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Foreword

ETSI Technical Reports (ETRs) are informative documents resulting from ETSI studies which are not appropriate for European Telecommunication Standard (ETS) or Interim European Telecommunication Standard (I-ETS) status. An ETR may be used to publish material which is either of an informative nature, or which is immature and not yet suitable for formal adoption as an ETS or I-ETS.

This ETR has been produced by the Advanced Testing Methods (ATM) Technical Committee of the European Telecommunications Standards Institute (ETSI). More specifically, it is the result of a joint effort of experts from ETSI TC-ATM and the European Workshop for Open Systems (EWOS) Expert Group in Conformance Testing (EGCT). Due to the similarity in objectives, ETSI TC-ATM and EWOS EGCT have agreed to issue common texts, with a few specifics, one per body. The EWOS equivalent to this ETR is known as EWOS Technical Guide (ETG) 009.

An Element of ETSI TC-ATM is to act as a catalyst for ETSI to adopt a common methodology for the development of Conformance Testing Standards within ETSI (or parts of ETSI standards dedicated to conformance testing).

ETSI TC-ATM wishes to explore innovative solutions for the long-term, and also for the present, by proposing harmonised approaches to the pressing requirements of developing test standards in various ETSI Technical Committees. This ETR aims to create a common terminology within ETSI in the area of protocol conformance testing. It is to be regarded as a base guide for terminology development of ETSI conformance testing standards. It is expected that the ETR will be revised periodically in order to take account of amended or additional terms.

ETSI TC-ATM advices TC and STC Chairmen, in their role of co-ordinators of standards development, to ensure that groups of experts working in the conformance testing field in their bodies are fully aware of the content of this ETR to allow consistency in the production of their standards and to avoid duplication and confusion.

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1   Scope

This ETR has been prepared jointly by ETSI TC-ATM and EWOS EGCT with the objective of creating a common terminology within EWOS and ETSI in the area of Protocol Conformance Testing.

According to a decision taken within the EG, TC and joint meeting, the terms included in the Vocabulary have stable definitions within the Conformance Testing and Certification communities and, in most cases, have been extracted from the publicly available standards and documents listed below:

(9646-1) =   ISO/IEC IS 9646 (CCITT X.290 Series of Recommendations): "OSI Conformance Testing Methodology and Framework. Part 1: General concepts + PDAM1 and PDAM2".

(9646-5) =   ISO/IEC IS 9646: "OSI Conformance Testing Methodology and Framework. Part 5: Requirements on test laboratories and clients for the Conformance Assessment Process".

(GUIDE 2) =   ISO/IEC Guide 2, edition 1988: "General terms and their definitions concerning standardisation and related activities".

(EN 45011) =   European standard: "General criteria for certification bodies operating product certification".

(EN 45014) =   European standard: "General criteria for suppliers' declaration of conformity".

ISO/IEC/
WDTR-10000-1.3 =   "Information Technology-Framework and taxonomy of International Standardised Profiles - Part 1: Framework".

ETG 016/ETR 040 =   "Advanced Testing Methods (ATM); Profile test specifications and conformance test reports".

CFS A150 =   "Race Common Functional Specifications - Document 8 - General terminology".

In a few cases, more than one definition for a term may be given in the reference documents. When significant, these are given together.

It should be noted that Conformance Testing is an evolving discipline where research and innovation will bring additional terms with their definitions. These will be progressively consolidated at the international level. ETSI TC-ATM maintains a working document on the subject from where new terms will be taken, when a stable definition will emerge, and included in future issues of this Vocabulary.

Finally, an annex is provided with acronyms and abbreviations commonly used in the field of Protocol Conformance Testing.

Edition 2 of the ETSI TC-ATM Vocabulary was approved by ETSI TC-ATM in December 1991. The EWOS Vocabulary and Terminology was approved by the EWOS TA in January 1991. These two documents have provided the basis for this common ETSI TC-ATM/EWOS EGCT Vocabulary.

NOTE: Order of insertion:
Strictly alphabetical;
Special characters ()-" ignored as insignificant;
Numbers lower in order than characters.

2 Vocabulary of terms

Abnormal (test case) termination
(9646-1) The term used to describe the result of execution of an abstract test case when it has been prematurely terminated by the test system.

Abstract test case
(9646-1) A complete and independent specification of the actions required to achieve a specific test purpose (or a specified combination of test purposes), defined at the level of abstraction of a particular Abstract Test Method, starting in a stable testing state and ending in a stable testing state. This specification may involve one or more consecutive or concurrent connections.

> NOTE 1: The specification should be complete in the sense that it is sufficient to enable a test verdict to be assigned unambiguously to each potentially observable test outcome (i.e. sequence of test events).

> NOTE 2: The specification should be independent in the sense that it should be possible to execute the derived executable test case in isolation from other such test cases (i.e. the specification should always include the possibility of starting and finishing in the "idle" state).

Abstract test case error
(9646-1) A test case error resulting from an error in the abstract test case.

Abstract testing context
Either a Multi-party testing (MPyT) or a Single-party testing (SPyT) context.

Abstract testing methodology
(9646-1) An approach to describing and categorising Abstract Test Methods.

Abstract Test Method (ATM)
(9646-1) The description of how an Implementation Under Test (IUT) is to be tested, given at an appropriate level of abstraction to make the description independent of any particular realisation of a Means of Testing, but will be in enough detail to enable tests to be specified for this test method.

Abstract Test Suite (ATS)
(9646-1) A test suite composed of abstract test cases.

Acceptance testing
Testing process on behalf of system customers and users, in order to meet client's specific requirements and additional options, and check implementation robustness and its successful appliance within the client's particular environment.

Access to a certification system
(GUIDE 2) Opportunity for an applicant to obtain certification under the rules of the system.

Accreditation (laboratory)
(GUIDE 2) Formal recognition that a testing laboratory is competent to carry out specific tests or specific types of tests.

> NOTE: The term "laboratory accreditation" may cover the recognition of both the technical competence and the impartiality of a testing laboratory or only its technical competence. Accreditation is normally awarded following a successful laboratory assessment and is followed by appropriate surveillance.

Accreditation body (laboratory)
(GUIDE 2) Body that conducts and administers a laboratory accreditation system and grants accreditation.

> NOTE: An accreditation body may wish to delegate fully or partially the assessment of a testing laboratory to another competent body (assessment agency). Whilst it is recognised that this may be a practical solution to extending recognition of testing laboratories, it is essential that such assessment be equivalent to that applied by the accreditation body and that the accreditation body take full responsibility for such extended accreditation.

Accreditation criteria (laboratory)
(GUIDE 2) Set of requirements that is used by an accreditation body, to be fulfilled by a testing laboratory in order to be accredited.

Accreditation system (laboratory)
(GUIDE 2) System that has its own rules of procedure and management for carrying out laboratory accreditation.

Accredited laboratory
(GUIDE 2) Testing laboratory to which accreditation has been granted.

Accredited laboratory test report
(GUIDE 2) Test report that includes a statement by the testing laboratory that it is accredited for the test reported and that the test has been performed in accordance with the conditions prescribed by the accreditation body.

Agreement Group
(EOTC term - definition in ECITC and M-IT-03) Group made up of those interested parties who have established, under the auspices of the European Organisation for Testing and Certification (EOTC), a mutual recognition agreement or certification system at the European level.

Arrangement (bilateral)
(GUIDE 2) Recognition arrangement that covers the acceptance of each other's results by two parties.

