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A1 | ISO 19119:2005/Amd.1:2008
(Incorporating Amendment No. 1)

AS/NZS ISO 19119:2006

Australian/New Zealand Standard™

Geographic information—Services

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee IT-004, Geographical Information/Geomatics. It was approved on behalf of the Council of Standards Australia on 11 January 2006 and on behalf of the Council of Standards New Zealand on 27 January 2006.
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The following are represented on Committee IT-004:

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT-004, Geographical Information/Geomatics.

This Standard incorporates Amendment No. 1 (December 2011). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

This Standard is identical with, and has been reproduced from ISO 19119:2005, *Geographic information—Services* and its amendment ISO 19119:2005/Amd.1:2008.

A1

The objective of this Standard is to provide system designers and analysts with identification and definition of the architecture patterns for service interfaces used for geographic information and definition of the relationships to the Open Systems Environment model.

The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

As this Standard is reproduced from an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

(b) In the source text ‘this International Standard’ should read ‘Australian/New Zealand Standard’.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
ISO		AS/NZS ISO	
19115	Geographic information—Metadata	19115	Geographic information—Metadata
ISO/TS			
19103	Geographic information—Conceptual schema language	19103	Geographic information—Conceptual schema language

Only international references adopted as Australian or Australian/New Zealand Standards have been listed.

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INTRODUCTION

The widespread application of computers and use of geographic information systems (GIS) have led to the increased analysis of geographic data within multiple disciplines. Based on advances in information technology, society's reliance on such data is growing. Geographic datasets are increasingly being shared, exchanged, and used for purposes other than their producers' intended ones. GIS, remote sensing, automated mapping and facilities management (AM/FM), traffic analysis, geopositioning systems, and other technologies for Geographic Information (GI) are entering a period of radical integration.

This International Standard provides a framework for developers to create software that enables users to access and process geographic data from a variety of sources across a generic computing interface within an open information technology environment.

— "a framework for developers" means that this International Standard is based on a comprehensive, common (i.e. formed by consensus for general use) plan for interoperable geoprocessing;

— "access and process" means that geodata users can query remote databases and control remote processing resources, and also take advantage of other distributed computing technologies, such as software delivered to the user's local environment from a remote environment for temporary use;

— "from a variety of sources" means that users will have access to data acquired in a variety of ways and stored in a wide variety of relational and non-relational databases;

— "across a generic computing interface" means that ISO 19119 interfaces provide reliable communication between otherwise disparate software resources that are equipped to use these interfaces;

— "within an open information technology environment" means that this International Standard enables geoprocessing to take place outside of the closed environment of monolithic GIS, remote sensing, and AM/FM systems that control and restrict database, user interface, network and data manipulation functions.

AUSTRALIAN/NEW ZEALAND STANDARD

Geographic information — Services

1 Scope

The scope of this International Standard is as follows:

Identification and definition of the architecture patterns for service interfaces used for geographic information and definition of the relationships to the Open Systems Environment model.

This International Standard presents a geographic services taxonomy and a list of example geographic services placed in the services taxonomy.

This International Standard prescribes how to create a platform-neutral service specification, and how to derive platform-specific service specifications that are conformant with this.

This International Standard provides guidelines for the selection and specification of geographic services from both platform-neutral and platform-specific perspectives.

2 Conformance

Any product claiming conformance with this International Standard shall pass all the requirements described in the abstract test suite given in Annex A.

NOTE The definition of an abstract test suite appears in ISO 19105.

3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 10746-1:1998, *Information technology — Open Distributed Processing — Reference model: Overview — Part 1*

ISO/IEC 10746-2:1996, *Information technology — Open Distributed Processing — Reference model: Foundations*

ISO/IEC TR 14252:1996, *Information technology — Guide to the POSIX Open System Environment (OSE)*

ISO/TS 19103: —[1)], *Geographic information — Conceptual schema language*

ISO 19115:2003, *Geographic information — Metadata*

1) To be published.