ISO/IEC 9574:1992

# Australian/New Zealand Standard

Information technology—
Telecommunications and information exchange between systems—Provision of the OSI connection-mode network service by packet mode terminal equipment connected to an integrated services digital network

[ISO/IEC title: Information technology—Provision of the OSI connection-mode network service by packet-mode terminal equipment connected to an integrated services digital network (ISDN)]

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Information technology—
Telecommunications and information exchange between systems—Provision of the OSI connection-mode network service by packet mode terminal equipment connected to an integrated services digital network

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### **PREFACE**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT/1 on Information Systems—Interconnection to supersede AS/NZS 4099:1993. It is identical with and has been reproduced from ISO/IEC 9574:1992, Information technology—Provision of the OSI connection-mode network service by packet mode terminal equipment connected to an integrated services digital network (ISDN).

This Standard is issued as a Joint Standard under the terms of the Active Cooperation Agreement between Standards Australia and Standards New Zealand.

The objective of this Standard is to provide users of OSI equipment with a specification for providing a connection-mode network service by packet mode terminal equipment connected to an integrated services network in accordance with procedures described in ITU-T X.31.

This Standard is one of a series of Open Systems Interconnection (OSI) Standards which are currently under development. Since OSI Standards are developmental, there may be some minor difficulties encountered in their implementation. For this reason, Standards Australia will be providing, through the OSI Help Desk, a service to coordinate and disseminate information concerning difficulties which are identified in using this Standard.

Users of this Standard are advised by Standards Australia and Standards New Zealand, under arrangements made with ISO and IEC, as well as certain other Standards organizations, that the number of this Standard is not reproduced on each page; its identity is shown only on the cover and title pages.

For the purpose of this Standard, the source text should be modified as follows:

- (a) *Terminology* The words 'this Australian/New Zealand Standard' should replace the words 'this International Standard' wherever they appear.
- (b) Decimal marker Substitute a full point for a comma where it appears as a decimal marker.
- (c) References The references to international Standards should be replaced by references, where appropriate, to the following Australian or Joint Australian/New Zealand Standards:

| Reference to International Standard or other publication |   | Australian or Joint<br>Australian/New Zealand Standard |  |
|--|---|--|--|
| ISO  |   | AS   |  |
| 7498   | Information processing systems—Open Systems Interconnection—Basic Reference Model   | 2777   | Information processing systems—Open Systems Interconnection—Basic reference model  |
| 7776   | Information processing systems—Data communications—High-level data link control procedures—Description of the X.25 LAPB-compatible DTE data link procedures | 3512   | Information processing systems—Data communication—High-level data link control procedures—Description of the X.25 LAPB-compatible DTE data link procedures |
| 8878   | Information processing systems—Data communications—Use of X.25 to provide the OSI connection-mode network service   | 3604   | Information processing systems—Data communications—Use of X.25 to provide the OSI connection-mode network service  |
| ISO/IEC  |   | AS/NZS   |  |
| 8208   | Information technology—Data communications—X.25 Packet Layer Protocol for Data Terminal Equipment   | 3621   | Information technology—Data communications—X.25 packet layer protocol for data terminal equipment  |

