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Information technology — Telecommunications and information exchange between systems — Protocol combinations to provide and support the OSI Network Service —

Part 2:

Provision and support of the connection-mode Network Service

Technologies de l'information — Télécommunications et échange d'informations entre systèmes — Combinaisons de protocoles pour fournir et supporter le service réseau OSI —

Partie 2: Fourniture et support du service de réseau en mode connexion



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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 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 voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 8880-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

ISO/IEC 8880-2 consists of the following parts, under the general title *Information technology — Telecommunications and information exchange between systems — Protocol combinations to provide and support the OSI Network Service*:

- *Part 1: General principles*
- *Part 2: Provision and support of the connection-mode Network Service*
- *Part 3: Provision and support of the connectionless-mode Network Service*

Annex A is for information only.

Introduction

ISO/IEC 8880 provides the framework for understanding the set of International Standards that deal with the provision and support of the OSI Network Service.

In some layers of the OSI Reference Model Architecture, it is possible to refer to a single layer protocol standard specification as the place in which all information necessary to understand how to provide the layer service can be found. This is not possible in the Network Layer since the number of different subnetwork technologies and interconnection strategies that must be accommodated is too large to permit the specification of a single OSI Network Layer Protocol. It is therefore the intention of ISO/IEC 8880 to serve as a single point of reference for information concerning the ways in which Network Layer protocols can be used to provide the OSI Network Service in various environments.

ISO 8348 defines the OSI Connection-mode Network Service. ISO 8348/Add.2^[2] covers network layer addressing. ISO 8648 outlines the architectural framework for the definition of Network Layer protocols and for describing the relationship of the various real world components which can participate in the provision of the Network Service. ISO/IEC 8880 describes the application of the Network Layer architecture in ISO 8648 and the International Standard Network Layer protocols to the provision of the Network Service in real instances of use.

This part of ISO/IEC 8880 describes the provision and support of the Connection-mode Network Service by Internationally Standardized Network Layer Protocols within the framework provided by ISO/IEC 8880-1.

This part of ISO/IEC 8880 identifies the environments to which it applies and specifies the sets of individual standards which describe the use of protocol combinations in those environments.

It states the conformance requirements for equipment claiming to provide the OSI Connection-mode Network Service.

For each environment, one or more combinations of protocols may be described; only one is specified for conformance. Other environments and combinations of protocols may be added as addenda to ISO/IEC 8880.

Figure 1 illustrates the relationship between the parts of ISO/IEC 8880. It also shows the other International Standards that describe or define the Network Layer.