Technical Specification Group Terminals
Meeting #6, Nice, France, 13-15 December 1999

TSGT#6(99) 274

Source: Secretary TSG-Terminals, Adrian ZOICAS (ETSI MCC)

Title: # DRAFT input from TSG-T#6 to SA (v.0.0.1)
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Content

Highlights

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).

- New Request at TSG-T#6 for funded work on "3G UE Test Description for R99" (9 MM).

Objectives for meeting TSG#6

The Chairman pointed out that the prime objectives of the TSG#6 meeting were:

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

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

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

WG T1 Mobile Terminal Conformance Testing

Bjarke NIELSEN (SONY), T1 Chairman, introduced the "Progress report from WG T1.

TP-99244	T1 Status report - **for approval**	T1	6.1
TP-99245	Minutes of T1 meeting#5 - **for information**	T1	6.1
TP-99261	TSG-T1 Release'99 submission forms - **for approval**	T1	6.3

34.108   Common test Conditions for User Equipment (UE) Conformance Testing

TP-99246	New WI - 34.108 - **for approval**	T1	6.4

Decision:	TSG-T approved the new work item TS 34.108 for Release '99 on "Common Test Environments for User Equipment (UE) Conformance Testing".

TS 34.108 will contain definitions of reference conditions and test signals, default parameters, reference Radio Bearer configurations, common requirements for test equipment and generic set-up procedures for use in UE conformance tests. Target schedules are v1 in March and v3 in June 2000.

References: [1] TS 34.123-1, [2] TS 34.121, [3] TS 34.122, [4] TS 34.124, [5] TS 34.109.

Purpose

In general, test cases for signalling [1], RF [2][3] and EMC [4] conformance require the UE to be in a well-defined state prior to executing the test sequence.

There are a large number of test cases, and a much smaller number of starting states, with many test cases starting from identical, or similar, states.

Because of the commonality between starting states and other initial and environmental parameters for executing the test cases, it is desirable to maintain these items in a single, common, specification that can be reference by test cases in [1], [2], [3] and [4].

Rapporteur: to be nominated by Anite Telecoms

Supporting Companies: ANRITSU Ltd., Ericsson, Anite Telecoms, SONY

34.109   Terminal Logical Test Interface; Special conformance testing functions

TS 34.109 specifies terminal functions required for conformance testing purposes. The actual status is v1.1.0 and the work is on schedule with v3 planned for June 2000.

34.121   Terminal Conformance Specification, Radio Transmission and Reception (FDD)

TS 34.121 (achieved v1 in Jun 99) contains the measurement procedures for transmitting characteristics, receiving characteristics and the *performance requirements* in FDD mode. At present, there is a 3 months delay compared to core specifications. Many of the RAN deliverables are undergoing substantial changes. Therefore 34.121 cannot be stabilized for another 3 months.

Decision:	TSG-T approved a 3 months delay for TS 34.121 (i.e. v3 target moves from December 99 to Mar 2000).

34.122   Terminal Conformance Specification, Radio Transmission and Reception (TDD)

TP-99247	34.122 v1.0.0 - **for information**	T1	6.3

TS 34.122 contains the measurement procedures for the transmitting characteristics, the receiving characteristics and the *performance requirements* in TDD mode. Work has been accelerated and can now be part of Release 99. The target date for v3 has been pulled forward from December to June 2000 in order for being included in Release 99. Contributions are basically submitted by one company - hence a relative high risk for meeting the target schedule. More voluntary resources are required. Version 1.0.0 was presented for information in TP-99247.

Decision:	TSG-T moved forward the target date for v3 to June 2000 in order for being included in Release 99.

Core specification for this deliverable are:

TS25.102 "UTRA (UE) Radio Transmission and Reception"
TS 25.123 "Requirements for Support of Radio Resource Management (TDD)"

Serving specifications for this deliverable are:

TS34.109 "Terminal logical test interface (FDD/TDD)"
TS 34.108 "Common Test Environment"

Peer specifications with respect to this deliverable are:

TS 34.121 "Terminal Conformance Specifications; Radio Transmission and Reception (FDD)"
TS 25.142 "Base Station Conformance Testing (TDD)"
TS 25.141 "Base Station Conformance Testing (FDD)"

Outstanding Issues:

Performance Requirements (excluding RRM issue)   March 2000
Performance Requirement (RRM issue)   June 2000 (uncertain)

Target for R99:

Transmitter Characteristics
Receiver Characteristics
Performance Requirements

Re-allocation to R00:

Confidence level for statistical measurements
Requirements for test equipment
Complete range of test points and environmental conditions required for each test (frequency range, voltage, etc.)

34.123-1 UE Conformance Specification, Part 1 – Conformance specification

TP-99248	34.123-1 v1.0.0 - **for information**	T1	6.3

TS 34.123-1 contains a prose description of the test cases. Version 1.0.0 was presented for information in TP-99248 and v3 target remains June 2000.

New Request for funded work on "3G UE Test Description for R99"

In order to accelerate the implementation of test cases, the last TSG-T meeting proposed an additional task team to support this activity (see TP-99260 revised and approved in TP-99267). The planned activities without such a team were indicated at the last TSG-T meeting in TP-99171; i.e. a "Pure 3G environment" as a minimum set for Release 99 functionality supported by T1 test cases and TTCN descriptions:

Idle mode functions
Voice call functions (incl. emergency call)
Circuit switched data (up to 64 kbit/s) + Fax
Auto-calling (restrictions)
SMS (PP & CB)

Assuming that none of the core specifications are delayed and if sufficient contributions/funding would be provided, T1 could also include the "multi-system (GSM/3G)" support and "Packet data".

