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MCC TASK 160 Terms of Reference

For 2004/2005

Producing 3GPP ATSs / PIXIT/ for UE

1. Reasons for proposing the Task

1.1 The MCC task 160 was setup in Jun 00 under the responsibility of 3GPP TSG-T WG1 (T1) for the development of TTCN test cases for R99. The team consists of the skilled protocol / TTCN experts coming from ten companies of the 3GPP partners. Since then more than 700 TTCN test cases have been drafted for the UE conformance testing.

1.2 The funding of an expert team at the MCC has proved to be the most efficient and cost-effective way to develop the test specifications found in TS 34.123 parts 1 - 3. In order to stabilise and to maintain all the currently available TTCN Abstract Test Suites (ATS) and to continue developing new TTCN test cases for R99, Rel 4 and Rel 5, the MCC task 160 needs further resourcing. In Oct 03, PCG/OP approved funding of 58 man months (MM) to cover the FDD related tasks for 2004.

1.3 MCC task 160 progressed its work and will continue to progress its work in accordance with the priorities identified by the Global Certification Forum (GCF) as part of the initiative to have certification of 3G handsets available in 2005.

1.4 There is now a high interest in the development of Low Chip Rate (LCR) TDD conformance test from the CCSA and TDIA (TD-scdma Industry Alliance). It is the intention of the CCSA and TDIA to use the facilities of MCC task 160 to develop LCR TDD TTCN alongside the existing task force with minimal impact to the FDD programme. The development of LCR TDD Rel-4 test in TTCN should become a part of work programme of MCC task 160. The TTCN experts from TDIA are expected to joint MCC task 160 in Spring 04.

2. Consequences if not agreed

All test cases produced by MCC task 160 will mainly qualify an UE for worldwide roaming and interoperability with the 3GPP networks. Without such tests the UE interoperability cannot be guaranteed. Should MCC task 160 be discontinued, then the cohesive and unified approach to develop common TTCN modules will be lost. The system simulator manufactures will subsequently deliver test platforms with different interpretations of the core specifications which will lead to variable results and general confusion as to what constitutes a conformant handset. Furthermore the broader implementation of R99, Rel4 and Rel5 networks would be delayed as potential issues, such as interoperability of handsets, are not resolved.

3. Detailed description

3.1   **Subject title**: 3GPP TTCN specifications for UE R99, Rel4, Rel5.

3.2   **Reference Technical Body**: 3GPP TSG T WG1

3.3   **Other interested Technical Bodies**: 3GPP TSG T, RAN(2), TSG CN(1), TSG GERAN

3.4   **Target dates for the start of work**: Jan 04

3.5   **Target dates for the conclusion of the work**: Dec 05

3.6   **Resources required**

3.6.1 Necessary manpower

It is estimated that the resource requirement, in terms of TTCN experts, over the period 2004 – 2005 will be 116 man months.

3.6.2 Estimated costs, additional to the manpower

ETSI hosts the task 160, takes the leadership of the task force and provide management, logistic and IT support.

3.6.3 Qualification required, mix of skills

The experts should have deep 3GPP protocol knowledge at the Uu and Um interfaces and good skill at writing of the TTCN test cases. This should include knowledge of LCR TDD.

3.6.4 Release and Configuration Manager (RCM)

In Jan 04, an RCM was appointed with specific duties to control the release of FDD TTCN ATS as well as coordinate the verification activity between the test industry and MCC TASK 160. The funding of the RCM has been guaranteed for 2004 although no decision has been taken regarding a requirement for 2005. This may not be determined until the effectiveness of the RCM is assessed.

3.7 Scope of Terms of Reference

3.7.1 The technical areas of the MCC task 160 cover the conformance test specifications for UE signalling, protocols and radio access bearers interoperability in the FDD and (LCR) TDD radio technologies. The UE handover and interoperability between 2G to 3G belong to the area.

The task force is responsible for the development and maintenance of NAS, SMS, RRC, MAC, RLC, RAB, PDCP, BMC ATS in R99, Rel 4 and Rel 5 according to the relevant 3GPP test specifications in prose. For the purposes of enabling early GCF certification of handsets, priority is given to R99.

The task force is also responsible to implement the prose and TTCN CRs in TTCN, to integrate the verified TTCN test cases into the existing ATS and to deliver the 3GPP formally approved ATS releases and interim working ATS releases.

3.7.2 From 2004, MCC task 160 will consist of two teams, the existing FDD team and the TDD team. The FDD team concentrates on the FDD ATSs (R99), while the TDD team concentrates on the LCR TDD ATSs (Rel-4). The split of ATSs according to the technologies will ensure the independency of the development and maintenance of these ATSs, therefore to facilitate the deliveries and release moving.

3.8 Context of the tasks in relation to TS 34.123

3.8.1 Part One. The first part of TS 34.123 specifies the test structure, test purposes and give each test case a prose description.

3.8.2 Part Two. The second part specifies necessary ICS questions for UE manufacturers on the UE capabilities and the test case applicability.

3.8.3 Part Three. The third part contains the ATS' themselves.

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

Changes in TS 51.010 GERAN 3 and the stability of the relevant core specifications of CN1 and RAN2, especially changes in TS 25.331, will have impact on the progress of the Task.

3.10 Base documents and their availability

TS 24.008: Mobile radio interface layer 3 specification, Core Network Protocols - Stage 3
TS 25.321: MAC protocol specification,
TS 25.322: RLC protocol specification,
TS 25.331: RRC protocol specification,

TS 34.108: Common test environment for UE conformance testing
TS 34.123-1: UE conformance specification part 1: protocol conformance specification
TS 34.123-2: UE conformance specification, part 12: ICS Proforma specification,
TS51.010-1: Mobile station conformance specification

3.11 Work items of the 3GPP Work Programme for which the Task is required

WI_T1-06_29, WI_T1-06_30, WI_T1-06_13

3.12 Expected Output

Outputs will be delivered in accordance with the T1 approved programme. In essence, MCC task 160 will deliver 4 formal releases (at quarterly intervals) of the ATS' containing those test cases that have been verified according to PRD T1-12. In between these releases, MCC task 160 will deliver a series of interim working documents that contain the entire suite of test cases i.e. including those that have yet to be verified. This enables the test industry to verify the outstanding test cases within the framework of the extant working ATSs. A summary of the expected formal deliveries is shown below:

TS 34.123-3: Abstract Test Suites

V350, V360, V370, V380, V390, V3a0, V3b0, V3c0
V400, V410, V420