ETSI TC MTS Standardization Overview

Status October 2010

# About ETSI

In the past 20 years ETSI has evolved from a European Standardization Organization for telecommunication into a global organization producing worldwide applicable standards for information and communication technology. Next to technologies like GSM, UMTS, LTE other committees are working for example on DVB, RFID, satellite systems, intelligent transport systems. Much of ETSI’s success (e.g., in the area of mobile telecommunication) has been contributed to its strong belief in interoperability and expertise on testing. Unlike other standardization organizations like IETF or IEEE, ETSI standardizes conformance and interoperability test specifications in addition to base standards. Since its conception, the technical committee TC MTS has been part of ETSI, whose work has been dedicated to the standardization of specification techniques & notations as well as methodologies for the development of such test specifications. This technical committee has for example produced the well known and widely used testing language TTCN-3. With TTCN-3, TC MTS standards have gone beyond ETSI boundaries and even affected industrial product testing performed by thousands of test engineers worldwide today.

# Why standardize MBT at TC MTS?

TC MTS is a mix of major industrial users (including operator and equipment makers), test tool makers, research institutes, and test service providers which are all needed to make MBT a success in industry. MBT standardization is currently driven at ETSI by Microsoft, Ericsson, Fraunhofer, Elvior, University of Goettingen, Testing Technologies, Siemens, Smartesting, Wipro Technologies, Conformiq and members of ETSI’s own and renown Center for Testing & Interoperability (CTI). Telecom Italia, SAP, IRISA, and SeppMed have recently also indicated interest in getting involved in MTS’s MBT activities.

TC MTS brings together word class experts in modeling and especially in testing. ETSI has a lot of experience and a good name globally in standardizing testing technologies as can be seen from the success of TTCN-3. In addition, ETSI can spark the creation of tool independent MBT user communities with ETSI events. ETSI has organized to date 10 user conferences in worldwide locations.

ETSI works in an open and transparent manner. Standards published by ETSI are free to download and distribute. In addition, TC MTS allows ETSI non-members to monitor and provide feedback during the drafting of ETSI standards.

Although ETSI does not certify itself (it only provides a basis for certification) it has been working closely with certification organizations in the past. This helps taking MBT from standardization to certification.

# Current Status

After publishing 2 studies (so called ETSI Technical Reports) TC MTS started work on a first ETSI standard, i.e., an agreed specification, on MBT in March 2010. The intension of this standard is to standardize a common terminology for MBT and to identify concepts that are required from modeling notations to be suitable for MBT. One of the main goals has been to show the maturity of the MBT tool market, i.e., that already today at least 4 commercial MBT tools today are built around the exact same principles. The standard also educates how different types of modeling notation map to the general concepts. A first stable draft was reviewed in September 2010. A next version including these comments is expected to be available for review by mid-November. The approval of this first standard for publication in its first release is the next TC MTS meeting (Dec 14/15 in Berlin).

# The Road Ahead

MBT standardization work at ETSI is gaining steadily momentum. After the actual approval of the first MBT concepts standard, it is expected that work on a next, more concrete standard on this topic will be started as a next step. Today the exact nature of this standard is still unclear and needs to be agreed. In principle, two solutions exist which are either standardized mappings from different modeling notations (such as UML or .NET) to the standardized MBT concepts, or the standardization of a new, core modeling notation or exchange format specifically for testing communicating systems with MBT.

A first discussion for organizing a first ETSI user conference for MBT potentially in second half of 2011 is planned for the next MTS meeting, as well as the development of a standardized methodology for using MBT in context of conformance and interoperability testing for such systems and based on the agreed modeling concepts. In addition, revisions of the first MBT standard on concepts for modeling, or potentially new standards on defining a minimal set of test selection criteria could become interesting new standardization topics.

# How can I follow or become involved?

Join the open TC MTS mailing list by visiting <http://list.etsi.org/archives/mts-gen.html> to monitor MBT work as part of other ongoing TC MTS activities.

Contact the TC MTS chair Stephan.Schulz@conformiq.com directly to be included in the MBT special interest group, i.e., to get informed of new drafts of the standard and provide direct feedback between MTS meetings.

Attend the next TC MTS meeting (<http://portal.etsi.org/portal/server.pt/community/MTS/323>) either by attending in person (highly recommended) or by joining via GOTO meeting. Each meeting and its GOTO meeting details are announced on the MTS-GEN mailing list. If you do not have an ETSI online account, please contact Laurent.Vreck@etsi.org to register for these meetings.