

ICS 35.040

CCS L 72



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 32392.7-2018

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

Issued on: March 15, 2018

Implemented on: October 1, 2018

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

Introduction

1 Scope

2 Normative references

3 terms and definitions, abbreviations

3.1 Terms and definitions

3.2 Abbreviations

4 Compliance

4.1 Overview

4.2 Compliance

4.3 Implementing a Declaration of Conformity

5 MFI Service Model Registration

5.1 MFI Service Model Registration Overview

5.2 Relationship between MFI Service Model Registration and other parts of MFI

5.3 Metaclasses in the service model registration metamodel

Foreword

GB/T 32392 "Information Technology Interoperability Metamodel Framework (MFI)" is divided into the following sections.

- Part 1. Reference model;
- Part 2. Core model;
- Part 3. Ontology registration metamodel;
- Part 4. Model mapping metamodel;
- Part 5. Process model registration metamodel;
- Part 7. Service model registration metamodel;
- Part 8. Role and target model registration metamodel;
- Part 9. On-demand model selection.

This part is part 7 of GB/T 32392.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to the ISO /IEC 19763-7.2015 Information Technology Interoperability Meta Model Framework (MFI)

Part 7. Service Model Registration Metamodel.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

GB/T 32392.5-2018 Information technology interoperability metamodel framework (MFI)

Part 5. Process model registration metamodel

(ISO /IEC 19763-5.2015, IDT)

GB/T 32392.8-2018 Information Technology Interoperability Metamodel Framework (MFI)

Part 8. Role and Target Model Registration

Metamodel (ISO /IEC 19763-8.2015, IDT)

Introduction

With the rapid development of service-oriented computing technology, more and more computing resources are reflected in the form of Web services. At the same time, base

Business integration for services is also becoming a popular approach to application development. Service is a web-based application that packages

Encloses one or more computing units that support interoperable interaction between machines and machines on the Internet.

In Web services registration and management, ebXMLRegRep is a service interface, protocol and information model defined for integration.

A specification for registry and repository that provides basic support for service registration and discovery within an enterprise or across a enterprise. However, ebXML

The most basic service discovery method in RegRep is keyword-based query, which not only inevitably leads to inaccurate query results, but also makes

The query process is very time consuming. When business information exchange and integration become frequent, the main work in service discovery should be carried out through machines.

Automatic processing. Therefore, service information (including functional and non-functional information) needs to be described by semantics, and corresponding registration and management are provided.

Mechanisms, through standardized registration information, help users find suitable services in a large number of service resources, while promoting various heterogeneous services

Integration and semantic interoperability between descriptions.

This section provides a general framework for registering functional and non-functional information of a service through a display, through specification registration.

Information helps users discover the right service.

Information Technology Interoperability Metamodel Framework (MFI)

Part 7. Service model registration metamodel

1 Scope

The main goal of GB/T 32392 is to build a metamodel framework that supports interoperability. This section defines a registration service model in detail.

The metamodel can facilitate interoperability between services through the reuse of services.

This section only applies to Web services that can be described by a service description language (see Appendix A for examples of these languages). Figure 1 exhibition

The scope of the study in this section is shown.

Note. The model does not need to be stored in the registry before registration.

Figure 1 The scope of this section

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

Note. The terms and definitions of the following referenced international standards are used in Chapter 3 Terms and Definitions.

ISO /IEC 19763-5 Information Technology Interoperability Metamodel Framework Part 5. Process Model Registration Metamodel (Information

technology-Metamodelframeworkforinteroperability(MFI)-Part 5.Metamodelforprocessmodelregis-

Tration)

ISO /IEC 19763-8 Information technology interoperability metamodel framework - Part 8. Role and target model registration metamodel (In-

formationtechnology-Metamodelframeworkforinteroperability(MFI)-Part 8.Metamodelforrole

Andgoalmodelregistration)

ISO /IEC 19763-10 Information technology interoperability metamodel framework Part 10.

Core model and basic mapping (Infor-

mationtechnology-Metamodelframeworkforinteroperability(MFI)-Part

10.Coremodelandbasic

Mapping)

3.1 Terms and definitions

The following terms and definitions apply to this document.

3.1.1

Atom expression atomicexpression

A logical expression with a cell granularity (3.1.5).

3.1.2

Combined expression composite expression

A logical expression (3.1.5) composed of connectors, in which connectors such as conjunction, disjunction, and negation contain multiple atomic expressions

Equation (3.1.1) or other combination expression (3.1.2).

3.1.3

Entity service entityservice

A business-centric Web service (3.1.22) whose functional boundaries and context are based on one or more related business entities.

3.1.4

Exit condition exitcondition

If true, it will result in a constraint that the operation ends abnormally.

Note. An action can be a process or service operation.

3.1.5

Expression expression

A sentence described by a special symbol is used to represent a logical symbol, or to express a clause applied to a service operation (3.1.18)

Piece, or the quality of the service (3.1.17) applied to a service.

3.1.6