

<b>STN</b>	<b>Geografická informácia Služby (ISO 19119: 2016)</b>	<b>STN EN ISO 19119</b>  01 9339
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Geographic information. Services (ISO 19119: 2016)

Information géographique. Services (ISO 19119: 2016)

Geinformation. Dienste (ISO 19119: 2016)

Táto norma obsahuje anglickú verziu európskej normy EN ISO 19119: 2016 a má postavenie oficiálnej verzie.

This standard includes the English version of the european standard EN ISO 19119: 2016 and has the status of the official version.

#### **Nahradenie predchádzajúcich noriem**

Táto norma nahrádza STN EN ISO 19119 z januára 2007 v celom rozsahu.

**123044**

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016

Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

## **Anotácia**

V tejto medzinárodnej norme sa definujú požiadavky na vytvorenie platformovo nezávislej špecifikácie služieb a platformovo závislej špecifikácie služieb tak, aby bolo možné špecifikovať službu nezávisle od podkladových distribuovaných výpočtových platforiem.

V tejto medzinárodnej norme sa definujú požiadavky na ďalšiu transformáciu z platformovo nezávislých špecifikácií služby do platformovo závislých špecifikácií služby tak, aby bolo možné implementovať službu v súlade s pravidlami interoperability.

Táto medzinárodná norma sa zaoberá základmi Meta:Service špecifikácií referenčného modelu geografických informácií, ktorý je opísaný v norme ISO 19101-1: 2014, v kapitole 6, prípadne 8.

V tejto medzinárodnej norme sa definuje spôsob, akým by mali byť kategorizované geografické služby tak, aby boli v súlade s taxonómiou služieb založenou na princípe ich architektúry. Táto norma tiež umožňuje kategorizovať služby z hľadiska životného cyklu ich používania, tak ako aj z hľadiska doménovo špecifickej taxonómie, alebo používateľom definovanej taxonómie. Táto norma poskytuje podporu jednoduchšej publikácie a vyhľadávania služieb.

## **Národný predhovor**

Táto norma obsahuje národnú prílohu NA (informatívnu), v ktorej je zoznam slovenských a anglických termínov.

Táto norma obsahuje dve národné poznámky v národnej prílohe.

## **Vypracovanie normy**

Spracovateľ: Úrad pre normalizáciu, metrológiu a skúšobníctvo SR

Technická komisia: TK 89 Geodézia a kartografia

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**Geographic information — Services**

*Information géographique — Services*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#).

The committee responsible for this document is ISO/TC 211, *Geographic information/Geomatics*.

This second edition cancels and replaces the first edition (ISO 19119:2005), which has been technically revised. It also incorporates the Amendment ISO 19119:2005/Amd 1:2008.

## 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 are 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), Spatial Data Infrastructure (SDI), 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 platform neutral and platform specific specification of services that can enable users to access, process and manage geographic data from a variety of sources, potentially for various distributed computing platforms (DCPs).

- “a framework for platform neutral and platform specific specification of services” means that this International Standard provides requirements for how services shall be specified in such a way that one service can be specified independently of one or more underlying distributed computing platforms. The framework provides requirements for a further mapping to specific platforms in order to enable conformant platform specific specifications to ensure conforming and interoperable service implementations.
- “access, process and manage” 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;
- services shall be categorised according to a service taxonomy based on architectural areas and may also be categorised according to a usage life cycle perspective, as well as according to domain specific and user defined service taxonomies, providing support for publication and discovery of services.

The difference between this version of this International Standard and the previous ISO 19119:2005 version is the following:

This International Standard has defined a set of requirements and related abstract tests for the specification of services according to enterprise, computational, information, engineering and technology viewpoints. This International Standard has defined a set of requirements for categorizing services according to service taxonomies. The service metadata has been moved to ISO 19115-1.

Service policies, service contracts including service level agreements (SLAs) are currently not specified as part of this International Standard, as these are considered most relevant for service deployment and service ownership, which is not currently a focus for this International Standard.

# Geographic information — Services

## 1 Scope

This International Standard defines requirements for how platform neutral and platform specific specification of services shall be created, in order to allow for one service to be specified independently of one or more underlying distributed computing platforms.

This International Standard defines requirements for a further mapping from platform neutral to platform specific service specifications, in order to enable conformant and interoperable service implementations.

