To:	TSG-T Members
From:	TSG-T Secretary
Title:	TSG-T Chairman's report to TSG-SA#5 meeting; plus
	The seven (7) Liaison Statements from TSG-T to TSG-SA
Document for:	Information

The report from TSG-T Chairman to TSG-SA#5 is contained in:

- SP-99475 (PowerPoint presentation) and

- SP-99476 (Detailed Report).

Seven (7) LSs from TSG-T to SA submitted as follows:

Topic	TSG-T Number	TSG-SA Number
Terminology &Vocabulary	TP-99203	SP-99457 (identical with SP-99407)
	TP-99205	SP-99473
Testing	TP-99212	SP-99458
	TP-99219	SP-99419
	TP-99222	SP-99420
ITU-T Q.1701	TP-99218	SP-99421
	TP-99221	SP-99422

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TSG-T
Progress Report

TSG-T Chairman:
Sang-Keun Park
(Samsung Electronics, TTA)

SP-99475 contains the Presentation
SP-99476 contains the detailed Report

Objectives of TSG-T#5

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- To decide on WHAT should be included in R99

- To identify WHAT from R99 CANNOT be delivered (v3.x.y) at TSG#6 in December 1999

- For the identified R99 delays, to PROPOSE re-scheduled target dates for v3.0.0 delivery

- To present an exact status of the TSG-T deliverables for R99 to TSG-SA / PCG

Contents

- **Progress Report**
  - **T1: Conformance Testing**
  - **T2: Services and Capabilities**
  - **T3: USIM**
- **Requests to SA**
- **List of Deliverables for R99**
- **Meeting Calendar**

T1 Conformance Testing

- Tests regarding "Hooks and Extensions":

  - Who takes care of 3GPP2 ANSI-41 ?

  - No immediate T1 action necessary. Comment from SA?

- TSG-T suggestion : Replace "mandatory" in test specification with "core" specification.

  - "mandatory" should only be used for regulartory mandates.

- Issues to be discussed with ETSI STQ week (Oct, 18)

  - Audio testing may not be part of regulatory type approval. Unified way of Audio/Video testing may be impossible.

  - Future testing of codecs by manufacturers (declaration). Digital-Analogue Interface may then be obsolete. If codecs must be tested - how to test them ?

T1 Conformance Testing

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- Guidance needed for prioritizing the generation of conformance test cases for 3G terminals (S-458)

- Approval of MS Conformance Test Specifications shall be coupled to a certain 3GPP release of Core Specifications (S-419)

- Lack of resources & general strategy on the elaboration of test cases (S-420)

T2 Services & Capability

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- Execution Environment : MExE R99
  - To include new features (TS 23.057)
  - Looking good for completion Dec 99
- External Interfaces: Synchronization
  - Approved v3.0.0:
    - TR 27.903 - Discussion of Synchronization Standards
    - TS 27.103 - Wide Area Network Synchronization
  - A cover sheet (template) for TS&TR for approval and information
    - purpose, delivery schedule, open issues with status

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T2 Services & Capability

- External Interfaces: Physical interface
  - Substantially completed - for info (TR 27.901)
  - 3GPP should NOT produce any technical specification for terminal interfaces other than the radio interface and the USIM interface.
  - SDOs may develop regional specifications.

- External Interfaces: Alternatives to AT Commands - still no work

T2 Services & Capability

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- Messaging
  - New Chairman: Ian HARRIS (Vodafone)
  - Multimedia Messaging - major work
    - will use toolkits; serious work still to be done
    - at risk for R99 unless significant effort made
  - Cell Broadcast - discussions with other groups
    - but this is at risk for R99
  - Advanced Cell Broadcast - will not be completed

- End to End Service Interworking
  - work on hold - pending requirements

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T2 Services & Capability

- Multi System Terminals (1)
  - Name change to reflect concept of "modes" as modes of 3GPP system vs. other systems
  - Draft report - for information (TR 21.910)
    - many areas for further study
    - needs involvement of other groups
    - SA should be informed; there is interaction with PLMN selection
  - Proposed to hold a 3GPP Workshop

T2 Services & Capability

- Multi System Terminals (2)
  - Discussion on the need for a specification
    - define different terminal scenarios
    - terminal types
    - power class relationship to type
  - No consensus
    - Need for information on expected terminal power class
    - Need for RAN to develop a report on network planning?

T2 Services & Capability

- Terminal Capabilities & Performance
  - Terminal Capabilities Requirements (TCR)
    - Report available for information (TR 21.904)
    - Ensuring TR 21.904 is up to date (maintenance)
    - Definitions used for Terminals
    - Terminology & vocabulary in 3GPP (S-457/473)
  - Terminal Management (TM) - TSG-T:
    - Endorsed the principle that SAT & MExE mechanisms are suitable & sufficient
    - Agreed to be responsible for TM (SA view invited)

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T3 USIM

- Phonebook - resolved at T3#8, Bonn
- Application Identifiers (AIDs) - resolved
  - ETSI applied for an RID on behalf of 3GPP
  - New WI on AID approved for R99
- Application selection, PIN-handling and logical channels
  - For multi-application UICCs
  - Two different selection methods under consideration
  - Decision to be taken by T3 #10
- Some Security & Network parameters still to be clarified
  - LS to S3 and R2 agreed by T3

T3 USIM

- Approved Deliverables
  - For information (v1.0.0)
  - TS 31.101 - UICC-Terminal Interface; Physical and Logical Characteristics
  - TS 31.102 - Characteristics of the USIM Application

- Approved 5 new Work Items

Title	Release	Target v3.0.0 approval
UICC Application Identifiers	R99	December 1999
Terminal tests for the UICC Interface	based on R99 core spec	June 2000
UICC Test Specification	based on R99 core spec	June 2000
USIM Application Toolkit (USAT)	R99	March 2000
UICC/USIM Database	R00	September 2000

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Requests to SA

- Guidance needed for prioritizing the generation of conformance test cases for 3G terminals (S-458)

- Approval of MS Conformance Test Specifications shall be coupled to a certain 3GPP release of Core Specifications (S-419) - decision

- Lack of resources & general strategy on the elaboration of test cases (S-420) - provision of voluntary and/or financial support

- Terminal Management (TM) - SA view invited on TSG-T's
    - endorsement of the principle that SAT & MExE mechanisms are suitable & sufficient
    - agreement to be responsible for TM

- 3GPP TSG T Position on supplement to recommendation Q.1701 from ITU T WP 3/11 (S-421/2) - for information

- Request for harmonization in Terminology (S-407/457/473)

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T1 Conformance Testing

B. Expected Qualification for R99 in Dec '99

Reference	Title	Status	Target v3.0.0
TS 34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)	v1.2.0	12-1999

T1 Conformance Testing

D. Impossible qualification for R99 in Dec '99

Reference	Title	Status	Target v3.0.0
TS 34.109	Terminal Logical Test Interface	v1.0.0	07-2000
TR 34.124	EMC for terminal equipment	v1.0.0	03-2000
TS 34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)	v0.1.0	12-2000
TS 34.123-1	MS protocol conformance specification; Part 1: Protocol conformance specification	v0.0.3	07-2000
TS 34.123-2	MS Protocol/RF/EMC conformance specification; Part 2: ICS proforma specification	v0.0.1	07-2000
TS 34.123-3	MS protocol conformance specification; Part 3: Abstract Test Suites (ATS)	v0.0.0	03-2001

T2 Services & Capability

A. Qualified for R99 in Dec '99

Reference	Title	Status
22.945	Study on provisioning of fax in GSM & UMTS	V 3.0.0
23.038	Alphabets and language-specific information	V 3.2.0
23.039	Interface protocols for the connection of SMSCs to Short Message Entities (SMEs)	V 3.0.0
23.040	Technical realization of SMS; Point-to-Point	V 3.2.0
23.041	Technical realisation of Cell Broadcast Service (CBS)	V 3.0.0
23.042	Compression algorithm for text messaging services	V 3.0.0
27.005	Use of DTE-DCE interface for SMS and CBS	V 3.0.0
27.007	AT command set for 3GPP User Equipment (UE)	V 3.2.0
27.010	TE-MS multiplexer protocol	V 3.2.0
27.103	Wide Area Network Synchronisation	V 3.0.0
27.903	Discussion of Synchronisation Standards	V 3.0.0
34.907	Electrical safety requirements & regulations	V 3.0.0
34.925	Specific Absorption Rate (SAR)	V3.0.0

T2 Services & Capability

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B . Expected qualification for R99 in Dec '99

Reference	Title	Status	Target v3.0.0
23.057	Mobile Station Application Execution Environment (MExE); Functional description; Stage 2	v1.5.0	12-1999
27.901	Report on Terminal Interfaces - An Overview	V1.2.0	12-1999

T2 Services & Capability

C. Qualification at risk for R99 in Dec '99

Reference	Title	Status	Target v3.0.0
TS 21.904	Terminal Capabilities Requirements	V 1.0.1	12-99?
TS 21.910	Multi-mode Terminals	V 1.0.0	12-99?
TS 23.140	Multi-media Messaging	V 0.1.0	12-99?

D. Impossible qualification for R99 in Dec '99

Reference	Title	Status	Target v3.0.0
	Advanced CBS		
TS-AAT	Alternatives to AT commands	?????	12-1999

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T3 USIM

A. Qualified for R99 in Dec '99

Reference	Title	Status
21.111	USIM and IC Card Requirements	v3.0.0

B . Expected qualification for R99 in Dec '99

Reference	Title	Status	Target v3.0.0
31.101	UICC-Terminal Interface; Physical and Logical Characteristics	V1.0.0	12-1999
31.102	Characteristics of the USIM Application	V1.0.0	12-1999
New WI#1	UICC Application Identifiers		12-1999

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T3 USIM

D. Impossible qualification for R99 in Dec '99

Reference	Title	Status	Target v3.0.0
New WI#2	Terminal tests for the UICC Interface		06-2000
New WI#3	UICC Test Specification		06-2000
New WI#4	USIM Application Toolkit (USAT)		03-2000

Meeting Calendar

Meeting No.	Date	Location	Host
Year 1999			
TSG-T#6	13-15 Dec	Nice	ETSI
Year 2000			
TSG-T#7	13-15 Mar	Madrid	Telefonica
TSG-T#8	19-21 Jun	Dusseldorf	Mannesmann
TSG-T#9	25-27 Sep	Bangkok(tbc)	Unisys
TSG-T#10	11-13 Dec	USA (tbc)	T1

Source: TSG-T Chairman

Title: TSG-T Chairman's report to TSG-SA#5 meeting

_____

Content

1 $\quad$ Opening of the meeting

77. delegates attended the 5th meeting of 3GPP TSG-Terminals (TSG-T#5) from 7-8 October 1999, held at the Kyongju Hilton Hotel in Kyongju, KOREA. The meeting was organised by TTA (the Telecommunication Technology Association) and sponsored by Ericsson, ETRI (the Electronics and Telecommunications Research Institute), HYUNDAY Electronics, Korea Telecom, LG Information & Communications, Motorola, NOKIA Korea and SAMSUNG Electronics.

The meeting was chaired by Sang-Keun PARK (SAMSUNG), TSG-T Chairman, assisted by the two TSG-T Vice Chairmen Kevin HOLLEY (BT) and Ed EHRLICH (NOKIA USA) and the TSG-T Secretary, Adrian ZOICAS (ETSI MCC).

Sang-Keun PARK (SAMSUNG) addressed a welcome message to Kyongju on behalf of TTA and the hosting organisations.

2 $\quad$ Approval of Agenda & Registration of documents

The draft agenda (TP-99196) was approved without modification and together with the list of meeting documents can be found in annex. All the meeting documents are available on the 3GPP server at
ftp://ftp.3gpp.org/TSG_T/TSG_T/TSGT_05/Docs/

3 $\quad$ Report of TSG-T#4 Miami

The DRAFT report of the previous meeting, TSG-T#4 held in Miami, was presented in TP-99147 and approved without change. The APPROVED report can be found in document TP-99150 at
ftp://ftp.3gpp.org/TSG_T/TSG_T/TSGT_04/Report/ $\quad$ and at $\quad$ ftp://ftp.3gpp.org/TSG_T/TSG_T/TSGT_05/Docs/

3.1 $\quad$ Follow-up on Action points / Outstanding issues

The Chairman informed that:

- PCG **agreed** on funding arrangements between the SDOs and initial allocations from the 1999 budget for the TSG-T requests:
    - USIM test specifications (156 kEuro: 100%);
    - 3G TTCN for MS interoperability (101 kEuro; i.e. 10% from 1014 kEuro).

    In terms of managing these activities will be placed under the management of the MCC with expert guidance being provided by the TSGs when required.

- PCG **decided** 3GPP should seek a Registered Application Provider Identity (RID) from ISO in order that USIM Application Identifiers (AIDs) may be allocated. ETSI will maintain the register of USIM AIDs on behalf of 3GPP and MCC (T3 officer) will seek the RID for 3GPP.

- PCG **noted** the discussions in the TSGs concerning the global type approval of 3GPP terminals and the conclusion that TSG-T should define a super set of relevant test from which regulators could select regional sets as appropriate. PCG further **noted** that whilst regulatory issues were outside of the scope of 3GPP there may be a role for the Market Representation Partners (MRP) to perform.

- PCG **noted** the TSG-T request for agreed definitions of "global roaming" and "global circulation" in the context of the scope of 3GPP. The UMTS Forum had already agreed a definition for "global circulation" but no clear proposal had been received for a definition of "global roaming". The missing consensus within TSG-T on the need to standardize a 3G terminal connector was **reported.** If the problem cannot be solved in TSG-T then the matter should be raised to PCG for decision.

4   Objectives for meeting TSG#5

The Chairman pointed out that the prime objectives of the TSG#5 meeting were:

- To decide on WHAT should be included in Release 99;

- To identify WHAT from Release 99 CANNOT be delivered (v3.x.y) at TSG#6 in December 1999;

- For the identified Release 99 delays, to PROPOSE re-scheduled target dates for v3.00 delivery;

- To present an exact status of the TSG-T deliverables for Release 99 to TSG-SA / PCG;

- TSG-CN and TSG-RAN to deliver the "Core" specifications for the ITU/IMT-2000 process.

5   Letters and reports from other groups

TP-99166	New ASN.1 Syntax Checking Service from ETSI PTCC	OCG/PEX

TSG-T noted and encouraged especially WG T1 (WG T1 Mobile Terminal Conformance Testing) to use the new support service from ETSI's Protocol Testing Competence Centre (PTCC) pex@etsi.fr.

TSG-T approved two position papers regarding the ITU-T SG11 WP3 on the "Roadmap Document ITU-T IMT-2000" (TP-99190) which will be submitted to SA, PCG and 3GPP2 for information.

