

TTsuite-ITS

The Test Suite for Running Conformance Tests against ITS Equipment

Features

- ETSI TTCN-3 Conformance Test Suite for
 - Transmission of IP packets over GeoNetworking
ETSI TS 102 859-x V1.1.1 (2011-03)
 - Co-operative Awareness Messages (CAM)
ETSI TS 102 868-x V1.1.1 (2011-03)
 - Decentralized Environmental Notification Messages (DENM)
ETSI TS 102 869-x V1.1.1 (2011-03)
 - GeoNetworking Basic Transport Protocol (BTP)
ETSI TS 102 870-x V1.1.1 (2011-03)
 - GeoNetworking ITS-G5
ETSI TS 102 871-x V1.1.1 (2011-06)
- Free codec and adaptation based on the validation done by ETSI
- Direct Ethernet communication for protocol messages and UDP communication for upper tester communication
 - Freely exchangeable
 - FYI: currently direct Ethernet communication with the System Under Test or radio communication via a Cohda box connected via Ethernet
- Platform-independent in using Java (existing ETSI adaptation implementation)
 - Usage of ANSI C as adaptation possible as well
- Freely combinable with additional test access (TTplugins)

Benefits

- Ensure the conformance of an implementation or a system based on ETSI test specifications (required for interoperability at ETSI PlugTests™)
- Fast and simple test execution and analysis
- Repeatability of tests and full support of test automation
- Platform independence and rapid integration in existing test environments
- Flexibility through usage of the constantly evolving standardized test notation TTCN-3

Target Audience

- Companies supplying or testing ITS technology

Requirements

- Cohda Wireless MK2 WAVE-DSRC Radio
- Upper Tester functionality implemented
 - Necessary to execute selected test cases



Base Specification

- ETSI TS 102 636-4-1: Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 4: Geographical addressing and forwarding for point-to-point and point-to-multipoint communications; Sub-part 1: Media independent functionalities

Test Specifications

- ETSI TS 102 859-x V1.1.1: Conformance test specifications for Transmission of IP packets over GeoNetworking (GN6); Parts 1/2/3*
- ETSI TS 102 868-x V1.1.1: Conformance test specification for Co-operative Awareness Messages (CAM); Parts 1/2/3*
- ETSI TS 102 869-x V1.1.1: Conformance test specification for Decentralized Environmental Notification Messages (DENM); Parts 1/2/3*
- ETSI TS 102 870-x V1.1.1: Conformance test specifications for GeoNetworking Basic Transport Protocol (BTP); Parts 1/2/3*
- ETSI TS 102 871-x V1.1.1: Conformance test specifications for GeoNetworking ITS-G5 (GN); Parts 1/2/3*

*Part 1: Test requirements and Protocol Implementation Conformance Statement (PICS) proforma; Part 2: Test Suite Structure and Test Purposes (TSS&TP); Part 3: Abstract Test Suite (ATS) and Protocol Implementation eXtra Information for Testing (PIXIT)

Reference Platforms

- Java 6
- Windows 7 (32bit or 64bit) / Vista / XP / 2000
- Linux Red Hat - v7.1 (x86/GTK)
- Linux SuSE - v9.1 (x86/GTK)

