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

GB/T 32392.1-2015

**Information technology -- Metamodel framework for
interoperability (MFI) -- Part 1: Reference model**

信息技术 互操作性元模型框架 (MFI) 第1部分: 参考模型

(English Translation)

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Foreword

GB/T 32392 "IT metamodel interoperability framework (MFI)" consists of the following six sections.

- Part 1. Reference Model;
- Part 2. Core model;
- Part 3. Registry metamodel ontology;
- Part 4. Model Mapping element model;
- Part 5. Model component metamodel framework;
- Part 6. registration procedure.

This section GB/T Part of 132,392.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with ISO/IEC 19763-1:2007 "Information technology metamodel interoperability framework (MFI) Part 1. Reference Model "(in English), and editorial changes as follows.

- Added the Chapter 4 4.2 Acronyms, Appendix NA;
- Revised international standard error, see Appendix NB.

Consistency correspondence between this part of international documents and normative

references of our files are as follows.

GB/T 18391.1-2009 Information technology - Metadata registries (MDR) - Part 1. Framework (ISO/IEC 11179-1.

2004, IDT)

GB/T 18391.3-2009 Information technology - Metadata registries (MDR) - Part 3. Registry metamodel and basic general (ISO/IEC 11179-3:2003, IDT) Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This part of the National Information Technology Standardization Technical Committee (SAC/TC28) and focal points.

This section is drafted. State Key Laboratory of Software Engineering, Wuhan University, China Electronics Standardization Institute.

Introduction

As e-commerce widely disseminated on the Internet, the business trade across countries and cultures, and other relevant information exchange has become the IT People outside the industry major concern.

In order to closely follow the development trend of e-business and e-commerce, many industry organizations have launched standardization domain-specific objects, including the use of Business process models and software components UML modeling and XML and other public facilities and exchange facilities. They especially focused on standardization domain Given business process model and standard modeling components, such as data elements, solid profile range and so on.

In this trend, many focused on standardization activities to promote mutual cooperation among different organizations and models of facilities, such as.

- a) modeling facilities and modeling architectures, such as UML, MDA;
- b) e-commerce protocols and interchange formats, such as ISO/IEC 15944, ebXML, XMI or SOAP;
- c) description of facilities of information resources, such as XML, RDF, or WSDL;
- d) business process integration facilities, such as BPEL or BPMN;
- e) registration system facilities, such as GB/T 18391 (MDR), ebXMLR
- f) meta-modeling facilities, such as MOF;
- g) ontology facilities, such as OWL, DAML OIL;
- h) logic facilities, such as CL, CG and DL.

In addition to these activities, which focus on other facilities processing content has become the subject of standardization.

These include.

- a) public domain of different business models, such as GCI, CPFR and HL7;
- b) modeling or contour modeling mode, such as the UML and EAI EDOC contour;
- c) Registry metamodel, such as ebXMLRIM and HL7RIM;
- d) metamodel, such as data warehouse CWM ODM and body;
- e) metadata specification, such as Dublin Core or ebXML core components;
- f) ontology model, such as health care domains SNOMED, \u200bu200bSUO engineering domain and ISO/IEC 15944-4 and e-business economy will Meter body.

In order to facilitate efficient sharing among different organizations, the content can be stored in the registration system.

NOTE: UML and OMG Object Management Group OMG is a trademark.

Many registration system and the repository has been developed and implemented. However, due to differences in their uncoordinated or semantic element model, to achieve organizational or Very difficult to effective cooperation between the groups. This requires new facilities to establish a federal registration systems.

To meet these needs, GB/T 32392 as a unified metamodel framework set offers many facilities to describe the different types of Registration system or metamodel.

This unified metamodel framework provides with the following characteristics.

- a) promote the registration system metamodel federal registration system.
- b) the description and registration mechanism different modeling components to facilitate its reuse.
- c) the description and registration mechanism model mapping and transformation rules to facilitate coordination between the contents of the registration system.

GB/T 32392 This section describes the basic concepts of meta-model framework, these concepts will be developed in other parts of GB/T 32392 of Use. This section also describes the problems and needs to be considered in the development.

IT metamodel interoperability framework (MFI) Part 1. Reference Model

1 Scope

The main purpose of GB/T more than 32,392 yuan is part of the standard framework for interoperability.

GB/T 32392 in this part of the general principles established meta-model framework, and given the development of GB/T 32392 in other parts of guide.

Element model of a multi-part standard framework for coordinating the development of meta-model, in order to facilitate the registration system or existing between the metamodel Interoperability.

2 Compliance

GB/T 32392.1 compliance requirements are not specified. Other parts of the GB/T 32392 specifies the respective compliance requirements.

3 Normative References

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

ISO/IEC 11179-1 Information technology - Metadata registries (MDR) - Part 1. Framework [Information technology-Metadatarregistries (MDR) -Part 1. Framework] ISO/IEC 11179-3 Information technology - Metadata registries (MDR) - Part 3. Registry metamodel and basic attributes [Informationtechnology-Metadatarregistries (MDR) -Part 3. Metamodel] ISO/IEC 19502:2005 Information technology - Meta Object Facility (MOF) [Informationtechnology-MetaObjectFa-cility (MOF)]

4.1 Terms and Definitions

The following terms and definitions apply to this document.

4.1.1

Domain object Object-specific domain entity or process representation.

4.1.2

Domain model Model represents a particular domain.

4.1.3

Metadata

Describe other data.