TP-99218	LS to SA, PCG, 3GPP2 on "3GPP TSG T Position on supplement to recommendation Q 1701 from ITU T WP 3/11" (with annex from TP-99217) NOTE: 3GPP TSG-T regards the MT-USIM and CN-USIM specifications to be the responsibility of the 3GPPs, rather than of the ITU-T.	T
TP-99221	LS to SA, PCG, 3GPP2 on "3GPP TSG T Position#2 on supplement to recommendation Q 1701 from ITU T WP 3/11 (with annex from TP-99220) NOTE: T2 deliverables added	T

6   WG T1 Mobile Terminal Conformance Testing

TP-99156	Request to PCG for funding of 3GPP TTCN Specifications (PCG#2(99)17)	T
TP-99167	Report from T1 (presentation)	T1
TP-99168	Minutes from T1#4 in Kobe	T1

6.1   Progress report from T1

Bjarke NIELSEN (SONY), T1 Chairman, introduced the "Progress report from WG T1" (TP-99167/8).

Points of discussion:

- The terms Mobile Station, UE, Terminal, etc. caused some discussion and confusion.
  What are the correct terms, who defines them and where can they be found?

- At some time later, we will have to tests regarding "hooks and extensions".
  Who takes care of ANSI41, 3GPP2 ?

- Which other groups should T1 liase with (EP UMTS, GSM NA, GSM Association, UMTS Forum, etc.)?

- From a legal point of view, who drives the establishment of a common understanding regarding a regulatory regime?

- Audio testing may not be part of the regulatory type approval. A unified way of evaluating audio (video) may prove to be impossible.

- Testing of speech (video) codecs may in the future be done only in the development labs of manufacturers. Manufacturers will then declare conformance.

- The Digital-Analogue Interface (DAI) may then be obsolete. If codecs must be tested - how to test them?

- T1 is meeting ETSI STQ (Speech and Transmission Quality) to establish a common understanding.

Item to be discussed at future T1 meetings:

- Test philosophy: can we assume availability of a physical connector for all 3G equipment?
  If not, should then the air interface always be used?

- The 3G equipment may be so deeply buried into other equipment, that it can not perform "stand alone" functions
  (may be no MMI, maybe only SMS function, etc.)
  - we may need functions to isolate specific 3G parts (points of observation and evaluation!
  - we may also need a complete capability inquiry (like a classmark!)

  This may limit what can be tested, but will allow a common and automatic testing of 3G terminals.

Points of Observation:

T1 noted (via e-mail) the outcome from the PCG#2 meeting:

- PCG requested T1 to make a super-set of global regulatory requirements.
- PCG has agreed the funding of TTCN; 10% (101kEuro) will be funded in 1999.
- GSM North America wants to liase with T1 regarding regulatory requirements in US.
- T1 can liase directly (via TSG-T) with 3GPP2. But who are the contact persons ?

6.2 Liaison Statements to TSG-T

	INCOMING	
TP-99161	LS to T on Confirmation of work items regarding USIM (UICC/ME interface) and Test SIM	T1
TP-99171	LS to T on schedule for Prose test case generation for T1 SWG Signaling	T1
TP-99202	Proposal on how to handle approval of MS Conformance Test Specifications coupled to a certain 3GPP release	Ericsson
	OUTGOING	
TP-99208	LS to TSG-SA on prioritization of conformance test cases for 3G terminals (revised as TP-99212)	T
TP-99211	LS to TSG-SA on resource situation and the general strategy and status of the elaboration of test cases (revised as TP-99222)	T
TP-99212	LS to TSG-SA on the distribution of a proposal for prioritization of the elaboration of conformance test cases for 3G terminals (Revision of TP-99208)	T
TP-99222	LS to TSG-SA on resource situation and the general strategy and status of the elaboration of test cases. (Revision of TP-99211)	

6.3 Approval of Deliverables & Work programme review

TP-99157	T1 work programme BEFORE meeting T#5, October 1999 and expected deliverables	Secretary
TP-99169	TR 34.124 v1.0.0 for information: "EMC requirements for Mobile terminals and ancillary equipment"	T1
TP-99170	TS 34.109 v1.0.0 for information: "Terminal Logical Test Interface; Special conformance testing functions"	T1
TP-99204	Approval of a new work item on "Terminal Conformance Specification; Terminals Requirements for Regulatory approval (3G TS 34.110)"	T1
TP-99215	Approval of a new work item on "Identification of test requirements for regulatory purposes in different regions/countries (3G TR 34.910)" (Revision of TP-99204)	T

6.3.1 Submitted for information as v1.0.0

T 1/RF (Chairman: Mitsuru YOKOYAMA, HP)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 34.109	Terminal Logical Test Interface	v1.0.0	07-2000	Leif MATTISSON
T 1/EMC (Chairman: John FENN, SAMSUNG)				
TR 34.124	Electro-Magnetic Compatibility (EMC) for terminal equipment	v1.0.0	03-2000	Ole SOERENSEN

(TP-99170) TS 34.109 "Terminal Logical Test Interface" specifies terminal functions required for conformance testing purposes. Major discussion areas are EMMI, reference environment, Test SIM (see the LS in TP-99161). Many areas depend on final test methodology. V3 availability is delayed from 03/2000 to 07/2000. Consequently it will not meet the December '99 deadline for inclusion in R99.

(TP-99169) TR 34.124 "Electro-Magnetic Compatibility (EMC) for Terminal equipment" contains a superset of regulatory EMC requirements for 3G terminals as known today. When stable, it will be included in the "regulatory" deliverable. T members were invited to evaluate the TR and to send EMC comments directly to the Rapporteur and

T1/EMC Chairman, John FENN. V3 availability is delayed from 12/1999 to 03/2000. Consequently, it will not meet the December '99 deadline for inclusion in R99.

6.3.2   Status update (version number) and/or Re-scheduling

T 1/RF (Chairman: Mitsuru YOKOYAMA, HP)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)	v1.2.0	12-1999	Kenji HIGUCHI
TS 34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)	v0.1.0	12-2000	Thomas MAUCKSCH

TS 34.121 "Terminal Conformance Specification, Radio Transmission and Reception (FDD)" has reached v1.2.0 and contains the measurement procedures for the transmitting characteristics, the receiving characteristics and the *performance requirements* in FDD mode. It is on schedule for TSG-T approval in December '99 and inclusion in R99 as V3.

TS 34.122 "Terminal Conformance Specification, Radio Transmission and Reception (TDD)" contains the measurement procedures for transmitting and receiving characteristics and the *performance requirements* in TDD mode. Little progress has been made so far and delays are expected. The current status is v0.1.0 and the current planning foresees V1 in 12/1999 and V3 in 12/2000. Consequently it will not meet the December '99 deadline for inclusion in R99.

T 1/Signalling (Chairman: Daniel FOX, ANRITSU)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 34.123-1	Mobile Station (MS) protocol conformance specification; Part 1: Protocol conformance specification (3G TS 34.123-1)	v0.0.3	07-2000	Lidia SALMERON
TS 34.123-2	Mobile Station (MS) Protocol/RF/EMC conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification (3G TS 34.123-2)	v0.0.1	07-2000	Shicheng HU
TS 34.123-3	Mobile Station (MS) protocol conformance specification; Part 3: Abstract Test Suites (ATS) (3G TS 34.123-3)	v0.0.0	03-2001	Shicheng HU

TS 34.123-1 "Mobile Station (MS) Conformance Specification, Part 1 – Conformance specification" contains a prose description of the test cases. TP-99171 (LS from T1/SIG) identifies the availability target dates for test cases. Additional work is being done on identifying the corresponding core specifications and on identifying "General tests" - like idle mode, handover, etc. The interface from T1/SIG to T1/RF SWG should be defined better i.e. who makes which test specifications. The current planning foresees V1 in 12/1999 and V3 availability was advanced from 12/2000 to 07/2000. Consequently, it will not meet the December '99 deadline for inclusion in R99.

TS 34.123-2 "Mobile Station (MS) Conformance Specification, Part 2 – ICS Implementation Conformance Statement" contains a list of capabilities which can / should be implemented in a 3G terminal. The information flow from the "Core" specification to this deliverable should be defined, however it is not clear who will maintain this document. What do we mean, when we claim that a capability is "mandatory"? It gets confused with mandatory regarding type approval (in the regulatory regime). TSG-T decided to recommend that 3GPP uses "core requirement" instead of "mandatory", and noted that "mandatory" is reserved for regulatory relevance, which is out of the scope of 3GPP.
The work in T1 will be linked to T2's list of Terminal Capabilities Requirements contained in TS 21.904. The revised planning foresees V1 in 12/1999 and V3 availability was delayed from 12/1999 to 07/2000. Consequently, it will not meet the December '99 deadline for inclusion in R99.

TS 34.123-3 "Mobile Station (MS) Conformance Specification, Part 3 – Abstract Test Suites (ATS)" contains TTCN test specifications for the test cases described in part 1. It is being discussed which version of TTCN (v2, v2++ or v3) should be used. T1 may have to choose v3 to ensure "survival" of these standards and tools over the next 10 years. Otherwise, the migration will be difficult. Special functions will have to be implemented. TSG-T1 SIG and ETSI MTS/PEX met 28 September to discuss this. PCG has decided to fund the TTCN work, which should be done by experts to be recruited. TSG-T1/SIG will be responsible to manage the work program for the recruited experts, while TSG-T1 will be responsible for monitor the budget/deadlines etc.
V1 is foreseen for 07/2000 (at least 50% stable regulatory test suites). The availability of V3 was advanced from 12/2001 to 03/2001. Consequently, it will not meet the December '99 deadline for inclusion in R99.

Following discussions in the TSG T plenary meeting, it was decided that there was a need for clarification of the use of the term "==mandatory==" in 3GPP documents.

- The term "mandatory" is associated with regulatory requirements, and should not be used in 3GPP specifications. It may however, be used in reports describing regulatory requirements. Given that, the term "mandatory" is in common use in 3GPP working groups, but that there is no common understanding of what is meant by the term, we propose that its use should be replaced by the term "Core Requirement" when describing functionality which is essential for the proper operation of the 3G system.

- Core Requirements in the terminal can be conditional on that terminal's ability to support a specific function or service. Thus, there are certain Core Requirements of a terminal supporting only the baseline functionality (i.e. not supporting any service(s)). A terminal supporting a given service will have additional Core Requirements.

6.3.3   Approval of new Work Items

TP-99204 contains a new work item proposal (==NOT for R99==) and a deliverable (v0.0.1) on "Terminal Conformance Specification; Terminals Requirements for Regulatory approval" with the intention to establish a living document accumulating regional requirements. This proposal was refined in TP-99215 and subsequently approved as a Technical Report (TR) entitled "Identification of test requirements for regulatory purposes in different regions/countries (3G TR 34.910)". This TR should contain a collection of test requirements identified for regulatory purposes in different regions / countries. The actual test case descriptions will be contained in other deliverables. The Rapporteur for TR 34.910 is Bjarke NIELSEN and the current planning foresees V1 for 03/2000 and V3 for 03/2001.

TSG-T1 further indicated that a large number of test cases can be foreseen in a complex system like 3G UMTS. Given the time schedule, the given resources are not sufficient to implement a satisfactory number of test specifications/cases. The subsequent discussion resulted in 3 Liaison Statements to TSG-SA:
TP-99219: TSG-T proposes to allow a general delay of test specification releases compared to the release of core specifications and thereby allow the ==matching== of a release "xx" of ==test specifications== to a release "xx" of the ==core specifications==.
TP-99212: TSG-T identified that the most important test case requirements are the ones foreseen to be used for regulatory use. TSG-T1 will elaborate a list of identified test case requirements and assign then a priority. TSG-SA is asked to distributed this list among the SDOs and request them to ask regulatory authorities in their country/regions for comments. The SDOs can indicate the need for changing priorities or the addition of new test cases requirements – dependent on their plans for regulatory approvals. The actual T1 list of currently identified test case requirements will be elaborated ==within a month==. The LS will then be sent to TSG-SA via the e-mail reflector.
TP-99222: TSG-T wishes to draw the attention of TSG-SA to the ==lack of resources== in TSG-T1. TSG-SA is asked to examine the possibility of the SDOs to send extra resources to TSG-T1. If that appears not to be possible, ==TSG-T is proposing the establishment of a funded project team==.

6.4 TSG-T1 Meeting Calendar

Meeting	Date	Location	Host
T1/ ETSI STQ	20 Oct 1999	Bern (ad-hoc Audio issues)	Swisscom
T1/RF/SIG/EMC	21-22 Oct 1999	Sophia Antipolis (France)	ETSI
T1/RF/SIG/EMC	7-8 Dec 1999	Sophia Antipolis (France)	ETSI
T1#5	9-10 Dec 1999	Sophia Antipolis (France)	ETSI
T1/RF/SIG	24-25 Jan 2000	TBD	TBD
T1/RF/SIG/EMC	6-8 Mar 2000	TBD (TNC: R&S in Munich)	TBD
TSG T1#6	9-10 Mar 2000	TBD (TNC: R&S in Munich)	TBD
T1/RF/SIG/EMC	29-31 May 2000	TBD	TBD
T1#7	1–2 Jun 2000	TBD	TBD
T1/RF/SIG/EMC	18-20 Sep 2000	TBD	TBD
T1#8	21-22 Sep 2000	TBD	TBD
T1/RF/SIG/EMC	4-6 Dec 2000	TBD	TBD
T1#9	7-8 Dec 2000	TBD	TBD
NOTE 1: T1 and its SWGs meet the week between RAN4 and TSG-T.			
NOTE 2: SWGs should meet at least once in-between each T1/SWG meeting.			
NOTE 3: As date/location/host may change the on-line 3GPP meeting calendar should be consulted at: http://www.etsi.org/MeetingsCalendar/ViewMeetings.asp			

7 WG T2 Mobile Terminal Services and Capability

Kevin HOLLEY (BT), T2 Chairman, and Friedhelm RODERMUND (ETSI MCC), T2 Secretary, presented the "Progress report from WG T2" (TP-99173/4).

TP-99173	T2 Progress Report	T2 secretary
TP-99174	T2 Progress Report (slides)	T2 chairman
TP-99175	T2 work program (status after T2#5 Helsinki and T2#6 Kypngju)	MCC
TP-99158	T2 work program BEFORE meeting T#5, October 1999 and expected deliverables	T Secretary

7.1 SWG1 Execution Environment

SWG1 Execution Environment (Chairman: Mark CATALDO, Motorola) develops specifications for a terminal execution environment using wireless, fixed, and cordless access.

After the approval of MExE R99 stage 1 at SMG#29, SWG1 commenced to incorporate the R99 requirements into MExE R99 stage 2 (3G TS 23.057). The R99 requirements are SIM MexE certificate management, security clarifications and QoS aspects.

T 2/ SWG1 Execution Environment (Chairman: Mark CATALDO, Motorola)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.057	Mobile Station Application Execution Environment (MExE); Functional description; Stage 2	v1.5.0	12-1999	Mark CATALDO

The current status is v1.5.0 and T2 expects the deadline of December '99 for inclusion in R99 to be met.