TP-99260	Test case Task team project plan - **for approval**	T1	6.1
TP-99267	REVISED Test case Task team project plan - **approved**	T	6.1

TSG SA#5 asked TSG-T to make a proposal on the setting-up of a Task team to provide T1 with necessary resources for producing the UE test description in prose, and to shorten the delay between Release of 3G core specifications and the same Release of UE test specification. This Task team is in addition to the requests already made for TTCN (1014 kEuro) and SIM testing (156 kEuro).

The requested team should consist of three experts. Each expert should work for three months in the team. The total effort is estimated to 9 MM. Organisations willing to accelerate the completion of test descriptions for R99 and R00 are encouraged to send their signalling specialists as candidates for the team to work at ETSI for a certain time period. The major task is to produce test purposes and test descriptions for UE supporting Packet Data service. If time permits, the team should continue to work on the inclusion of other items into TS 34.123-1 that are part of R99 core specs, but are not currently resourced. TSG-T approved the T1 request for the intended MCC Task.

Decision:	TSG-T approved the T1 request for the Task team and its ToR (TP-99267)

Action:	TSG-T to forward the request/ ToR: - to the TSG-SA#6 for endorsement, - to PCG for the final approval and decision for funding.

As soon as PCG approves the Task IM the Task team can be immediately launched.

Terms of Reference for MCC Task IM: 3G UE Test Description for R99

1. Reasons for proposing the Task

A lack of resources for the production of test description in prose is responsible for the delays to the finalisation of the documents and resulting in late availability of test specifications on the signalling and protocol test for R99.

With the current available resources TSG T1 SIG working group is concentrating on a minimum set of test cases which allow to test UE supporting circuit-switched voice and data services for R99.

An installation of a Task team to produce the test description for packet services will extend the test coverage of R99 and ensure that the total UE test specification can reach a similar level as the functionality defined in core specifications of R99..

2. Consequences if not agreed

Should the Task team not be installed, The test coverage of R99 would be restricted to the minimum test set. The all UE packet service tests would move to R00. One year delay of the availability of these tests must be taken into consideration.

3. Detailed description

3.1   Subject title: 3G UE test description on packet services for R99

3.2   Reference Technical Body: 3GPP TSG T(1)

3.3   Other interested Technical Bodies: 3GPP TSG RAN(2), TSG CN(1), ETSI SMG(7)

3.4   Target dates for the start of work: March 2000

3.5   Target dates for the conclusion of the work: June 2000

3.6   Resources required

3.6.1   Necessary manpower

> The total resources required for the Task are 9 MM, split as follow:
>
> for drafting RLC/MAC tests for the packet services: 3 MM
>
> for drafting RRC tests for the packet services: 3 MM
>
> Migrating and drafting GMM, SM, PDCP tests: 3MM

3.6.2   Estimated costs, additional to the manpower

> Expected travels within Europe: max 6

3.6.3   Qualification required, mix of skills

Required are 3 signalling specialists whose experience in signalling and protocol testing is essential. It is expected that an ETSI PEX member will be the Task leader, and will manage the resources, give general technical co-ordination and support.

The technical areas of the Task cover the conformance test specifications for UE both at the radio access for MAC, RLC, RRC layers and for non-access L3 protocols GMM, SM. The test description being specified should cover the conformance requirements of the packet services in the relevant core specification of R99. Among these are:

> Development of MAC, RLC test description,
>
> Development of RRC test description,
>
> Migration of GMM SM
>
> Assisting the update of ICS for the packet services

Context of the tasks

3G TSG T1 SIG is developing a set of conformance test specification for CS services

TS 34.123-1: UE conformance test

TS 34.123-2: ICS pro-forma

TS 34.123-3: UE ATSs

The proposed Task team should produce a test description for UE supporting packet services. The test description is a higher level test specification which contain the test structure, test purposes and a short test specification in prose for each test case. The test description is used as basis for the further detailed TTCN specification. From its nature the test description is compact and more readable, and belong to the first part of the UE test specification.

Related activity in other bodies and necessary co-ordination of schedules

The stability of the relevant core specifications of CN1 and RAN2 will have direct impact on the progress of the Task. The test description in GSM 11.10-1 for GPRS L3 tests can be migrated.

3.10   Base documents and their availability

3G TS 24.008: Mobile radio interface layer 3 specification, Core Network Protocols - Stage 3, R99

3G TS 25.321: MAC protocol specification, R99

3G TS 25.322: RLC protocol specification, R99

3G TS 25.331: RRC protocol specification, R99

GSM 11.10-1: Mobile station conformance specification, R98

3G TS 25.323: Description of the Packet Data Convergence Protocol (PDCP), R99

3.11   Work item from the ETSI Work Programme for which the Task is required

DTS/TSGT-0134123-1U

3.12   Expected output(s)

3G TS 34.123-1: UE conformance test specification R99, Version 3.0.0: June, 2000

John FENN proposed to use resources from SMG7. FOX this is already considered in the migration work from SMG7 to 3GPP.

Gunilla BRATT asked whether multi-system issues were covered by this work. Dan FOX replied that test cases for multi-system environment were included in the proposal. Gunilla BRATT asked that this should be clearly included in the ToR as it is the case for the Packet Data service. It this case Ericsson would supports this work..