Arrangement (multilateral)
(GUIDE 2) Recognition arrangement that covers the acceptance of each other's results by more than two parties.

Arrangement (unilateral)
(GUIDE 2) Recognition arrangement that covers the acceptance of one party's results by another party.

Applicant (for certification)
(GUIDE 2) Person or body that seeks to obtain a license from a certification body.

Application Environment Profile
(TR10000-1.3) The specification of a complete and coherent subset of the Open System Environment, together with the identification of the applicable classes, subset, options and parameters of the referenced standards, necessary to support a class of applications.

Approved signatory (of an accredited laboratory)
(GUIDE 2) Person who is recognised by an accreditation body as competent to sign accredited laboratory test reports.

Attestation of conformity
(GUIDE 2) Action by a third party test laboratory, demonstrating that the specific sample tested is in conformity with a specific standard or other normative document.

Base Standard
(TR10000-1.3) An approved International Standard or CCITT Recommendation which is used in the definition of a Profile.

Basic Interconnection Test (BIT)
(9646-1) A test of an Implementation Under Test (IUT) which has limited scope to determine whether or not there is sufficient conformance to the relevant protocol(s) for interconnection to be possible, without trying to perform thorough testing.

Behaviour test
(9646-1) A test to determine the extent to which one or more dynamic conformance requirements are met by the Implementation Under Test (IUT).

Capability of an implementation
(9646-1) A set of functions in the relevant protocol(s) which is supported by the implementation.

Capability test
(9646-1) A test to verify the existence of one or more claimed capabilities of an Implementation Under Test (IUT).

> NOTE: Capability testing involves checking all mandatory capabilities and those optional ones that are stated in the Protocol Implementation Conformance Statement (PICS) as supported, but not checking those optional ones which are stated in the PICS as not supported by the IUT.

Certificate
(EN 45011) Document issued under the rules of a certification system, indicating that adequate confidence (e.g. a harmonised test report) is provided that a duly identified product, process or service is in conformity with a specific standard or other normative document.

Certificate of competence
(EN 45011) Document issued under the rules of a certification system indicating that adequate confidence is provided that the named person is competent in performing specific services.

Certificate of conformity
(GUIDE 2) Document issued under the rules of a certification system, indicating that adequate confidence is provided that a duly identified product, process or service is in conformity with a specific standard or other normative document.

Certification arrangement
(GUIDE 2) cf. recognition arrangement.

Certification body
(EN 45011) Body that conducts certification of conformity.

(GUIDE 2) Same definition.

> NOTE: A certification body may operate its own testing and inspection activities or oversee these activities carried out on its behalf by other bodies.

Certification of conformity
(EN 45011) Action by a third party, demonstrating that adequate confidence is provided that a duly identified product, process or service is in conformity with a specific standard or other normative document.

(GUIDE 2) Action by a third party, demonstrating that adequate confidence is provided that a duly identified product, process or service is in conformity with a specific standard or other normative document.

Certification scheme
(GUIDE 2) Certification system as related to specified products, processes or services to which the same particular standards and rules, and the same procedure, apply.

> NOTE: The term "certification programme" is used in some countries to cover the same concept as "certification scheme".

Certification system
(EN 45011) System that has its own rules of procedure and management for carrying out certification of conformity.

(GUIDE 2) Same definition.

> NOTE 1: Certification systems may be operated at, for example, national regional or international level.

> NOTE 2: The central body that conducts and administers a certification system may decentralise its activities and rights to certify conformity.

Client (of a test laboratory)
(9646-1) The organisation that submits a system or implementation for conformance testing.

Client check list
(9646-5) A record of test-related information supplied to the test laboratory by the client during the test preparation phase of the conformance assessment process.

Client test manager
(9646-5) The person identified by the client organisation as being responsible for all matters relating to the conformance testing of the Implementation Under Test (IUT).

Common Technical Regulation (CTR)
CTRs are regulations and their technical content will cover only "Essential Requirements" in accordance with Directive 91/263/EEC, Articles 4 and 6. Consistent with GATT undertakings, CTRs will be based upon International or European standards whenever appropriate. CTRs will point out which Clauses of the base standards apply for type certification. They will contain specifications and tests relating to the "Essential Requirements" given in Articles 4(c) to 4(g) of Directive 91/263/EEC.

Comparability (of results)
(9646-1) Characteristics of conformance assessment processes, such that their execution on the same Implementation Under Test (IUT), in different test environments, leads to the same overall summary of conformance for the specified IUT.

Comprehensive testing service
(9646-1) A service, offered to clients by a test laboratory, to perform the conformance assessment process for one or more Open System Interconnection (OSI) protocol(s), with a choice of test methods sufficient to make the service applicable to all real open systems that claim to implement the specified protocols.

Conformance
(GUIDE 2) Synonym: Conformity
Fulfilment by a product, process or service of all requirements specified.

Conformance assessment process
(9646-1) The complete process of accomplishing all conformance testing activities necessary to enable the conformance of an implementation or a system to one or more OSI International Standards or CCITT Recommendations to be assessed.

Conformance log
(9646-1) A human-readable record of information produced as a result of a test campaign, which is sufficient to record the observed test outcomes and verify the assignment of test results (including test verdicts).

Conformance resolution tests
(9646-1) Non-standardised, possibly system-specific tests to fulfil a test purpose for which standardised abstract test cases are not defined, in order to investigate the behaviour of an OSI protocol implementation with respect to particular conformance requirements.

> NOTE: It should cover both capability testing and behaviour testing. It may be qualified by the adjectives: abstract, generic or executable, as appropriate. Unless stated otherwise, an "abstract test suite" is meant.

Conformance testing
(9646-1) Testing the extent to which the Implementation Under Test (IUT) is a conforming implementation.

Conformance Testing Specification
(9646-1) The specification, or draft thereof, that contains a Test Suite Structure and Test Purpose(s) (TSS & TP) and a standardised Abstract Test Suite (ATS).

(Conformance) test suite
(9646-1) The complete set of test cases, possibly combined into nested test groups, that is needed to perform dynamic conformance testing for one or more OSI protocols.

> NOTE: It should cover both capability testing and behaviour testing. It may be qualified by the adjectives: abstract, generic or executable, as appropriate. Unless stated otherwise, an "abstract test suite" is meant.

Conforming implementation
(9646-1) An Implementation Under Test (IUT) which satisfies both static and dynamic conformance requirements, consistent with the capabilities stated in the Protocol Implementation Conformance Statement (PICS(s)) or Profile Implementation Conformance Statement (ICS).

Conformity
See Conformance.

Co-ordinated test method
(9646-5) An Abstract Test Method in which the upper tester is within the System Under Test (SUT) and for which a standardised Test Management Protocol is defined for the test co-ordination procedures, enabling the control and observation to be specified solely in terms of Lower Tester activity, including the control and observation of test management Protocol Data Units (PDUs).

Declaration of conformity
(EN 45014) Statement of supplier, claiming under his sole responsibility that a product, process or service is in conformity with a specific standard or other normative document.

> NOTE 1: The term "self certification" should no longer be used, in order to avoid any confusion with the concept of certification which should imply the involvement of a third party.

(GUIDE 2) (deprecated: self-certification) Statement by a supplier, claiming under his sole responsibility that a product, process or service is in conformity with a specific standard or other normative document.

> NOTE 2: The term "self-certification" should no longer be used, in order to avoid any confusion with the concept of certification, which should imply the involvement of a third party.

