## TECHNICAL REPORT



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

Technologies de l'information — Télécommunications et échange d'information entre systèmes — Combinaisons de protocole pour la fourniture et le support du service de réseau OSI



## 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.

The main task of technical committees is to prepare International Standards, but in exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

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International Organization for Standardization

## Introduction

This Technical Report provides a list of the protocol combinations commonly used to provide and support the OSI Network Service. It is a replacement for ISO/IEC 8880–1, ISO/IEC 8880–2 and ISO/IEC 8880–3.

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 this Technical Report to serve as a point of reference for information concerning the ways in which Network Layer protocols may be used to provide the OSI Network Service in various environments.

CCITT Rec. X.213 | ISO/IEC 8348 defines the OSI Network Service. 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. This Technical Report 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.