So far the 3G R99 functionality supported by TSG-T1 test cases and TTCN descriptions (minimum set) were indicated at last TSG-T meeting in document TP-99171 i.e. "Pure 3G environment":

- Idle mode functions
- Voice call functions (incl. emergency call)
- Circuit switched data (up to 64 kb/s) + Fax
- Auto-calling (restrictions)
- SMS (PP & CB)

If sufficient contributions/ funding are allocated, T1 will try to include also the Multi system (GSM/3G) support & Packet data (assuming, of course, that none of the core specifications are delayed).

34.123-2 Mobile Station (MS) Conformance Specification, Part 2 – ICS Implementation Conformance Statement

TP-99249	34.123-2 ICS v1.0.0 - **for information**	T1	6.3

TS 34.123-1 "User Equipment (UE) conformance specification. Part 2: Implementation Conformance Statement (ICS)" contains a list of capabilities which can / should be implemented in a 3G terminal. Version 1.0.0 was presented for information in TP-99249. The v3 target is June 2000.

Work will be linked to T2's list of capabilities and T1 will use the terminology proposed by T2 (mandatory/essential...).

Abstract of document:

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

The objective of TS 34.123-2 is to provide the ICS proforma for 3G User Equipment. This ICS is to be used for RF, protocol and EMC testing.

This TS directly depends on TR 21.904 that is being elaborated by TSG T WG2.

Outstanding Issues:

TSG T2 has just issued a new version of the TR 21.904 (v1.1.0). Changes included in this version will be incorporated in the next version of 34.123-2.

TSG T2 is expecting additional information from other working groups to complete the annexes on service implementation capabilities.

The applicability table must be updated with test cases included in RF, signalling and EMC specifications. This section could only be completed with this specifications are stable enough.

Contentious Issues:

The content of this specification is directly related to the content and stability of TR 21.904.

Rune LINDHOLM requested clarification on the difference between the T1 and T2 deliverables and on the need to base the T1 on the stable T2 (v3.0.0 document).

34.123-3 Mobile Station (MS) Conformance Specification, Part 3 – Abstract test suites

TP-99258	TTCN Task team project plan - for approval		T1	6.1
TP-99259	TTCN Task team ToR - for approval		T1	6.1

The TTCN Task team project/structure plan is presented in TP-99258. The start of work is delayed by 3 months due to lack of funding. The ToR of the TTCN Task team is contained in TP-99259.

The T1 Signaling SWG has been asked to provide an Abstract Test Suite in TTCN for testing conformance of 3GPP User Equipment. TP-99258 proposes an outline work-plan for assembling this test suite during year 2000. The proposal assumes that a team of TTCN experts funded by 3GPP will be in place early in 2000 to provide key parts of the test suite. It also assumes that voluntary contributions will be provided to complete the work.

Description of the schedule

Milestone	Meeting	Target date
♦ Define and agree funded team structure and scope	T1/SIG #7	10 Dec 2000
♦ Get T1/T approvals for team structure, and scope (term of reference)	T #6	13-15 Dec 2000
♦ Get agreement on uniform coding style to be used by funded team and all voluntary contributions ♦ Agree text for "call for experts"	T1/SIG #8	24-25 Jan 2000
♦ Complete migration of GSM prose from 11.10 (only items scheduled for R99)	T1/SIG #9	21-23 Feb 2000

♦ Evaluation of work involved in transferring test cases from the GSM ATS ♦ Define and agree test suite architecture		
♦ Provisionally select team	T1 #6	24-25 Feb 2000
♦ Notify selection of team to TSG-T	T#7	15-17 Mar 2000
♦ TTCN framework completed (declaration section, common test steps etc.) ♦ Plan for migration of GSM test cases agreed ♦ First drafts of L2 and RRC tests approved by T1/SIG	T1/SIG #10	29-31 May 2000
♦ TTCN 34.123-3 framework with example test cases presented to T1/T for information ♦ TS 34.123-1 approved by TSG-T (key dependency)	T#8	19-21 Jun 2000
♦ L2 and RRC tests filled, validated and approved by T1/SIG ♦ First drafts of migrated GSM test cases approved by T1/SIG	T1/SIG #11	4-6 Sep 2000
♦ Revised date for proposal of 34.123-3 to T1/T for information (version 1.0.0)	T#9	25-27 Sep 2000
♦ Migrated speech related GSM test cases and other speech related R99 test cases filled, validated and approved by T1/SIG	T1/SIG #12	20-22 Nov 2000
♦ Migrated GSM test cases and other remaining R99 test cases filled, validated and approved by T1/SIG	T1/SIG #13	Feb 2001
♦ TTCN 34.123-3 presented to T1 for approval	T1 #10	Feb 2001
♦ TTCN 34.123-3 presented to T for approval (version 3.0.0)	T #11	Mar 2001

Role of the funded team

This schedule assumes that the funded TTCN team will adopt the following roles:

- Generation of the TTCN framework, including common sections that could be used by T1/SIG members to provide voluntary contributions
- Generation of a core set of test cases, possibly including, or focussing on migration of GSM ATS
- Adaptation of voluntary contributions to ensure that they integrate with the other test cases into a single test suite

It is assumed that the team will not be capable of validating test cases, and this will be left to T1/SIG members to perform.

This schedule assumes the resource planned in T1S-99079. If more resource is available, items planned for implementation after the end of 2000 may be completed earlier.

