From: TSG-T

To: TSG-SA

Subject: Funding for development of 3GPP TTCN specifications

Rationale

The detailed protocol and signalling test specification for 3GPP MS will be specified in a formal language, TTCN (Tree and Tabular Combined Notation[1]). This is similar to the changes in the descriptions in the 3GPP core specifications. The prose aspects of the test specification will become more compact and contain only brief test descriptions. Most 3GPP test equipment manufacturers and the majority of the mobile manufacturers support this method of writing the 3GPP test specifications and would prefer to have a TTCN test specification rather than a detailed test specification in prose.

Writing a rigorous TTCN test specification is not an easy thing and needs skilled experts. Voluntary contributions are so far limited. TSG-T1 are making their best efforts so that nearly 10% of TTCN test cases, those with the highest priority, will be contributed by the 3GPP members on a voluntary basis for the release 99. However, a large number of the remaining test cases are still to be specified. These tests will mainly qualify an MS for world-wide interoperability with the 3GPP networks. Without such tests the interoperability cannot be guaranteed.

Proposals

In order to develop the protocol conformance tests in TTCN for the MS interoperability, a funding of **6.5 man-years** from 3GPP is requested. The funding will be spread over two years for the releases 2000, 2001. Each release could spend 3 man-years. The remaining 6 man-months will be used for TTCN maintenance.

The estimated funding is based on the latest draft specifications from RAN2. TSG-T1 assumes currently that most test cases for CC, SS, SMS, MM/GMM, and SM in GSM 11.10, version 6 can be partly reused. It is unclear how far the current GSM 04.08 V.7 will be modified to 3GPP 24.008. An LS from TSG-T1 has been sent to CN1 for clarification.

The funding shall be used to organise a Special Task Force (STF). The working procedures and working methods currently used by ETSI STFs would apply. The STF shall develop and generate the TTCN test specification for the MS in close co-operation with TSG T1. TSG T1 will remain responsible for the defining the tasks based on the shortened prose descriptions and will also be responsible for the validation and release of the specifications.

The test specification will be mainly based on the SDL descriptions in the relevant 3GPP core specifications and shall cover the protection of 3GPP networks and network connections. This will also ensure the MS interoperability with 3G networks and with 2G networks, if the dual 2G/3G mode is supported. The STF will be technically steered and managed by TSG-T1

All results including TTCN codes both from the proposed STF and from the member voluntary contributions will be the joint intellectual property of 3GPP.

TSG-T is requested to endorse this proposal and bring it up to the forthcoming PCG meeting for a decision.

Note: The Terms of reference for the proposed STF will be produced when necessary.

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[1] Editor note: TTCN is the only internationally standardised notation language used for protocol test specification. The testing model, the syntax and static semantics of the language are contained in ISO/IEC 9646-3, edition 2. ETSI TC MTS (Methodologies for Testing and Specifications) is the driving force for the further TTCN development.