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

GB/T 36450.1-2018

**Information technology -- Storage management -- Part 1:
Overview**

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Foreword

GB/T 36450 "Information Technology Storage Management" is divided into the following parts.

- Part 1. Overview;
- Part 2. General architecture;
- Part 3. Common configuration files;
- Part 4. Block equipment;
- Part 5. File System;
- Part 6. Optical fiber;
- Part 7. Host elements;
- Part 8. Media Library.

This part is the first part of GB/T 36450.

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

This part uses the translation method equivalent to ISO /IEC 24775-1.2014 "Information Technology Storage Management Part 1. Overview".

Introduction

The overview section of Information Technology Storage Management contains provisions that outline how SMI-S works and is important to understand the details of the standard.

To be the foundation. However, the specification information of the "Information Technology Storage Management" series of standards is included in other parts, "Information

Technology Storage Management"

Part 1. Overview provides a high-level introduction to key concepts.

The following are major changes to this version relative to the second version of ISO /IEC 24775.

--- Improve organizational structure. The international standard was reorganized into 8 parts to provide more information. These parts are.

- a) Part 1 Overview. The Overview section provides a high-level overview of the ISO /IEC 24775 series of standards;
- b) Part 2 General Architecture. This section contains basic information about the interface, such as security and protocols;
- c) Part 3 Common Profile. This section contains component configuration files that extend the configuration files in other books, such as the target side.

Mouth and job control;

- d) Part 4 Block Devices. This section contains various forms of storage configuration files that support disk storage;

- e) Part 5 File System. This section contains configuration files that support the file system, such as NAS (network attached storage);

- f) Part 6 Switch Fabric. This section contains configuration files for handling host server and storage device interconnects, such as

Change machine

- g) Part 7 Host Elements. This section contains configuration files for the storage software on the host server, such as disk partitions and hosts.

Hardware RAID controller;

- h) Part 8 Media Library. This section contains configuration files for handling removable media such as tape libraries.

--- Maturity level identification. The addition of materials to this standard requires multiple levels of maturity. The initial level is experimental, the table

The material shown has not been implemented and is subject to change. Other levels indicate the extent of implementation. These levels are.

- a) Experimental. Complete design review, no commercial implementation;
- b) implemented. there is an initial implementation, which can be deleted in minor modifications;

- c) Stable. Three or more providers implement the certification material to ensure backward compatibility and are only deleted in the main revision;
- d) Completion. rely solely on the completed content and is only deprecated in the main revision;
- e) Deprecated. Outdated material may be removed in a future release.

For a detailed description of each maturity level and its printed mark, please refer to Chapter 4, "Typographic Conventions".

--- Expand the scope of application. Extends the scope of SAN components that are modeled according to the profiles defined in each section.

The new configuration file includes.

- a) Part 3 general configuration file. SAS target port, SATA target port, SB target port, SAS originating end

Port, ATA initiator port, FC-SB-x initiator port, FCoE initiator port, power supply, fan, sensor,

Base server, media access device, storage cabinet, software inventory, configuration file registration, proxy server system management, operation

Power supply

- b) Part 4 block devices. block storage view, CKD block service, erase, asymmetric storage server, volume composition, storage element

Protection, copy service, volume storage pool, group mask and mapping, thin provisioning;

- c) Part 5 file system. file export, file server operation, file storage, file system, file system copy service

Services, file system performance, file system quotas, NAS network ports, host file systems, file system remote replication

service;

- d) Part 6 Fiber. Fibre Channel Security, Fiber View, Virtual Fiber Network, Switch Partition, SAS Expander,

N port virtualization, inter-fiber routing;

- e) Part 7 host elements. storage HBA, host hardware RAID controller;

- f) Part 8 Media Library. Partitioned Tape Library, Virtual Tape Library, Virtual Tape Library Copy, and Library View.

The following experimental profiles are removed by standard.

- a) Part 3 common configuration files. security, third-party authentication, authorization,

credential management, identity management, access control and

The security role of security resource ownership.

b) Part 4 Block Device. Pool Management Policy.

The following configuration files are deprecated in the standard.

a) Part 3 Common Profile. Cascading (to use cascading classes directly).

b) Part 4 Block Device. Volume Management (no replacement).

c) Part 6 Fiber. Router (no replacement).

d) Part 7 Host Elements. FCHBA (to store HBA instead), SB Multipath Management (no replacement).

In addition, many existing profiles have been enhanced.

Information Technology Storage Management Part 1. Overview

1 Scope

This part of GB/T 36450 defines a secure, scalable, and interoperable management interface for distributed heterogeneous storage systems. The connection

Use an object-oriented, XML-based, message-based protocol to support device and subsystem management in such storage environments

Specific needs. Using this protocol, this section describes the CIM WBEM servers from this standard that are available to WBEM customers.

Information on the side.

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.

ISO /IEC 24775-2:2014 Information Technology Storage Management Part 2. General Architecture (Informationtechnolo-

gy-Storagemanagement-Part 2. Commonarchitecture)

ISO /IEC 24775-3:2014 Information Technology Storage Management Part 3. Generic Profile (Informationtechnolo-

gy-Storagemanagement-Part 3. Commonprofiles)