Distributed test method
(9646-1) An Abstract Test Method in which the Upper Tester is within the System Under Test (SUT) and there is a Point of Control and Observation (PCO) at the upper service boundary of the Implementation Under Test (IUT).

Dynamic conformance requirements
(9646-1) One of the requirements which specifies what observable behaviour is permitted by the relevant specification(s) in instances of communication.

Embedded testing
(9646-1) Testing specified for a single protocol within a multi-protocol Implementation Under Test (IUT) including the specification of the protocol activity above the one being tested, but without specifying control or observation at service boundaries within the multi-protocol IUT.

> NOTE: This definition assumes that the protocols of the IUT are ordered in a continuous adjacent user/provider relationship.

European standard
A standard which has been approved pursuant to the statutes of the European standard bodies with which the Community has concluded agreements.

Executable test case
(9646-1) A realisation of an abstract test case.

> NOTE: In general, the use of the word "test" in ISO/IEC IS 9646 implies its normal English meaning. Sometimes it may be used as an abbreviation for abstract test case or executable test case. The context should make the meaning clear.

Executable test case error
(9646-1) A test case error in the realisation of an abstract test case.

Executable test suite (ETS)
(9646-1) A test suite composed of executable test cases.

Fail (verdict)
(9646-1) A test verdict given when the observed test outcome either demonstrates non-conformance with respect to (at least one of) the conformance requirement(s) on which the test purpose(s) of the test case is (are) focused, or contains at least one invalid test event, with respect to the relevant specifications.

Foreseen test outcome
(9646-1) An observed test outcome identified in the abstract test case.

> NOTE: A foreseen test outcome may include an unidentified test event.

Generic test case
(9646-1) A specification of the actions required to achieve a specific test purpose, defined by a test body together with a description of the initial testing state in which the test body is to start.

Generic test suite
(9646-1) A test suite composed of generic test cases.

Idle testing state
(9646-1) A stable testing state in which there is no established connection of the relevant protocol(s) and in which the state of the System Under Test (SUT) is independent of any previously executed test cases.

Implementation Conformance Statement (ICS)
(9646-1) A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented. In the case of protocols, the ICS can take several forms: Protocol ICS, Profile ICS, Profile Specific ICS.

Implementation conformance statement proforma
(9646-1) A document, in the form of a questionnaire, which when completed for an implementation or system becomes an Implementation Conformance Statement (ICS).

Implementation eXtra Information for Testing (IXIT)
(9646-1) A statement made by a supplier or implementor of an Implementation Under Test (IUT) which contains or references all of the information (in addition to that given in the ICS) related to the IUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the IUT. In the case of protocols, the IXIT can take several forms: Protocol IXIT, Profile IXIT, Profile Specific IXIT.

Implementation Under Test (IUT)
(9646-1) That part of a real open system which is to be studied by testing, which should be an implementation of one or more OSI protocols in an adjacent user/provider relationship.

Inconclusive (verdict)
(9646-1) A test verdict given when the observed test outcome is such that neither a pass nor a fail verdict can be given.

Information Object ICS
(9646-1) An ICS for an implementation or system claimed to conform to a given information object specification.

Initial testing state
(9646-1) The testing state in which a test body starts.

> NOTE: This may be either a stable testing state or a transient state.

Inopportune test event
(9646-1) A test event which occurs when not allowed to do so by the protocol specification.

Inspection body (for certification)
(GUIDE 2) Body that performs inspection services on behalf of a certification body.

Interlaboratory test comparisons
(GUIDE 2) Organisation, performance and evaluation of tests on the same or similar items or materials by two or more laboratories in accordance with predetermined conditions.

International Standardised Profile (ISP)
(TR10000-1.3) An internationally agreed-to, harmonised document which identifies a standard or group of standards, together with option and parameters, necessary to accomplish a function or set of functions.

Interoperability testing
(GUIDE 2) Testing to determine whether two or more systems are able to interwork.

Interworking
(9646-1) The condition where two or more open systems implement the same product specification, or set of product specifications, in such a way as to be able to carry out a common (distributed) task - covered by the scope of the product specification(s) - in a useful way.

Invalid test event
(9646-1) A test event that violates at least one conformance requirement of the relevant protocol or transfer syntax specification.

> NOTE: This term is not to be confused with the term "invalid event" as defined in ISO 7776.

IUT component
(9646-1) That part of an Implementation Under Test (IUT) which communicates with a specific Lower Tester.

(Laboratory) accreditation
(GUIDE 2) See accreditation (laboratory).

(Laboratory) accreditation body
(GUIDE 2) See accreditation body (laboratory).

(Laboratory) accreditation criteria
(GUIDE 2) See accreditation criteria (laboratory).

(Laboratory) accreditation system
(GUIDE 2) See accreditation system (laboratory).

Laboratory assessment
(GUIDE 2) Examination of a testing laboratory to evaluate its compliance with specific laboratory accreditation criteria.

Laboratory assessor
(GUIDE 2) Person who carries out some or all functions related to laboratory assessment.

(Laboratory) proficiency testing
(GUIDE 2) Determination of laboratory testing performance by means of inter-laboratory test comparisons.

License (for certification)
(EN 45011) (GUIDE 2) Document, issued under the rules of a certification system, by which a certification body grants to a person or body the right to use certificates or marks of conformity for its products, processes or services in accordance with the rules of the relevant certification scheme.

License (for certification)
(GUIDE 2) Person or body to which a certification body has granted a license.

Local test method
(9646-1) An Abstract Test Method in which both the lower and upper testers are located within the test system and there is a Point of Control and Observation (PCO) at the upper service boundary of the Implementation Under Test (IUT).

Loop-back abstract test method (YL)
(9646-1) An Abstract Test Method for Open Relay-system in which the System Under Test (SUT) operates between two subnetworks, the connections being looped together on one side, and the Point of Control and Observation (PCO) concentrated on the other side, in a single test system.

Lower tester (LT)
(9646-1) The representation in ISO/IEC IS 9646 of the means of providing, during test execution, indirect control and observation of the lower service boundary of the Implementation Under Test (IUT) via the underlying service provider.

> NOTE: The underlying service-provider is immediately beneath the (lowest layer) protocol which is the focus of testing. It may use one or more OSI layers, or only the Physical medium.

Lower tester control function
(9646-1) The means of providing the co-ordination of lower testers and assigning the verdict in a Multi-party testing (MPyT) context.

Mark of conformity (for certification)
(GUIDE 2) Protected mark, applied or issued under the rules of a certification system, indicating that adequate confidence is provided that the relevant product, process or service is in conformity with a specific standard or other normative document.

Means of testing (MOT) (IUTs)
(9646-1) The combination of equipment and procedures that can perform the derivation, selection, parameterisation and execution of test cases, in conformance with a reference standardised Abstract Test Suite (ATS), and can produce a conformance log.

Member of a certification system
(GUIDE 2) Certification body that operates under the rules of the system and has the opportunity to take part in the management of the system.

Multi-party testing (MPyT) context
(9646-1) A context in which the Implementation Under Test (IUT) is tested as a whole, and is required to communicate with multiple other real systems concurrently.

Multi-party testing methodology
(9646-1) Extension of ISO/IEC 9646: 1991 OSI conformance testing methodology taking into consideration both single-party and multi-party testing contexts.

Alternative definition: an abstract testing methodology that covers both the single-party and multi-party testing contexts.