7.2 SWG2 Terminal Interfaces

SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson) develops specifications relating to external interfaces to terminals, and for the development of AT commands and alternatives to AT commands.

7.2.1 Physical connector of the terminal

TP-99181	3G TR 27.901 v1.0.0 "Report on Terminal Interfaces - An Overview" for information	T2

The conclusion of T2 on the physical connector of the terminal can be found in TR 27.901 v1.0.0 "Report on Terminal Interfaces", which was presented to TSG-T for information. T2 concluded that 3GPP should not produce any technical specification for terminal interfaces other than the radio interface and the USIM interface. The SDOs could develop

their own optional physical connector specification based on their market requirements. T endorsed the conclusion of T2.

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 27.901	Report on Terminal Interfaces - An Overview	V1.2.0	12-1999	

The deadline of December '99 for inclusion in R99 is expected to be met.

7.2.2 Synchronisation and Object exchange

TP-99180	3G TR 27.903 v1.0.0 "Discussion of Synchronisation Standards" for approval	T2
TP-99191	3G TS 27.103 v1.0.0 "Wide Area Network Synchronisation" for approval	T2

On the topic synchronisation and object exchange substantial progress has been made. TR 27.903 "Discussion of Synchronisation Standards" (TP-99180) and TS 27.103 "Wide Area Network Synchronisation" (TP-99191) were submitted as v1.0.0 and approved by TSG-T for upgrade to v3.0.0.

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 27.903	Discussion of Synchronisation Standards	V3.0.0		
TS 27.103	Wide Area Network Synchronisation	V3.0.0		

The deadline for inclusion in R99 has been met at T#5.

There were comments from the floor that it is not normal practice in 3GPP to approve a specification at the first time it is presented. Normally reports and specifications are first viewed for information and then later are approved. It was agreed that TSG-T would make an exception in this case. However, there were requests from the floor that for each document submitted for information or approval to have a cover sheet (template) stating what the specification is for (purpose), when it is expected to be finalised, what are the open issues, and what is the status of the open issues. This was approved by TSG-T. This needs to be highlighted to SA.

7.2.3 Use of DTE-DCE interface for SMS and CBS

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 27.005	Use of Data Terminal Equipment – Data Circuit terminating; Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)	V3.0.0		Friedhelm RODERMUND

The deadline for inclusion in R99 was met at T#4 in Miami.

7.2.4 AT commands

TP-99176	2G Change Requests for approval	T2
TP-99177	3G Change Requests for approval	T2

TSG-T approved several 2G and 3G Change Requests for inclusion of new AT commands into TS 27.007.

2G Change Requests

TDOCC	SPEC	CR	R	PH	SUBJECT	CAT	VERS	NEW_V
T299820	07.07	A08		R97	AT command – Request GPRS service 'D'	F	6.3.0	6.4.0
T299821	07.07	A08		R98	AT command – Request GPRS service 'D'	A	7.3.0	7.4.0

3G Change Requests

TDOCC	SPEC	CR	R	3	SUBJECT	CAT	VERS	NEW
T2-99661	27.007	006			ECSD AT command correction	D	3.1.0	3.2.0
T2-99670	27.007	007			Alarm functionality	B	3.1.0	3.2.0
T2-99671	27.007	008			Phonebook storage	B	3.1.0	3.2.0

T2-99672	27.007	009		Time Zone	B	3.1.0	3.2.0
T2-99673	27.007	010		Additional result code for +CSSN	B	3.1.0	3.2.0
T2-99674	27.007	011		New command for setting of Date format	B	3.1.0	3.2.0
T2-99675	27.007	012		New command for Silent mode	B	3.1.0	3.2.0
T2-99676	27.007	013		New command for setting of Time format	B	3.1.0	3.2.0
T2-99763	27.007	014		GSM 400 Spectrum update	B	3.1.0	3.2.0
T2-99822	27.007	015		AT command – Request GPRS service 'D'	A	3.1.0	3.2.0

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)					
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**	
TS 27.007	AT command set for 3GPP User Equipment (UE)	V3.2.0		Friedhelm RODERMUND	

The current status is v3.2.0 and the deadline for inclusion in R99 was met at T#4 in Miami.

7.2.5　Alternatives to AT commands

Work Package	MI/TSGT-02TI_AAT_U	Terminal interfaces (Alternatives to AT commands)

For the second consecutive time no contributions were received on the "Alternatives to AT commands".

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
DTS/TSGT-02TI_AAT_U	Alternatives to AT commands	???????	12-1999	Lars NOVAK

The deadline of December '99 for inclusion in R99 cannot be met.

7.2.6　TE-MS multiplexer protocol

TP-99176	2G Change Requests for approval	T2
TP-99177	3G Change Requests for approval	T2

TSG-T approved several 2G and 3G Change Requests for inclusion into TS 27.010.

2G Change Requests

TDOCC	SPEC	CR	R	PH	SUBJECT	CAT	VERS	NEW_V
T299662	07.10	A02		R97	Clarification of CR bit	F	6.3.0	6.4.0
T299663	07.10	A02		R98	Clarification of CR bit	A	7.0.0	7.1.0
T299665	07.10	A02		R97	Correction of the bits in the start and close flags of	F	6.3.0	6.4.0
T299666	07.10	A02		R98	Correction of the bits in the start and close flags of	A	7.0.0	7.1.0
T299668	07.10	A02		R97	Correction of value octets in RPN command	F	6.3.0	6.4.0

3G Change Requests

TDOCC	SPEC	CR	R	3	SUBJECT	CAT	VERS	NEW
T2-99664	27.010	003			Clarification of CR bit	A	3.1.0	3.2.0
T2-99667	27.010	004			Correction of the bits in the start and close flags of the frame in	A	3.1.0	3.2.0

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)					
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**	
TS 27.010	Terminal Equipment to Mobile Station (TE-MS) multiplexer protocol	V3.2.0		Friedhelm RODERMUND	

The current status is v3.2.0 and the deadline for inclusion in R99 was met at T#4 in Miami.

7.3   SWG3 Messaging

SWG3 Messaging (new Chairman: Ian HARRIS from Vodafone) defines UMTS-specific messaging applications to allow non-real time multimedia messaging, a Short Message Service, and Cell Broadcast Services. After the resignation of SWG3 chairman Arthur GIDLOW (One2One), Ian HARRIS (Vodafone) was appointed as the new SWG3 chairman.

7.3.1   Multimedia Messaging Service (MMS)

S1 agreed to send the stage 1 for the Multimedia Messaging Service (MMS) 3G TS 22.140, which was created by T2 for information to TSG-SA. T2 commenced the work on the MMS stage 2. The group is making significant efforts to finalise this document within 1999. However, there is a risk that this schedule can not be met.

Work Package	MI/TSGT-02MMS_U	Multimedia Messaging Service (MMS) stage 1, 2/3
Work Task 1	TS 22.140	MMS stage 1 (v1.0.0 done by T2 for S1)
Work Task 2	TS 23.140	MMS stage 2/3 (at risk for R99)

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)					
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**	
TS 23.140	Multimedia Messaging Service; stage 2/3	0.1.0	12-1999	Gunnar SCHMIDT	

The deadline of December '99 for inclusion in R99 is at risk.

7.3.2   Cell Broadcast Service (CBS)

| TP-99179 | 3G TS 23.041 v2.0.0 "Technical realization of Cell Broadcast Service (CBS)" for approval | T2 |

3G TS 23.041 "Technical realization of Cell Broadcast Service" was presented as v2.0.0 and approved by TSG-T for upgrade to v3.0.0.

| Work Package | MI/TSGT-02SMS_CB_U | Cell Broadcast Service (CBS) |
| Work Task 1 | TS 23.041   v3.0.0 | CBS (stage 2/3) |

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)					
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**	
TS 23.041	Technical realisation of Cell Broadcast Service (CBS)	V3.0.0		Gunnar SCHMIDT	

The current status is v3.0.0 and the deadline for inclusion in R99 was met at T#5.

Kevin HOLLEY (BT) commented that the status of Cell Broadcast as a service was unclear in other groups and he believed that the work item as a whole is at risk because of uncertainty in the overall service implementation across all TSGs. This needs to be reported to SA.

7.3.3   Enhanced Cell Broadcast Service (CBS)

So far, there was only little input regarding an Enhanced Cell Broadcast Service. The deadline of December '99 for inclusion in R99 cannot be met.

7.3.4   Short Message Service (SMS); Point-to-Point (PP)

| TP-99176 | 2G Change Requests for approval | T2 |
| TP-99177 | 3G Change Requests for approval | T2 |

TSG-T approved several 2G and 3G Change Requests for inclusion into TS 23.040.

2G Change Requests

TDOCC	SPEC	CR	R	PH	SUBJECT	CAT	VERS	NEW_V
T299762	03.40	A08		R98	Change to reserved port number range for SMS	C	7.2.0	7.3.0

3G Change Requests

TDOCC	SPEC	CR	R	3	SUBJECT	CAT	VERS	NEW
T2-99761	23.040	003			Change to reserved port number range for SMS	C	3.1.0	3.2.0
T2-99902	23.040	004			New TP-PID value for delivery of ANSI-136 Short Messages	B	3.1.0	3.2.0
T2-99873	23.040	005			EI values in concatenated SM's	D	3.1.0	3.2.0

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.040	Technical realization of the Short Message Service (SMS); Point-to-Point (PP)	V3.2.0		

The current status is v3.2.0 and the deadline for inclusion in R99 was met at T#4 in Miami.

7.3.5 Alphabets and language-specific information

TP-99177	3G Change Requests for approval	T2

TSG-T approved one Change Request for inclusion into TS 23.038.

3G Change Request

TDOCC	SPEC	CR	R	3	SUBJECT	CAT	VERS	NEW
T2-99840	23.038	002			Language codes for Hebrew, Arabic and Russian	B	3.1.0	3.2.0

The current status is v3.2.0 and the deadline for inclusion in R99 was met at T#4 in Miami.

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.038	Alphabets and language-specific information	V3.2.0		Ian HARRIS

7.3.6 23.039 and 23.042 are unchanged

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.039	Interface protocols for the connection of Short Message Service Centres (SMSCs) to Short Message Entities (SMEs)	V3.0.0		Ian HARRIS
TS 23.042	Compression algorithm for text messaging services	V3.0.0		Ian HARRIS

The deadline for inclusion in R99 was met at T#4 in Miami.

7.3.7 Fax in GSM and UMTS

TP-99178	3G TR 22.945 v2.0.0 "Study on provisioning of fax in GSM and UMTS" for approval	T2

TR 22.945 "Study on provisioning of fax in GSM and UMTS" was presented as v2.0.0 and approved by TSG-T for upgrade to v3.0.0.

Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 22.945	Study on provisioning of fax in GSM and UMTS	V3.0.0		

The current status is v3.0.0 and the deadline for inclusion in R99 was met at T#5.

7.4 SWG4 Services End to End Interworking

SWG4 Services End to End Interworking has currently no chairman and no activity. It will meet on an ad hoc basis as the need arises.

T 2/ SWG4 Services End to End Interworking (No Chairman)

Reference	Title	Status	Target v3.0.0	Rapporteur

7.5   SWG5 Multi-system Terminals

SWG5 Multi-system Terminals (Chairperson: Sofi PERSSON, Telia)

The SWG's name and the TR title had been changed from "multi-mode" to "multi-system terminals"issues.

SWG5 is collecting and referring to work already done on multi-system terminals and from that identifies issues that need additional treatment to make usage of multi-system terminals efficient.

TP-99199	TR 21.910 v1.0.0 "Multi-system issues"	T2

TR 21.910 on "Multi-system issues" was presented for information. Comments from other 3GPP WGs were invited. SA should be informed on described interactions with PLMN selection. It is planned to hold a 3GPP workshop on multi-system issues.

T 2/ SWG5 Multi-mode Terminals (Chairperson: Sofi PERSSON, Telia)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 21.910	Multi-system issues	V1.0.0	12-1999	Sofi PERSSON

The deadline of December 99 for inclusion in R99 is at risk.

The need for a specification on Terminal Categorisations for UMTS is currently under discussion. No consensus was reached so far. The need for a report on network planning was discussed.

TSG-T agreed to inform SA that some of the work was looking at PLMN selection and it would be worth confirming that the ideas in T2 were in agreement with the counterpart work in S1.

T2 will propose a 3GPP workshop on multi-system terminals and invite all interested parties. This needs to be reported to SA.

Terminal Usage Mode and Maximum Output Power

At the last T2 meeting in Helsinki, it was decided to propose the creation of a TS on the relation between Terminal Usage Mode and Maximum output power of the terminal. The purpose of such a specification is to have an agreed maximum output power for e.g. hand-held terminals.

In this Kyongju T2 meeting, several companies objected to the creation of such TS and the issue was raised to the T-level. After an animated debate, Kevin HOLLEY (BT) pointed out that Power classes are defined by RAN.

Ericsson and Telia pointed out that RAN only specifies the technical (RF) parameters for the different power classes and not how the classes are used. The two companies expressed support for limiting the output power for hand-held terminals. Motorola, Nokia and Siemens were of the opinion that work on terminal power classes (output power of the terminal which is necessary for network planning) is being done in RAN, is out of the scope of TSG-T and it should be abandoned by T2. This proposal however, could not find consensus in TSG-T. A show of hands indicated 10 Yes, 8 No and 5 abstentions.

TSG-T decided to inform SA that T2 identified the need for work in 3GPP to help operators by identifying what the expected power class should be for network planning purposes, but for the time being it could not find yet a way forward.

Kevin HOLLEY, T2 Chairman and T Vice-Chairman, summarised that there was no consensus to change the status quo so that T2 will continue to discuss this work and the matter will be revisited at TSG-T#6 in December '99.

7.6   SWG6 Terminal Features and Performance

SWG6 Terminal Features and Performance (Chairman: Kazuya HASHIMOTO, NEC) covers aspects as terminal safety and environmental requirements. In addition, SWG6 works on general features, reviewing all terminal features and identifying a minimum set of features required to support a given application.

7.6.1　Specific Absorption Rate (SAR)

T 2/ SWG6 Terminal Features and Performance (Chairman: Kazuya HASHIMOTO, NEC)					
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**	
TR 34.925	Specific Absorption Rate (SAR)	v3.0.0		Sven JOHNSSON	

The deadline for inclusion in R99 was met at T#4 in Miami.

7.6.2　Electrical safety requirements and regulations

TP-99182	3G TR 34.907 v2.0.0 "Report on electrical safety requirements and regulations" for approval	T2

TR 34.907 v2.0.0 "Report on electrical safety requirements and regulations" was approved by TSG-T for upgrading to v3.0.0.