Discussions continue between the 3GPP organisation Partners on the necessary 3GPP funding for creation of an MCC Task developing 3GPP test specifications for UE. Not all of the Partners have signalled their agreement to contribute to this work. The activities cannot proceed until funding has been agreed.

On the assumption that the Task is agreed, the financial liability will be equally split among the Organisational Partners. The total budget required for this task is 1014 kEuro. The 3G TTCN Task will be spread over 3 years so more than one third of that budget is required in year 2000. ETSI GA34 approved the ETSI MCC budget for 2000 including the ETSI contribution to the Task.

The intention is that as soon as the 3G Partners agree on the funding matters the Task IK on the 3G TTCN specification can be immediately launched. The information provided in ToR can hopefully help the 3G Partners to reach the funding agreement.

Terms of Reference For MCC Task IK producing 3GPP ATSs / PIXIT/ for UE R99

- **Resources required**

  - **Necessary manpower**

The total resources required for the Task are 35 mm, split as follow:

- for drafting of deliverables: 30 MM

- for assisting and updating of test descriptions and ICS documents: 1 MM

- for travelling and attending TSG T1 and TSG T1 SIG meetings: 2 MM

- for management, co-ordination and quality assurance: 2 MM

- ▪ **Estimated costs, additional to the manpower**

  - ▪ Expected travels within Europe: 10

  - ▪ Expected intercontinental travels: 7

- ▪ **Related activity in other bodies and necessary co-ordination of schedules**

Changes in GSM 11.10 of SMG7 and the stability of the relevant core specifications in R99 of CN1 and RAN2 will have impact on the progress of the Task.

- ▪ **Base documents and their availability**

  - ▪ 3G TS 23.022: Functions related to Mobile Station (MS) in idle mode and group receive mode, R99

  - ▪ 3G TS 24.008: Mobile radio interface layer 3 specification, Core Network Protocols - Stage 3, R99

  - ▪ 3G TS 25.321: MAC protocol specification, R99

  - ▪ 3G TS 25.322: RLC protocol specification, R99

  - ▪ 3G TS 25.331: RRC protocol specification, R99

  - ▪ GSM 11.10-1: Mobile station conformance specification, R98

  - ▪ GSM 11.10-2: PICS pro-forma, R96

  - ▪ GSM 11.10-3: L3 Abstract Test Suites, R96

FENN expressed support for this work and mentioned that TTCN experts were a scarce resource.

LINDHOLM asked whether R96 were relevant. HU responded that R96 were the most recent GSM TTCN specifications.

Decision: TSG-T approved

1. the ToR for the intended MCC Task is proposed for TSG-T approval.

2. it is requested to forward the ToR

- ▪ to the TSG-SA meeting for endorsement and

- ▪ to PCG for the final approval / agreement.

Gunilla BRATT requested a complete picture of all the funding requests so far and the approval status by OP/PCG.

John FENN mentioned that the ETSI GA last week approved substantial budget for the MCC activities.

34.124   Electro-Magnetic Compatibility (EMC) for Terminal equipment

Version 1.0.0 was presented at the previous TSG-T meeting for information and v3 target is March 2000. It contains a superset of regulatory EMC requirements for 3G terminals as know to T1. This document depends on TS34.108.

T1 qualification status for R99 in December 1999

Reference	Title	v3.0.0	Target v3.0.0
TS 34.108	Common Test Environments for User Equipment (UE) Conformance Testing		06-2000
TS 34.109	Terminal Logical Test Interface		06-2000
TS 34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)		03-2000
TS 34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)		06-2000
TS 34.123-1	Mobile Station (MS) protocol conformance specification; Part 1: Protocol conformance specification (3G TS 34.123-1)		06-2000
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)		06-2000
TS 34.123-3	Mobile Station (MS) protocol conformance specification; Part 3: Abstract Test Suites (ATS) (3G TS 34.123-3)		03-2001

TR 34.124	Electro-Magnetic Compatibility (EMC) for terminal equipment		03-2000

34.910 Identification of Test requirements for regulatory purposes in different regions/countries

This TR (not for Release 99) will contain a list of the prioritized test cases identified by TSG1-T1. The input will come from the SDOs (or entities behind the SDOs). The LS (approved at TSG-T#5) prompting the SDOs for feedback, will be send out as soon as the T1 prompting material has been stabilized. Targets: v1 in March 2000 and v3 in March 2001.

Audio testing

T1 had a meeting with ETSI STQ. STQ and T1 agreed to establish a work relationship regarding Audio testing. Later, however, TSG-T1 was informed by SA4, that SA4 wishes to specify also the test specifications. T1 accepts this wish and assumes that SA4 and STQ hence after establish relevant work relation. An LS was sent to SA4 to clarify the relationship.

How to relate to the test specifications from T3 (USIM) and SA4 (audio)?
T1 believes that the Test interfaces/environments and the format should be common.

Item to be discussed at future T1 meetings

- To assure common understanding regarding the intended use of the EMC documents
- How to format the ICS document (34.123-2) to assure easy use by manufacturer.
- To allow testing of different UE types some means must be provided (manual operator, physical connector, Bluetooth, over the air,…) to e.g. for a test simulator to request a UE to initial a call or a service for testing purposes.
- Special issue concerning protocol testing:
  As it is not feasible to test all possible configurations of radio bearers it is essential to identify a representative set of reference Radio Bearers for R99 conformance tests. An LS will be send to relevant RAN, CN and T2 groups.