Multi-protocol testing
Testing of more than one protocol within the Implementation Under Test (IUT) by means of test cases which have test purposes which cover conformance requirements that relate to more than one protocol.

Norme Européenne de Télécommunications (NET) (now replaced by CTR)
An approved technical Recommendation of the CEPT or European Telecommunication Standard (ETS) or part or parts thereof which the signatories of the Memorandum of Understanding, established at the meeting of Directors-General of CEPT Administrations, in Copenhagen on 15 November 1985, adopted in accordance with the procedures set down in that Memorandum.

Negotiated exit (NE)
(9646-5) A point at which the test laboratory and the client can mutually decide to terminate the conformance assessment process.

Observed test outcome
(9646-1) The sequence of test events, together with associated data and/or parameter values, which occurred during test execution of a specific parameterised executable test case.

Open System Environment
(TR10000-1.3) The comprehensive set of interfaces, services, and supporting formats, plus user aspects, for interoperability and/or portability of applications, data, or people, as specified by information technology, standards and profiles.

OSI Profile
(TR10000-1.3) A profile which references base standard(s) which adhere to the structure defined by the Basic Reference Model for OSI in ISO/IEC 7498.

Outcome
(9646-1) See Observed, foreseen, unforeseen test outcome.

Parameterised abstract test case
(9646-1) An abstract test case in which all relevant parameters have been supplied with values in accordance with the appropriate PICS(s) and PIXIT(s) or Profile ICS and Profile IXIT.

Parameterised abstract test suite (PATS)
(9646-1) A selected Abstract Test Suite (ATS) in which all test cases have been parameterised in accordance with the appropriate PICS(s) and Protocol Implementation Extra Information for Testing (PIXIT(s)) or Profile ICS and Profile IXIT.

Parameterised executable test case
(9646-1) An executable test case, in which all appropriate parameters have been supplied with values in accordance with a specific PICS(s) and PIXIT(s), and corresponding to a parameterised abstract test case.

Parameterised executable test suite (PETS)
(9646-1) A Selected Executable Test Suite (SETS), in which all test cases have been parameterised in accordance with the relevant PICS(s) and PIXIT(s) or Profile ICS and Profile IXIT as appropriate and corresponding to a Parameterised Abstract Test Suite (PATS).

Participant in a certification system
(GUIDE 2) Certification body that operates under the rules of the system without having the opportunity to take part in the management of the system.

Pass (verdict)
(9646-1) A test verdict given when the observed test outcome gives evidence of conformance to the conformance requirement(s) on which the test purpose(s) of the test case is (are) focused, and when all the test events are valid with respect to the relevant specifications.

PICS proforma
An ICS proforma for an OSI protocol specification.

PIXIT proforma
(9646-1) A document, in the form of a questionnaire, provided by the test laboratory, which when completed during the preparation for testing becomes a PIXIT.

Point of Control and Observation (PCO)
(9646-1) A point within a testing environment where the occurrence of test events is to be controlled and observed, as defined in an Abstract Test Method.

> NOTE: A PCO is characterised by the set of Abstract Service Primitives (ASPs) and/or Protocol Data Units (PDUs) that can occur, according to the Abstract Test Method (ATM), at the PCO.

Preliminary result
Information to be recorded in the conformance log and to be used in determining the verdict.

Product standard
(GUIDE 2) Standard that specifies requirements to be fulfilled by a product or a group of products, to establish its fitness for purpose.

> NOTE 1: A product standard may include, in addition to the fitness for purpose requirements, directly or by reference, aspects such as terminology, sampling, testing, packaging and labelling and sometimes processing requirements.

> NOTE 2: A product standard can be either complete or not, according to whether it specifies all or only part of the necessary requirements. In this respect one may differentiate between standards such as dimensional, material and technical delivery standards.

Proficiency testing (laboratory)
(GUIDE 2) Determination of a laboratory testing performance by means of interlaboratory test comparisons.

Profile (OSI protocol)
(TR10000-1.3) A set of one or more base standards, and where applicable, the identification of chosen classes, subsets, options and parameters of those base standards, necessary for accomplishing a particular function.

(9646-1) A profile (as defined by TR10000-1) which specifies a selection of options from a set of related OSI protocols, possibly together with one or more transfer syntaxes and/or information objects.

> NOTE 1: Throughout ISO/IEC 9646 "profile" should be taken to mean "OSI protocol profile". ISO/IEC 9646 in general refers to profiles and profile specification documents. An ISP is an example of a profile specification document specifying one or more profiles.

> NOTE 2: The profile specification may be in an ISP, an International Standard or CCITT Recommendation.

Profile conformance testing
Testing the extent to which an Implementation Under Test (IUT) conforms to a profile specification.

Profile Implementation Conformance Statement (Profile ICS)
An ICS for a system claimed to conform to a given profile, comprising the Profile Requirements List (Profile RL), plus the base specification ICSs plus the profile specification ICS.

> NOTE 1: The corresponding ISO/IEC TR10000-1 term is "ISP Implementation Conformance Statement" (ISPICS).

> NOTE 2: An ISPICS is a special case of a Profile ICS, taken into account that a ISP can contain one/more profiles.

Profile Implementation eXtra Information for Testing (Profile IXIT)
An IXIT related to testing for conformance to a given profile, comprising the Profile IXIT Requirements List (XRL), plus the base specification IXITs, plus the profile specification IXIT.

> NOTE: An ISP Implementation eXtra Information for Testing (ISPIXIT) is a special case of a Profile IXIT, taken into account that a ISP can contain one/more profiles.

Profile IXIT Requirements List (Profile XRL)
(9646-1) A specification within a profile test specification of the requirements to be met by a Profile IXIT for testing a system that is stated to conform to the relevant profile. A Profile XRL specifies requirements to be met by the relevant base specification IXITs.

Profile Requirements List (Profile RL)
(9646-1) A specification, within a profile specification, of the requirements to be met by a Profile ICS for a system which is stated to conform to that profile. A profile RL specifies requirements to be met by the relevant PICSs.

> NOTE: The corresponding ISO/IEC TR10000-1 term is "ISPICS Requirements List" (IPRL).

Profile Specification Document
(9646-1) A standardised document containing one or more profiles. A profile specification document may be an International Standardised Profile (ISP), OSI International Standard or a CCITT Recommendation.

Profile Specific Implementation Conformance Statement (Profile Specific ICS)
An ICS for a system claimed to conform to a given profile, answering questions which are profile-specific and additional to those of the base specification ICS proformas mentioned in the Profile RL.

Profile Specific Implementation eXtra Information for Testing (Profile Specific IXIT)
An IXIT related to testing conformance to a given profile, answering questions related to the IUT and its testing environment, which are profile-specific and additional to those of the base specifications PIXITs.

Profile Specific Test Specification (PSTS)
(9646-1) A standardised document which specifies the information necessary to extend and adapt the set of standardised ATSs relevant to the base specifications referenced by a given profile, including test cases for multi-protocol conformance requirements if necessary in order to provide a complete set of abstract test cases for that profile.

PSTS test case replacement list
(9646-1) The list of abstract test cases from base specification ATSs to be deselected for a given profile and replaced by abstract test cases given in the PSTS.

Profile Test Specification (PTS)
A PTS-summary plus the set of documents referenced by it, including the set of base specification TSS & TP and ATSs plus the PSTS if any for the given profile.

Definition from ETG/ETR on Profile Test Specifications and conformance test reports:

A Profile Test Specification (PTS) is the collection of test specification documents relating to a particular Profile documented in a Functional Standard.

