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

GB/T 17969.8-2024

**Information technology - Procedures for the operation of object
identifier registration authorities - Part 8: Generation of universally
unique identifiers(UUIDs) and their use in object identifiers
(English Translation)**

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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:

This document is Part 8 of GB/T 17969: GB/T 17969 has published the following parts:

--- Information technology Open Systems Interconnection (OSI) Registration Authority operating procedures Part 1: General procedures and international object identifiers the top arc of the symbol tree (GB/T 17969.1-2015);

--- Information technology Open Systems Interconnection OSI Registration Authority operating procedures Part 3: Jointly managed by ISO and ITU-T Registration of object identifier arcs under the top-level arc (GB/T 17969.3-2008);

--- Information technology Open Systems Interconnection (OSI) Registration Authority operating procedures Part 5: Registration of VT control object definitions

Table (GB/T 17969.5-2000);

--- Information technology Open Systems Interconnection (OSI) Registration Authority operating procedures Part 6: Application processes and application entities (GB/T 17969.6-2000);

--- Information technology object identifier registration authority operating procedures Part 8: Generation and use of universal unique identifiers (UUIDs) this document replaces GB/T 17969.8-2010 "Information Technology Open Systems Interconnection OSI Registration Authority Operating Procedures Part 8" Part: Generation and registration of universally unique identifiers (UUIDs) and their use as ASN:1 object identifier components, consistent with GB/T 17969.8-2010 Compared with the previous version, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) Change the title of Chapter 7 "Using UUIDs to Form OIDs" to "Using UUIDs as the Principal Integer Value of Joint UUID Arcs" and Unicode Tags", and modify the corresponding content of Chapter 7;

b) Deleted the original Chapter 16 "Registration of UUIDs and their use as OID components":

This document is equivalent to ISO/IEC 9834-8:2014 "Information Technology Object Identifier Registration Authority Operational Specification Part 8: Communication the Generation of Universally Unique Identifiers (UUIDs) and Their Use in Object Identifiers:

Introduction

GB/T 17969 is intended to specify the operating procedures of object identifier registration agencies: It is based on ISO/IEC 9834 and is intended to consist of five parts:

constitute:

--- Information technology Open Systems Interconnection (OSI) Registration Authority operating procedures Part 1: General procedures and international object identifiers the purpose of this standard is to define the international object identifier tree and its top-level arcs:

--- Information technology Open Systems Interconnection OSI Registration Authority operating procedures Part 3: Jointly managed by ISO and ITU-T Registration of object identifier arcs under the top-level arc (GB/T 17969.3-2008): The purpose is to specify the

registration of the object identifier arc:

Record procedures, including revisions, additions, etc:

--- Information technology Open Systems Interconnection (OSI) Registration Authority operating procedures Part 5: Registration of VT control object definitions

Table (GB/T 17969.5-2000): The purpose is to specify the contents of the registration form:

--- Information technology Open Systems Interconnection (OSI) Registration Authority operating procedures Part 6: Application processes and application entities (GB/T 17969.6-2000): The purpose is to specify the registration procedures for application processes and application entities:

--- Information technology object identifier registration authority operating procedures Part 8: Generation and use of universal unique identifiers (UUIDs) its use in object identifiers:

Information Technology Object Identifier Registration Authority Operating Procedures Part 8: Universally Unique Identifiers (UUIDs) Generation of and use in object identifiers

1 Scope

This document specifies the format and generation rules for generating 128-bit identifiers that are guaranteed to be globally unique or have a high probability of being globally unique:

Ball only:

Follow this document to generate a new universally unique identifier (UUID) every 100ns for both temporary and permanent use:

Identifier:

This document is derived from, and is technically equivalent to, earlier non-standard specifications for UUIDs and their generation:

This document also specifies and allows the use of UUID as the primary value for each arc under the joint UUID arc (defined in Unicode):

This enables users to create and use such arcs without any registration procedure:

This document also specifies and enables the use of UUIDs to form Uniform Resource Names (URNs):

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document:

For referenced documents without a date, only the version corresponding to that date

applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document:

ISO/IEC 8802-3 Information technology systems - Telecommunications and information exchange between local and metropolitan area networks - Part 3 Note: GB/T 15629.3-2014 Information technology systems - Telecommunications and information exchange - Specific requirements for local area networks and metropolitan area networks - Part 3: Collision Carrier Sense Multiple Access with Detection (CSMA/CD) access method and physical layer specifications (ISO/IEC 8802-3:2000, MOD) ITU-TX:680(2008)||ISO/IEC 8824-1:2008 Information technology Abstract Syntax Notation One (ASN:1): Basic notation convention Note: GB/T 16262.1-2006 Information technology Abstract syntax notation 1 (ASN:1) Part 1: Basic notation specification (ISO/IEC 8824-1:

2002, IDT)

ITU-TX:660 | ISO/IEC 9834-1 Information technology object identifier registration authority operating procedures: General procedures and international object identifiers Note: GB/T 17969.1-2015 Information technology Open Systems Interconnection OSI Registration Authority operating procedures Part 1: General procedures and international objects the top arc of the identifier tree (ISO/IEC 9834-1:2008, NEQ) IETF RFC1321 MD5 message digest algorithm (TheMD5Message-DigestAlgorithm)