WG T2 Mobile Terminal Services and Capability

Kevin HOLLEY (BT), T2 Chairman, presented the "Progress report from WG T2".

TP-99233	T2 Progress Report - **for approval**	T2	7.1
TP-99234	T2 Progress Report (slides)	T2 Chairman	7.1
TP-99235	T2 work program (status after T2#7 Ystad) - **for approval**	T2	7.4

Approval of 2G Change Requests

TP-99236	2G Change Requests - **for approval**	T2	7.3

TSG T approved 2G Change Requests against the following deliverables:

T2 Tdoc	Spec	CR	Ph	Subject	Cat	Version-Current	Version-New	Workitem
T2-99983	03.40	A089	R98	Concatenated Short Message	F	7.3.0	7.4.0	TEI
T2-991061	03.41	A059	R98	LCS Utilization of CBS	B	7.1.0	7.2.0	LCS
T2-991119	03.57	A001	R98	Corrections MExE release 98, chapter 1-7	F	7.0.0	7.1.0	MExE
T2-991120	03.57	A002	R98	Corrections MExE release 98, chapter 8	F	7.0.0	7.1.0	MExE
T2-99956	07.07	A084	R98	GPRS ATD command syntax	C	7.4.0	7.5.0	GPRS
T2-99961	07.07	A085	R98	Clarification to result codes for +CLIP +CCWA	F	7.4.0	7.5.0	TEI

Approval of 3G Change Requests

TP-99237	3G Change Requests - **for approval**	T2	7.3

TSG T approved 3G against the following deliverables:

T2 Tdoc	Spec	CR	Ph	Subject	Cat	Version-Current	Version-New	Workitem
T2-99976	23.038	003	R99	Adaptations for UMTS	D	3.2.0	3.3.0	TEI
T2-991144	23.039	001	R99	Adaptations for UMTS	D	3.0.0	3.1.0	TEI
T2-991065	23.040	006	R99	Duplicate messages	C	3.2.0	3.3.0	TEI
T2-991069	23.040	007	R99	Adaptations for UMTS	D	3.2.0	3.3.0	TEI
T2-99982	23.040	008	R99	Concatenated Short Message	A	3.2.0	3.3.0	TEI
T2-991064	23.041	001	R99	Adaptation of the scope of TS 23.041 from "GSM only" to "GSM and UMTS"	D	3.0.0	3.1.0	CBS
T2-991062	23.041	002	R99	LCS Utilization of CBS	A	3.0.0	3.1.0	LCS
T2-99980	23.042	001	R99	Adaptations for UMTS	D	3.0.0	3.1.0	TEI
T2-991074	27.005	001	R99	Adaptations for UMTS	D	3.0.0	3.1.0	TEI
T2-991049	27.007	016	R99	Clarification to result codes for +CLIP +CCWA	F	3.2.0	3.3.0	TEI
T2-991050	27.007	017	R99	AT command for Frame Tunneling Mode (FTM)	B	3.2.0	3.3.0	FTM
T2-991128	27.007	018	R99	New AT command for application protocols activation	B	3.2.0	3.3.0	TEI
T2-99954	27.007	019	R99	AT-commands for Enhanced QoS Support management.	B	3.2.0	3.3.0	Enhanced QoS Support in GPRS.
T2-99957	27.007	020	R99	Packet Domain ATD command syntax	C	3.2.0	3.3.0	GPRS
T2-99958	27.007	021	R99	Additional parameter for +CBST	B	3.2.0	3.3.0	TEI
T2-99960	27.007	022	R99	Add new AT command (+CDIP) to inform the called line identification	B	3.2.0	3.3.0	TEI

23.140   Multimedia Messaging Service (MMS)

TP-99241	3G TS 23.140 v1.0.0 Multimedia Messaging Service (MMS) - **for information**	T2	7.3

Kevin HOLLEY gave a detailed presentation of the deliverable submitted to TSG-T for information.

TP-99266	Comment on MMS Stage 2 (23.140, ver.020 [TP-99241]) – **for discussion**	NTT DoCoMo	7.3

TP-99266 presents NTT DoCoMo's view on how technical specification for MMS discussed in TSG-T2/SWG3 (described in MMS Stage 1 (22.140) [1]) should be specified as a standard for UMTS, then we give a comment on MMS Stage 2 (TS23.140, ver.020 [2]).

NTT DoCoMo's view for MMS Implementation

NTT DoCoMo believes that MMS must have (A) compatibility with Internet world and (B) flexibility of the service and implementation to open the door for further evolution [3][4].
(A) Compatibility with Internet world: As everyone knows, current almost digital information and major electronic services or business are based upon Internet architecture. In addition, there is no doubt that any coming new multimedia services and digital communications depend on Internet technologies (IP technologies). Internet world shows that any services and technologies shall have no obstacle between existing IP technologies and open the window for developer and end user if those services want to survive and be de facto in the market. Many major succeeded Internet services prove this point. Therefore we must give top priority to this compatibility at services and technologies development for MMS.
(B) Flexibility of the service and implementation: There are various new technologies in Internet world. User can freely select an applicable scheme from those candidates to meet own environment and subject. We can find out this characteristic keep a good competitive situation and accelerate to develop new services and technologies in Internet. Regarding to MMS, it shall accept and handle multimedia data generated by those various Internet technologies.

Therefore, to support various existing and coming IP technologies for MMS, we must consider this flexibility of the service and implementation.