Profile Test Specification Summary (PTS Summary; PTS-S)
A standardised document which references all the documents necessary to completely specify conformance testing for a given profile, including a TSS & TP and at least one ATS for each base specification referenced by the profile, and the PSTS if any.

Definition from ETG/ETR on Profile Test Specifications and conformance test reports:

This ETG/ETR provides references to the various test specification documents designed to test a profile.

Protocol Conformance Test Report (PCTR)
(9646-1) A document, written at the end of the conformance assessment process, giving the details of the testing carried using a particular ATS(s). It lists all of the abstract test cases and identifies those for which corresponding executable test cases were run, together with the verdicts assigned.

Protocol Implementation Conformance Statement (PICS)
(9646-1) An ICS for an OSI implementation or system, claimed to conform to a given OSI protocol specification.

Protocol Implementation eXtra Information for Testing (PIXIT)
(9646-1) An IXIT related to testing for conformance to a given OSI protocol.

Protocol Profile Test Methodology (PPTM)
The ISO/IEC JTC1/SC21/WG1 work item related to the extension of ISO/IEC 9646 to conformance and conformance testing for ISPs.

Recognition Arrangement (RA)
(GUIDE 2) Agreement that is based on the acceptance by one party of results, presented by another party, from the implementation of one or more designated functional elements of a certification system.

> NOTE 1:   Typical examples of recognition arrangements are testing arrangements, inspection arrangements and certification arrangements.

> NOTE 2:   Recognition arrangements may be established at, for example, national, regional or international level.

Reference implementation
(9646-1) An implementation of one or more standards or specifications, against which those standards or specifications may be tested for the purposes of validation of those test tools.

Reference standardised (OSI) Abstract Test Suite (ATS)
(9646-1) The standardised ATS for which a Means of Testing is realised.

Remote test method
(9646-5) An Abstract Test Method in which the control and observation of test events is specified solely in terms of Lower Tester activity, and in which some requirements for test co-ordination procedures may be implied or informally expressed in the ATS, but in which no assumption is made regarding their feasibility or realisation.

Repeatability (of results)
(9646-1) Characteristic of a test case, such that repeated executions on the same Implementation Under Test (IUT) under the same conditions lead to the same test verdict, and by extension a characteristic of a test suite.

Requirements List (RL)
(9646-1) A document specifying additional constraints placed by a profile on the allowed answers in a base standard PICS. The RL can take several forms: Profile RL, Profile XRL.

Selected Abstract Test Suite (SATS)
(9646-1) The subset of an ATS selected using the PICS(s) and PIXIT(s), or Profile ICS and Profile IXIT, relevant to the Implementation Under Test (IUT).

Selected Executable Test Suite (SETS)
(9646-1) The subset of an Executable Test Suite selected using the PICS(s) and PIXIT(s), or Profile ICS and Profile IXIT relevant to the Implementation Under Test (IUT).

Semantically invalid test event
(9646-1) A test event which is neither inopportune nor syntactically invalid, but which contains a semantic error with respect to the relevant protocol specification (e.g. a Protocol Data Unit (PDU) containing a parameter value outside the negotiated range for that parameter).

Single-party testing (SPyT) context
(9646-1) A context in which the Implementation Under Test (IUT) is required to communicate with a single other real open system.

Single-protocol testing
(9646-1) Testing specified for a single protocol within a single-protocol or multi-protocol Implementation Under Test (IUT).

Stable testing state
(9646-1) A testing state which can be maintained, without prescribed Lower Tester behaviour, sufficiently long to span the gap between one test case and the next in a test campaign.

Standard
(EN 45014) Document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context. Standards should be based on the consolidated results of science, technology and experience, and aimed at the promotion of optimum community benefits.

Standardised Abstract Test Suite (ATS)
(9646-1) An abstract test suite specified within an ISO/IEC or CCITT published specification or, in the absence of such a specification, within a publicly available document which is in the process of being standardised within ISO/IEC or CCITT, and which has the highest standardisation status currently available, having reached at least the committee draft, draft proposal or draft Recommendation status.

Static conformance requirement
(9646-1) One of the requirements that specify the limitations on the combinations of implemented capabilities permitted in a real open system which is claimed to conform to these relevant specifications.

Static conformance review
(9646-1) A review of the extent to which the static conformance requirements are met by the Implementation Under Test (IUT), accomplished by comparing the PICS or profile ICS with the static conformance requirements expressed in the relevant International Standard(s) or CCITT Recommendation(s) or Profile(s).

SUT operator
(9646-5) The person or persons designated by the client organisation as being responsible for operation and support of the System Under Test (SUT) during conformance testing.

Syntactically invalid test event
(9646-1) A test event which syntactically is not allowed by the protocol specification.

System conformance statement (SCS)
(9646-5) A document summarizing which OSI International Standard(s) or CCITT Recommendation(s) or Profile(s) are implemented and to which ones conformance is claimed.

System conformance test report (SCTR)
(9646-1) A document, written at the end of the conformance assessment process, giving an overall summary of the conformance of the system or implementation to the set of protocols for which conformance testing was carried out.

System under test (SUT)
(9646-1) The real open system in which the Implementation Under Test (IUT) resides.

Technical Basis for Regulation (TBR)
ETSI will produce (in co-operation with TRAC) the Technical Basis for a CTR, known as a Technical Basis for Regulation (TBR). ETSI will handle the technical aspects of CTRs, with TRAC identifying any additional regulatory requirements which may appear advisable.

A TBR can draw together requirements from various ETSs or other base standards to form a complete set of specifications and tests for type certification of certain terminal equipment, to cover the identified "Essential Requirements".

Technical support function
(GUIDE 2) A function in a recognition arrangement for the purpose of co-ordinating and harmonising e.g. the selection and use of test specifications, test methods, testing systems, maintenance and cross validation of test tools, and other related technical matters.

Test
(GUIDE 2) Technical operation that consists of the determination of one or more characteristics of a given product, process or service according to a specified procedure.

Test body
(9646-1) The sequences of test steps that achieve the test purpose.

Test campaign
(9646-1) The process of executing the Parameterised Executable Test Suite (PETS) for a particular Implementation Under Test (IUT) and producing the conformance log.

Test case
(9646-1) A generic, abstract or executable test case.

Test case error
(9646-1) The term used to describe the result of execution of a test case when an error is detected in the test case itself.

Test co-ordination messages (TCM)
A set of co-ordination messages between Lower Testers (LTs), between LTs and the Master Lower Tester (MLT), between Upper Testers (UTs), between UTs and the Master Upper Tester (MUT), between MLT and MUT, which do not interfere with the Implementation Under Test (IUT).

Test co-ordination procedures (TCP)
(9646-1) The rules for co-operation between the Lower and Upper Testers during testing.

Test description language
Notation used to specify test cases.

Test engine
See Test system.

Tester
See Lower tester, Upper tester.

Test event
(9646-1) An indivisible unit of test specification at the level of abstraction of the specification (e.g. sending or receiving a single Protocol Data Unit (PDU)).

Test group
(9646-1) A named set of related test cases.

Test group objective
(9646-1) A prose description of a narrowly defined objective which the test purposes within a specific test group are designed to achieve.

Test house
See Test laboratory.

Testing arrangement
See Recognition arrangement.

Testing laboratory
(GUIDE 2) Laboratory that performs tests.

> NOTE: The term "testing laboratory" can be used in the sense of a legal entity, a technical entity or both.

