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**Information technology — Cloud Data  
Management Interface (CDMI) Version  
2.0.0**

*Technologies de l'information — Interface de management des  
données du nuage informatique (CDMI) Version 2.0.0*

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## Foreword

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html). In the IEC, see [www.iec.ch/understanding-standards](http://www.iec.ch/understanding-standards).

This document was prepared by SNIA (as Cloud Data Management Interface (CDMI™), Version 2.0.0) and drafted in accordance with its editorial rules. It was adopted, under the JTC 1 PAS procedure, by Joint Technical Committee ISO/IEC JTC 1, Information technology.

This third edition cancels and replaces the second edition (ISO/IEC 17826:2016), which has been technically revised.

The main changes are as follows:

- Specification changes:
  - no longer a reliance on X-CDMI-SPECIFICATION-VERSION header, as per IETF guidelines;
  - support for PATCH HTTP verb, in addition of PUT, for resource updates;
  - use of /cdmi/v2.0.0/ root URI in examples;
  - new format for query parameters in URIs;
  - exports section has been re-written;
  - versioning examples have been updated;
  - audit and logging clauses have been removed (due to no vendor implementations);

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- Bibliography section has been re-written;
- RFC references have been updated;
- HTTPS is used instead of HTTP in examples;
- references updated from CIFS to SMB;
- document formatting cleanup.
- Incorporated Extensions into Specification:
  - Encrypted Object extension;
  - Delegated Access Control extension;
  - JSON Transfer Encoding extension.
- Incorporated Extensions into Annex A:
  - summary metadata for bandwidth;
  - expiring access control entries;
  - group storage system metadata;
  - header-based metadata;
  - immediate query.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](https://standards.iteh.ai/catalog/standards/sist/5613b169-68bd-4356-992b-1deece6123e/iso-iec-17826-2022) and [www.iec.ch/national-committees](https://standards.iteh.ai/catalog/standards/sist/5613b169-68bd-4356-992b-1deece6123e/iso-iec-17826-2022).

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## Part I

### CDMI Preamble

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This Cloud Data Management Interface (CDMI™) International Standard is intended for application developers who are implementing or using cloud storage. It documents how to access cloud storage and to manage the data stored there.

This document is organized as follows:

Table 1: Overview of this document

Clause 1	Scope	Defines the scope of this document
Clause 2	Normative references	Lists the normative references for this document
Clause 3	Terms	Provides terminology used in this document
Clause 4	Conventions	Describes the conventions used in presenting the interfaces and the typographical conventions used in this document
Clause 5	Overview of Cloud Storage	Provides a brief overview of cloud storage and details the philosophy behind this International Standard as a model for the operations
Clause 6	Data Object Resource Operations using HTTP	Provides the normative standard of data object resource operations using HTTP
Clause 7	Container Object Resource Operations using HTTP	Provides the normative standard of container object resource operations using HTTP
Clause 8	Data Object Resource Operations using CDMI	Provides the normative standard of data object resource operations using CDMI
Clause 9	Container Object Resource Operations using CDMI	Provides the normative standard of container object resource operations using CDMI
Clause 10	Domain Object Resource Operations using CDMI	Provides the normative standard of domain object resource operations using CDMI
Clause 11	Queue Object Resource Operations using CDMI	Provides the normative standard of queue object resource operations using CDMI
Clause 12	Capability Object Resource Operations using CDMI	Provides the normative standard of capability object resource operations using CDMI
Clause 13	Exported Protocols	Discusses how virtual machines in the cloud computing environment can use the exported protocols from CDMI containers
Clause 14	Snapshots	Discusses how snapshots are accessed under CDMI containers
Clause 15	Serialization/Deserialization	Discusses serialization and deserialization, including import and export of serialized data under CDMI
Clause 16	Metadata	Provides the normative standard of the metadata used in the interface
Clause 18	Retention and Hold Management	Describes the optional retention management disciplines to be implemented into the system management functions
Clause 19	Scope Specification	Describes the structure of the scope specification for JSON objects
Clause 20	Results Specification	Provides a standardized mechanism to define subsets of CDMI object contents
Clause 21	Notification Queues	Describes how CDMI clients can efficiently discover what changes have occurred to the system
Clause 22	Query Queues	Describes how CDMI clients can efficiently discover what content matches a given set of metadata query criteria or full-content search criteria
Clause 23	Encrypted Objects	Describes how to work with transparently encrypted objects
Clause 24	Delegated Access Control	Describes how to delegate access control to external systems
Clause 25	Data Object Versions	Describes how to work with versioned data objects
Clause 26	Extensions	Provides informative vendor extensions. Each extension is added to the standard when at least two vendors implement the extension.

## Clause 1

### Scope

This CDMI™ International Standard specifies the interface to access cloud storage and to manage the data stored therein. This International Standard applies to developers who are implementing or using cloud storage.

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[ISO/IEC 17826:2022](https://standards.iteh.ai/catalog/standards/sist/5613b169-68bd-4356-992b-1deecce423e/iso-iec-17826-2022)

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