As mentioned in the above, in order to achieve the stable support from the market for MMS, it is quite important to pay attention to the above two subject (A) and (B) when we develop the standard.

Comment on MMS Stage-2 (TS23.140, ver.020)

  In the presented Information paper, MMS Stage-2 ver020, WAP based implementation scheme is specified in section 8. It describes control sequence and information flow in accordance with the current WAP specification. From a viewpoint of Stage-2 document *"Functional Description"*, it seems that those description in section 8 define too detail implementation scheme. It should be appropriate description for Stage-3 rather than Stage-2. In addition, we have to give mature consideration about the other related function specification (e.g. MExE) when we define such detailed implementation scheme.

Regarding to the general guideline of MMS implementation scheme, as described in the above, we believe that the MMS architecture should be flexible and should not close the door for further evolution. There might be several implementation options, e.g. WAP based, IP based, etc. [3][4] In a word, it should allow various implementation schemes. Therefore the specified implementation scheme for MMS should not be based upon single architecture. At least it should give several option in the specification.

According to this our view, we would like to discuss about suitable specification for MMS in TSG-T2/SWG3 in order to complete Stage-2 document.

REFERENCES: [1]   3GPP 22.140: Multimedia Messaging Service Stage 1

[2]   3GPP 23.140: Multimedia Messaging Service Stage 2 (ver.020)

[3]   TSGT2#4(99)502, *"Multimedia Messaging Service"*, NTT DoCoMo

[4]   TSGT2#4(99)539, *"Multimedia Messaging Service clarification"*, Ericsson, Nokia

LINDHOLM v3 in March 2000 ?

NTT DoCoMo requested to include additional options apart the WAP.

Some TSG-T members (Bosch, Sharp) supported the NTT DoCoMo proposal as so far only the WAP solution was on the table and further options should be considered in the light of the fast IP evolution.

LINDHOLM problems may arise when roaming if the options are not supported on both ends.

HOLLEY invited experts to join the technical work in T2.

TSG-T agreed the Cover sheet and the TS submitted for information and referred the NTT proposal back to T2 in order to study the roaming aspects, etc.

Decision:	TSG T approved ????????.

27.901   Report on Terminal Interfaces

TP-99238	3G TR 27.901 v2.0.0 Report on Terminal Interfaces - An Overview - **for approval**	T2	7.3
TP-99270	3G TR 27.901 v2.0.0 Report on Terminal Interfaces - An Overview - **for approval (updated cover sheet of TP-99238)**	T2	7.3

Kevin HOLLEY gave a detailed presentation of the deliverable submitted to TSG-T for approval.

Decision:	TSG T approved 3G TR 27.901 v2.0.0 for upgrade to v3.0.0.

23.057   Mobile Station Application Execution Environment (MExE) stage 2

TP-99242	3G TS 23.057 v2.0.0 Mobile Station Application Execution Environment (MExE) stage 2	T2	7.3

	- **for approval**		

Kevin HOLLEY gave a detailed presentation of the deliverable submitted to TSG-T for approval.

TP-99268	Comment on MExE Stage 2 (23.057, ver.2.0.0 [TP-99242]) - **for discussion** (withdrawn and replaced by TP-99272)	NTT DoCoMo	7.3
TP-99272	Comment on MExE Stage 2 (23.057, ver.2.0.0 [TP-99242]) - **for discussion**	NTT DoCoMo	7.3

> This document expresses some comments on Mobile Station Application Execution Environment (MExE) Stage 2 (described in TS23.057, ver.2.0.0 [1]), and how it should be defined as a UMTS standard within TSG-T2/WSG1.
>
> *On MExE implementation*
>
> In order to ensure further development of MExE in the future, it is important to consider the following aspects:
>
> (1)a flexible specification taking into account service and implementation
>
> (2)a specification that will allow for easy accommodation of developments in IT (Information Technologies) expected in the future.
>
> As already reported, there was a very heated debate on the definition of MExE classmarks in the previous T2/SWG1 meeting in Ystad. The discussion centred around the fact that according to the current classmark definitions, Classmark 1 is WAP and Classmark 2 is P-Java + WML browser and WML script; which means that according to the specifications that exist today, the support of WAP is mandatory within MExE. There were opinions raised about a possible modification of the specification in order to include an additional classmark not supporting the WAP function.
>
> In this discussion, opinions were split making it impossible to reach any agreement on the modification of the specification; and Release 99 at this point has remained unchanged.
>
> But it should be noted that regarding the current classmark definition within SWG1, there are differences in opinions, and that no consensus has so far been reached.
>
> TP-99242 (the report on R99 MExE Stage 2 (TS23.057)) states that "There are no contentious issues." However, the classmark issue remains "a contentious issue" in the sense that no consensus has so far been reached in this area. And the report needs to be modified to say that in fact no consensus has been reached in the discussions so far.
>
> In addition, continued discussions are necessary regarding this issue when we start discussions about R00. Furthermore in the discussions related to the creation of additional classmarks in MExE to take place when new technology (e.g. K-Java) become available in the future, the starting point of the discussion should not be the WAP mandatory issue.

HOLLEY R98 was not controversial now R99 introduces new classes. Q would NTT like new classmarks in R00 or wishes to reject the present R99 version ?

YAMASHITA (NTT DoCoMo) no agreement by T2 for inclusion in R99 of new classmark and classmark although important was not the only matter debated in T2 on MexE. Reason for submitting this contribution was to highlight the lake of agreement in T2 on classmark and other issues.

