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Information processing systems — Text communication — Reliable Transfer —

Part 1 : Model and service definition

*Systèmes de traitement de l'information — Communication de texte — Transfert
fiable —*

Partie 1 : Modèle et définition du service



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) together form a system for worldwide standardization as a whole. 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 technical activity. ISO and IEC technical committees collaborate in 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. Draft International Standards adopted by the joint technical committee are circulated to national bodies for approval before their acceptance as International Standards. They are approved in accordance with procedures requiring at least 75 % approval by the national bodies voting.

International Standard ISO/IEC 9066-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Introduction

This part of ISO/IEC 9066 defines the services provided by an application-service-element - the Reliable Transfer Service Element (RTSE) - to provide for the Reliable Transfer of application-protocol-data-units (APDUs) between open systems. This part of ISO/IEC 9066 is one of a set of International Standards defining sets of application-service-elements commonly used by a number of applications.

Reliable Transfer provides an application-independent mechanism to recover from communication and end-system failure minimizing the amount of retransmission.

This part of ISO/IEC 9066 is technically aligned with CCITT Recommendation X.218.

Information processing systems -Text communication - Reliable Transfer - Part 1: Model and service definition

1 Scope

This part of ISO/IEC 9066 defines the services provided by the Reliable Transfer Service Element (RTSE). The RTSE services are provided by the use of the RTSE protocol (ISO/IEC 9066-2) in conjunction with the Association Control Service Element (ACSE) services (ISO 8649) and the ACSE protocol (ISO 8650), and the presentation-service (ISO 8822).

No requirement is made for conformance to this part of ISO/IEC 9066.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9066. At the time of publication, the editions were valid. All Standards are subject to revision, and parties to agreement based on this part of ISO/IEC 9066 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of ISO and IEC maintain Registers of currently valid International Standards.

ISO 7498: 1984, *Information processing systems - Open Systems Interconnection - Basic Reference Model*.

ISO/TR 8509: 1987, *Information processing systems - Open Systems Interconnection - Service conventions*.

ISO 8649: 1988, *Information processing systems - Open Systems Interconnection - Service definition for the Association Control Service Element*.

ISO 8650: 1988, *Information processing systems - Open Systems Interconnection - Protocol specification for the Association Control Service Element*.

ISO 8822: 1988, *Information processing systems - Open Systems Interconnection - Connection oriented presentation service definition*.

ISO 8824: 1987, *Information processing systems - Open Systems Interconnection - Specification of Abstract Syntax Notation One (ASN.1)*.

ISO 8825: 1987, *Information processing systems - Open Systems Interconnection - Specification of basic encoding rules for Abstract Syntax Notation One (ASN.1)*.

ISO/IEC 9066-2: 1989, *Information processing systems - Text communication - Reliable Transfer - Part 2: Protocol specification*.

3 Definitions

3.1 Reference model definitions

This part of ISO/IEC 9066 is based on the concepts developed in ISO 7498 and makes use of the following terms defined in it:

- a) Application Layer;
- b) application-process;
- c) application-entity;
- d) application-service-element;
- e) application-protocol-data-unit;
- f) application-protocol-control-information;
- g) Presentation Layer;
- h) presentation-service;
- i) presentation-connection;
- j) session-service;
- k) session-connection;
- l) transfer syntax;
- m) two-way-alternate interaction; and
- n) user-element.

3.2 Service conventions definitions

This part of ISO/IEC 9066 makes use of the following terms defined in ISO/TR 8509:

- a) service-provider;
- b) service-user;
- c) confirmed service;
- d) non-confirmed service;
- e) provider-initiated service;
- f) service-primitive; primitive;
- g) request (primitive);
- h) indication (primitive);
- i) response (primitive); and
- j) confirm (primitive).

3.3 Presentation service definitions

This part of ISO/IEC 9066 makes use of the following terms defined in ISO 8822:

- a) abstract syntax;
- b) abstract syntax name;
- c) default context;
- d) presentation context;
- e) transfer syntax name.

3.4 Association control definitions

This part of ISO/IEC 9066 makes use of the following terms defined in ISO 8649:

- a) application-association; association;
- b) application context;
- c) Association Control Service Element;
- d) X.410-1984 mode.

3.5 Reliable Transfer definitions

For the purpose of this part of ISO/IEC 9066 the following definitions apply:

3.5.1 association-initiating-application-entity; association-initiator: The application-entity that initiates the application-association.

3.5.2 association-responding-application-entity; association-responder: The application-entity that responds to the initiation of an application-association by another AE.

3.5.3 sending-application-entity; sender: The application-entity that sends, or may send, (i.e. possesses the Turn) the APDU to the receiving application-entity.

3.5.4 receiving-application-entity; receiver: The application-entity that receives, or may receive, (i.e. does not possess the Turn) the APDU from the sending application-entity.

3.5.5 requestor: The part of an application-entity that issues a request primitive, or receives a confirm primitive for a particular RTSE service.

3.5.6 acceptor: The part of an application-entity that receives the indication primitive, or issues a response primitive for a particular RTSE service.

3.5.7 Reliable Transfer Service Element: The application-service-element defined in this part of ISO/IEC 9066.

3.5.8 Reliable Transfer: An application-independent mechanism to provide for the transfer of application-protocol-data-units between open systems, and to recover from communication and end-system failure minimizing the amount of retransmission.

3.5.9 RTSE-user: The user of the Reliable Transfer Service Element. The user may be the user element, or another application service element, of the application entity.

3.5.10 RTSE-provider: The provider of the Reliable Transfer Service Element.

3.5.11 ACSE-provider: The provider of the Association Control Service Element.

3.5.12 monologue interaction: A mode of interaction where only one application-entity may be the sender.