

ICS 35.240.30

CCS A 14



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

GB/T 23270.1-2023

Replacing GB/T 23270.1-2009

**Information and documentation - Open systems
interconnection - Interlibrary loan application protocol
specification - Part 1: Protocol specification**

信息与文献 开放系统互连 馆际互借应用协议规范 第1部分：协议说明书
(English Translation)

Issued on: September 7, 2023

Implemented on: April 1, 2024

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative reference documents	
3 Terms and Definitions	
4 Abbreviations	
5 Protocol Overview	
5.1 Services provided	
5.2 Services that support settings	
5.3 Model	
6 Interlibrary Loan Application Protocol Data Unit	
7 Transaction information	
7.1 Transaction identifier	
7.2 Protocol status	
7.3 Protocol variables	
7.4 Expiration timer	
7.5 Requesting information	
7.6 Historical information	
8 Process element	
8.1 Events and Actions	
8.2 Rules of Process for the Parties	
8.3 Procedural rules for intermediaries	
9 Abstract Grammar	
9.1 ASN.1 Specification for Interlibrary Loan Application Protocol Data Unit	
10 Consistency	
10.1 Static consistency	
10.2 Dynamic Consistency	
10.3 Protocol Implementation Conformance Statement Requirements	
Appendix A (Normative) Interlibrary Loan Status Table	
A.1 Overview	
A.2 Agreement	
A.3 Actions taken under interlibrary loan agreements	

A.4 Relationship with support services

Appendix B (Normative) Transfer Syntax

B.1 Overview

B.2 Unsupported EDIFACT features

B.3 Character Set and Grammar Level

B.4 EDIFACT Exchange

B.5 Paragraph

B.6 Control section encoding

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting.

This document is Part 1 of GB/T 23270 "Interlibrary Loan Application Protocol Specification for the Interconnection of Information and Document Open Systems".

GB/T 23270 has published the following parts.

---Part 1: Agreement Statement;

---Part 2: Protocol Implementation Conformance Statement (PICS) provisions.

This document replaces GB/T 23270.1-2009 "Information and Document Open System Interconnection Interlibrary Loan Application Protocol Specification Part 1" "Protocol Specification", compared with GB/T 23270.1-2009, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) Deleted the descriptions related to GB/T 19688.1 in terms and definitions (see 3.6, 3.6.1, 3.6.19, 3.6.21, 2009 edition 3.6.82, 3.6.89, 3.6.105, 3.6.154);

b) Added events in the process element related to service primitive requests from interlibrary loan customers (see 8.1.1);

c) Changed the ISBN string length in the structured type that defines the interlibrary loan application protocol data unit in the abstract syntax (see 9.1.2, 2009 version of 9.1.2);

d) Added an overview section of actions taken under interlibrary loan agreements (see A.3.1);

e) Added some items in a series of status tables defined by interlibrary loan agreements (see A.4);

f) Delete some items in a series of status tables defined in the interlibrary loan agreement (see A.4, 2009 version of A.4);

g) Changed some parameter names in the responder status table-processing stage and the intermediary status table-responder role status tables (see A.4, 2009 version of A.4);

h) Added the overview section in Appendix B (see B.1);

i) Changed the mapping of ASN.1 data types to segment names and parameter names in data elements in EDIFACT segment encoding (see B.7.2, 2009 version of B.6.2).

This document is equivalent to ISO 10161-1:2014 "Information and Documentation Open System Interconnection Interlibrary Loan Application Protocol Specification No. 1" Part. Protocol Statement.

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

The goal of open system interconnection is to enable non-standard interconnection computer systems to achieve the following types of System and standard interconnections.

- a) Computer systems from different manufacturers;
- b) Computer systems between different departments;
- c) Computer systems of varying complexity;
- d) Computer systems produced in different eras.

The open system interconnection reference model divides system interconnection into multiple functional layers and standardizes the functions of each layer to facilitate management.

reason. GB/T 23270 is one of a series of national standards that promotes the interconnection of computer systems (in the field of information and documentation). It is consistent with GB/T 9387 A series of national standards defined are closely related. GB/T 23270 aims to establish interlibrary loan (Inter-library loan) standards that are generally applicable to the information and documentation fields.

The application protocol for libraryLoan (referred to as ILL) is intended to be composed of two parts.

---Part 1: Agreement Statement. The purpose is to establish communication protocol specifications for interlibrary loan so that all parties involved in interlibrary loan affairs can Carry out various tasks according to the specification requirements of the agreement.

---Part 2: Protocol Implementation Conformance Statement (PICS) provisions. The purpose is to implement a declaration of conformity according to the agreement in Part 1 Requirements, establishing the requirements and usage details applicable to the product implementing the Declaration of Conformity provisions of the Agreement.

The purpose of the interlibrary loan agreement is to support the ILL service defined in GB/T 23269, that is, the ILL application service definition. This definition usually an external delivery service needs to be called to complete an ILL request. Interlibrary loan agreements transfer relevant information, which allows automatic or manual Call the external delivery service.

This document is one of many related standards supporting the interconnection of library systems. These standards can be used alone or in combination with other standards to support library applications that need to integrate multiple communication services. For example, GB/T 27702 supports remote retrieval of catalog databases, which provides the provided literature-related search information can be used further for interlibrary loan agreements.

The security and accounting issues involved in ILL operations require further study.

The specification techniques used in this document are consistent with those used by other Open Systems Interconnection Protocols (OSI protocols). In this for most of the document, the technology is not developed further. ISO/IEC 8824 (all parts) uses ASN.1 to standardize technical methods Information and document open system interconnection interlibrary loan Application Protocol Specification Part 1: Protocol Description

1 Scope

This document defines the application-service-element (ASE) protocol for interlibrary loan and describes a system to add Code of conduct to be followed when accessing interlibrary loan services.

This document states the code of conduct to be followed by two or more parties participating in interlibrary loan transactions, specifically.

- a) Actions taken when receiving a request service primitive from an interlibrary loan service user;
- b) Actions taken when receiving application-protocol-data-units (APDU);
- c) Actions taken by the local system as a result of the event.

This document describes the abstract syntax required to convey Interlibrary Loan Agreement Application Protocol Data Units (see Chapter 9).

This document points out the conformance requirements to be followed by the implementation of the protocol (see Chapter 10).

The scope of an interlibrary loan agreement is limited to the interconnection between systems; it does not dictate or limit how interfaces within computer systems are designed. count the computer system can be a stand-alone workstation or a mainframe computer.