T 2/ SWG6 Terminal Features and Performance (Chairman: Kazuya HASHIMOTO, NEC)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 34.907	Report on electrical safety requirements and regulations	V3.0.0		Eiji IIMORI

The current status is v3.0.0 and the deadline for inclusion in R99 was met at T#5.

7.6.3　Terminal Capability Requirements (TCR)

TP-99192	3G TR 21.904 v1.0.0 "Terminal Capability Requirements" for information	T2
TP-99187	3G TR 21.904 v1.0.1 "Terminal Capability Requirements" (revision of TP-99192)	T
TP-99200	Proposed liaison statement on mechanisms for maintaining the Terminal Capabilities Report	T2
TP-99209	LS to all 3GPP WGs on maintenance of TR 21.904 on "Terminal Capabilities Requirements"	T

TR 21.904 v1.0.0 Terminal Capability Requirements is presented for information. A mechanism for maintaining the Terminal Capabilities Report is proposed to TSG-T for endorsement and forwarding to all working groups.

T#5 modified the titles of A.1, B.1 headings to say: "to facilitate conformance testing" TR 21.904 V1.0.1 (TP-99187). This version of the TR should be sent out by MCC (T2 Secretary) to all 3GPP WGs together with the LS in (TP-99209).

T 2/ SWG6 Terminal Features and Performance (Chairman: Kazuya HASHIMOTO, NEC)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 21.904	Terminal Capability Requirements (TCR)	V1.0.1	12-1999	Craig BISHOP

The deadline of December 99 for inclusion in R99 is at risk.

7.6.4　Terminology and Vocabulary in 3GPP

Issues on definitions used for the Mobile Station/Terminal, and on terminology and vocabulary in 3GPP are raised to TSG-T (TP-99197 and TP-99198) to find a proper way forward.

TP-99197	Definitions used for the Mobile Station/Terminal	T2
TP-99203	LS to TSG-SA, CN, RAN on "Definitions used for the Mobile Station/Terminal" (Revision of TP-99197)	T

Within 3GPP there seems to be no common view, so far, on how to define the piece of user equipment that we might call UE, terminal, MS or even TE.

- From the GSM specifications (02.17) we find that a *Mobile Station (an MS)*, consists of a SIM card in combination with a *Mobile Equipment (an ME)*.

- Further, the ME (we find by deduction from 04.02) is made up by *MT (Mobile Termination)* plus *TA (Terminal Adaptation)*, if applicable, plus *TE (Terminal Equipment)*, if applicable, i.e. ME= (MT) or (MT + TE) or (MT + TA + TE).

TSG-T endorsed the usage of the well established terms *MS* and *ME* (see the two bullets above), at the expense of the misleading term *UE* and the imprecise term *Terminal*,.TSG-T further endorses the three principles for terminology definitions proposed in the S1 report "Terminology and Vocabulary within S1", dated 28.7.99.

TSG-SA, TSG-CN and TSG-RAN were asked to support this position in order to achieve an alignment of the vocabulary in 3GPP.

TP-99198	Terminology and vocabulary in 3GPP	T2
TP-99205	LS to TSG-SA, CN, RAN on "Terminology and vocabulary in 3GPP"	T

TP-99198 discusses some proposed general guidelines for the work with terminology within 3GPP.

Concerns have been expressed for a long time for the consistency of the existing definitions, and according to TSGS#4(99)241, TSG-SA will "appoint a group to examine the definitions given in 3G vocabulary documents and create an overall vocabulary/ terminology document containing the agreed abbreviations and definitions to be used in 3GPP specifications".

Partly as a response to this, S1 has produced a report "Terminology and Vocabulary within TSG-S1: Report and Recommendations", dated 28.7.99.

At the moment it is not clear how this S1 report was treated at the last S1 meeting; possibly the discussion was postponed. Nevertheless it appears relevant to comment on the included proposed principles and the recommendations. Some reactions are already known and commented on below.

Discussion on the general guidelines

- In the S1 report three *principles* are proposed for the work:

  Principle: use English words where possible
  Principle: don't use common words as technical terms
  Principle: re-use GSM terms

- Further, in the S1 report three *categories* of *definitions* are proposed by the following recommendations:

  RECOMMENDATION 1, for terms local to a specification: If a special term is used in only one specification, it should be defined in that specification.

  RECOMMENDATION 2, for terms local to the subject domain of service requirements: A new terminology document, 22.vvv , be produced and maintained by TSG-S1, relating specifically to the 22.000 series, called eg " Vocabulary for 22.000 series Service Requirements Specifications".

  RECOMMENDATION 3, for terms used throughout 3GPP: A terminology document be produced and maintained by TSG-SA, "3GPP-VOCAB", which contains terms that have been identified as applying across the 3GPP project. The number of such terms should be as small as possible to minimise the learning burden on writers and readers.

- The motivation behind this is efficiency for the document writers and readers; they should only have to look in the "document neighbourhood" for the definitions.

- Although the intention is to achieve efficiency the conclusion seems not feasible in practice.

- Several questions arise: What is a subject domain? How many vocabularies can we expect? Five (one for each TSG plus a common one) ? Who decides and *who would be able to know* what terms that apply across 3GPP? When is this the case and when is the term "not widely [used] elsewhere" and should go into a subject domain vocabulary?

- Further, when a term is defined for the first time it surely is unique to this document. Then it is vital that the information of this is spread to enable usage in other places as well as preventing a redefinition of the same term by accident somewhere else.

- It appears that S1 has had discussions with the MCC on the matter and that it has been concluded that the proposal in its complete extent is not feasible. Possibly a proposal will come suggesting that TSG-RAN continue their vocabulary, while the other TSGs have one together.

- It does not seem motivated to have a split vocabulary for TSG-RAN, or any other group, in particular from a TSG-T point of view. The MS not only comprises all protocol layers but is also referenced in almost all other areas (except network transport).

Conclusions

TSG-T endorsed the above principles, motivated by an unambiguous and efficient usage of the vocabulary document(s):

- There should only be *one* 3GPP vocabulary common to all groups.

- All documents should reference this vocabulary.

- It is allowed to copy some of the definitions in a specific document, with the note that the common vocabulary always overrides the local.

- Also definitions unique to a document should be included in the common vocabulary. An exception can be made when the definition clearly was made not to introduce a new concept, but solely to make the text more compact or easy to write.

TSG-SA, TSG-CN and TSG-RAN were asked to support this position in order to advance the work on a 3GPP vocabulary in the most rational way.

7.6.5 Terminal Management

TP-99201	Terminal Management	T2 Chairman

The T2 chairman believes that Terminal Management (TM) is of importance to 3GPP and therefore raises what he believes to be the most important aspects in this document which is not endorsed by T2.

Introduction

Aspects on TM have recently been discussed in SA Plenary and SA5. This is not a new discussion, but has previously at great length been discussed in SMG Plenary, T3/SMG9 and T2/SMG4. As concluded in Tdoc TSGS5#4(99)106, it may be a concern of many groups.

Definition

TM (TM) is a secure mechanism that allows the network operator, with permission from the authenticated user, to remotely change settings within a terminal and obtain terminal diagnostic information.

Scope

TM allows:

- the network operator to assist the user

- terminal diagnostic information to be fed back to the network operator

- a population of unmanned terminals to be managed for a customer (user groups or machine-machine solutions)

Discussion

TM requires a mechanism to be implemented in the terminal, which is linked to remote functions in the network. This can either be implemented by defining a new protocol, or by re-using existing toolkits such as SAT and MExE. It is believed that SAT and MExE can provide everything required for TM, and that it would be against the defined S1 principles (using toolkits for new developments wherever possible) to define a new protocol. The T2 chairman has been informed that similar conclusions have already been reached by S1 on TM.

It is therefore suggested that requirements for TM be handled as part of the MExE and SAT work items.

Conclusion

TSG-T agreed that the above represents an appropriate starting point for the definition and scope for TM, endorsed the principle that the mechanisms SAT and MExE are suitable and sufficient, and agreed that it is appropriate for TSG-T to be responsible for TM. This needs to be confirmed by SA.

7.7 TSG-T2 Meeting Calendar

Meeting	Date	Location	Host
T2 SWG3 MMS ad hoc	9-10 Nov 1999	UK	Motorola
T2#7/SMG4	22-26 Nov 1999	Ystad, Sweden	Ericsson
T2 SWG1	Dec 1999		
T2#8/SMG4	24-28 Jan 2000	US	T1P1
T2#9/SMG4	15-19 May 2000	Netherlands	CMG
T2#10/SMG4	28 Aug - 01 Sep 2000	Ireland	Logica
T2#11/SMG4	20-24 Nov 2000		

8 WG T3 USIM

Klaus VEDDER (Giesecke & Devrient), T3 Chairman, and Michael SANDERS (ETSI MCC), T3 Secretary, presented the progress of WG T3 (TP-99183). The new T3 Work Items are given in (TP-99184/210).

TP-99183	T3 Status Report presentation (slides)	T3
TP-99159	T3 work program BEFORE meeting T#5, October 1999 and expected deliverables	T Secretary

8.1 Review of open issues

8.1.1 Phonebook / Abbreviated Dialling Number (ADN)

The decision on the different proposals evaluated has been taken at T3#8 meeting in Bonn.

8.1.2 Allocation of Application Identifiers (AIDs)

The AIDs issue has been resolved:

- ETSI Secretariat applied for an RID on behalf of 3GPP (see TP-99184)
- A new WI on AID was submitted to this T#5 meeting for approval (see TP-99184)

8.1.3 Application selection, PIN-handling and logical channels

The specification of the application selection has not yet been completed:

- Special emphasis is required for multi-application UICCs.
- Two different selection methods are under consideration.
- Decision should be taken by T3#10 in November 1999.

8.1.4 Security and network parameters

- Some security and network parameters still need to be clarified;

- Liaison Statements to S3 and R2 were agreed by T3.

8.2 Transfer of Other GSM Specifications

SMG9 #19, Munich, 20 to 23 September 1999 agreed to transfer the following specifications to T3 after completion of its work on GSM Release 99 following its next meeting in February 2000:
- GSM 02.19 SIM Application Programming Interface (API) - stage 1
- GSM 03.19 SIM Application Programming Interface (API) - stage 2 - (Java^{TM})
- GSM 11.17 SIM conformance test specification
- GSM 11.XX Administration commands

NOTE: GSM 11.11, GSM 11.12 and GSM 11.18 will not be transferred as they are covered by 3G 31.101 and 3G 31.102 (the GSM specifications will be modelled according to and stay in line with the 3G specifications)

8.3   Approval of Deliverables

T 3/ USIM (Chairman: Klaus VEDDER, Giesecke & Devrient)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 21.111	USIM and IC Card Requirements	v3.0.0		Günter MARINGER

The deadline for inclusion in R99 was met at T#3 in Yokohama.

TP-99185	3G TS 31.101 V 1.0.0 "UICC-Terminal Interface; Physical and Logical Characteristics"	T3
TP-99186	3G TS 31.102 V 1.0.0 "Characteristics of the USIM Application"	T3

The two deliverables were presented to TSG-T #5 for information. Note that the titles had been changed:

Deliverable	\\\\	OLD Title	NEW Title
TS 31.101		UICC physical and logical characteristics	UICC-Terminal Interface; Physical and Logical Characteristics
TS 31.102		USIM characteristics	Characteristics of the USIM Application

T 3/ USIM (Chairman: Klaus VEDDER, Giesecke & Devrient)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 31.101	UICC-Terminal Interface; Physical and Logical Characteristics	V1.0.0	12-1999	Peter VESTERGAARD Rune LINDHOLM
TS 31.102	Characteristics of the USIM Application	V1.0.0	12-1999	Makoto.KOBAYASHI Christian HEIM

T3 is confident that the deadline of December 99 for inclusion in R99 will be met.

8.4 Approval of new Work Items

TP-99184	New T3 Work Items (4)	T3
TP-99210	New Work Item USIM/UICC Database (1)	T3

WI #	T3 Doc	Title	Release	Target v3.0.0 approval
1	T3-99319	UICC Application Identifiers	R99	December 1999
2	T3-99320	Terminal tests for the UICC Interface	based on R99 core spec	June 2000
3	T3-99321	UICC Test Specification	based on R99 core spec	June 2000
4	T3-99328	USIM Application Toolkit (USAT)	R99	March 2000
5	T3-99262	UICC/USIM Database	R00	September 2000

Work Item 1: "UICC Application Identifiers"

It will be modelled after an existing ETSI guide EG 201 220. This concept was endorsed by PCG.

This work item creates a specification for the definition and administration of application identifiers for the UICC. An application Identifier consists of a RID (Registered application provider IDentifier) and a PIX (Proprietary Identifier eXtension). As endorsed by the PCG, the 3GPP has applied to ISO for an RID. The new specification will describe the coding of the PIX as well as the registration procedure in accordance with ISO/IEC 7816-5.

- Target TSG approval of v3.0.0 is 12/1999 (for information as v1,0,0 to TSG-T by e-mail in November 99

- Rapporteur: Christian Dietrich and Jean-Marc Gambin, both Schlumberger

- Supporting companies: Gemplus, Giesecke & Devrient (G&D), NTT DoCoMo, Schlumberger, Sonera.

Work Item 2:   Terminal tests for the UICC Interface

This work item creates a terminal test specification for the interface between the UICC and the terminal. It will be based on the tests currently contained in GSM 11.10-1 clause 27.

- Target TSG approval of v3.0.0 is 06/2000

- Rapporteur to be provided by Orga (subject to confirmation)

- Supporting companies: Aspects Software, Ericsson, G&D, Nokia, NTT DoCoMo, Orga, Schlumberger

The above time scales are dependent on the provision of funding for a project team to write this specification as requested by TSG-T to PCG in SP-99277.

- 3GPP member companies are asked to provide experts for the proposed project team.

Work Item 3:   UICC Test Specification

This work item creates a test specification for the UICC. It will be based on tests currently contained in GSM 11.17.

- Target TSG approval of v3.0.0 is 06/2000

- Rapporteur to be provided by Aspects Software (subject to confirmation)

- Supporting companies: Aspects Software, Ericsson, Gemplus, G&D, Nokia, NTT DoCoMo, Orga, Schlumberger.

The above time scales are dependent on the provision of funding for a project team to write this specification as requested by TSG-T to PCG in SP-99277.

- 3GPP member companies are asked to provide experts for the proposed project team.

Work Item 4:   USIM Application Toolkit (USAT)

This specification for an application execution environment for the 3G UICC and its interface to the 3G terminal, based on GSM 11.14 (SIM Application Toolkit).

The TS defines requirements of the USIM and the interface to the 3G Terminal in relation to the USIM Application Toolkit. These are derived from the service and security requirements defined in TS 22.100 and 22.101. It defines commands and procedures in both the USIM and 3G Terminal for using the USIM Application Toolkit.

