AS 2994 Supp1—1989
ISO 8348/Add.2: 1988

Australian Standard®

Information processing systems—Data communications—Network service definition

Supplement 1: Network layer addressing

E

STANDARDS AUSTRALIA

This Australian Standard was prepared by Committee IT/1, Information Systems—Interconnection. It was approved on behalf of the Council of Standards Australia on 21 September 1989 and published on 11 December 1989.

The following interests are represented on Committee IT/1:

AUSSAT

Australian Bankers' Association

Australian Bureau of Statistics

Australian Committee of Directors and Principals

Australian Computer Society

Australian Information Industry Association

Australian Vice Chancellors Committee

Confederation of Australian Industry

CSIRO

Department of Defence

Information Exchange Steering Committee

Life Insurance Federation of Australia

OTC

Telecom Australia

Additional interests participating in preparation of Standard:

Computer consultants

Australian Standard®

Information processing systems—Data communications—Network service definition

Supplement 1: Network layer addressing

First published as AS 2994 Supp1—1989.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY NSW
ISBN 0 7262 5953 5

PREFACE

This Standard was prepared by Standards Australia's Committee on Information Processing Systems. It is identical with and has been reproduced from International Standard ISO 8348:1987, Add.2:1988.

The 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 a limited interpretation service to coordinate and disseminate information concerning difficulties which are identified in using this Standard.

For the purpose of this Australian Standard, the text of the ISO Standard given herein should be modified as follows:

(a) *Terminology.* The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.

(b) *References.* The references to International Standards should be replaced by references to Australian Standards as follows:

Reference to International Standard		*Australian Standard*	
ISO		AS	
646	Information processing—ISO 7-bit coded character set for information interchange	1776	Information processing—7-bit coded character set for information change
2375	Data processing—Procedure for registration of escape sequences	—	—
3166	Codes for the representation of names of countries	2632	Codes for the representation of names of countries
6523	Data interchange—Structure for the identification of organizations	—	—
7498	Information processing systems—Open Systems Interconnection—Basic reference model NOTE: See also CCITT Recommendation X.200	2777	Information processing systems—Open Systems Interconnection—Basic reference model
7498 Add.1	Information processing systems—Open Systems Interconnection—Basic reference model Addendum 1: Connectionless mode transmission	2777 Supp.1	Information processing systems—Open Systems Interconnection—Basic reference model Addendum 1: Connectionless mode transmission
8348	Information processing systems—Data communications—Network service definition NOTE: See also CCITT Recommendation X.213	2994	Information processing systems—Data communications—Network service definition (ISO 8348 and ISO 8348.Add.1)
8348: Add.1	Information processing systems—Data communications—Network service definition, Addendum 1: Connectionless-mode transmission	2994	Information processing systems—Data communications—Network service definition, Supplement 1: Connectionless-mode transmission (ISO 8348 and ISO 8348.Add.1)
8464	Information processing systems—Data communications—Internal organization of the Network layer	3622	Information processing systems—Data communications—Internal organization of the network layer

ISO/TR			
8509	Information processing systems—Open Systems Interconnection—Service conventions	3620	Information processing systems—Open Systems Interconnection—Service conventions
CCITT			
E.163	Numbering plan for the international telephone service	—	—
E.164	The numbering plan for the ISDN era	—	—
F.69	Plan for telex destination codes	—	—
X.121	International numbering plan for public data network	—	—

Contents

Information processing systems—Data communications—Network service definition Supplement 1: Network layer addressing

0 Introduction

This addendum to ISO 8348 defines the abstract syntax and semantics of the Network address (Network service access point address). The Network address is the address that appears in the primitives of the connection-mode Network service as the *calling address*, *called address*, and *responding address* parameters, and in the primitives of the connectionless-mode Network service as the *source address* and *destination address* parameters.

1 Scope and field of application

The scope of this addendum is the definition of the abstract syntax and semantics of the Network address. This addendum does not specify the way in which the semantics of the Network address are encoded in Network layer protocols. The field of application of this addendum is the same as the field of application of ISO 8348.

2 References

ISO 646, *Information processing — ISO 7-bit coded character set for information interchange.*

ISO 2375, *Data processing — Procedure for registration of escape sequences.*

ISO 3166, *Codes for the representation of names of countries.*

ISO 6523, *Data interchange — Structure for the identification of organizations.*

ISO 7498, *Information processing systems — Open Systems Interconnection — Basic Reference Model.*

NOTE — See also CCITT Recommendation X.200

ISO 7498/Add.1, *Information processing systems — Open Systems Interconnection — Basic Reference Model, Addendum 1 : Connectionless-mode transmission.*

ISO 8348, *Information processing systems — Data communications — Network service definition.*

NOTE — See also CCITT Recommendation X.213

ISO 8348/Add.1, *Information processing systems — Data communications — Network service definition, Addendum 1 : Connectionless-mode transmission.*

ISO/TR 8509, *Information processing systems — Open Systems Interconnection — Service conventions.*

ISO 8648, *Information processing systems — Data communications — Internal organization of the Network Layer.*

CCITT E.163, *Numbering plan for the international telephone service.*

CCITT E.164, *The numbering plan for the ISDN era.*

CCITT F.69, *Plan for telex destination codes.*

CCITT X.121, *International numbering plan for public data networks.*

3 Definitions

3.1 Reference model definitions

This addendum makes use of the following terms defined in ISO 7498. Terms that are defined in ISO 7498 using the generic prefix "(N)-" appear in this addendum with the layer-specific prefix "Network-".

a) (N)-layer

b) (N)-service

c) (N)-service-access-point

d) (N)-service-access-point-address

e) (N)-entity

f) routing

g) (N)-address

h) (N)-protocol-control-information

i) (N)-protocol-data-unit

j) OSI environment

k) title

l) (N)-relay

3.2 Service conventions definitions

This addendum makes use of the following terms defined in ISO/TR 8509.

a) service user

b) service provider

c) service primitive

d) indication (primitive)

3.3 Network layer architecture definitions

This addendum makes use of the following terms defined in ISO 8648.

a) subnetwork

b) real subnetwork