



# STF 522: TD-LTE Phase 4

## Status Report

# Document History

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- 2017-11-23: Document submitted for SG#4
- 2017-09-26: Document submitted for MTS#72
- 2017-09-06: Document submitted for SG#3
- 2017-05-31: Document submitted for MTS#71
- 2017-05-11: Document submitted for SG#2
- 2017-02-27: Document submitted for SG#1
- 2017-01-25: Document submitted for MTS#70

From the Terms of Reference...

# TDL Phase 4: Objectives

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- New Part 6 for mapping TDL to TTCN-3
- Adaptation and extension of MM addressing CRs
  - new test configuration features (clarifications needed)
  - related to the mapping to TTCN-3
- Adaptation and extension of GR, XF, TO
- New Part 5 to relocate the UML profile (currently annex to MM)
- ~~Requirements for security and performance testing with TDL (TR)~~

# TDL Phase 4: Deliverables

Deliv.	Work Item code Standard number	Working title Scope
D1	RES/ES 203 119-1 V1.4.1	Test Description Language; Meta-Model and Semantics Scope: common concepts, meta-model, semantics
D2	RES/ES 203 119-2 V1.3.1	Test Description Language; Graphical Syntax Scope: TDL graphical concrete syntax for end users
D3	RES/ES 203 119-3 V1.3.1	Test Description Language; Exchange Format Scope: TDL exchange format for tool interoperability
D4	RES/ES 203 119-4 V1.3.1	Test Description Language; Structured Test Objective Specification Scope: TDL extension for structured test objectives
D5	DES/ES 203 119-5 V1.1.1	Test Description Language; UML profile for TDL Scope: TDL to UML meta-model mapping
D6	DES/ES 203 119-6 V1.1.1	Test Description Language; Mapping of TDL to TTCN-3 Scope: Mapping rules to automatically generate TTCN-3 test case skeletons from TDL test descriptions
<del>D7</del>	<del>DTR/ MTS-1029504TDLSecPerfReq</del>	<del>TDL and its usage for security and performance testing; consolidated requirements (technical report)</del>

# Today

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- Promotion and communication
  - ICTSS
  - UCAAT
  - Webinar
  - SQJ article and other activities
- Status update on the work of STF 522
- TOP status

# Promotion

# ICTSS 2017

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- Opening keynote
- Positive feedback
- Many questions
  - TDL and test coverage
  - traceability from TDL to executable tests and fault models



# UCAAT 2017

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- Opening tutorial
- Related presentations
  - Using TDL in the development of standardized test specifications for IoT and other technologies
  - Mapping TDL to TTCN-3
  - Suitability of UTP and TDL for model-based-testing - Checking for compliance with ES 202 951
  - TDL for testing collaboration IT services: the NetResults experience
- TOP launch

# UCAAT 2017



# UCAAT 2017

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- Raised awareness
  - good discussions
  - notable mentions in other presentations
  - increased interest on launch day, but decreased afterwards
- Notable comments
  - bi-directional mapping (also follow-up inquiry from Paderborn University)
  - mapping to other frameworks and languages (also during webinar)
  - potential input for security (Siemens), performance (NetResults) testing

# TDL Webinar

The image shows two overlapping browser windows. The background window is a BrightTALK presentation screen for Philip Makedonski. The foreground window is the ETSI website, displaying the 'ETSI Webinars' page.

**BrightTALK Presentation Screen:**

- URL: brighttalk.com
- Header: Philip Makedonski
- Message: Thank you for presenting on BrightTALK
- Text: We're preparing the recorded version. It will be available for your audience shortly.
- Summary: Here is how you did

Views	Questions	Rating
36	1	★★★★★

**ETSI Website:**

- URL: etsi.org
- Page Title: ETSI Webinars
- Navigation: Standards, Technologies & Clusters, Membership, News & Events, Committees & Portal, About us
- Section: ETSI Webinars
- Text: ETSI regularly organizes webinars to promote or highlight particular aspects of its work. Topics for webinars range across the broad spectrum of ETSI's activities. They can be high-level overviews or deep dives into individual technologies. Together they create a body of knowledge on ETSI's work. Subscribe to our webinar channel by registering for an upcoming webinar or viewing a recording of a past event, and you'll receive notification of future ETSI webinars.
- Webcasts List:
  - Introduction to ETSI Software Reconfiguration Stand...**  
Live on Dec 08 2017 10:00 am (60 mins)  
Dr. Markus Mueck, Intel, Chairman of ETSI's technical commit...  
Software radio reconfiguration offers solutions to recurring iss...  
Attend
  - LAST: Getting started with ETSI Test Description Lang...**  
Recorded on Nov 21 2017  
Philip Makedonski, University of Göttingen, TC MTS and Martt...  
This webinar walks the audience through the main ingredients...  
★★★★★ 61m 38s
  - NFV Tutorial on VNF Package specification**  
Recorded on Jul 12 2017  
Bruno Chatras, Orange (SOL WG Chair); Andrei Kojukhov, A...  
This Webinar will provide a high level overview of ETSI activiti...  
★★★★★ 46m 22s