NEUMANN "K-Java" although agreed in T2 was not even listed for inclusion in R00.

Decision:	T instructed T2 to include "K-Java" this in R00.

NTT DoCoMo agreed with this decision and supported the approval of the R99 MExE as it was submitted in TP-99242.

Decision:	TSG T approved 3G TS 23.057 v2.0.0 for upgrade to v3.0.0.

21.904   UE Capability Requirements

TP-99239	3G TR 21.904 v1.1.0 UE Capability Requirements - **for information**	T2	7.3
TP-99271	3G TR 21.904 v1.1.0 UE Capability Requirements - **for information (updated cover**	T2	7.3

sheet of TP-99239)		

Kevin HOLLEY gave a detailed presentation of the deliverable submitted to TSG-T for information.

21.910   Report on multi-mode UE issues

TP-99273	3G TR 21.910 v1.3.2 Report on multi-mode UE issues - **for information (updated cover sheet of TP-99240)**	T2	7.3
TP-99240	3G TR 21.910 v1.3.2 Report on multi-mode UE issues - **for information**	T2	7.3

TP-99232	SA2 comments on the report TR 21.910 "Multi-mode UE issues" - **for information**	Sofi PERSSON, Rapporteur	7.2

BRATT asked whether T/T2 had received any comment on "multi-system terminal issues" and is yes to she proposed to start drafting TSs (eventually in TSG-T) on this topic.

HOLLEY gave some verbal SA feedback that about two proposed configurations in the TR were not implementable.

NEUMANN informed about interest arising in S1 and S2. However, if work should be started in this area, the question of the leading technical body within 3GPP may need to be clarified.

LINDHOLM questioned the value of this work as a whole, i.e. whether classes of terminals need to be defined.

Decision:	TSG-T decided to refer the matter back to T2 for further consideration.
Action:	T2 to report its conclusions at TSG-T#

T2 qualification status for R99 in December 1999

Reference	Title	v3.0.0	Target v3.0.0
(see NOTE)	Advanced Cell Broadcast		little input
(see NOTE)	Alternatives to AT commands		no input
TR 21.904	Terminal Capability Requirements (TCR)		03-2000
TR 21.910	Multi-system issues		03-2000
TS 23.140	Multimedia Messaging Service; stage 2/3		03-2000
TR 22.945	Study on provisioning of fax in GSM and UMTS	**achieved**	
TS 23.038	Alphabets and language-specific information	**achieved**	
TS 23.039	Interface protocols for the connection of Short Message Service Centres (SMSCs) to Short Message Entities (SMEs)	**achieved**	
TS 23.040	Technical realization of the Short Message Service (SMS); Point-to-Point (PP)	**achieved**	
TS 23.041	Technical realisation of Cell Broadcast Service (CBS)	**achieved**	
TS 23.042	Compression algorithm for text messaging services	**achieved**	
TS 23.057	Mobile Station Application Execution Environment (MExE); Functional description; Stage 2	**achieved**	
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)	**achieved**	
TS 27.007	AT command set for 3GPP User Equipment (UE)	**achieved**	
TS 27.010	Terminal Equipment to Mobile Station (TE-MS) multiplexer protocol	**achieved**	
TS 27.103	Wide Area Network Synchronisation	**achieved**	
TR 27.901	Report on Terminal Interfaces - An Overview	**achieved**	
TR 27.903	Discussion of Synchronisation Standards	**achieved**	
TR 34.907	Report on electrical safety requirements and regulations	**achieved**	
TR 34.925	Specific Absorption Rate (SAR)	**achieved**	
NOTE:	TSG-T suggests T2 to revisit the work items where no progress has been made. In the absence of contributions/interest T2 should propose at the next TSG-T meeting to stop this work items.		

Terminology

TP-99229	LS from T2 SWG6 to S1 on "Terminology in T2 SWG6 (TR21.904)" (copy to TSG-T) - **for information**	T2 SWG6	7.2
TP-99231	LS from T2 to T1 in response to questions regarding terminology differences – Mandatory and Optional (copy to TSG-T) - **for information**	T2 & T2 SWG6	7.2

PARK: How to communicate this to SA ?

BRATT the matter was important but not urgent & T2 should further work on the terminology & vocabulary before sending e.g. an LS to the Rapporteur / leading Technical Body.

TSG-T noted the two LSs submitted for information.

WG T3 USIM

Klaus VEDDER (Giesecke & Devrient), T3 Chairman, presented the progress of WG T3.

TP-99250	T3 status report to TSG-T - **for approval**	T3	8.1

21.111   USIM and IC Card Requirements

TP-99255	3G CR001 to TS 21.111 v3.0.0 " USIM and IC Card Requirements" - **for approval**	T3	8.3

Decision:	TSG T approved 3G CR001 to TS 21.111 v3.0.0.

31.101   UICC-Terminal Interface; Physical and Logical Characteristics

TP-99251	3G TS 31.101 "UICC-Terminal Interface; Physical and Logical Characteristics" - **for approval**	T3	8.3

Outstanding Release 99 issues:

- finalisation of security attributes
- incorporation of USIM application toolkit (USAT)
- coding of some File Control Information (FCI)
- definition of application session initialisation / termination procedure

Decision:	TSG T approved 3G TS 31.101 to v3.0.0.

