

Interface Specification

FBS-14789

Cicero NCIP Specification

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1 Introduction

This document describes the NCIP implementation in Cicero. The following subset of the entire NCIP protocol is implemented:

- Lookup User Service
- Lookup Item Service
- Lookup Request Service
- Renew Item Service
- Request Item Service
- Cancel Request Item Service

This document describes the following

- Implementation details of the services
- Authentication of requesting applications
- Authentication of users
- The content in the different unique identifiers
- The closed and the open enumerations

1.1 Endpoints

The Cicero NCIP implementation uses REST / HTTP POST.

The endpoint address is as follows:

[https://\[server\]/rest/ncip/](https://[server]/rest/ncip/)

Contact Systematic to obtain the exactly [server]

1.2 NCIP documentation

This document is based on the official NCIP documentation, and it adds details specific to the Cicero NCIP implementation. The official NCIP documentation can be found at

<http://biblstandard.dk/ncip/>

NCIP message examples can be found at

<http://biblstandard.dk/ncip/examples/>

1.3 Cicero scheme

Cicero uses the following scheme in its NCIP implementation:

<http://systematic.com/schemes/cicero/ncip/1.0>

1.4 Definitions

(R) in the following sections means that the element can be repeated.

2 Authentication of requesting applications

The IP from which the requesting application calls the NCIP service must be whitelisted. Contact Systematic to add the IP for whitelisting.

3 Authentication of users

In the following services that returns user specific data and only Authentication Input is required the user must be authenticated:

- Lookup User Service
- Lookup Request Service
- Renew Item Service
- Request Item Service
- Cancel Request Item Service

The user credentials are included in the Authentication Input:

Object	Must include	Content
Authentication Input (R)	User Id	User's loaner identifier
	PIN	User's pin code

The loaner identifier is often the social security number (CPR).

3.1 Example

Replace in the following [LOANER IDENTIFIER] with the actual an actual loaner identifier like library card number or CPR number and [PIN CODE] with the actual pin code.

```

<AuthenticationInput>
  <AuthenticationInputData>[LOANER IDENTIFIER]</AuthenticationInputData>
  <AuthenticationDataFormatType>
    <Scheme>http://www.iana.org/assignments/media-types</Scheme>
    <Value>text/plain</Value>
  </AuthenticationDataFormatType>
  <AuthenticationInputType>
    <Scheme>http://systematic.com/schemes/cicero/ncip/1.0<Scheme>
    <Value>User ID</Value>
  </AuthenticationInputType>
</AuthenticationInput>
<AuthenticationInput>
  <AuthenticationInputData>[PIN CODE]</AuthenticationInputData>
  <AuthenticationDataFormatType>
    <Scheme>http://www.iana.org/assignments/media-types</Scheme>
    <Value>text/plain</Value>
  </AuthenticationDataFormatType>
  <AuthenticationInputType>
    <Scheme>http://systematic.com/schemes/cicero/ncip/1.0<Scheme>
    <Value>PIN</Value>
  </AuthenticationInputType>
</AuthenticationInput>

```

4 Unique Identifiers

The NCIP protocol uses a number of unique identifiers. The following identifiers are used in the Cicero NCIP implementation:

Identifier name	Content	Context
Unique Item Id	Item number	Material
Unique Bibliographic Id	FAUST Number	Bibliographic Record
Unique User Id	Loaner identifier	User
Unique Request Id	id	Reservation
Unique Agency Id	Full ISIL number	Agency

5 Enumerations

The NCIP protocol defines a number of open and closed enumerations. The following two sections describe the supported enumeration values in the Cicero NCIP implementation.

5.1 Open enumerations

5.1.1 Authentication Input Type

Context: User / Library Card

Values	Content
User Id	Loaner identifier (often CPR)
PIN	Pin code

5.1.2 Visible User Id Type

Context: User

Values	Content
Barcode	Loaner number in Cicero

5.1.3 Address Role Type

Context: User

Values	Content
home	Home address
co	C/O address

5.1.4 Address Type

Context: User

Values	Content
street address	Physical address
electronic mail address	Email

5.1.5 Request Type

Context: Reservation

Values	Content
Hold	A standard / normal reservation
normal	A standard / normal reservation
serial	A serial reservation of a list of materials / bibliographic records
parallel	A parallel reservation of a list of materials / bibliographic records

5.1.6 Request Status Type

Context: Reservation

Values	Content
active	The reservation is active but not fulfilled
passive	Is part of serial reservation but not active yet
at reservation shelf	Reservation is fulfilled and ready to be picked up

5.1.7 Request Scope Type

Context: Reservation

Values	Content
bibliographic item	The reservation is for any material of a bibliographic record
item	The reservation is for a specific material

5.1.8 Bibliographic Item Identifier Code

Context: Material

Values	Content
ISBN	The item's ISBN
ISSN	The item's ISSN
ISMN	The item's ISMN

5.1.9 Location Type

Context: Material

Values	Content
Current	The current location of the material

5.1.10 Circulation Status

Context: Material

Values	Content
lent out	The material is lent out
renewed	The material is lent out and the loan is renewed

suspended	The material is suspended
returned	The material is available
other	Status unknown

5.1.11 Visible Item Identifier Type

Context: Material

Values	Content
Item Number	The item number of the material

5.1.12 Item Use Restriction Type

Context: loan / reservation

Values	Content
not loanable	The material cannot be lent out
not remote loanable	The material cannot be lent out in remote loan
not reservable	The material or bibliographic record cannot be reserved
not reservable for remote loan	The material or bibliographic record cannot be reserved for remote loan
cannot be renewed yet	The material loan cannot be renewed yet
loaner is blocked	The reservation or material loan cannot be completed, because the user is blocked
material is reserved	The material cannot be lent out because it is reserved for someone else
max renewal limit is reached	The material loan cannot be renewed again because the max limit is reached