# Other Promotional Activities

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- SQJ article (based on TAV book chapter) ([@PM: arrange access](#))
  - methodology, tooling and mapping, usage and applications
  - elaborate example of e.g. interrupts and defaults
  - extend mapping with examples from presentation / tutorial (conceptual)
  - reach out to ETSI (MC) and NetResults (FO)
- STF 522 page on ETSI portal
- Mailing list setup and activity (9 people, 108/89/50 downloads)
- TST adoption, the Standard (on TOP), white paper

# Status Update

# Work Plan

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- Timescale: Jan, 2017 (+4 months) - Jan, 2018 (+1 month)
  - delays due to administrative overhead at respective organisations
  - final confirmation received on Dec 15, 2016
  - work remotely, meet in person only if necessary
  - coordinated remote sessions scheduled as needed, based on availability
- Working sessions planned so far, further sessions as needed
  - WK7: Feb 14-17 Session 1 @ UG (4 days)
  - WK34: Aug 22-25 Session 2 @ UG (4 days)

# Milestones (Current Planning)

<b>N</b>	<b>Task / Milestone / Deliverable</b>	<b>ToR Targets</b>	<b>Current Targets</b>
M0	Start of work	Sep-2016	Jan-2017
T0	Project management	Sep-2016–Sep-2017	Jan-2017–Jan-2018
T1	TDL-to-TTCN-3 mapping	Sep-2016–Sep-2017	Jan-2017–Jan-2018
T2	Advanced test configuration features	Sep-2016–Apr-2017	Jan-2017–Aug-2017
T3	Language maintenance	Sep-2016–Apr-2017	Jan-2017–Aug-2017
T4	Requirements for security and performance testing	Mar-2017–Sep-2017	Jun-2017–Dec-2017
M1	Informal report on planning	16-Dec-2016	Jan-2017
M2	1 <sup>st</sup> drafts	28-Apr-2017	May-2017
M3	2 <sup>nd</sup> drafts	28-Jul-2017	Sep-2017
<b>M4</b>	<b>Final drafts for MTS review</b>	<b>01-Sep-2017</b>	<b>Dec-2017</b>
M5	Final report, end of work, TB approval	27-Sep-2017	Jan-2018
M6	Membership vote	27-Sep-2017	Feb-2018
M7	Publication	01-Dec-2017	Apr-2018



# Overall Timeline (Current)

Task Milest.	Description	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
T0	Project management																
T1	TDL-to-TTCN-3 mapping																
T2	Advanced test configuration																
T3	Language maintenance																
T4	Requirements solicitation																
M0	Start of work																
M1	Informal report on planning																
M2	1st drafts																
M3	2nd drafts																
M4	Final drafts for MTS review																
M5	Final report, TB approval																
M6	Membership vote																
M7	Publication																

# Notes from SG Meetings

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- Inter-SUT communication remains as future work
- Introduce local ordering as explicit property of test description
- Focus on message-based communication at first
- Data mapping required at first
- Advanced test configuration as TDL extension (similar to TO)
- Security and performance WI cancelled (resources reallocated)

# Deliverable Status

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- Part 1: refinements
  - definitions, time, newly added parts, predefined functions
  - future directions for local ordering, collections, inheritance
- Parts 2, 3, 4 updated according to changes in Part 1
- Part 5 (UML Profile) not updated according to changes in Part 1
- Part 6
  - content and examples refinements, introduction, notation
- All examples need to be updated and aligned (Milestone 3)

TOP

# TOP Status

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- Added
  - MM implementation (Part 1, Part 3)
  - Textual editor (Annex B, Part 1; Annex B, Part 4)
  - Graphical **editor** (Part 2)
  - Translation between textual and XF representation (Part 3)
  - Validation / constraint implementation (Part 1)
- Pending
  - **Word generation** (Part 4)

