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**Internet of Things-Framework for semantic interoperation
implementation**

物联网 语义互操作实现框架

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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An IoT semantic interoperability implementation framework

1 Scope

This document provides a framework for implementing semantic interoperability in IoT systems, and describes the semantic model and semantic model components that implement semantic interoperability.

Basic operations include deployment, semantic interoperability information recording, semantic interoperability maintenance, and semantic interoperability negotiation.

This document applies to the design and implementation of semantic interoperability in IoT systems.

2 Normative references

This document has no normative references.

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Semantic information

Data carries information with clear meaning and context.

3.2 semantic interoperation

The process by which IoT entities interpret and respond to the meaning of interaction data in a specific domain context.

3.3 IoT entity

Physical entities participating in the IoT system.

Note. Includes objects, devices, gateways, applications, systems, etc.

[Source. GB/T 41782.1-2022, 3.8, modified]

3.4 Semantic model

A model with domain knowledge expression and interaction mechanism for knowledge sharing.

3.5 Ontology

A specific description of entities and their relationships within a specific knowledge domain using a language that can be processed by computers.

[Source. ISO /IEC 19763?3 2020, 3.3.1.1, modified]

4 Abbreviations

The following abbreviations apply to this document.

JSON JavaScript Object Notation ORSD Ontology Requirements Specification Document

OWL Web Ontology Language RDF Resource Description Framework