
y	technical	Incremented every time a technical change is introduced into the specification. Once under change control, such changes shall only occur when the TSG approves one or more Change Requests. Reset to zero every time the "major" field is incremented.
z	editorial	Incremented every time a purely editorial change is introduced into the specification. Reset to zero every time the "technical" field is incremented or reset to zero.

Table 3 shows the estimated degree of stability to be used as a guideline for determining when to raise a specification to version 1.y.z and to 2.y.z. Such figures are obviously subjective, and the decision is ultimately at the discretion of the responsible Group.

A TS or TR having reached at least 60% stability and presented to the TSG for the first time shall be presented with its major version number set to 1, i.e. as version 1.y.z..

4.0B Releases

Specifications are grouped into "Releases". A mobile system can be constructed based on the set of all specifications which comprise a given Release. A Release differs from the previous Release by having added functionality introduced as a result of ongoing standardization work within the Groups.

Specifications pertaining to a given Release shall be distinguished by the first field of the version number ("x" in x.y.z) according to table 4. Table 0 also shows for comparison the equivalent significance of the GSM Releases.

For further details on Release control, see subclause 4.10.

Table 4: Version numbers vs. Releases

Spec under change control for ...	spec number format and version
GSM Phase 1	aa.bb v3.y.z
GSM Phase 2	aa.bb v4.y.z
GSM Phase 2+ Release 1996	aa.bb v5.y.z
GSM Phase 2+ Release 1997	aa.bb v6.y.z
GSM Phase 2+ Release 1998	aa.bb v7.y.z
GSM Phase 2+ Release 1999 (pure GERAN-based system)	aa.bb v8.y.z
pure UTRAN-based system and common UTRAN- & GERAN-based systems Release 1999	aa.bbb v3.y.z
GERAN- & UTRAN-based systems Release 4	aa.bbb v4.y.z
GERAN- & UTRAN-based systems Release 5	aa.bbb v5.y.z
GERAN- & UTRAN-based systems Release 6	aa.bbb v6.y.z
GERAN- & UTRAN-based systems Release 7	aa.bbb v7.y.z
...	...
NOTE: From Release 4 onwards the 3GPP format for specification numbers and versions applies to all specifications (including those only relevant for implementation of a stand-alone GSM system).	

4.1 Overview

Where appropriate, the three-stage methodology defined in ITU-T Recommendation I.130 should be employed:

Stage 1 is an overall service description from the user's standpoint.

Stage 2 is an overall description of the organization of the network functions to map service requirements into network capabilities.

Stage 3 is the definition of switching and signalling capabilities needed to support services defined in stage 1.

In addition, it is often appropriate to perform a feasibility study prior to formal specification work. This is sometimes referred to as "stage 0".

Furthermore, it will often be appropriate to follow stage 3 with the production of test specifications – a stage 4.

4.1.1 General

A new specification shall be created in a Group. At creation, a rapporteur shall be appointed. The rapporteur shall produce an initial draft, version 0.0.0, and subsequent revised versions (version 0.1.0, possibly 0.1.1, 0.1.2 and so on, then version 0.2.0 etc.). Details of the role of the rapporteur are described in subclause 4.1.2.

The rules for drafting specifications, and the software tools to be used are listed in 3GPP TR 21.801 [1].

Versions 0.1.0, 0.2.0, 0.3.0 etc. should be presented to the responsible Group. Versions 0.i.1, 0.i.2 etc. may be internal to the drafting group.

Further drafts may be produced, with appropriate increments in the "technical" / "editorial" fields of the version number. Every new draft with an incremented "technical" version field shall be presented to the responsible Group. Although two or more Groups may have an interest in contributing to the development of a specification, ultimate responsibility vests in a single (responsible) Group. The responsible Group shall ensure that all other Groups which might have an interest are given the opportunity to participate in the drafting.

The Support Team is responsible for allocating specification numbers. As soon as title, scope and some other information on the specification is stable, the Support Team shall assign a specification number according to the