# TOP Planning

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- Nov 2017
  - migrate Word generation
- Dec 2017
  - create examples project / repository (sharing platform?)
  - add essential features of new standard version
- Mar 2017
  - add all new features of new standard version
  - add TTCN-3 generation prototype, build automation

# Next Steps

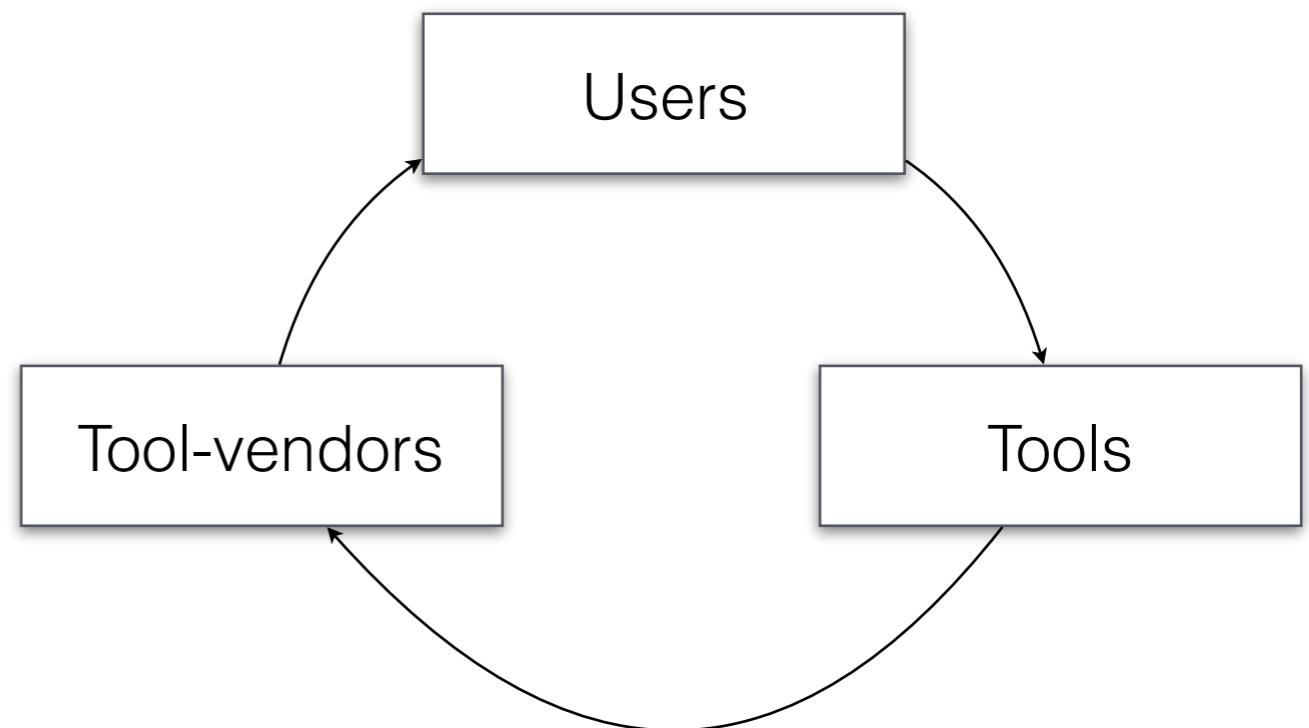
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- WI for Extended Test Configurations (Part 7): ASAP
- Milestone 3 submission: December 15 (wrong dates in WIs)
- SQJ Article submission: December 15
- MTS#73 and progress report: January 23-24
- Continuation of activities in the future? TBD at MTS#73

# The Future of TDL

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- We need users
  - initial studies and some interest at ETSI
  - other parties: NetResults, TSP, U-Ottawa, McGill U
- Users need tools and guides
  - TOP can be a platform for both
- Tools need tool-vendors
  - TOP as a starting point
- Tool-vendors need users





# The Future of TDL

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- Further refinements and extensions desirable
  - inheritance, data and typing, local behaviour, mapping to TTCN-3
  - secondary, need to come from actual users
- Main focus on increasing acceptance and adoption
  - identify limiting factors and act on them, requires faster turnaround
  - information and training on solving actual problems instead of on features
- Fostering initiative among stakeholders
- Support and funding opportunities

# Any other business?

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