5.1.13 Bibliographic Record Identifier Code

Context: Bibliographic Record

Values	Content
FAUST	FAUST number of a bibliographic record

5.2 Closed enumerations

5.2.1 User Element Type

Context: User

Values	Content
Block Or Trap	The block reason if the user is blocked.
Date Of Birth	Date of birth
Name Information	Name
User Address Information	Address, secondary address and email
User Language	User language
Visible User Id	User identifier
Agency User Privilege	User permissions in external resources

5.2.2 Item Element Type

Context: Bibliographic record, Material, Material loan, Reservation

Values	Content
Bibliographic Description	Faust number, ISBN/ISSN/ISMN, author, edition, language, medium type, pagination, publisher, title.
Circulation Status	Circulation status
Electronic Resource	<i>Left out</i>
Hold Queue Length	Length of reservation queue
Item Description	Item number
Item Use Restriction Type	Whether or not it can be borrowed, reserved and borrowed remotely (interlibrary loan)
Location	Placement of the item

5.2.3 Messaging Error Type

Context: global

Values	Content
Invalid Message Syntax Error	Invalid syntax

5.2.4 Processing Error Type

Context: global

Values	Content
User Authentication Failed	User is not authenticated
Agency Authentication Failed	The requesting application is not authenticated
Unknown User	The user could not be found
Unknown Item	The material could not be found
Unknown Request	The reservation could not be found
Item Not Checked Out	The material was not lent out

Item Not Renewable	The material loan could not be renewed
Item Not Requestable	The material / bibliographic record could not be reserved
Temporary Processing Failure	Processing failed.
User Blocked	The user has been blocked
Maximum Renewals Exceeded	The max amount of renewals has been reached
Renewal Not Allowed - Item Has Outstanding Requests	A reservation has been made on the item and it can't be renewed
User Ineligible To Renew This Item	The user does not have the rights to renew the item
Duplicate Request	A reservation already exists on this item for the loaner
Item Does Not Circulate	None of the materials can be reserved.
User Ineligible To Request This Item	The user cannot borrow the material

6 Services

6.1 Lookup User Service

This service requests data about a particular User known to the responding application. The initiator provides the Authentication Input for the User and a list of elements for which data is requested.

Input / output	Data	Comment
Required input	Initiation Header	
	Authentication Input (R) or Unique User Id	
Optional Input	User Element Type (R) Loaned Items Desired Requested Items Desired User Fiscal Account Desired	
Always returned	Response Header Unique User Id, or Problem	
Returned if requested	User Optional Fields User Transaction Loaned Item (R) Requested Item (R) User Fiscal Account	

6.2 Lookup Item Service

This service requests data about a particular Item known to the responding application. The initiator provides the unique Id of the Item and a list of elements for which data is requested.

Input / output	Data	Comment
Required input	Initiation Header Unique Item Id	
Optional Input	Item Element Type (R) Current Borrower Desired Current Requesters Desired	
Returned if available	Response Header Unique Item Id, or Problem	
Returned if requested	Item Optional Fields Item Transaction Current Borrower Current Requester (R)	

6.3 Lookup Request Service

Return information about a reservation.

Input / output	Data	Comment
Required input	Initiation Header	
	Unique Request Id	
Optional Input	Authentication Input (R) or Unique User Id	
	Item Element Type (R)	
	User Element Type (R)	
Returned if available	Response Header	
	Unique Request Id	
	Date Placed	
	Hold Queue Position	
	Pickup Expiry Date	
	Request Status Type	
	Request Type, or Problem	
Returned if requested	Item Optional Fields	
	User Optional Fields	

6.4 Renew Item Service

This service requests that the responding application renew an Item for a User.

Input / output	Data	Comment
Required input	Initiation Header	
	Authentication Input (R) or Unique User Id	
	Unique Item Id	
Optional Input	Item Element Type (R)	
	User Element Type (R)	
Returned if available	Response Header	
	Unique Item Id	
	Date Due	
	Date For Return	
	Renewal Count, or Problem	
Returned if requested	Item Optional Fields	
	User Optional Fields	

6.5 Request Item Service

This service requests that the responding application place a request on an Item for a User whether or not the Item is immediately available. The initiating application indicates the type of request being made. The initiating application may also request data about the User and/or Item involved with this request.

Input / output	Data	Comment
Required input	Initiation Header Authentication Input (R) or Unique User Id Request Scope Type Request Type Unique Bibliographic Id	Only if "Request Scope Type" = "bibliographic item"
	Unique Item Id	Only if "Request Scope Type" = "item"
Optional Input	Item Element Type (R) User Element Type (R) Need Before Date	
Returned if available	Response Header Request Scope Type Request Type Unique Request Id Unique User Id, or Problem	
Returned if requested	Item Optional Fields User Optional Fields	

6.6 Cancel Request Item Service

This service requests that the responding application cancel a previous request for an Item. The initiating application may also request data about the User and/or Item involved with this request cancellation.

Input / output	Data	Comment
Required input	Initiation Header	
Required input	Authentication Input (R) Unique Request Id	
Optional Input	Item Element Type (R) User Element Type (R)	
Returned if available	Response Header Unique Request Id, or Problem	
Returned if requested	Item Optional Fields User Optional Fields	

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