Major issues for first release are:

- alignment of 3G document with new structure of "core" standards
- completion of outstanding SMG9 Release 99 issues
- rationalisation of specification
- document not yet transferred to 3GPP

- Target TSG approval of v3.0.0 is 03/2000, consequently it will not meet the December '99 deadline.

- Rapporteur: Kristian WOODSEND, Aspects Software (kristian@aspects.demon.co.uk)

- Supporting companies: NTT DoCoMo, De La Rue, Vodafone, Mitsubishi Electric, Giesecke & Devrient (G&D), Gemplus.

Work Item 5:   UICC/USIM Database management

There is a requirement for operators to be able to use secure and complex data structures in the UICC/USIM, which may be updated over the air. This leads to the need for new functionality in the UICC/USIM to allow the storage and manipulation of complex data in the card in a more efficient way by means of a database. The work item will address the use of databases for this purpose and specify issues such as access policy, memory recovery requirements and processes, synchronisation processes (in conjunction with TSG-T2) as well as the relationship between performance and structure. This work item proposes the updating of 31.101 and 31.102 with the following scope of work:

- Specification of access policy;
- Specification of internal interface for UICC applications;
- Specification of external interface (considering the use with both handset core software and MExE, but not including the definition of MExE commands);
- Specification of memory recovery requirements and processes;
- Specification of parameters and operations for data views manipulation;
- Investigation of over the air compatibility for downloading;
- Specification of synchronisation processes; (in conjunction with TSG-T2)
- Investigation into compression techniques;
- relationship between performance and structure of database;
- test scenarios.

Additionally, as part of the scope, the use of database management for an evolution of the 3G phonebook feature should be investigated.

Service aspects: CRs will be proposed to S1 to include the service requirements for the feature in 22.100 / 22.101 as appropriate.

- Security Requirements from TSG-SA WG3 shall be taken into account.
- Target TSG approval of v3.0.0 is 09/Rapporteur: Bruno BASQUIN, Gemplus
- Supporting companies: Vodafone, Gemplus, Siemens, Schlumberger, NTT DoCoMo
- Secondary responsibility: T2 (Terminal capabilities), S1 (Services), S3 (Security)

8.5 TSG-T3 Meeting Calendar

Meeting	Date	Location	Host
TSG-T3#10	02 - 05 November 1999	Austin, Texas, USA	Schlumberger
TSG-T3#3 editing meeting	08 - 10 December 1999	Sophia Antipolis, FR	ETSI
TSG-T3 #11	06 - 07 December 1999	Sophia Antipolis, FR	ETSI
TSG-T3#12 / SMG9#20	18-21 January 2000	Rome	TIM
TSG-T3 #13	February/March 2000	Tokyo	Japan Telecom
TSG-T3#14 / SMG9#21	May 2000	Gotland, Sweden	Across, Telenor, Telia
NOTE: As date/location/host may change the on-line 3GPP meeting calendar should be consulted at: http://www.etsi.org/MeetingsCalendar/ViewMeetings.asp			

9 TSG-T Work Plan/ Co-ordination with TSG-SA

The status at TSG#5 of TSG-T deliverables identified as belonging to Release 1999 (R99) for delivery in December 1999 (12 Oct '99) can be found in the annexes A and B.

10 Liaison Statements to other TSGs

TP-99203	LS to TSG-SA, CN, RAN on "Definitions used for the Mobile Station/Terminal"	T
TP-99205	LS to TSG-SA, CN, RAN on "Terminology and vocabulary in 3GPP"	T
TP-99212	LS to TSG-SA on the distribution of a proposal for prioritization of the elaboration of conformance test cases for 3G terminals. – Will be send to TSG-SA via the e-mail reflector when the priority list has been elaborated.	T
TP-99219	LS to TSG-SA on how to handle approval of MS Conformance Test Specifications coupled to a certain 3GPP release	T
TP-99222	LS to TSG-SA on resource situation and the general strategy and status of the elaboration of test cases	T
TP-99218	LS to SA, PCG, 3GPP2 on "3GPP TSG T Position on supplement to recommendation Q 1701 from ITU T WP 3/11" (with annex from TP-99217) NOTE: 3GPP TSG-T regards the MT-USIM and CN-USIM specifications to be the responsibility of the 3GPPs, rather than of the ITU-T.	TSG T
TP-99221	LS to SA, PCG, 3GPP2 on "3GPP TSG T Position#2 on supplement to recommendation Q 1701 from ITU T WP 3/11 (with annex from TP-99220) NOTE: T2 deliverables added	TSG T

The report from TSG-T to TSG-SA#5 can be found in annex to this document (SP-99475 and SP-99476).

11 Future meeting schedule

Meeting	Date	Location	Host
TSG-T#6	13-15 December 1999	Nice / France	ETSI
TSG-T#7	13-15 March 2000	Madrid/ Spain	Telefonica
TSG-T#8	19-21 June 2000	Dusseldorf /Germany	Mannesmann
TSG-T#9	25-27 September 2000	Bangkok / Thailand (TBC)	Unisys

TSG-T#10	11-13 December 2000	??… / USA (TBC)	T1
NOTE:	As date/location/host may change the on-line 3GPP meeting calendar should be consulted at: http://www.etsi.org/MeetingsCalendar/ViewMeetings.asp		

After each and every meeting, Secretaries of 3GPP TSG/WG/SWG should send - without fail - the meeting calendar information to the 3GPP-support group Emanuelle.Wurfell@etsi.fr.

12 Any Other Business

<to be included>

13 Close of the meeting

The Chairman, Sang-Keun PARK (SAMSUNG), warmly thanked:

- TTA and especially the Korean "Electronic meeting Support Team for the excellent meeting facilities;
- TSG-T WGs for their hard work and good progress made on Release 99;
- the participants for their active contributions and suggestions and
- the Korean and MCC meeting Support Teams.

On behalf of the TSG-T participants, Kevin HOLLEY (TSG-T Vice-Chairman) expressed gratitude to the hosts and sponsoring organisations for the very good choice of meeting location / environment / facilities.

Annex A: TSG-T qualification status for R99 in December '99 (12 Oct '99)

A   Qualified for R99 in Dec '99

Reference	Title	Status	Target v3.0.0	Rapporteur
21.111	USIM and IC Card Requirements	v3.0.0		Günter MARINGER
22.945	Study on provisioning of fax in GSM and UMTS	V3.0.0		
23.038	Alphabets and language-specific information	V3.2.0		Ian HARRIS
23.039	Interface protocols for the connection of Short Message Service Centres (SMSCs) to Short Message Entities (SMEs)	V3.0.0		Ian HARRIS
23.040	Technical realization of the Short Message Service (SMS); Point-to-Point (PP)	V3.2.0		
23.041	Technical realisation of Cell Broadcast Service (CBS)	V3.0.0		Gunnar SCHMIDT
23.042	Compression algorithm for text messaging services	V3.0.0		Ian HARRIS
27.005	Use of Data Terminal Equipment – Data Circuit terminating; Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)	V3.0.0		Friedhelm RODERMUND
27.007	AT command set for 3GPP User Equipment (UE)	V3.2.0		F. RODERMUND
27.010	Terminal Equipment to Mobile Station (TE-MS) multiplexer protocol	V3.2.0		Friedhelm RODERMUND
27.103	Wide Area Network Synchronisation	V3.0.0		
27.903	Discussion of Synchronisation Standards	V3.0.0		
34.907	Report on electrical safety requirements and regulations	V3.0.0		Eiji IIMORI
34.925	Specific Absorption Rate (SAR)	v3.0.0		Sven JOHNSSON

B   Expected qualification for R99 in Dec '99

Reference	Title	Status	Target v3.0.0	Rapporteur
23.057	Mobile Station Application Execution Environment (MExE); Functional description; Stage 2	v1.5.0	12-1999	Mark CATALDO
27.901	Report on Terminal Interfaces - An Overview	V1.2.0	12-1999	
31.101	UICC-Terminal Interface; Physical and Logical Characteristics	V1.0.0	12-1999	Peter VESTERGAARD Rune LINDHOLM
31.102	Characteristics of the USIM Application	V1.0.0	12-1999	Makoto.KOBAYASHI Christian HEIM
34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)	v1.2.0	12-1999	Kenji HIGUCHI
New Work Item 1	UICC Application Identifiers		12-1999	

C   Qualification at Risk for R99 in Dec '99

Reference	Title	Status	Target v3.0.0	Rapporteur
21.904	Terminal Capability Requirements (TCR)	V1.0.1	12-1999	Craig BISHOP
21.910	Multi-system issues	V1.0.0	12-1999	Sofi PERSSON
23.140	Multimedia Messaging Service; stage 2/3	0.1.0	12-1999	Gunnar SCHMIDT

D   Impossible qualification for R99 in Dec '99

Reference	Title	Status	Target v3.0.0	Rapporteur
34.109	Terminal Logical Test Interface	V1.0.0	07-2000	Leif MATTISSON
34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)	V0.1.0	12-2000	Thomas MAUCKSCH
34.123-1	Mobile Station (MS) protocol conformance specification; Part 1: Protocol conformance specification	V0.0.3	07-2000	Lidia SALMERON
34.123-2	Mobile Station (MS) Protocol/RF/EMC conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification	V0.0.1	07-2000	Shicheng HU
34.123-3	Mobile Station (MS) protocol conformance specification; Part 3: Abstract Test Suites (ATS)	V0.0.0	03-2001	Shicheng HU

34.124	Electro-Magnetic Compatibility (EMC) for terminal equipment	V1.0.0	03-2000	Ole SOERENSEN
DTS/TSGT-02TI_AAT_U	Alternatives to AT commands	????????	12-1999	Lars NOVAK
New Work Item 2	Terminal tests for the UICC Interface		06-2000	
New Work Item 3	UICC Test Specification		06-2000	
New Work Item 4	USIM Application Toolkit (USAT)		03-2000	

Annex B: TSG-T qualification status for R99 in Dec '99 (split by WG/SWG)

B.1: WG T1 Mobile Terminal Conformance Testing

T 1/RF (Chairman: Mitsuru YOKOYAMA, HP)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 34.109	Terminal Logical Test Interface	V1.0.0	07-2000	Leif MATTISSON
T 1/EMC (Chairman: John FENN, SAMSUNG)				
TR 34.124	Electro-Magnetic Compatibility (EMC) for terminal equipment	V1.0.0	03-2000	Ole SOERENSEN

Consequently they will not meet the December '99 deadline for inclusion in R99.

T 1/RF (Chairman: Mitsuru YOKOYAMA, HP)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)	V1.2.0	12-1999	Kenji HIGUCHI
TS 34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)	V0.1.0	12-2000	Thomas MAUCKSCH

TS 34.121 is on schedule for TSG-T approval in December '99 and inclusion in R99 as V3.

TS 34.122 will not meet the December '99 deadline for inclusion in R99.

T 1/Signalling (Chairman: Daniel FOX, ANRITSU)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 34.123-1	Mobile Station (MS) protocol conformance specification; Part 1: Protocol conformance specification (3G TS 34.123-1)	v0.0.3	07-2000	Lidia SALMERON
TS 34.123-2	Mobile Station (MS) Protocol/RF/EMC conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification (3G TS 34.123-2)	v0.0.1	07-2000	Shicheng HU
TS 34.123-3	Mobile Station (MS) protocol conformance specification; Part 3: Abstract Test Suites (ATS) (3G TS 34.123-3)	v0.0.0	03-2001	Shicheng HU

Consequently they will not meet the December '99 deadline for inclusion in R99.

B.2 WG T2 Mobile Terminal Services and Capability

T 2/ SWG1 Execution Environment (Chairman: Mark CATALDO, Motorola)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.057	Mobile Station Application Execution Environment (MExE); Functional description; Stage 2	v1.5.0	12-1999	Mark CATALDO

TSG-T hopes the December '99 deadline for inclusion in R99 to be met.

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 27.901	Report on Terminal Interfaces - An Overview	V1.2.0	12-1999	
TR 27.901	Report on Terminal Interfaces - An Overview	V1.2.0	???????	

The deadline of December '99 for inclusion in R99 is to be met

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 27.903	Discussion of Synchronisation Standards	V3.0.0		
TS 27.103	Wide Area Network Synchronisation	V3.0.0		

The deadline for inclusion in R99 has been met at T#5.

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 27.005	Use of Data Terminal Equipment - Data Circuit terminating; Equipment (DTE-DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)	V3.0.0		Friedhelm RODERMUND

The deadline for inclusion in R99 was met at T#4 in Miami.

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 27.007	AT command set for 3GPP User Equipment (UE)	V3.2.0		Friedhelm RODERMUND

The deadline for inclusion in R99 was met at T#4 in Miami.

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
DTS/TSGT-02TI_AAT_U	Alternatives to AT commands	???????	12-1999	Lars NOVAK

The deadline of December '99 for inclusion in R99 cannot be met.

T 2/ SWG2 Terminal Interfaces (Chairman: Lars NOVAK, Ericsson)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 27.010	Terminal Equipment to Mobile Station (TE-MS) multiplexer protocol	V3.2.0		Friedhelm RODERMUND

The deadline for inclusion in R99 was met at T#4 in Miami.

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.140	Multimedia Messaging Service; stage 2/3	0.1.0	12-1999	Gunnar SCHMIDT

The deadline of December '99 for inclusion in R99 is at risk.

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.041	Technical realisation of Cell Broadcast Service (CBS)	V3.0.0		Gunnar SCHMIDT

The deadline for inclusion in R99 was met at T#5.

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.040	Technical realization of the Short Message Service (SMS); Point-to-Point (PP)	V3.2.0		

The deadline for inclusion in R99 was met at T#4 in Miami.

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.038	Alphabets and language-specific information	V3.2.0		Ian HARRIS

The deadline for inclusion in R99 was met at T#4 in Miami.

T 2/ SWG3 Messaging (Chairman: Ian HARRIS (Vodafone)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 23.039	Interface protocols for the connection of Short Message Service Centres (SMSCs) to Short Message Entities (SMEs)	V3.0.0		Ian HARRIS
TS 23.042	Compression algorithm for text messaging services	V3.0.0		Ian HARRIS

The deadline for inclusion in R99 was met at T#4 in Miami.

Reference	Title	Status	Target v3.0.0	Rapporteur
TR 22.945	Study on provisioning of fax in GSM and UMTS	V3.0.0		

The deadline for inclusion in R99 was met at T#5.

T 2/ SWG5 Multi-mode Terminals (Chairperson: Sofi PERSSON, Telia)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 21.910	Multi-system issues	V1.0.0	12-1999	Sofi PERSSON

The deadline of December 99 for inclusion in R99 is at risk.

T 2/ SWG6 Terminal Features and Performance (Chairman: Kazuya HASHIMOTO, NEC)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 34.925	Specific Absorption Rate (SAR)	v3.0.0		Sven JOHNSSON

The deadline for inclusion in R99 was met at T#4 in Miami.