Test laboratory checklist
(9646-5) A record of test-related information supplied to the client by the test laboratory during the test preparation phase of the conformance assessment process.

Testing method
(GUIDE 2) Specified technical procedure for performing a test.

Test report
(GUIDE 2) Document that presents test results and other information relevant to a test.

Testing requirement
See Conformance requirement.

Testing service
(GUIDE 2) Service provided by a testing laboratory for carrying out testing according to a test specification.

Testing state
(9646-1) A state encountered during testing, comprising the combination of the states of the System Under Test (SUT), the test system, the protocols for which control and observation is specified in the Abstract Test Suite (ATS), and, if relevant, the state of the underlying service.

Testing support function
See Technical support function.

Testing system
See Test System.

Test laboratory
(9646-1) An organisation that carries out conformance testing. This can be a third party, a user organisation, a telecommunications administration or recognised private operating agency, or an identifiable part of a supplier organisation.

Test laboratory manager
(9646-5) The person identified by the test laboratory as being responsible for all matters relating to test laboratory operations.

Test Management Protocol (TMP)
(9646-1) A protocol which is used in the test co-ordination procedures for a particular test suite.

Test method
(GUIDE 2)   (1) (in the context of standardization:) See abstract test method.

(2) (in the context of accreditation:) See means of testing.

Test operator
(9646-5) The person or persons designated by the test laboratory as being responsible for running conformance tests against the IUT.

Test preamble
(9646-1) The sequences of test steps from the starting stable testing state of the test case up to the initial testing state from which the test body will start.

Test postamble
(9646-1) The sequences of test steps from the end of the test body up to finishing stable testing state(s) for the test case.

Test purpose
(9646-1) A prose description of a narrowly defined objective of testing, focusing on a single conformance requirement as specified in the appropriate OSI specification (e.g. verifying the support of a specific value of a specific parameter).

Test realisation
(9646-1) The process of producing a Means of Testing IUTs.

Test realiser
(9646-1) An organisation which takes responsibility for providing, in a form independent of the clients of a test laboratory and their IUTs, a Means of Testing IUTs in conformance with an ATS.

1Test report
(GUIDE 2) Document that presents test results and other information relevant to a test.

Test requirement
See Conformance requirement.

Test result
(GUIDE 2) The test verdicts and associated information produced as a result of running a test case.

Test service
See Testing service.

Test specification
A description of how to test conformity to the Product Specifications, written at a level of abstraction which makes it suitable for standardisation.

Test specification library

Definition from ETG 016/ETR 040 (Profile Test Specifications and conformance test reports):

It is a repository for the test specification material common to a number of different profiles, not yet contained in any base standard test specification, referenced by the Protocol Test Specification Summary (PTS-S).

Test standard
See Conformance Testing Standard.

Test step
(9646-1) A named subdivision of a test case, constructed from test events and/or other test steps.

Test Suite (TS)
See (Conformance) test suite.

Test system
(9646-1) In the context of communication protocols the real system which includes the realisation of the Lower Tester (LT).

NOTE: The same test system can be used as part of several Means of Testing.

Test tool
See Test system.

(Test) verdict
(9646-1) A statement of "pass", "fail" or "inconclusive", specified in an abstract test case, concerning conformance of an Implementation Under Test (IUT) with respect to that test case when it is executed.

Third party
(GUIDE 2) Person or body that is recognised as being independent of the parties involved, as concerns the issue in question.

NOTE: Parties involved are usually supplier ("first party") and purchaser ("second party") interests.

Traceability (of test cases)
(GUIDE 2) Ability such that when there is a major distinction between the specification and the realisation of test cases, the realisation of each test case is traceable to its specification, with preservation of assignment of test verdicts or measurements to the corresponding sets of observations.

Transient testing state
(9646-1) Any testing state which is not a stable testing state.

> NOTE: Transient testing states include those testing states that are in the middle of a logical exchange of PDUs (e.g. to establish a connection or perform negotiation), particularly when a request PDU has been sent (or received) and the corresponding response PDU has not been received (or sent).

Transverse abstract test method (YT)
An Abstract Test Method for Open Relay-systems in which the System Under Test (SUT) operates between two subnetworks, with a test system and a Point of Control and Observation (PCO) on each side to observe and control the connections.

Tree and Tabular Combined Notation (TTCN)
A notation to specify Abstract Test Suites described in ISO/IEC 9646-3.

Unforeseen test outcome
(9646-1) An observed test outcome not identified in the abstract test case.

> NOTE: An unforeseen test outcome can only lead to a test case error or an abnormal test case termination.

Unidentified test event
(9646-1) A test event which is used to provide for receipt of PDUs and/or Abstract Service Primitives (ASPs) without identifying them in the test case.

> NOTE: In TTCN, the unidentified test event is implemented by the "Otherwise" statement.

Upper Tester (UT)
(9646-1) The representation in ISO/IEC 9646 of the means of providing, during test execution, control and observation of the upper service boundary of the Implementation Under Test (IUT), as defined by the chosen Abstract Test Method.

Upper tester control function
The means of providing the co-ordination of upper testers in a Multi-party Testing (MPyT) context.

Validation
Of a test tool: see Calibration.

Of a language compiler: see Conformance testing.

Validation
(TR10000-1.3) The process of checking as far as possible that a test tool or test software will behave properly and produce results that are consistent with the specifications of the relevant test suites, any relevant test standards and, if applicable, with a previously validated version of the test tool or test software.

Valid test event
(9646-1) A test event which is allowed by the protocol specification, being both syntactically and semantically correct, and occurring when allowed to do so by the protocol specification.

Verdict
See Test verdict.
See also "Fail", "Pass", "Inconclusive" verdict.

Annex A: Acronyms and abbreviations related to specification and testing of communication systems

This list contains the most commonly used abbreviations from three domains:

1)   The organizational framework for testing and certification.
2)   The domain of OSI, ISDN (Narrowband and Broadband).
3)   Methodology for system specification and conformance testing.

This list is divided into two parts, A.1 (containing acronyms related to technical concepts) and A.2 (containing acronyms relating to bodies, organisations, projects etc.).

> NOTE 1:   *Words that are names begin with capital letter. All other words are beginning with small letter, using the rule with some judgment in tricky cases.*

> NOTE 2:   *Special signs are insignificant when deciding alphabetical order.*

> NOTE 3:   *Numbers are lower than letters. (MS-Word extended character set order).*

> NOTE 4:   *This ETG is subject to periodic maintenance.*

A.1   Acronyms for technical concepts

AAL	ATM adaptation layer
ACSE	Association control service element
ACT	Asynchronous communication tree
ACT-ONE	Abstract data type language developed at the Technical University of Berlin by Ehrig
ADT	Abstract data type
AFI	Authority and format identifier
ALLF	Additional low layer function(s)
ASE	Application service element
ASN.1	Abstract syntax notation one (ISO 8824)
ASP	Abstract service primitive
ASR	Abstract test suite selection rules
ATC	Abstract test case
ATD	Asynchronous time division
ATM	1) Abstract test method 2) Asynchronous time multiplexing (=ATD) 3) Asynchronous transfer mode
ATS	Abstract test suite
BACF	Basic access control function
BC	Bon de Commande (CEC)