31.102   Characteristics of the USIM Application

TP-99252	3G TS 31.102 "Characteristics of the USIM Application" - for approval	T3	8.3

Outstanding Release 99 issues:

- Phonebook: inclusion of E-mail addresses and finalisation of procedures
- incorporation of security attributes from 31.101
- review of short file identifiers
- outstanding service issues:
- Fixed dialling Numbers / Barred Dialling Numbers
- network related parameters
- 2G specific Access Control Class
- network selection issues (2 HPLMN lists)
- usage and coding of CCP

Decision:	TSG T approved 3G TS 31.102 to v3.0.0.		

31.110   Numbering system for telecommunication IC card applications

TP-99256	3G TS 31.110 v2.0.0. "Numbering system for telecommunication IC card applications" - **for approval**	T3	8.3

Outstanding Release 99 issues:

- RID has not yet been received from ISO/IEC
- definition of application provider field to identify version of USIM applications

Decision:	TSG T approved 3G TS 31.110 to v3.0.0.		

31.111   USIM Application Toolkit (USAT)

TP-99254	3G TS 31.111 v1.0.0 "USIM Application Toolkit" - **for information**	T3	8.3

Outstanding Release 99 issues:

- interaction between Call Control and FDN/BDN
- finalise Provide Local Information command (TLVs)
- incorporate outstanding SMG9 Release 99 issues

Decision:	TSG-T accepted TS 31.111 (USAT) as a late R99 deliverable with v3.0.0 target in March 2000.		

T3 qualification status for R99 in December 1999

Reference	Title	v3.0.0	Target v3.0.0
TS 21.111	USIM and IC Card Requirements	achieved	
TS 31.101	UICC-Terminal Interface; Physical and Logical Characteristics	achieved	
TS 31.102	Characteristics of the USIM Application	achieved	
TS 31.110	UICC Application Identifiers	achieved	
TS 31.111	USIM Application Toolkit (USAT)		03-2000
TS 31.120	Terminal tests for the UICC Interface		06-2000
TS 31.121	UICC Test Specification		06-2000

Harmonisation of IC Card work

TP-99257	Common mobile telecommunications smart card standard - **for information**	T3 Secretary	5

Officials meeting in Austin on 1 November 1999

Attended by 15 members of 2G and 3G SIM, USIM and R-UIM groups. They elaborated the Recommendation that SMG9 should become the focal point and manage common aspects of mobile telecom smart cards such as:

- physical interface specifications
- the common logical interface
- file ID allocation at the common level; respecting existing structures
- shared data that is technology independent (e.g. the phone book)

T3 Chairman reported that this approach has been ratified so far by: ANSI T1P1; GAIT; SMG. TSG-T noted this issue.

LS from ITU-T

- T3 is prepared to support efforts in the development of UIM standards to avoid any duplication of effort in this area
- The draft version of UIM-terminal specification provided to the ITU.
- T3 wishes to maintain a role and monitor the work.

TSG-T noted this issue.

Annex A: TSG-T qualification status for R99 in December 1999

A.1: WG T1 Mobile Terminal Conformance Testing

Reference	Title	v3.0.0	Target v3.0.0
TS 34.108	Common Test Environments for User Equipment (UE) Conformance Testing		06-2000
TS 34.109	Terminal Logical Test Interface		06-2000
TS 34.121	Terminal Conformance Specification, Radio Transmission and Reception (FDD)		03-2000
TS 34.122	Terminal Conformance Specification, Radio Transmission and Reception (TDD)		06-2000
TS 34.123-1	Mobile Station (MS) protocol conformance specification; Part 1: Protocol conformance specification (3G TS 34.123-1)		06-2000
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)		06-2000
TS 34.123-3	Mobile Station (MS) protocol conformance specification; Part 3: Abstract Test Suites (ATS) (3G TS 34.123-3)		03-2001
TR 34.124	Electro-Magnetic Compatibility (EMC) for terminal equipment		03-2000

A.2 WG T2 Mobile Terminal Services and Capability

Reference	Title	v3.0.0	Target v3.0.0
	Advanced Cell Broadcast		little input
	Alternatives to AT commands		no input
TR 21.904	Terminal Capability Requirements (TCR)		03-2000
TR 21.910	Multi-system issues		03-2000
TS 23.140	Multimedia Messaging Service; stage 2/3		03-2000
TR 22.945	Study on provisioning of fax in GSM and UMTS	achieved	
TS 23.038	Alphabets and language-specific information	achieved	
TS 23.039	Interface protocols for the connection of Short Message Service Centres (SMSCs) to Short Message Entities (SMEs)	achieved	
TS 23.040	Technical realization of the Short Message Service (SMS); Point-to-Point (PP)	achieved	
TS 23.041	Technical realisation of Cell Broadcast Service (CBS)	achieved	
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TS 27.103	Wide Area Network Synchronisation	achieved	
TR 27.901	Report on Terminal Interfaces - An Overview	achieved	
TR 27.903	Discussion of Synchronisation Standards	achieved	
TR 34.907	Report on electrical safety requirements and regulations	achieved	
TR 34.925	Specific Absorption Rate (SAR)	achieved	

A.3 WG T3 USIM

Reference	Title	v3.0.0	Target v3.0.0
TS 21.111	USIM and IC Card Requirements	achieved	
TS 31.101	UICC-Terminal Interface; Physical and Logical Characteristics	achieved	
TS 31.102	Characteristics of the USIM Application	achieved	
TS 31.110	UICC Application Identifiers	achieved	
TS 31.111	USIM Application Toolkit (USAT)		03-2000
TS 31.120	Terminal tests for the UICC Interface		06-2000
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