



# TTsuite-IPv6

## The Test Suite for Analyzing the IPv6 Stack in Hosts, Routers and IPv6 Implementations

### Features

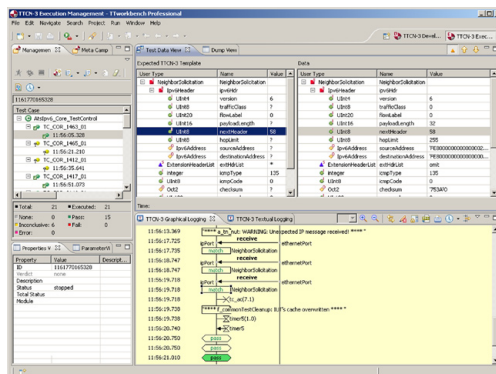
- 610 full featured tests for
  - Core functionality
  - Neighbor Discovery
  - Stateless Address Autoconfiguration
  - ICMPv6
  - IPSEC (IKEv2)
  - Router Renumbering
- Tests for IPv6 protocol behavior and syntax variations in IPv6 messages
- Exhaustive set of context parameters for flexible adaptation of IPv6 tests to the IPv6 implementation under test
- Fully automated test execution
- Platform-independent test execution
- Test tracing on different levels of detail
- Summary of test results
- Test definition and documentation in the standardized test notation TTCN-3

### Benefits

- Standards-based testing according to IPv6 specifications
- 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

### Applications

- All applications using IPv6 (Hosts/Routers with IPv6 stack, IPv6 Implementations, VoIP ...)
  - Telnet / SSH / VNC
  - WWW
  - Email
  - FTP
  - IRC
  - VoIP / Video-conferencing / Streaming
  - File server / Web server / FTP server



Test Management, Execution and Analysis for IPv6



## Standards

- ETSI TS 102 514 v 2.1.1 IPv6 Core :Requirements Catalogue
- ETSI TS 102 515 v 1.1.2 IPv6 Core: Conformance TSS & TP
- ETSI TS 102 516 v 3.1.1 IPv6 Core: Conformance Test Suite
- ETSI TS 102 558 v 1.1.1 IPv6 Security: Requirements Catalogue
- ETSI TS 102 593 v 1.2.0 IPv6 Security: Conformance TSS & TP
- ETSI TS 102 594 v 1.2.0 IPv6 Security: Conformance Test Suite
- ETSI TS 102 559 v 1.1.1 IPv6 Mobility: Requirements Catalogue
- ETSI TS 102 595 v 1.2.0 IPv6 Mobility: Conformance TSS & TP
- ETSI TS 102 596 v 1.2.0 IPv6 Mobility: Conformance Test Suite
- ETSI TS 102 599 v 1.1.1 IPv6 to IPv4 Transitioning: Requirements Catalogue
- ETSI TS 102 518 v 1.1.1 IPv6 to IPv4 Transitioning: Conformance TSS & TP
- ETSI TS 102 751 v 1.1.1 IPv6 to IPv4 Transitioning: Conformance Test Suite
- RFC 1981, Path MTU Discovery for IP version 6, August 1996
- RFC 2374, An IPv6 Aggregatable Global Unicast Address Format, July 1998
- RFC 2460, Internet Protocol, Version 6 (IPv6) Specification, December 1998
- RFC 2461, Neighbor Discovery for IP Version 6 (IPv6), December 1998
- RFC 2462, IPv6 Stateless Address Autoconfiguration, December 1998
- RFC 2463, Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification, December 1998
- RFC 2675, IPv6 Jumbograms, August 1999
- RFC 2711, IPv6 Router Alert Option, October 1999
- RFC 2894, Router Renumbering for IPv6, August 2000
- RFC 3484, Default Address Selection for Internet Protocol version 6 (IPv6), Feb 2003
- RFC 3513, Internet Protocol Version 6 (IPv6) Addressing Architecture, April 2003
- RFC 2529, Transmission of IPv6 over IPv4 Domains without Explicit Tunnels, Mar 1999
- RFC 2765, Stateless IP/ICMP Translation Algorithm (SIIT), February 2000
- RFC 3056, Connection of IPv6 Domains via IPv4 Clouds, February 2001
- RFC 4213, Basic Transition Mechanisms for IPv6 Hosts and Routers, October 2005
- RFC 3775, Mobility Support in IPv6 (MIPv6), June 2004
- RFC 3776, Using IPsec to Protect Mobile IPv6 Signalling between Mobile Nodes and Home Agents, June 2004
- RFC 4068, Fast Handovers for Mobile IPv6, July 2005
- RFC 2473, Generic Packet Tunnelling in IPv6, December 1998
- RFC 4301, Security Architecture for the Internet Protocol, December 2005
- RFC 4302, IP Authentication Header, December 2005
- RFC 4303, IP Encapsulating Security Payload (ESP), December 2005
- RFC 4305, Cryptographic Algorithm Implementation Requirements for Encapsulating Security Payload (ESP) and Authentication Header (AH), December 2005
- RFC 4306, Internet Key Exchange (IKEv2) Protocol, December 2005
- RFC 2405, The ESP DES-CBC Cipher Algorithm With Explicit IV, November 1998
- ETSI ES 201 873-1 TTCN-3 Core Language V4.1.1 (2009-06)

## Reference Platforms

- Java 6
- Microsoft Windows XP, Vista, 7 (x86-32)
- Red Hat Enterprise Linux (GTK, x86-32, x86-64)
- Fedora (GTK, x86-32, x86-64)
- SUSE Linux (GTK, x86-32, x86-64)