PTCC

Protocol & Testing Competence Centre

The ETSI Protocol and Testing Competence Centre
is a unique resource available to ETSI Technical Bodies for the application of leading-edge specification, validation and testing techniques of ETSI deliverables.
The task of the PTCC is to help the ETSI membership produce the very best standards and products possible.

Working closely with ETSI Technical Committee Methods for Testing and Specification (TC MTS), the PTCC assists with all aspects of protocol specification, validation and testing. This includes helping Technical Bodies to define their testing strategy and running the Specialist Task Forces that produce test spécifications.

MTS
METHODS FOR TESTING AND SPECIFICATION

As Standards and interoperability become crucial factors in market success, the way that standards are written becomes increasingly important. ETSI's aim is always to produce documents that are clear and easy – easy to understand and easy to use. TC MTS (Methods for Testing and Specification) provides the frameworks and methodologies necessary to enable the other ETSI Technical Bodies to achieve this goal.

MTS meetings are attended by experts from the major telecommunications companies of Europe. Most large international telecoms businesses operate their own competence centres or at least have dedicated staff responsible for testing and specification. These organizations make decisions about which specification languages to use, how to use them and how they are to be supported by various tools. They come to MTS meetings to ensure that ETSI develops complementary guidelines for the use of these languages within standards.

Interested in
testing
SIGTRAN
VoIP
IPv6 ?

Join the

ETSI

MTS
METHODS FOR TESTING AND SPECIFICATION

IP Testing Group

TC MTS = Methods for Testing and Specification

MTS IPT = IP Testing group in MTS

MTS IPT main focus
- Development of methodology and techniques for IP testing
- Development of standardized test specifications for IP and IP-related technologies

Current protocols
- IPv6
- SIGTRAN
- VoIP
  > SIP
  > H.323 (H.225, H.245)
  > H.248

IPT Group chaired by Gyorgy Rethy (Ericson)

VoIP

Conformance test specifications for SIP (RFC3261)
- Test purposes & TTCN-3 test suite (published as TS 102 027). Now in the maintenance phase - feedback welcome

Conformance test specifications for H.225
- PICS, Test purposes, TTCN-2 test suite (published as TS 101 804)

Conformance test specifications for H.248
- Test purposes & TTCN-3 test suite (published as TS 102 374).

SIGTRAN

Conformance tests for SCTP (RFC2960, RFC3309)
- Based on ETSI subset of SCTP (TS 102 144)
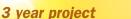- Test purposes (published as TS 102 369)

Conformance tests for M3UA (RFC 3332)
- Based on ETSI subset of M3UA (TS 102 142)
- Test purposes (published as TS 102 381)

Conformance tests for M2UA (RFC 3331)
- Test purposes (published as TS 102 380)

IPv6 Activities

eEurope IPv6

3 year project

Output of the project :
For each focus area, the project will provide the following deliverables : a comprehensive requirements catalogue, a TTCN-3 library, a TTCN-3 conformance test suite, and interoperability test descriptions. All freely available from the ETSI site [1].

The Requirements Catalogue collects and lists all the requirements extracted from the range of RFCs listed here and organises them in a functional tree structure. An online version[1] of the requirements catalogue allows dynamic searching, sorting, and filtering.

The TTCN-3[2] library provides a neutral basis from which test specifications can be developed by the various parties that wish to undertake testing - from certification bodies to product designers to research organizations.

The TTCN-3 conformance test suite provides the source code for an executable set of Test Cases that will be run against the tested equipment to validate its conformance to the related requirements.

The interoperability test descriptions group functionalities specified in the Requirements Catalogue and describe interoperability test scenarios (in natural language).

Technical focus areas:

IPv6 Core test specifications (2005)
- RFC1981 • Path MTU Discovery
- RFC2675 • IPv6 Jumbograms
- RFC2461 • Neighbor Discovery & Redirect
- RFC2462 • Stateless Address Autoconfiguration
- RFC2463 • ICMPv6
- RFC2460 • IPv6 Basic Specification
- RFC2373 • IPv6 Addressing Architecture

IPv6 Security test specifications (2006)
- RFC2410 • The NULL Encryption Algorithm and Its Use With IPsec
- RFC4301 • Security Architecture for the Internet Protocol
- RFC4302 • IP Authentication Header (AH)
- RFC4303 • IP Encapsulating Security Payload (ESP)
- RFC4305 • Cryptographic Algorithm Implementation Requirements for ESP and AH
- RFC4306 • Internet Key Exchange (IKEv2) Protocol

IPv6 Mobility test specifications (2006)
- RFC2473 • Generic Packet Tunneling in IPv6
- RFC3775 • Mobility Support in IPv6
- RFC3776 • Using IPsec to Protect Mobile IPv6 Signaling Between Mobile Nodes and Home Agents
- RFC4068 • Fast Handovers for Mobile IPv6

IPv4 to IPv6 Transitioning test specifications (2006-2007)
- RFC2529 • Transmission of IPv6 over IPv4 Domains without Explicit Tunnels
- RFC2765 • Stateless IP/ICMP Translation Algorithm (SIIT)
- RFC2766 • Network Address Translation - Protocol Translation (NAT-PT)
- RFC2893 • Transition Mechanisms for IPv6 Hosts and Routers
- RFC3056 • Connection of IPv6 Domains via IPv4 Clouds
- RFC3152 • Delegation of IP6.ARPA
- RFC3596 • DNS Extensions to Support IP Version 6
- RFC4213 • Basic Transition Mechanisms for IPv6 Hosts and Routers

(1) ETSI IP Testing group: see http://portal.etsi.org/ptcc/ipt.asp
(2) TTCN-3: see http://www.ttcn-3.org/TTCN3about.htm

Contact : anthony.wiles@etsi.org