BER	1)	Bit error ratio
	2)	Basic encoding rules
B-ISDN		Broadband ISDN
BLLF		Basic low layer function(s)
BTCF		Basic transit control function
BUNI		Broadband user/network interface (RACE R1044)
CATG		Computer aided test generation
CBO		Continuous bit stream oriented
CBR		Constant bit rate
CCS	1)	Cross connect system
	2)	Common channel signalling
	3)	Calculus of communicating systems
		(A language for communicating systems by R. Milner)
CCS#7		CCITT common channel signalling system No. 7
CCSN		Common channel signalling network
CCT		CNMA conformance testing
CC TPDU		Connection confirm transport protocol data unit
CD		Committee Draft (ISO)
CFS		(R1045) Common functional specification
CLNS		Connection-less network service
CMC		Coherent multi-channel optical communication
CMIP		Common management information protocol
CNMA		Communications network for manufacturing applications (=MAP/TOP Version 3.0)
CO		Connection-oriented
CONS		Connection-oriented network service
CPN		Customer('s) premises network (=SPN, =UPN)
CRF		Connection related functions
CRS		Communicating rule systems
CS	1)	Circuit switching
	2)	Co-ordinated single-layer ((abstract) test method)
CSDN		Circuit switched data network
CSE		Co-ordinated single-layer embedded ((abstract) test method)
CSMA/CD		Carrier sense multiple access with collision detection

CSN	Circuit switched network
CSP	Communicating sequential processes (a research approach by C.A.R. Hoare)
CSPDN	Circuit Switched Public Data Network
CT	Conformance testing
CTR	1) Conformance test report 2) Common Technical Regulation (replacing "NET" as technical term).
CTS	Conformance Testing Service(s)
DA	Draft Addendum (ISO term)
DCE	Data circuit-termination equipment
DCR	Dynamic conformance requirement
DFF	Data flow function
DFG	Data flow graph
DIS	Draft international standard (ISO)
DLL	Data link layer
DLSAP	Data link service access point
DNIC	Data network identification code
DP	Draft proposal (ISO)
DS	1) Distributed single-layer ((abstract) test method) 2) Distinguishing sequence
DSAP	Destination service access point
DSE	Distributed single-layer embedded ((abstract) test method)
DSP	Domain specific part
DTE	Data terminal equipment
DTR	Draft ETSI Technical Report (ETSI term)
EBE	External behavioural expression
ED	EWOS Document (EWOS term)
EFSM	Extended finite state machine
EN	European standard
ENV	European pre-standard
ESTELLE	Extended state transition model based language
ETG	EWOS technical guide
ETR	ETSI Technical Report

| ETS | 1) European Telecommunication Standard (ETSI) |
| | 2) Executable test suite |

| FCP | Ferry control protocol |

| FCTS | Ferry Clip based test system |

| FDDI | Fibre distributed data interface |

| FDT | Formal description technique |

| FRC | Functional reference configuration |

| FRM | Functional reference model (RACE R1044) |

| FS | Functional standard(s) |

| FSM | Finite state machine |

| FTAM | File transfer, access and management |

| FTMP | Ferry transfer medium protocol |

| FTP | File transfer protocol |

| GLA | Generic layering architecture (ECMA TR44) |

| GOSIP | Government Open Systems Interconnection Profile |

| GUS | Guide to the use of standards |

| HD | Harmonization document |

| HDTV | High definition television |

| HLC | High layer capabilities |

| IBC | Integrated broadband communication |

| IBCN | IBC network |

| ICF | Intelligent control function |

| ICS | Implementation conformance statement |

| I-ETS | Interim European Telecommunication Standard (ETSI) |

| IN | Intelligent network |

| INAF | Intelligent network access function |

| IPC | Interprocess communication |

| IPRL | ISPICS requirement list |

| IS | International standard (ISO) |

| ISDN | Integrated Services Digital Network |

| ISCP | ISDN signalling control part |

| ISP | International Standardised Profile |

ISPICS	ISP implementation conformance statement
ISUP	ISDN user part
IT	Information Technology
IUT	Implementation Under Test
IWU	Interworking unit
IXIT	Implementation extra information for testing
LAN	Local Area Network
LAP-B	Link access protocol- Balanced
LAP-D	Link access protocol- D channel
LCRF	Local connection related function
LLC	1) Low layer capabilities (OSI layer 1-3) 2) Logical link control
LMAP	Lower mapping module
LOTOS	Language of temporal ordering specification
LS	Local single-layer ((abstract) test method)
LSE	Local single-layer embedded ((abstract) test method)
LT	1) Lower tester 2) Line termination
LTCF	Lower Tester Control Function
LTCP	Lower tester communication point
LTS	Labelled transition system
MAC	Medium access control
MAN	Metropolitan area network
MAP	Manufacturing automation protocol
MCU	Multipoint control unit
MHS	Message handling system
MLT	Master Lower Tester
MML	Man-machine language
MOT	Means of testing
MPT	Multiport protocol tester
MPTM	Multi-party test method
MPyT	Multi-party testing

MSVI	Metasignalling virtual channel identifier
MTA	Message transfer agent
MTCT	Multi-test case table
MUT	Master Upper Tester
NA	Network adapter
(N)-ASP	ASP at layer N
NE	Negotiated exit (9646-5)
NET	Norme Européenne de Télécommunications (to be superceeded by Common Technical Regulations (CTRs)
NHLF	Network high level function
N-ISDN	Narrowband ISDN
NM	Network management
NNI	Network node interface
(N)-PAI	(N)-protocol addressing information
(N)-PDU	PDU at layer N
(N)-SAP	SAP at layer N (ISO 7498-3)
NSC	Network specialised centre
NT	Network termination
OAMC	Operations, administration and maintenance centre
ODA	Office Document Architecture
ODIF	Office document interchange format
ODP	Open Distributed Processing
OICS	Object implementation conformance statement
OMAP	Operations and maintenance application part
OMC	Operations and maintenance centre
ONA	Office network architecture
ONP	Open network provision
OSI	Open Systems Interconnection
OTL	OSI Testing Liaison
PABX	Private Automatic Branch eXchange
PAD	Packet assembler/disassembler
PATS	Parameterised abstract test suite

PCI	Protocol control information
PCO	Point of control and observation
PCT	Protocol conformance testing
PCTR	Protocol conformance test report
PDN	Public data network
PDU	Protocol data unit
PETS	Parameterised executable test suite
PFR	Periodic physical frame sublayer
PHY	Physical medium-dependent sublayer
PICS	Protocol implementation conformance statement
PIXIT	Protocol implementation extra information for testing
PL	Physical layer
PLP	Packet layer protocol
PLT	Parallel Lower Tester
PMD	Physical medium dependent
POH	Path overhead
PPF	Primitives processing function
PPTM	Protocol profile test methodology
PRC	Protocol reference configuration
Profile ICS	Profile Implementation Conformance Statement
Profile IXIT	Profile Implementation eXtra Information on Testing
Profile RL	Profile Requirements List
prEN	Proposed European standard
prENV	Proposed European pre-standard
PRM	Protocol reference model
PSDN	Packet Switched Data Network
PSPDN	Packet Switched Public Data Network
PSTN	Public Switched Telephone Network
PSTS	Profile Specific Test Specification
PTS-S	Profile Test Specification Summary
PT	1) Protocol tester
	2) Project team

