

**Defect Reports 1-21 for ISO 10160 and ISO 10161 - The
Interlibrary Loan Application Service Definition and Protocol
Specification**

Status: Approved by ISO

**National Library of Canada/
Software Kinetics Limited**

September 1995

DEFECT REPORT

1. Report Number: 001
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: editorial
6. References in Document: Clause 9.3 p. 96
7. Nature of Defect: editorial inconsistency
8. Solution Proposed by the Source:
 1. Clause 9.3 p. 96, Transaction-type. Change “reference from line 50 ...” to “referenced from line 43”.
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 002
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Error
6. References in Document: Table A-9, page 124
7. Nature of Defect: Action in SHIPPED state for “CARreq-“ and “CARreq-repeat” events is incorrect.
8. Solution Proposed by the Source:
For events “CARreq-“ and “CARreq-repeat” in SHIPPED state, the action should read “CAR-“.
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 003
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April 1993
4. Report Concerning: ISO 10160 and 10161
5. Type of Defect: Error
6. References in Document: In ISO 10160, Figure 10, 12 and 14.
In ISO 10161, Tables A-6 and A-9
7. Nature of Defect: If the requester is in the CANCEL-PENDING state, and the responder sends the CAR- (negative response) followed by the ILL-ANS (conditional) and the CAR- is lost or out of sequence, the requester will remain in the CANCEL-PENDING state while the responder moves to the CONDITIONAL state. Each side will be expecting a response from the other side.
8. Solution Proposed by the Source:

Force the responder to move to the CANCEL-PENDING state when the requester sends a repeated CAN APDU. This allows the responder to repeat the cycle of sending a negative reply to the cancel request and then an ILL-ANS (conditional).

The required changes are as follows:

 1. In Figures 10, 12 and 14 of ISO 10160, in the transition from CONDITIONAL to CANCEL-PENDING states, change “20” to “20***”.
 2. In tables A-6 and A-9 of ISO 10161, change the cell defined by state CONDITIONAL and event “CAN repeat” to:

Canind
Cancel-Pending
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 004
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: error/clarification
6. References in Document: Page 72, History-Report
7. Nature of Defect: There is a discrepancy between what is indicated in clause 7.6, p. 38 as information that must be maintained throughout the lifetime of the ILL-transaction to support the history-report parameter of the Status-or-Error-Report and what is indicated on p. 72 in the ASN.1 specification for this parameter (lines 474-512).
8. Solution Proposed by the Source:
 1. The “date-of-last-transition” must be maintained yet is indicated as optional in the ASN.1 specification (line 480). This type should be made mandatory.
 2. The “shipped-service-type” must be maintained yet is indicated as optional in the ASN.1 specification. An additional note should be added to line 506 of the ASN.1 indicating that if the information is available, i.e. if a SHIPPED or a RECEIVED APDU has been sent or received, then the value in the “shipped-service-type” parameter shall be supplied.
 3. The “transaction-results” must be maintained yet is indicated as optional in the ASN.1 specification. An additional note should be added to line 510 of the ASN.1 indicating that if the information is available, i.e. if an ILL-ANSWER APDU has been sent or received, then the value in the “transaction-results” parameter shall be supplied.
 4. The “most-recent-service-note” must be maintained yet is indicated as optional in the ASN.1 specification. An additional note should be added to line 511 of the ASN.1 indicating that if the information is available, i.e. if a note has been supplied in the most recent service primitive, then the note shall be supplied.

5. The second paragraph of 7.6 should be modified to state explicitly that out-of-sequence service indications are to be considered as valid service indications for the purpose of the “most-recent-service” component of the history report.

9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 005
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: clarification
6. References in Document: Clause 7.6, p. 38, 3rd last paragraph.
7. Nature of Defect: This paragraph should be changed to indicate specifically the type of information that should be supplied in the “shipped-service-type” and the “transaction-results” parameters as well as from where that information is to be obtained. This clarification is needed because implementors have varying interpretations of the existing text.
8. Solution Proposed by the Source:

Replace the 3rd last paragraph of this page with the following two paragraphs:

“The ‘shipped-service-type’ should reflect the most current information in the ‘shipped-service-type’ parameter from the SHIPPED or RECEIVED service or from the SHIPPED or RECEIVED APDU, e.g. if a requester has received a SHIPPED APDU and then invokes a RECEIVED.request, then the value in the RECEIVED.request is used. This information may not be available for all ILL-transactions.

