Information technology —
Telecommunications and information exchange between systems — X.25 DTE conformance testing —
Part 1:
General principles
Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee ISO/IEC JTC 1, Information technology. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75% of the national bodies casting a vote.

International Standard ISO/IEC 8882-1 was prepared by ISO/IEC JTC 1, Subcommittee 6, Telecommunications and information exchange between systems.

This second edition cancels and replaces the first edition (ISO/IEC 8882-1:1993) of which it constitutes a technical revision.

ISO/IEC 8882 consists of the following parts, under the general title Information technology — Telecommunications and information exchange between systems — X.25-DTE conformance testing:

- Part 1: General principles
- Part 2: Data link layer conformance test suite
- Part 3: Packet layer conformance test suite
Introduction


This part of ISO/IEC 8882 specifies the framework in which the other parts of ISO/IEC 8882 may be understood and the principles to be applied. The notation used in ISO/IEC 8882-2 and ISO/IEC 8882-3 is TTCN as defined in ISO/IEC 9646-3.

ISO/IEC 8882-2 presents the Data Link Layer aspects for evaluating conformance to ISO/IEC 7776 while ISO/IEC 8882-3 presents the Packet Layer aspects for evaluating conformance to ISO/IEC 8208.

The conformance tests are designed for use by

- test evaluators (responsible for analysing results and determining whether conformance has been achieved);
- test suite designers or implementors (for determining what tests are required and what results can and should be anticipated by the test device), and
- users implementing ISO/IEC 7776 or ISO/IEC 8208 or DTEs interfacing to DCEs that implement CCITT X.25 (1980, 1984 or 1988) (for determining the functionality required of their implementations to be considered in conformance).
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1 Scope
ISO/IEC 8882 defines the testing of a DTE operating at the Data Link Layer and at the Packet Layer when accessing, by means of a dedicated path connection, switched or permanent, a public or private packet-switched network conforming to CCITT Recommendation X.25 or another DTE conforming to ISO/IEC 7776 and ISO/IEC 8208.

The tests will test the conformance of an implementation by observing its external behaviour. The conformance tests will not test the DTE performance characteristics, the diagnostic and maintenance functions, the correctness of the protocol itself, or DTE internal implementation, or the full capabilities as stated in the PICS.

This part of ISO/IEC 8882
- provides a general introduction;
- refers to those applicable International Standards;
- defines terms applicable to X.25–DTE conformance testing;
- states the test case derivation and description, and
- states the test methodology.


2 Normative references
The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 8882. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 8882 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.


NOTE — ISO/IEC 802: 1995 supersedes ISO/IEC 802: 1990. However, when this part of ISO/IEC 8882 was under development, the previous edition was valid and this part of ISO/IEC 8882 is therefore based on that edition, which is listed below.


CCITT Recommendation X.75 (1980), Interface between Data Terminal Equipment (DTE) and Data Circuit-Terminating Equipment (DCE) for Terminals Operating in the Packet Mode on Public Data Networks.

CCITT Recommendation X.25 (1984), Interface between Data Terminal Equipment (DTE) and Data Circuit-Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit.

CCITT Recommendation X.25 (1988), Interface between Data Terminal Equipment (DTE) and Data Circuit-Terminating Equipment (DCE) for Terminals Operating in the Packet Mode and Connected to Public Data Networks by Dedicated Circuit.