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## NS (V7.3.0) Protocol Modules for TTCN-3 Toolset with TITAN, User Guide

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## 1 Introduction

### 1.1 Revision history

Date	Rev	Characteristics	Prepared
2008-01-22	PA1	First draft version	ETHEKR
2008-01-23	PA2	Updated after inspection	ETHEKR

### 1.2 About this Document

#### 1.2.1 How to Read this Document

This is the User Guide for the NS v7.3.0 protocol module. The NS v7.3.0 protocol module is developed for the TTCN-3 Toolset with TITAN. This document should be read together with Product Revision Information [3] and Function Specification [4].

#### 1.2.2 Presumed Knowledge

To use this protocol module the knowledge of the TTCN-3 language [1] and TITAN Test Executor [2] is essential.

#### 1.2.3 References

- [1] ETSI ES 201 873-1 v.3.2.1 (2007-02)  
The Testing and Test Control Notation version 3. Part 1: Core Language
- [2] 1/198 17-CRL 113 200 Uen  
User Guide for the TITAN TTCN-3 Test Executor
- [3] 109 21-CNL 113 578-1 Uen  
NS (V7.3.0) Protocol Modules for TTCN-3 Toolset with TITAN, Product Revision Information
- [4] 155 17- CNL 113 578 Uen  
NS (V7.3.0) Protocol Modules for TTCN-3 Toolset with TITAN, Function Specification
- [5] 2/198 17-CRL 113 200 Uen  
Programmer's Technical Reference for the TITAN TTCN-3 Test Executor
- [6] 1/1531-CRL 113 200 Uen  
Installation Guide for the TITAN TTCN-3 Test Executor

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#### 1.2.4 Abbreviations

NS Network Service

TTCN-3 Testing and Test Control Notation version 3

#### 1.2.5 Terminology

No specific terminology is used.

#### 1.3 System Requirements

Protocol modules are a set of TTCN-3 source code files that can be used as part of TTCN-3 test suites only. Hence, protocol modules alone do not put specific requirements on the system used. However in order to compile and execute a TTCN-3 test suite using the set of protocol modules the following system requirements must be satisfied:

- TITAN TTCN-3 Test Executor R7A (1.7.pl0) or higher installed. For installation guide see [2]. Please note: This version of the protocol module is not compatible with TITAN releases earlier than R7A.

Protocol modules implement the message structures of the related protocol in a formalized way, using the standard specification language TTCN-3. This allows defining of test data (templates) in the TTCN-3 language [1] and correctly encoding/decoding messages when executing test suites using the Titan TTCN-3 test environment [2].

Protocol modules are using Titan's RAW encoding attributes [2] and hence are usable with the Titan test toolset only.

#### 1.4 Installation

The set of protocol modules can be used in developing TTCN-3 test suites using any text editor. However to make the work more efficient a TTCN-3-enabled text editor is recommended (e.g. nedit, xemacs). Since the NS protocol is used as a part of a TTCN-3 test suite, this requires TTCN-3 Test Executor be installed before the module can be compiled and executed together with other parts of the test suite. For more details on the installation of TTCN-3 Test Executor see the relevant section of [2].

#### 1.5 Configuration

None.