PTE	Protocol testing environment
PTS	1) Profile test specification
	2) Probabilistic transition system
PTSCS	PTS compliance statement
PUT	Parallel Upper Tester
QOS	Quality of service
RA	1) Recognition arrangement (ECITC)
	2) Recognition agreement (EOTC)
RC	Reference configuration
RI	Reference implementation
RL	Requirements list
RM	Reference model
ROSE	Remote operations service element
RS	Remote single-layer ((abstract) test method)
RSE	Remote single-layer embedded ((abstract) test method)
RSU	Remote switching unit
RU	Remote unit
SAP	Service access point
SATS	Selected abstract test suite
SB	S-interface, broadband
SCR	Static conformance requirement
SCS	System conformance statement
SCTR	System conformance test report
SDH	Synchronous digital hierarchy
SDL	(CCITT Recommendation Z.100) Specification and description language
SDU	Service data unit
SETS	Selected executable test suite
SPN	Subscriber premises network (=CPN, =UPN)
SPyT	Single-party testing
SRM	Stratified reference model (RACE R1014)
SSF	Service support function
STC	Sub technical committee

| STD | 1) | Synchronous time division (=STM) |
| | 2) | (Base) standard (or recommendation) |

| STM | 1) | Synchronous time multiplexing (=STD) |
| | 2) | Synchronous transfer mode |

STP   Signalling transfer point

SUT   System under test

SVCI   Signalling virtual channel identifier

SYN   Synchronous channel/synchronous cells sublayer

| TA | 1) | Terminal adapter |
| | 2) | Technical assembly (for ETSI, EWOS and others) |

TB   T-interface, broadband

TBR   Technical Basis for Regulation (ETSI deliverable)

TC   Technical committee

TCM   Test co-ordination message

TCP   Test co-ordination procedure(s)

TCRF   Transit connection related function

TE   Terminal equipment

TFS   Technical framework specification

TGO   Test group objectives

TH   Terminal handler

TMN   Telecommunications management network

TMP   Test management protocol

TM-PDU   Test management PDU

TO   Test objective

TOP   Technical office protocol

TP   Test Purpose(s)

TS   Test suite

TSS   Test suite structure

TTCN   Tree and tabular combined notation

TTCN.GR   TTCN graphical form

TTCN.MP   TTCN machine processable form

TTX   Teletex

UCF   User control function

UPN	User premises network (=CPN, =SPN)
URM	(R1077) Usage reference model
UT	Upper tester
UTCF	Upper-tester control function
VBR	Variable bit rate
VCI	Virtual channel identifier
VPI	Virtual path identifier
WAN	Wide area network
XMHS	Extended message handling system
XRL	IXIT requirements list
YL	Loop-back abstract test method
YT	Transverse abstract test method

A.2   Acronyms for related bodies, organisations, project etc.

ACTE	Approvals Committee for Telecommunications Equipment
Administration*	Administration or recognised private operating agency
AOW	Asian-Oceanian Workshop
ATM	Advanced Testing Methods (an ETSI Technical Committee)
CCA	CENELEC certification agreement
CCH	Co-ordination Committee on Harmonisation
CCITT	Comité Consultatif International Téléphonique et Télégraphique
CEC	Commission of the European Communities
CECUA	Confederation of European Computer User Associations
CEN	Comité Européen de Normalisation (Eng) European Committee for Standardisation
CENCER	CEN Certification
CENELEC	Comité Européen de Normalisation Electrotechnique (Eng) European Committee for Electrotechnical Standardisation
CEPT	Conférence Européene des Postes et des Télécommunications
CIMECO	Centro Italiano Metodologie di Controllo (Italian IT accreditation body)
COS	Corporation for Open Systems
COSINE	Co-operation for Open Systems Interconnection Networking in Europe
CSF	Customer service functions (RACE R1044)

CTS	The European Community Conformance Testing Service programme
CTS-LAN	CTS Local area network projects
CTS-WAN	CTS Wide area network projects
DEKITZ	Deutsche Ko-ordinierung für IT-Normen konformitätsprüfung und-Zertifizierung (German IT accreditation body)
EACEM	European Association of Consumer Electronics Manufacturers
ECITC	European Committee for Information Technology Testing and Certification
ECMA	European Computer Manufacturers' Association
ECTEL	European Telecommunications and Professional Electronics Industry
ECTRA	European Committee for Telecom Regulatory Affairs
EG	(EWOS) Expert Group
EIUF	European ISDN Users' Forum
EMUG	European MAP Users' Group
EOTC	European Organisation for Testing and Certification
EPHOS	European procurement handbook for open systems
ETCOM	European Testing for Certification for Office and Manufacturing protocols
ETSI	European Telecommunications Standards Institute
ETSI/TC ATM	ETSI Technical Committee for Advanced Testing Methods
EUROBIT	European Association of Manufacturers of Business Machines and Data Processing Equipment
EWOS	European Workshop for Open Systems
EWOS EG CT	European Workshop for Open Systems Expert Group on Conformance Testing
GOSIP	Government Open Systems Interconnection Profile
GSLB	Groupe Spécial (de Communications) Large Bande
GSLB-PN	Groupe Spécial (de Communications) Large Bande - Permanent nucleus
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
IFIP	International Federation for Information Processing
INTAP	Interoperability Technology Association for Information Processing (in AIST) (Japanese OSI user's group)
ISO	International Organisation for Standardisation
ITACA	IBCN testing architecture for conformance assessment (RACE R1072)
ITAEG	IT advisory expert group

ITAEGC	IT advisory expert group on certification
ITAEGM	IT Advisory Experts Group on advanced Manufacturing technologies
ITAEGS	IT advisory expert group on standardisation
ITAEGT	IT Advisory Experts Group for Private Telecommunications networks
ITRC	Information Technology Requirements Council (owner of MAC specs)
ITSTC	Information Technology Steering Committee (CEN/CENELEC/ETSI)
JTAG	Joint Test Action Group (for Boundary Scan testing)
MPR	The Swedish National Board for Measurement and Testing (Swedish accreditation body)
NAMAS	National Measurement Accreditation Service (UK accreditation body)
NIST	National Institute for Standardisation and Technology (Previously called NBS)
OIW	OSI implementors' workshop
OSF	Open Systems Foundation
OSITOP	Open Systems Interconnection/technical office protocol (A European OSI user association)
OSTC	Open Systems Testing Consortium
OTL	OSI Testing Liaison
PARASOL	ATM specific measurement equipment (RACE R1083)
POSI	Promotion conference for OSI (Japanese programme to promote OSI)
PPG	Public Procurement Group
PPSC-IT	Public Procurement Subcommittee in the Information Technology sector
PROVE	Provision of verification (RACE R1087)
QOSMIC	QOS verification methodology and tools for integrated communications (RACE R1082)
RACE	R & D in advanced communication technologies in Europe
RARE	Réseaux associés pour la recherche
RCD	Reference configuration development (RACE 1044)
RNE	Réseau National d'Essais (French accreditation body)
RPOA	Recognised public operating agency
SC	(ISO) Sub committee
SGFS	Special Group on Functional Standards (ISO/IEC JTC1)
SOGITS	Senior Officials Group for Information Technology Standardisation
SOGT	Senior Officials Group, Telecommunications

SPAG	Standards Promotion and Application Group, S.A.
SPECS	Specification and programming environment for communications software (RACE R1046)
TC	(ETSI) Technical committee
TLFF/CC	Technical Level Feeders Forum (COS, SPAG, MAP/TOP, POSI Conformance and Certification
TLG	Technical liaison group (EWOS)
TRAC	Technical Regulation Approval Committee
ULCT	Upper layer conformance testing group
WFMTUG	World Federation of MAP/TOP User Groups

History

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