INTERNATIONAL STANDARD

ISO/IEC
19763-7

First edition
2015-10-15

Information technology — Metamodel framework for interoperability (MFI) —

Part 7:
Metamodel for service model registration

Technologies de l'information — Cadre du métamodèle pour l'interopérabilité (MFI) —

Partie 7: Métamodèle pour l'enregistrement du modèle de service

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 document 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC 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).

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.

ISO/IEC 19763-7 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information Technology*, Subcommittee SC 32, *Data management and Interchange*.

ISO/IEC 19763 consists of the following parts, under the general title *Information technology — Metamodel framework for interoperability (MFI)*:

⎯ *Part 1: Framework*

⎯ *Part 3: Metamodel for ontology registration*

⎯ *Part 5: Metamodel for process model registration*

⎯ *Part 6: Registry summary*

⎯ *Part 7: Metamodel for service model registration*

⎯ *Part 8: Metamodel for role and goal model registration*

⎯ *Part 9: On demand model selection [Technical Report]*

⎯ *Part 10: Core model and basic mapping*

⎯ *Part 12: Metamodel for information model registration*

⎯ *Part 13: Metamodel for form design registration*

Introduction

With the rapid development of SOC (Service Oriented Computing), more and more computing resources are presented in the form of web services. Meanwhile, business integration based on web services is becoming a popular application development method. A web service is a kind of web based application which encapsulates one or more computing modules and is designed to support interoperable machine-to-machine interaction over a network.

In web service registration and management, ebXML RegRep is a standard defining the service interface, protocols and information model for an integrated registry and repository, which provides basic support for publishing and discovering web services within and across enterprises. Nevertheless, keyword matching is the basic service discovery method in ebXML RegRep, thus the discovery results will be inevitably inaccurate, and the discovery process will be time-consuming. When business information interchange and integration becomes increasingly frequent, major work in web service discovery should be processed by machines. It is, therefore, necessary to semantically describe service information, including functional and non-functional information, and provide corresponding registration and management mechanism.

This part of ISO/IEC 19763 provides a framework for registering generic functional and non-functional information about web services.

Information technology — Metamodel framework for interoperability (MFI) — Part 7: Metamodel for service model registration

1　Scope

The primary purpose of the multipart standard ISO/IEC 19763 is to specify a metamodel framework for interoperability. This part of ISO/IEC 19763 specifies a metamodel for registering models of services, facilitating interoperability through the reuse of services.

This part of ISO/IEC 19763 is only applicable to web services whose capabilities are described by some web service description language (see Annex A for examples of such languages). Figure 1 shows the scope of this part of ISO/IEC 19763.
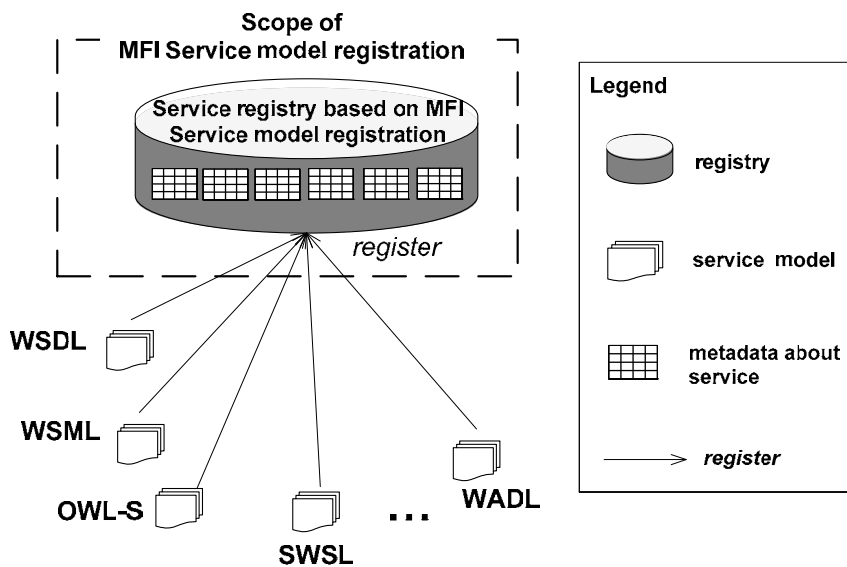
NOTE: Not every model needs to exist in a repository before registration

Figure 1 — Scope of MFI Service model registration

2　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.

NOTE   One or more terms and definitions of the referenced International Standards listed below are used in Clause 3 Terms and Definitions.

ISO/IEC 19763-5, Information technology – Metamodel framework for interoperability (MFI) – Part 5: Metamodel for process model registration

ISO/IEC 19763-8, Information technology – Metamodel framework for interoperability (MFI) – Part 8: Metamodel for role and goal model registration

ISO/IEC 19763-10, Information technology – Metamodel framework for interoperability (MFI) – Part 10: Core model and basic mapping