| ISO/IEC<br>8348 | Information technology—Network service definition for Open Systems Interconnection   | AS<br>2994 |
|-----------------|--|------------|
| ISO/TR<br>8509  | Information processing systems—Open Systems Interconnection—Service conventions  | 3620       |
| ITU-T Re        | commendation   |            |
| I.231           | Circuit-mode bearer service categories   | _          |
| I.232           | Packet-mode bearer service categories  | _          |
| I.430           | Basic User-Network Interface Layer 1<br>Specification  | _          |
| I.431           | Primary Rate User-Network Interface<br>Layer 1 Specification   | _          |
| Q.921           | ISDN User-Network Interface Data Link<br>Layer Specification   | _          |
| Q.931           | ISDN User-Network Interface Layer 3<br>Specification for Basic Call Control  | _          |
| V.25 bis        | Automatic Answering Equipment and/or<br>Parallel Automatic Calling Equipment<br>on the General Switched Telephone<br>Network Including Procedures for<br>Disabling of Echo Control Devices for<br>Both Manually and Automatically<br>Established Calls | _          |
| X.21            | Interface Between Data Terminal<br>Equipment (DTE) and Data Circuit-<br>terminating Equipment (DCE) for<br>Synchronous Operation on Public Data<br>Networks  | _          |
| X.21 bis        | Use on Public Data Networks of Data<br>Terminal Equipment (DTE) which is<br>Designed for Interfacing to Synchronous<br>V-series Modems   | _          |
| X.25            | 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   | _          |
| X.30            | Support of X.21, X.21 bis and X.20 bis based data terminal equipments (DTEs) by an integrated services digital network (ISDN)  | _          |
| X.31            | Support of Packet Mode Terminal Equipment by an ISDN   | _          |

Information processing systems—Data communications—Network service definition

Information processing systems—Open Systems Interconnection—Service conventions

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X.32 Interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) for terminals operating in the packet mode and accessing a packet switched public data network through a public switched telephone network or an ISDN or a circuit switched public data network

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## ٧

# CONTENTS

|   |  | Page |
|---|--|------|
| 1 | Scope  | 1    |
| 2 | Normative references   | 2    |
| 3 | Definitions  | 3    |
| 4 | Abbreviations  | 5    |
| 5 | Overview   | 5    |
| 6 | Provision of the CONS in systems attached at the S/T reference point | 6    |
| 7 | Provision of the CONS in systems attached at the R reference point   | 16   |
| A | nnex   |      |
| Α | Bibliography   | 19   |

# Information technology—Telecommunications and information exchange between systems—Provision of the OSI connection-mode network service by packet mode terminal equipment connected to an integrated services digital network

### 1 Scope

This Recommendation | International Standard specifies the method of providing the OSI Connection-mode Network Service (CONS) by packet mode terminal equipment connected to an Integrated Services Digital Network (ISDN) in accordance with the procedures described in Recommendation X.31. This is done by specifying the mapping of the CONS primitives and parameters to and from the elements of the protocols used by two types of packet mode terminal equipment:

- a) an X.25 DTE (TE2) connected to an R reference point and accessing an ISDN; and
- b) a packet mode ISDN terminal (TE1) operating ISO/IEC 8208 packet layer protocol (PLP) and connected to an ISDN at either the S or T reference point.

This Recommendation | International Standard is applicable:

- a) when operating according to Recommendation X.31, either a TE1 or a TE2 is connected to a packet handler in an ISDN or an access unit to a packet-switched data network via an ISDN;
- b) when using an ISDN circuit-switched channel, either TE1s and/or TE2/TAs are connected directly to each other (i.e. the terminals operate in DTE/DTE mode).

This Recommendation | International Standard does not address TE2s using TAs (at the R reference point) when using an ISDN circuit-switched channel with the terminals operating in DTE/DTE mode (see Recommendation X.613 | ISO/IEC 10588).

### NOTES

- The definitions of TE1, TE2 and TA equipment, and R, S, and T reference points are given in Recommendation I.411.
- This Recommendation | International Standard applies to a TE1 or TE2/TA (i.e. an OSI End System) regardless of whether it is a physically separate system or embedded in other equipment such as a PBX.

This Recommendation | International Standard addresses the provision of the CONS using Virtual Calls as described in Recommendation X.25. It does not address the use of X.25 Permanent Virtual Circuits. The extension of this Recommendation | International Standard to include the use of X.25 PVCs is for further study.

NOTE - This Recommendation | International Standard uses numbers to identify layers, rather than their names. This is done to align the terminology of this document with the terminology of the related ISDN Recommendations, and does not imply any change in the functionality of the layers from that defined in the reference model of open systems interconnection.



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