T 2/ SWG6 Terminal Features and Performance (Chairman: Kazuya HASHIMOTO, NEC)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 34.907	Report on electrical safety requirements and regulations	V3.0.0		Eiji IIMORI

The deadline for inclusion in R99 was met at T#5.

T 2/ SWG6 Terminal Features and Performance (Chairman: Kazuya HASHIMOTO, NEC)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TR 21.904	Terminal Capability Requirements (TCR)	V1.0.1	12-1999	Craig BISHOP

The deadline of December 99 for inclusion in R99 is at risk.

B.3   WG T3 USIM

T 3/ USIM (Chairman: Klaus VEDDER, Giesecke & Devrient)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 21.111	USIM and IC Card Requirements	v3.0.0		Günter MARINGER

The deadline for inclusion in R99 was met at T#3 in Yokohama.

T 3/ USIM (Chairman: Klaus VEDDER, Giesecke & Devrient)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
TS 31.101	UICC-Terminal Interface; Physical and Logical Characteristics	V1.0.0	12-1999	Peter VESTERGAARD Rune LINDHOLM
TS 31.102	Characteristics of the USIM Application	V1.0.0	12-1999	Makoto.KOBAYASHI Christian HEIM

Confident that the December 99 deadline of for inclusion in R99 will be met. NOTE: Titles changed.

T 3/ USIM (Chairman: Klaus VEDDER, Giesecke & Devrient)				
Reference	**Title**	**Status**	**Target v3.0.0**	**Rapporteur**
New Work Item 1	UICC Application Identifiers		12-1999	
New Work Item 2	Terminal tests for the UICC Interface		06-2000	
New Work Item 3	UICC Test Specification		06-2000	
New Work Item 4	USIM Application Toolkit (USAT)		03-2000	

Source:	**TSG-T**
Title:	**Terminology and vocabulary in 3GPP**
Document for:	**Discussion and endorsement**
Agenda Item:	**4.1**

3GPP TSG-T #5 *TSGT#5(99)205*
Kyongju, KOREA, 7-8 October 1999

Source:	**TSG-T**
To:	**TSG-SA, TSG-CN, TSG-RAN**
Title:	**Terminology and vocabulary in 3GPP**

Introduction

This paper discusses some proposed general guidelines for the work with terminology within 3GPP.

Concerns have been expressed for a long time for the consistency of the existing definitions, and according to TSGS#4(99)241, TSG-SA will "appoint a group to examine the definitions given in 3G vocabulary documents and create an overall vocabulary/ terminology document containing the agreed abbreviations and definitions to be used in 3GPP specifications".

Partly as a response to this, S1 has produced a report "Terminology and Vocabulary within TSG-S1: Report and Recommendations", dated 28.7.99.

At the moment of writing it is not clear how this S1 report was treated at the last S1 meeting; possibly the discussion was postponed. Nevertheless it appears relevant to comment on the included proposed principles and the recommendations. Some reactions are already known and commented on below.

Discussion on the general guidelines

In the S1 report three *principles* are proposed for the work:
Principle: use English words where possible
Principle: don't use common words as technical terms
Principle: re-use GSM terms

These principles are completely reasonable. Further, in the S1 report three *categories* of *definitions* are proposed (discussion omitted) by the following recommendations:
RECOMMENDATION 1, for terms local to a specification: If a special term is used in only one specification, it should be defined in that specification.
RECOMMENDATION 2, for terms local to the subject domain of service requirements: A new terminology document, 22.vvv , be produced and maintained by TSG-S1, relating specifically to the 22.000 series, called eg " Vocabulary for 22.000 series Service Requirements Specifications".
RECOMMENDATION 3, for terms used throughout 3GPP: A terminology document be produced and maintained by TSG-SA, "3GPP-VOCAB", which contains terms that have been identified as applying across the 3GPP project. The number of such terms should be as small as possible to minimise the learning burden on writers and readers.

The motivation behind this is efficiency for the document writers and readers; they should only have to look in the "document neighbourhood" for the definitions.

Although the intention is to achieve efficiency the conclusion seems not feasible in practice.

Several questions arise: What is a subject domain? How many vocabularies can we expect? Five (one for each TSG plus a common) ? Who decides and *who would be able to know* what terms that apply across 3GPP? When is this the case and when is the term "not widely [used] elsewhere" and should go into a subject domain vocabulary?

Further, when a term is defined for the first time it surely is unique to this document. Then it is vital that the information of this is spread to enable usage in other places as well as preventing a redefinition of the same term by accident somewhere else.

The discussion can go on for quite a while with considerations like this.

It appears that S1 (chair / vice chair ?) has had discussions with the MCC on the matter and that it has been concluded that the proposal in its complete extent is not feasible. Possibly a proposal will come suggesting that TSG-RAN continues their vocabulary, while the other TSGs have one together.

It does not seem motivated to have a split vocabulary for TSG-RAN, or any other group, in particular from a TSG-T point of view. The MS not only comprises all protocol layers but is also referenced in almost all other areas (except network transport).

Conclusions

TSG-T endorses the following principles, motivated by an unambiguous and efficient usage of the vocabulary document(s):

♦ There should only be *one* 3GPP vocabulary common to all groups.

♦ All documents should reference this vocabulary.

♦ It is allowed to copy some of the definitions in a specific document, with the note that the common vocabulary always overrides the local.

♦ Also definitions unique to a document should be included in the common vocabulary. An exception can be made when the definition clearly was made not to introduce a new concept, but solely to make the text more compact or easy to write.

TSG-SA, TSG-CN and TSG-RAN are asked to support this position in order to advance the work on a 3GPP vocabulary in the most rational way.

3GPP TSG-T #5
Kyongju, KOREA, 7-8 October 1999

TSGT#5(99)203

Source:	**TSG-T**
To:	**TSG-SA, TSG-CN, TSG-RAN**
Title:	**Definitions used for the Mobile Station/Terminal**

Introduction

Within 3GPP there seems to be no common view so far on how to define the piece of user equipment that we might call UE, terminal, MS or even TE. This paper gives in its annex an overview of the existing definitions as well as proposes a way forward.

Discussion

In S1 a report (cp. the annex) has been prepared on the terminology issue. In this report three *principles* are proposed:

Principle: use English words where possible   ....

Principle: don't use common words as technical terms

When it is necessary to introduce a specific term to express a specific technical concept, that term should be clearly identifiable as such. Combinations of two or more words achieve this, for example "home environment". Very general purpose English language words should not be used to represent specialised concepts, for example the word "number" appears far to often in other contexts to be used to denote a technical term (for example "chapter number"); in this specific case "International mobile user number" or IMUN is recommended. However it is acceptable to adopt less commonly used English language words as technical terms, for example "terminal".

Principle: re-use GSM terms

Where GSM already has an adequate term, for example PLMN, this term should be adopted by 3GPP.

The proposed *principles* seem quite reasonable, including the third that GSM definitions should be used wherever an adequate term already exists; the reason is of course to minimize the number of definitions as well as the potential misunderstandings.

Based on these principles above, the GSM definitions should be used when the 3GPP specifications need to refer to a Mobile Station / Terminal. Further, if the same terminology as in GSM is *not* used, it is ambiguous how in the specifications to denote "terminals" that can be active in more than one system.

In 3GPP a mixture of the GSM terms and new terms, some defined and some not, have been used. The group with the longest tradition of a separate vocabulary is TSG-RAN. This vocabulary, however, is in some conflict with the principles. Below the definitions are discussed based on the content of the annex.

A. From the GSM specifications (02.17) we find that a *Mobile Station (an MS)*, consists of a SIM card in combination with a *Mobile Equipment (an ME)*.

B. Further, the ME (we find by deduction from 04.02) is made up by *MT (Mobile Termination)* plus *TA (Terminal Adaptation)*, if applicable, plus *TE (Terminal Equipment)*, if applicable, i.e. ME= (MT) or (MT + TE) or (MT + TA + TE).

C. The MT can be of three different kinds: MT0, MT1 and MT2 (cf. 04.02, 27.001). An MT0 does not support external interfaces, but can very well include "complete" data terminal functions. An MT1 supports an ISDN interface, to connect to ISDN terminal equipment. Finally, an MT2 supports an interface that complies with the 07- (27-) series, and can thereby also interface to a PCMCIA card. All this implies that MT functions include for instance both FEC and ARQ error protection, flow control and rate adaptation as well as the functions that automatically would be expected, like the radio transmission termination.

D. Sometimes two abbreviations are used to make a distinction between TA= Terminal Adapt*or* and TAF= Terminal Adaptat*ion* Function.

E. A strict definition of Terminal Equipment has not been found (except by the UMTS Forum, which definition does not seem to be of relevance). Indirectly it is understood that this is equipment, for instance a PC, that interfaces to the TA or MT (depending on what is included in the MT).

F. *Terminal* has not been defined, but the S1 report has suggested a possible definition as "a device into which a UICC can be inserted and which is capable of providing access to UMTS services to users, either alone or in conjunction with a UICC". This would be how MS is defined but with different wording.

G. *UE, User Equipment*, is defined by TSG-RAN as "A Mobile Equipment with one or several UMTS Subscriber Identity Modules".

It seems that the GSM term MS has been re-invented as both Terminal and UE.

The problem with UE is that it appears to include the USIM/UICC, whereas the resembling term ME does not. This has been a source of confusion, since it has sometimes been taken to mean a "UMTS ME".

The term Terminal is, in turn, likely to be confused with Terminal Equipment, or not recognized as a precisely defined term at all.

Conclusions

TSG-T plenary endorses the usage of the well established terms *MS* and *ME* (cp. bullets A and B above), at the expense of the misleading term *UE* and the imprecise term *Terminal*,.

TSG-T further endorses the three principles for terminology definitions (underlined in the discussion section above) proposed in the S1 report "Terminology and Vocabulary within S1", dated 28.7.99.

TSG-SA, TSG-CN and TSG-RAN are asked to support this position in order to achieve an alignment of the vocabulary in 3GPP.

Annex: Overview of existing definitions

Below definitions from a number of documents are collected. The definitions of the Mobile Station/terminal, etc, reflect the complete picture in these documents, while the multi-mode definitions are only collected from some of them. The documents are:

A. GSM 01.04 v.5.0.1; Abbreviations and Acronyms

B. GSM 04.02 v.7.0.0; GSM PLMN Access Reference Configuration

C. 3G TS 27.001 v.3.0.0; General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS);

D. GSM 02.17 v.7.1.1; Subscriber Identity Modules (SIM); Functional characteristics

E. 3G 27.901 v.0.1.2; TSG-T; Report on Terminal Interfaces – An Overview

F. Terminology and Vocabulary within TSG-S1: Report and Recommendations; 28.7.99

F.1 Overview of Technical Vocabulary in 22.000 Series

F.2 Proposal for terms for use throughout 3GPP (3GPP-VOCAB). The same as TR 21.905 0.0.2; Vocabulary for 3GPP Specifications

F.3 Proposed Document: UMTS 22.vvv "Service Requirements Vocabulary for 22.000 series documents"

G. TR 25.990 V1.0.0 (1999-09); Technical Specification Group (TSG) RAN; Vocabulary

H. GSM MoU classifications: 3G Definitions, Ver. 3.0.0, 28th April 1998

H.1 Text from the body of the document

H.2 Annex 1 from G.: VOCABULARY OF TERMS (from UMTS Forum)

A. GSM 01.04 v.5.0.1; Abbreviations and Acronyms

"Terminal" is not defined in this report. The relevant abbreviations are given below.

DTE		Data Terminal Equipment
ME	-	Maintenance Entity
	-	Mobile Equipment
MS		Mobile Station
MT	-	Mobile Terminated
MT (0,1,2)	-	Mobile Termination
TA		Terminal Adaptor
TAF		Terminal Adaptation Function
TE		Terminal Equipment

B. GSM 04.02 v.7.0.0; GSM PLMN Access Reference Configuration

The text below consists of several cuts from GSM 04.02.

1. Scope

The present document describes the reference configuration for access to a GSM PLMN.

A user accesses a GSM PLMN via a number of interfaces, including the MS-BS interface. The purpose of this Technical Specification is to indicate the possible access arrangements that may be used in conjunction with the MS-BS interface.
....

1.2   Abbreviations

Abbreviations used in the present document are listed in GSM 01.04.

2.   General definitions

The following definitions 2.1-2.3 are based on those used for ISDN.

2.1   Reference Configurations

Reference Configurations are conceptual configurations useful in identifying access arrangements to a network. Two concepts are used in defining reference configurations:

reference points and functional groups.

2.2   Functional Groups

Functional Groups are sets of functions which may be needed in network access arrangements. In a particular access arrangement, specific functions in a functional group may or may not be present. Note that specific functions in a functional group may be performed in one or more pieces of equipment.

2.3   Reference Points

Reference Points are the conceptual points dividing functional groups. In a specific access arrangement, a reference point may correspond to a physical interface between pieces of equipment, or there may not be any physical interface corresponding to the reference point.

The following definition is used in the present document:

2.4   GSM Interface Points

GSM Interface Points are reference points within a GSM PLMN at which a GSM specified interface is always identified.

3   GSM Reference Configuration

The reference configuration for GSM PLMN access interfaces is shown in figure 1.

```
                              MS
        :<                                         >:
        :                                           :
        :                               MT0         :        BSS/MSC
        :                                           :
        :                                           :
        :                  TE1           MT1         :        BSS/MSC
        :                        :                   :
        :                        :                   :
     TE2           TA           :           MT1      :        BSS/MSC
        :                        :                   :
        :                        :                   :
     TE2                                 MT2         :        BSS/MSC
        :                        :                   :
        :                        :                   :
        R                        S                  Um
```

          = reference point

          [Editors note: TE1 = ISDN terminal, TE2 = V- or X-type terminal, TA = Terminal
          Adaptor, BSS = Base Station System, MSC = Mobile Switching Centre]

Figure 1: GSM PLMN Access Reference Configuration

The terminal equipment functional groups TE1, TE2 and TA are conceptually the same functional groups as those in the ISDN. The two new functional groups are:

3.1   Mobile Termination (MT)

which performs the following functions:

-    radio transmission termination;
-    radio transmission channel management;
-    terminal capabilities, including presentation of a man-machine interface to a user;
-    speech encoding/decoding;
-    error protection for all information sent across the radio path. This includes FEC (forward
     error correction) and, for signalling and user data (except for transparent data services),
     ARQ (automatic request forretransmission);
-    flow control of signalling and mapping of user signalling to/from PLMN access signalling;
-    flow control of user data (except for transparent data services) and mapping of flow control for asynchronous transparent data services;
-    rate adaptation of user data between the radio channel rate and user rates;
-    multiple terminal support;
-    mobility management.

