

Interim Australian Standard™

**Transport information and control  
systems—Reference model  
architecture(s) for the TICS sector**

**Part 5: Requirements for architecture  
description in TICS standards**



This Interim Australian Standard was prepared by Committee IT/23, Transport Information and Control Systems. It was approved on behalf of the Council of Standards Australia on 28 April 2000 and published on 29 August 2000.

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The following interests are represented on Committee IT/23:

Australian Automobile Association  
Australian Bus and Coach Association  
Australian Electrical and Electronic Manufacturers Association  
Australian Information Industry Association  
AUSTROADS  
Consumers Federation of Australia  
Department of Transport and Regional Development (Australia)  
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## PREFACE

This Interim Standard was prepared by the Standards Australia Committee IT/23, Transport Information and Control Systems. This Interim Standard is identical with and has been reproduced from ISO TR 14813-5:1999, *Transport information and control systems—Reference model architecture(s) for the TICS sector, Part 5: Requirements for architecture description in TICS standards*.

Standards Australia invites comment on this Interim Standard from persons and organizations concerned with the subject. The date for expiry is two years after publication, at which time this Interim Standard will be confirmed, withdrawn or revised in the light of comment. The closing date for comment is 18 months after publication at which time the Committee will either consider its withdrawal at the end of its two years life or review it in the light of public comment, with the view to the publication of an Australian Standard before the expiry date.

During the life of this document the Committee will monitor all comment as it is received.

Attention is drawn to the fact that this document is an Interim Australian Standard and should be regarded as a developmental Standard liable to future alteration.

The objective of this Interim Standard is to give designers of transport information and control systems terminology to be used when documenting or referencing aspects of architecture description in TICS Standards and the form in which aspects of System Architecture are to be documented and described in TICS Standards.

This Interim Standard is Part 5 of AS 14813, *Transport information and control systems—Reference model architecture(s) for the TICS sector*, which is published in parts as follows:

Part 1: TICS fundamental services

Part 2: Core TICS reference architecture

Part 3: Example elaboration

Part 4: Reference model tutorial

Part 5: Requirements for architecture description in TICS standards (this Standard)

Part 6: Data presentation in ASN.1

The term ‘informative’ has been used in this Interim Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

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- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
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References to International Standards should be replaced by references to equivalent Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian or Australian/New Zealand Standard</i>	
ISO/IEC		AS/NZS	
8824	Information technology—Abstract syntax notation one (ASN.1)	8824	Information technology—Abstract syntax notation
8824-1	Part 1: Specification of basic notation	8824.1	Part 1: Specification of basic notation
8824-1/Amd.1	Rules of extensibility	—	
8824-2	Part 2: Information object specification	8824.2	Part 2: Information object specification
8824-2/Amd.1	Rules of extensibility		
8824-3	Part 3: Constraint specification	8824.3	Part 3: Constraint specification
8824-4	Part 4: Parameterization of ASN.1 specifications	8824.4	Part 4: Parameterization of ASN.1 specifications

ISO/IEC		AS/NZS	
8825	Information technology— ASN.1 encoding rules	8825	Information technology— ASN.1 encoding rules
8825-1	Part 1: Specification of basic encoding rules (BER), canonical encoding rules (CER) and distinguished encoding rules (DER)	8825.1	Part 1: Specification of basic encoding rules, canonical encoding rules and distinguished encoding rules
8825-2	Part 2: Specification of packed encoding rules (PER)	8825.2	Part 2: Specification of packed encoding rules
ISO TR		AS	
14813	Transport information and control systems—TICS reference architecture	14813 (Int)	Transport information and control systems—TICS reference architecture
14813-1	Part 1: TICS fundamental services	14813.1 (Int)	Part 1: TICS fundamental services

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# Transport information and control systems — Reference model architecture(s) for the TICS sector —

## Part 5:

### Requirements for architecture description in TICS standards

#### 1 Scope

A TICS architecture is a framework for TICS deployments. It is a high level description of the major elements and the interconnections among them. It provides the framework around which the interfaces, specifications and detailed TICS systems designs can be defined. A TICS Architecture is not a product design, nor a detailed specification for physical deployment, and it is not specific to any one location. The title 'Systems Architecture' is perhaps the closest general terminology, but that term is sometimes too specific to include the conceptual aspects included in the terminology 'TICS Architecture' and also often implies a location specific solution.

The purpose of a TICS Architecture is to maximise efficiency, interoperability and multimodality of multiple interacting TICS systems in a complex and developing sector.

This part of ISO/TR 14813 defines

- a) Terminology to be used when documenting or referencing aspects of architecture description in TICS standards.
- b) The form in which aspects of System Architecture are to be documented and described in TICS standards.

In compiling this part of ISO/TR 14813, the authors have assumed that contemporary systems engineering practices are used. Such practices are not defined within this part of ISO/TR 14813.

#### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/TR 14813. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO/TR 14813 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO/TR 14813-1, *Transport information and control systems — Reference model architecture(s) for the TICS sector — Part 1: TICS fundamental services.*

ISO/TR 14813-6, *Transport information and control systems — Reference model architecture(s) for the TICS sector — Part 6: Data presentation in ASN.1.*

ISO/IEC 8824-1:1995, *Information technology — Abstract Syntax Notation (ASN.1): Specification of basic notation.*

ISO/IEC 8824-1:1995/Amd.1:1996, *Information technology — Abstract Syntax Notation (ASN.1): Specification of basic notation, Amendment 1: Rules of extensibility.*

ISO/IEC 8824-2:1995, *Information technology — Abstract Syntax Notation (ASN.1): Information object specification.*