This International Standard addresses the Meta:Service foundation of the ISO geographic information reference model described in ISO 19101-1:2014, Clause 6 and Clause 8, respectively.

This International Standard defines how geographic services shall be categorised according to a service taxonomy based on architectural areas and allows also for services to be categorised according to a usage life cycle perspective, as well as according to domain specific and user defined service taxonomies, providing support for easier publication and discovery of services.

## 2 Conformance

### 2.1 Claiming conformance

Any product claiming conformance with the conformance classes in this International Standard shall pass all the associated requirements described in the abstract test suite given in [Annex A](#).

### 2.2 General

This International Standard defines six conformance classes shown in [Table 1](#) to [Table 6](#), matching the six requirements classes described in [Clause 7](#) to [Clause 12](#). Any service claiming conformance to any requirements class in this International Standard shall pass all of the tests listed in the corresponding conformance class, which are described in detail in the abstract test suites in [Annex A](#). Each test relates to one or more specific requirements, which are explicitly indicated in the description of the test.

### 2.3 Enterprise viewpoint

The enterprise viewpoint conformance class is shown in [Table 1](#).

**Table 1 — Enterprise viewpoint conformance class**

<b>Conformance class</b>	<b>/conf/enterpriseviewpoint</b>
<b>Requirements</b>	/req/enterpriseviewpoint ( <a href="#">Table 11</a> )
<b>Tests</b>	All tests in <a href="#">A.2</a>

### 2.4 Computational viewpoint

The computational viewpoint conformance class is shown in [Table 2](#).

**Table 2 — Computational viewpoint conformance class**

<b>Conformance class</b>	<b>/conf/computationalviewpoint</b>
<b>Dependency</b>	/conf/enterpriseviewpoint
<b>Requirements</b>	/req/computationalviewpoint ( <a href="#">Table 12</a> )
<b>Tests</b>	All tests in <a href="#">A.3</a>

## 2.5 Information viewpoint

The information viewpoint conformance class is shown in [Table 3](#).

**Table 3 — Information viewpoint conformance class**

<b>Conformance class</b>	<b>/conf/informationviewpoint</b>
<b>Dependency</b>	/conf/uml ( <a href="#">2.4</a> )
<b>Requirements</b>	/req/informationviewpoint ( <a href="#">Table 18</a> )
<b>Tests</b>	All tests in <a href="#">A.4</a>

## 2.6 Service taxonomies

The service taxonomy conformance class is shown in [Table 4](#).

**Table 4 — Service taxonomies conformance class**

<b>Conformance class</b>	<b>/conf/servicetaxonomies</b>
<b>Dependency</b>	/conf/uml ( <a href="#">2.4</a> )
<b>Requirements</b>	/req/servicetaxonomies ( <a href="#">Table 19</a> )
<b>Tests</b>	All tests in <a href="#">A.5</a>

## 2.7 Engineering viewpoint

The engineering viewpoint conformance class is shown in [Table 5](#).

**Table 5 — Engineering viewpoint conformance class**

<b>Conformance class</b>	<b>/conf/engineeringviewpoint</b>
<b>Dependency</b>	/conf/uml ( <a href="#">2.4</a> )
<b>Requirements</b>	/req/engineeringviewpoint ( <a href="#">Table 26</a> )
<b>Tests</b>	All tests in <a href="#">A.6</a>

## 2.8 Technology viewpoint

The technology viewpoint conformance class is shown in [Table 6](#).

**Table 6 — Technology viewpoint conformance class**

<b>Conformance class</b>	<b>/conf/technologyviewpoint</b>
<b>Dependency</b>	/conf/uml ( <a href="#">2.4</a> )
<b>Requirements</b>	/req/technologyviewpoint ( <a href="#">Table 27</a> )
<b>Tests</b>	All tests in <a href="#">A.7</a>

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

### 3 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *Information technology — Open Distributed Processing — Reference model: Overview — Part 1*

ISO 19101-1:2014, *Geographic information — Reference model — Part 1: Fundamentals*

ISO 19103, *Geographic information — Conceptual schema language*

ISO 19115-1:2014, *Geographic information — Metadata — Part 1: Fundamentals*

[SoaML] *Service oriented architecture Modeling Language v 1.0.1*, May 2012, OMG standard<sup>1)</sup>

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**

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1) <http://www.omg.org/spec/SoaML/1.0.1/>