There are three types of MT:
- MT0 includes functions belonging to the functional group MT, with support of no terminal interfaces.
- MT1 includes functions belonging to the functional group MT, and with an interface that complies with the GSM recommmended subset of the ISDN user-network interface specifications.
- MT2 includes functions belonging to the functional group MT, and with an interface that complies with the GSM 07.0x series Terminal Adaptation Function specifications. Accordingly, the interchange circuit mapping at the MT2 to TE interface shall comply with the CCITT V.24 or X.21 recmmendations; while the physical implementation shall conform either to the CCITT V.28, or V.11, or to the IrDA IrPHY, or to the PCMCIA 2.1, or to the PC-Card 3.0 electrical specification, or to later revisions.

The MT plus any TE/(TE + TA) constitutes the Mobile Station, MS.

....

4 Physical Realisation

In a GSM PLMN, the reference point Um is a GSM interface point, i.e. it is always implemented as a physical interface (according to GSM Technical Specifications in the 04 and 05 series). The reference points S and R may be optionally implemented as physical interfaces. The implementation of interfaces at these reference points is according to Technical Specifications GSM 07.01, 07.02 and 07.03.

Figure 2 gives examples of configurations illustrating combinations of physical interfaces at reference points R and S. The examples shown are not exhaustive, but only serve to illustrate possible implementations of the respective functional blocks.
Example (**a**) of figure 2 illustrates a fully integrated MS including data terminal functions within the mobile station equipment.
Example (**b**) of figure 2 illustrates the connection of a TE1 in accordance with Technical Specifications GSM 07.02/07.03 (and CCITT Recommendation I.420). In this example the speech service is offered via the TE1.
Example (**c**) of figure 2 illustrates the connection of a TE2 by a CCITT X or V series interface according to Technical Specifications GSM 07.02 and 07.03.
Example (**d**) of figure 2 illustrates the connection of a MT2 PCMCIA card to a TE2 by a PCMCIA 2.1 interface according to the Technical Specifications GSM 07.02 and 07.03.
Example (**e**) of figure 2 illustrates the connection of a TE2 by means of an ISDN TA to the MT equipment.
Example (**f**) of figure 2 illustrates the connection of a speech only MS.

```
            +--------------------+          +----------+
            |      Mobile        |          |          |
     (a)    |      Data          +-----//--| Base     |
            | Terminal [MT0]     |          | Station  |
            +--------------------+          +----------+


      +------------------+         +-------+    +----------+
      |      ISDN        |         |       |    |          |
(b)   |  speech + data   +-------//--| [MT1] +--//--| Base     |
      | workstation [TE1] |         |       |    | Station  |
      +------------------+         +-------+    +----------+


      +---------------+        +-------+    +----------+
      | X.21 and V.11 |        |       |    |          |
(c)   |     DTE       +---------//--| [MT2] +--//--| Base     |
      |    [TE2]      |        |       |    | Station  |
      +---------------+        +-------+    +----------+


      +---------------+            +-------+    +----------+
      |     V.24      |            |       |    |          |
      | and PCMCIA 2.1|            |       |    |          |
(d)   |     DTE       +-----------//-| [MT2] +-//-| Base     |
      |    [TE2]      |            |       |    | Station  |
      +---------------+            +-------+    +----------+


      +---------------+  +------+   +-------+    +----------+
      |    V- or X    |  |      |   |       |    |          |
      |               |  | ISDN |   |       |    |          |
(e)   |    DTE        +-//-|  TA  +-//-| [MT1] +-//-| Base     |
      |    [TE2]      |  | [TA] |   |       |    | Station  |
      +---------------+  +------+   +-------+    +----------+


            +--------------------+          +----------+
            |   Speech-only MS   |          |          |
(f)         |                    +-----//--| Base     |
            |        [MT0]       |          | Station  |
            +--------------------+          +----------+
```
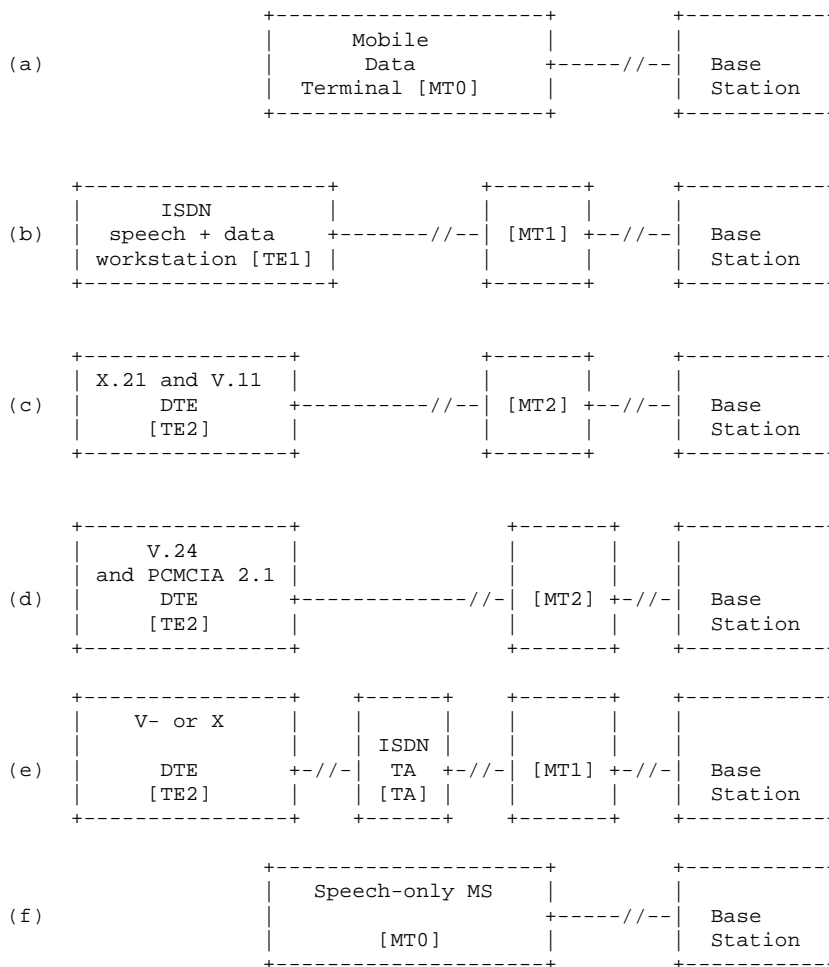
Figure 2: Examples of physical implementations

C. 3G TS 27.001 v.3.0.0; General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS);

The text below consists of excerpts from 3G 27.001 v.3.0.0.

1   Scope

This TS is based on the principles of terminal adaptor functions presented in the CCITT I-series of recommendations (I.460 - I.463).
The GSM PLMN supports a wide range of voice and non-voice services in the same network. In order to enable non-voice traffic in the GSM PLMN there is a need to connect various kinds of terminal equipments to the Mobile Termination (MT). The target of this ETS is to outline the functions needed for the terminal adaptation.
In the GSM 02.02 (ETS 300 904) the bearer services are described. The general network configuration is described in GSM 03.02 and the GSM PLMN access reference configuration is defined in GSM 04.02. The various connection types used in the GSM PLMN are presented in GSM 03.10. Terminology used in this ETS is presented in GSM 01.04 (ETR 350). For support of data services between GSM PLMN and other networks see GSM 09-series of Specifications.
....

4   Access reference configuration

Figure 1 presents the reference configuration for access to a GSM PLMN (**see GSM 04.02**).
....
Within the scope of this ETS the Mobile Termination MT0 means a fully integrated MS including data terminal and its adaptation functions. MT1 includes ISDN terminal adaptation functions and MT2 includes CCITT V- or X-series terminal adaptation functions among other MT functions.

5   Functions to support data services

The main functions of the MT to support data services are:

- functions to ensure conformity of terminal service requests to network capability;
- physical connection of the reference points R and S;
- flow control of signalling and mapping of user signalling to/from GSM PLMN access signalling;
- rate adaptation of user data (see GSM 04.21);
- flow control of non-transparent user data and mapping of flow control for asynchronous data services;
- support of data integrity between the MS and the interworking function in the GSM PLMN;
- end-to-end synchronization between terminals;
- filtering of status information;
- functions to support non-transparent bearer services e.g. termination of the Radio Link Protocol (RLP) and the Layer 2 Relay function (L2R) including optional data compression function (where applicable);
- terminal compatibility checking;
- optional support of local test loops.

In addition, functions to support autocalling and autoanswering are optionally specified in accordance with CCITT Rec. V.25 bis or with ITU-T Reccomendation. V.25 ter (although the use of other autocalling/auto-answering procedures are not prohibited provided that mapping in a functionally equivalent way to GSM 04.08 call control is also provided).
Other functional entities can be envisaged apart from the TAF. One of the physical interface to all these functions is the DTE/DCE interface to the MT. Normally, this DTE/DCE interface is associated with the TAF, if available. Therefore the access to any of these other functional entities, if implemented, via the DCE/DTE interface must be triggered by appropriate command sequences which are described in the applicable specifications (although the use of other procedures is not prohibited provided that mapping in a functionally equivalent way is also provided). These command sequences can be issued by the DTE only when the MT is in the appropriate command status and there is no data connection pending. They are interpreted by an MT internal control function and result in an association of the DTE/DCE interface with the addressed function, if available.
....

D. GSM 02.17 v.7.1.1; Subscriber Identity Modules (SIM); Functional characteristics

The text below is a cut from 02.17.

The SIM is the entity that contains the identity of the subscriber. When placed in a Mobile Equipment (ME), together they become a Mobile Station (MS) which may then register onto a GSM network.

E. 3G 27.901 v.0.1.2; TSG-T; Report on Terminal Interfaces – An Overview

The text below is taken from the TSG-T report, that is agreed in principle at the day of writing this paper.

4.1.1 The 3GPP terminal model

The area of external and internal interfaces for 3GPP MEs have been studied and Figure 1 shows the model that has been used. The external interface, other than the radio and USIM interfaces, is the TE-ME interface. An example of an internal interface is the TA-MT interface, as illustrated.
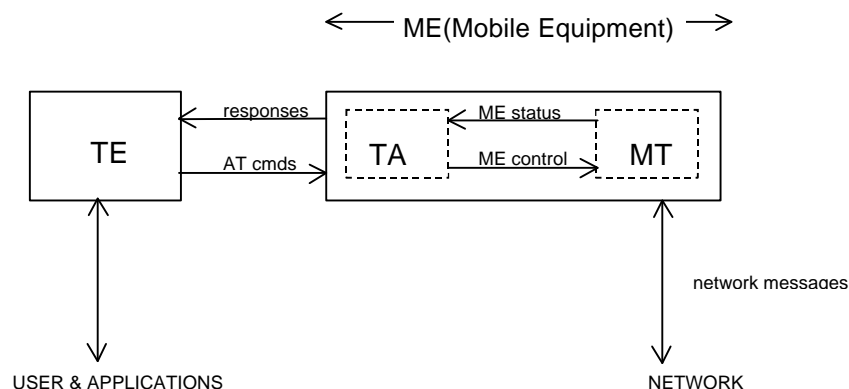
Figure 1: The 3GPP terminal model.

F. Terminology and Vocabulary within TSG-S1: Report and Recommendations; 28.7.99

The quotations given here are cuts from different sections of relevance in this report.

F.1 Overview of Technical Vocabulary in 22.000 Series

This is an excerpt from a table in this chapter, including proposed S1 actions.

Mobile termination : the mobile termination is the component of the mobile station which supports functions specific to management of the radio interface (Um).	22.105	Defined, used in this sense 22.105. No action.
Terminal	Not defined	This is widely used but not defined. Action: define in 3GPP-VOCAB.
UMTS mobile termination : part of the UMTS Mobile Station which provides functions specific to the management of the radio interface (Um).	22.100	This conflicts with 'terminal'. Action: delete this definition, replace with UMTS terminal.
User Equipment (UE):		Not defined. Sometimes used, synonymous with 'terminal'. Action: replace all uses with 'terminal'

F.2 Proposal for terms for use throughout 3GPP (3GPP-VOCAB). The same as TR 21.905 0.0.2; Vocabulary for 3GPP Specifications

This is the only term of relevance to this input paper that was proposed in the S1 report for a 3GPP global vocabulary and subsequently adopted in 21.905:

terminal: a device into which a UICC can be inserted and which is capable of providing access to UMTS services to users, either alone or in conjunction with a UICC.

F.3 Proposed Document: UMTS 22.vvv "Service Requirements Vocabulary for 22.000 series documents"

No relevant definitions are included in this S1 proposed document.

G. TR 25.990 V1.0.0 (1999-09); Technical Specification Group (TSG) RAN; Vocabulary

Nothing on Terminal, TE, TA or Mobile Equipment is defined in this report. The following can be found:

Adaptive terminal: An "adaptive terminal" is terminal equipment with the capability of adapting to more than one type or variation of network.

Mobile Station: A "Mobile Station" (MS) is an entity capable of accessing a set of UMTS services via one or more radio interfaces. This entity may be stationary or in motion within the UMTS service area while accessing the UMTS services, and may simultaneously serve one or more users. A user of a Mobile Station may also have several simultaneous connections with the network. (Editors Note: This is not clear.)

Mobile Termination: The "Mobile Termination" (MT) is the part of the Mobile Station which terminates the radio path at the mobile side and adapts the capabilities of the radio path to the capabilities of the terminal equipment. (Editors note: Is this terms used ??)

User Equipment: A Mobile Equipment with one or several UMTS Subscriber Identity Modules(s).

ME	Mobile Equipment
MS	Mobile Station
MT	Mobile Terminated
UE	User Equipment
UE_R	User Equipment with ODMA relay operation enabled

H. GSM MoU classifications: 3G Definitions, Ver. 3.0.0, 28th April 1998

H.1 Text from the body of the document

This text is copied from the 3GIG defintions.

Mobile Terminal For the purpose of these series of documents this term includes both the radio communication equipment, specific service equipment (e.g., telephone (handset) fax machine) and user identity module (UIM). Several types of terminal equipment (e.g., ISDN TE) may be connected to a mobile terminal.
Note: Further study is required to align the terminology within IMT 2000.

H.2 Annex 1 from G.: VOCABULARY OF TERMS (from UMTS Forum)

"These are not 3GIG definitions, but parts of this annex may come into TG08 after discussions."

Adaptive terminal Terminal equipment with the capability of adapting to more than one type of network.
NOTE   Adapting to different networks could be accomplished by using a combination of techniques such as analogue-to-digital/digital-to-analogue conversion, multiband antennas and/or software radio architectures.

Mobile station (MS) A station in the mobile service intended to be used while in motion or during halts at unspecified points.

Multi-mode terminal Terminal equipment with the capability of accessing services using different radio interfaces and/or techniques.

Terminal The equipment which interfaces the end user with a network.

Terminal equipment A device or functionality which provides the capabilities for user applications, e.g. telephony, including the user interface.

Technical Specification Group Services and System Aspects
Meeting #5, Kyongju, Korea, 11-13 October 1999

TSGS#5(99)458

Source:	**TSG-T**
Title:	**Liaison statement to TSG-SA on the distribution of a proposal for prioritisation of the elaboration of conformance test cases for 3G terminals**
Document for:	**Action**
Agenda Item:	**4.1**

3GPP
TSG-T meeting #5
Kyongju, Korea, 7- 8 October 1999

Document TSGT#5(99212
Page 1 of 1

An initial list of potential conformance test requirements has been elaborated by T1. These test cases will be described first in prose and later in TTCN.

Each conformance test requirement has been assigned an implementation priority.

To accelerate the regional regulatory approvals, conformance test requirements foreseen to be part of a regional regulatory approval have been assigned priority 1. The rest of our identified test requirements have been assigned priority 2.

T1 wants to confirm the correctness of the list and the priorities.

If the assignment of priorities does not correspond to the expectations of one region or country, T1 would be very happy to discuss the changing of priorities or even the adding of potential new conformance test requirements. Such a proposal should, however, be justified.

When assigning priorities it should born in mind that the test cases resulting from such a test requirement should be capable of implementation on available test equipment.

SA is invited to distribute this LS to the appropriate SDOs.

Potential test requirements   Priority

3GPP
TSG-SAmeeting #5
Seoul, Korea, 11- 13 October 1999

Document
TSGSA#5(99)419
page 1 of 1

Source: **TSG-T**

To: **TSG-SA**

Title: **Liaison Statement on how to handle approval of MS Conformance Test Specifications coupled to a certain 3GPP release**

Agenda item: 4.1

Document for: **Discussion/Approval**

The document in this Liaison Statement (tp-99216) introduces a procedure for handling approval of MS Conformance Test Specifications coupled to a certain 3GPP release.

TSG-SA is asked to consider and endorse/approve this document.

Source: **Ericsson**

Title: **Revised**

Proposal on how to handle approval of MS Conformance Test Specifications coupled to a certain 3GPP release

Agenda item: **6.1**

Document for: **Discussion/Approval**

Introduction

During the development of the TSG-T1 MS Conformance Test Specifications, it has become evident that these specifications by their nature have to be finalised later than the Core Specifications they are to provide conformance tests for.

Although the work on conformance tests can start and indeed was started before the existence of any frozen versions of applicable Core Specifications, it is a necessity to allow TSG-T1 to do their work against reasonably stable Core Specifications. As a consequence, a large portion of the TSG-T1 work can not be completed and approved until significantly later than the approval of the coupled Core Specification release.

The MS Conformance Test Specifications are tightly coupled to a certain release and it is generally recognised that these specifications must be available as early as ever possible to allow conformant terminals to be developed and introduced in time for a successful launch of 3GPP based systems.

On the issue of Release '99 MS Conformance Test Specifications, it is therefore our proposal that TSG-T allows the approval of these specifications to be delayed until the point in time indicated in the TSG-T1 report contained in tp-99167. The delay of the approval of these specifications must of course be minimised. TSG-T1 is therefore invited to reconfirm the approval dates previously indicated.

The definition of what is part of Release '99 MS Conformance Test Specifications is dependent on what Core Specifications that are decided to be part of Release '99. We propose that all existing MS Conformance Test Specifications covering the Core Specifications confirmed to be part of Release '99 are by definition themselves part of Release '99 and thus treated according to the proposal above.

It is further noted that at TSG-SA #4 (SP-99345) there was a discussion on the need to allow the TSG-SA5 O&M specifications to lag behind the Core Specifications. The allowed slip in time was assumed to be maximum 3 months. It is proposed that this maximum time slip be extended for the Release '99 MS Conformance Test Specifications as indicated in tp-99167. Such a slip in time would also be in line with what has previously been accepted for the corresponding GSM specifications.

A further observation is that the above discussion possibly is valid also for other 3GPP Conformance Test Specifications. We therefore also propose that TSG-T informs TSG-

SA and TSG_RAN and invites them to carry out a similar review of any Conformance Test Specifications under their responsibility.

The discussion above outlines a principle that we propose should be adopted as a general rule for the development and approval of Conformance Test Specifications also for subsequent 3GPP releases.

As this paper also clearly is a work programme management issue, a concluding proposal is to ask TSG-SA to endorse/approve this paper.

Proposal

We propose:

-   That TSG-T provisionally allows, subject to confirmation by TSG-SA, the approval of the Release '99 MS Conformance Test Specifications to be delayed until the point in time indicated in the TSG-T1 report contained in tp-99167.

-   That TSG-T1 is asked to reconfirm the approval dates indicated in tp-99167.

-   That all existing MS Conformance Test Specifications covering the Core Specifications confirmed to be part of Release '99 are by definition part of Release '99.

-   That TSG-T informs TSG-SA and TSG_RAN and invites them to carry out a similar review of any Conformance Test Specifications under their responsibility.

-   That the sentiment of the above proposals should be considered as a general rule to be applicable also to subsequent releases of 3GPP Conformance Test Specifications.

-   That TSG-T asks TSG-SA to endorse and/or approve this paper as they see fit.

Source: TSG-T
Title: Liaison statement to TSG-SA on resource situation and the general
                 strategy and status of the elaboration of test cases.

Document for: Decision

T1 would like to draw the attention of SA and the SDOs to the lack of resources in T1.

T1 signalling experts elaborate the conformance test specifications for the core protocol specifications. They work as much as possible in parallel with the groups elaborating the core specifications. However, the test specifications (prose descriptions) will normally not be ready for release until some time after the release of the core specifications, The TTCN test descriptions will normally be released even later.

Current status:

At the moment, both the lack of resources and the unstable core specifications hamper the elaboration of the test cases.

Result:

Release '99 will contain no test case descriptions. Later releases will contain test case descriptions no covering all core specifications in the release (and thereby only have a limited value!).

We propose:

Each release of test case specifications should be coupled directly to a release of core specifications. E.g. release '00 of the core specifications should thus be testable by the release'00 of the test specifications.
A possible postponing of the test specification release date would make it practically possible to release test specifications, which match the core release. However, without sufficient amount of resources a timely full release of the test specifications matching a core release will not be possible.

Can sufficient resources be send to T1 meetings by the 3GPP members (now mainly driven by ETSI and ARIB members!). **Can the other 3GPP members allocate more resources?**

If not, should a part of the test specifications be implemented by a 3GPP funded project team?

Source:	**TSG-T**
Title:	**Regarding Position paper on "Supplement to Recommendation Q.1701" from ITU-T WP 3/11**
To:	**3GPP TSG-SA, 3GPP PCG, 3GPP2**
Document for:	**Information**

At the TSG-T meeting in Kyongju, under the agenda item 5.2, a liaison from ITU-T SG11 was presented (TSGT#5-99190).

The meeting agreed on a position paper stating that 3GPP TSG-T regards the MT-USIM and CN-USIM specifications to be the responsibility of the 3GPPs, rather than of the ITU-T.

Attached is the 3GPP TSG-T position paper, TSGT#5(99)217, for information.

Source:	**TSG-T**
Title:	**3GPP TSG-T Position paper on "Supplement to Recommendation Q.1701" from ITU-T WP 3/11"**

1   Position of 3GPP TSG-T

3GPP TSG-T has studied the Supplement to Recommendation Q.1701 (Framework for IMT-2000 Networks) with great interest and would like to emphasise its position with respect to the development of U(S)IM specifications.

3GPP TSG-T is the group within 3GPP responsible for and committed to the development of Terminal related specifications based on a GSM evolved Core Network with the UTRAN Access Network. This responsibility includes e.g. the specifications for the MT-U(S)IM and CN-U(S)IM interfaces for 3GPP.

The work on the USIM specifications for Release99 has been progressing during the whole year 1999 and the relevant specifications have been created. The work has taken the GSM Release98 specifications as a basis and evolved it into the current 3GPP Release99 specifications.

Since the backward compatibility to the GSM SIM interfaces and services is of vital interest to 3GPP, 3GPP TSG-T is of the firm opinion that the protocol specifications for the MT-U(S)IM and CN-U(S)IM interfaces is fundamentally the responsibility of each family member and that it is up to ITU-T to provide commonality and global roaming details between family members. This is also consistent with the situation for the MT-RAN interface as well as for the MT-CN interface.
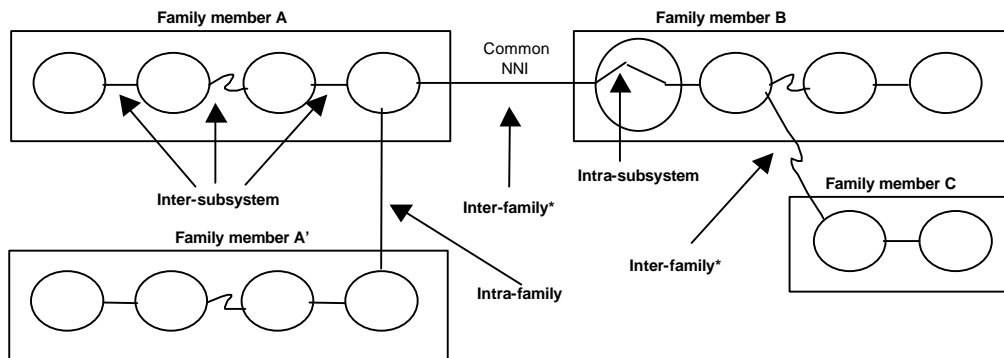
3GPP TSG-T would also like to point out that there are ongoing activities consistent with the OHG to harmonise the USIM and RUIM activities currently underway in 3GPP and 3GPP2.

In the light of the above, 3GPP TSG-T would like to state clearly that the continuation of the work on document Q.1741 (and possible subsequent development of Stage 3 Recommendations) is a duplication of the work done by 3GPP TSG-T and other 3GPP committees and that such duplication is bound to lead to incompatibilities. 3GPP TSG-T instead welcomes the members of ITU-T SG11 WP3/11 to attend the 3GPP TSG-T meetings.

2   Proposed changes to the Supplement to Recommendation Q.1701

The main changes that 3GPP TSG-T would like to see on the Supplement to Recommendation Q.1701 (Framework for IMT-2000 Networks) are indicated below.

1) The Figure 3.2/Q.1701 Supplement should be replaced by the following figure.

Family member A   Common NNI   Family member B

Inter-subsystem

Family member A'

Intra-subsystem

Inter-family*

Family member C

Intra-family

Inter-family*

* Within ITU -T Domain

2) A new table with the 3GPP Terminal specifications should be included:

7.1.3 Terminals

Specification	Title	Comment
3GPP 3G TS 21.111	USIM and IC Card Requirements	This document defines the requirements of the USIM (Universal Subscriber Identity Module) and the IC card for 3GPP (UICC). These are derived from the service and security requirements defined in 3GPP 22.100, 22.101 and 33.101. The USIM is a 3GPP application on an IC card. It interoperates with a 3GPP terminal and provides access to 3GPP services. It is intended to serve as a basis for the detailed specification of the USIM and the UICC, and the interface to the 3GPP terminal.
3GPP 3G TS 31.101	UICC - Terminal Interface; Physical and Logical Characteristics	This document specifies the interface between the UICC and the Terminal for 3GPP telecom network operation. This document specifies: - the requirements for the physical characteristics of the UICC; - the electrical interface between the UICC and the Terminal; - the initial communication establishment and the

		transport protocols; - the model which serves as a basis for the logical structure of the UICC; - the communication commands and the procedures; - the application independent files and protocols. The administrative procedures and initial card management are not part of this document.
3GPP 3G TS 31.102	Characteristics of the USIM Application	This document defines the USIM application for 3GPP telecom network operation. The document specifies: - specific command parameters; - file structures; - contents of Elementary Files; - security functions; - application protocol to be used on the interface between UICC (USIM) and terminal. This is to ensure interoperability between a USIM and a terminal independently of the respective manufacturer, card issuer or operator. This specification does not define any aspects related to the administrative management phase of the USIM. Any internal technical realisation of either the USIM or the terminal is only specified where these are reflected over the interface. This specification does not specify any of the security algorithms which may be used.

3GPP
TSG-SA meeting #5
Kyongju, Korea, 11- 13 October 1999

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Document
TSGSA#5(99)<mark>422</mark>

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Source:	**TSG-T**
Title:	**Regarding Position paper #2 on "Supplement to Recommendation Q.1701" from ITU-T WP 3/11**
To:	**3GPP TSG-SA, 3GPP PCG, 3GPP2**
Document for: Information	

At the TSG-T meeting in Kyongju the attached position paper was agreed. The position paper proposes the inclusion of TSG-T2 Technical Specifications in the ITU-T WP 3/11 document "Supplement to Recommendation Q.1701".

Attached is the 3GPP TSG-T position paper, TSGT#5(99)220, for information.

Source: **TSG-T**

Title: **3GPP TSG-T Position paper #2 on "Supplement to Recommendation Q.1701" from ITU-T WP 3/11"**

1   Position of 3GPP TSG-T

3GPP TSG-T is of the opinion that the following Technical Specifications should be included in the "Supplement to Recommendation Q.1701 (Framework for IMT-2000 Networks)". The list of specifications complement the specifications already listed in TSGT#5(99)217.

3GPP TSG-T believes that the following technical specifications should be included in a new chapter 7.1.3 Terminal, placed between the current chapter 7.1.2 Core Network and the current chapter 7.1.3 Services and System Architecture.

1.1 Specification	Title	Scope
3G TS 23.038	Alphabets & Language specific information	This TS defines the language-specific requirements for 3GPP terminals including character coding
3G TS 23.040	Technical realisation of SMS Point to Point	This TS describes the point-to-point Short Message Service (SMS) for 3GPP.
3G TS 23.041	Technical realisation of Cell Broadcast Service	This TS describes the point-to-multipoint Cell Broadcast Service (CBS) for 3GPP
3G TS 23.042	Compression algorithm for SMS	This TS describes the compression algorithm for text messaging services in 3GPP.
3G TS 23.057	Mobile Station Application Execution Environment (MExE); Functional description	This TS is the functional description of a Mobile Station Application Execution Environment
3G TS 23.140	Multimedia Messaging Functional description	This TS is the functional description of a Multimedia Messaging Service
3G TS 27.005	Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE - DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)	This TS defines three interface protocols for control of SMS functions within a GSM mobile telephone from a remote terminal via an asynchronous interface.
3G TS 27.007	AT command set for 3G User Equipment (UE)	This TS specifies a profile of AT commands and recommends that this profile be used for controlling Mobile Equipment (ME) functions and GSM network services from a Terminal Equipment (TE) through Terminal Adaptor (TA)
3G TS 27.010	Terminal Equipment to User Equipment (TE-UE) multiplexer protocol	This TS defines a multiplexing protocol between a mobile station and an external data terminal for the purposes of enabling multiple channels to be established for different purposes (e.g. simultaneous SMS and data call).
3G TS 27.103	Wide Area Network Synchronisation	This specification provides a definition of a Wide Area Synchronisation protocol. The synchronization protocol is based upon IrMC level 4.