The ‘transaction-results’ should reflect the value of ‘transaction-results’ value contained in the ILL-ANSWER. This information may not be available for all ILL-transactions.
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 006
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat:
April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Clarification/Change
6. References in Document: Clauses 7.4 (p. 37), 9.2 (p.77) and 10.1 (p. 98)
7. Nature of Defect: Although the conformance clause (10.1) does not include EXPIRY as a mandatory service, clause 7.4 states that the expiry timer must be maintained by the responder, and the ASN.1 definition of search-type” states that the default value is “need-before-date”. Together, these statements create an interpretation difficulty that needs to be resolved.
8. Solution Proposed by the Source:

Feedback from the National Library and other implementors indicates that expiry should not be a mandatory service.

In view of this, it is proposed to remove ambiguity by changing the default for “expiry-flag” to “no-expiry”, and changing the first sentence of clause 7.4 to the following:
“The following timer must be maintained by the responder if it supports the EXPIRY service.
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 007
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat:
April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: clarification/error
6. References in Document: Table A-3, Table A-5 and Table A-7
7. Nature of Defect: The existing specification allows the responder to initiate original and repeated OVERDUE APDUs while in the OVERDUE state. However, the following problem can occur if the conditions under which original OVERDUE APDUs can be sent are not restricted:

The requester invokes a renew request when in the OVERDUE state and moves to the RENEW/OVERDUE state. The responder at the same time sends an original OVERDUE APDU and remains in the OVERDUE state. When the requester receives the OVERDUE, it moves to the OVERDUE state assuming that the renew-answer is no. But upon receiving the RENEW APDU, the responder may issue a Renew-Answer (yes). This APDU will be treated by the requester an inopportune event, i.e. a protocol error.

8. Solution Proposed by the Source:

Define a new predicate p8, as follows:

p8 returns TRUE if most recent event that caused a state change is NOT (DUEreq, DUE)

In Table A-5, change the first cell defined by state RENEW/OVERDUE and event DUE to the following:

p7 and p8
DUEind
OVERDUE

In Table A-7, change the cell defined by the state OVERDUE and eventDUEreq to the following:

p8
DUE
OVERDUE

The effect of these changes is to disallow an uninterrupted sequence of OVERDUE requests; this will prevent the occurrence of the problem stated above.

9. Secretariat's Response: Approved by ISO

DEFECT REPORT

1. Report Number: 008
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat:
April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Error
6. References in Document: Table A-8, Clauses 7.3, 8.3.2, 8.3.3
7. Nature of Defect: Predicate p6 is TRUE if the CHAIN protocol variable is true and this is the basis for restricting certain transitions to be valid only for chained sub-transactions. However, it is possible for a sub-transaction to be partitioned when the CHAIN variable is TRUE, e.g. when the requester has given permission to either chain or partition. Therefore, it is necessary to update the values of the CHAIN and PART protocol variables to reflect the actual type of sub-transaction that is initiated when the intermediary requester issues an ILL-REQUEST. partitioned transactions.
8. Solution Proposed by the Source:
 - a. In Table A-8 change the action list for the cell defined by the state IDLE and event ILL-REQUEST to include updates to the CHAIN and PART variables, as follows:

p2 or p3
ILL
update CHAIN var
update PART var
PENDING
 - b. In Clause 7.3 change the definitions of the CHAIN and PART protocol variables as follows:

PART: used by an intermediary to indicate whether an ILL-transaction can be or has been partitioned. It takes on the values TRUE or FALSE.

CHAIN: used by an intermediary to indicate whether an ILL-transaction can be or has been

chained. It takes on the values TRUE or FALSE.

- c. In section 8.3.2, add the following sentence after the first sentence of the third paragraph:
“When the sub-transaction is initiated, the CHAIN variable remains true while the PART variable is set to FALSE.
- d. In section 8.3.3, add the following sentence after the first sentence of the third paragraph
“When the sub-transaction is initiated, the PART variable remains true while the CHAIN variable is set to FALSE.”

9. Secretariat's Response: Approved by ISO

DEFECT REPORT

1. Report Number: 009
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10160 and 10161
5. Type of Defect: Error
6. References in Document: Figure 10 in ISO 10160 and Table A-7 in ISO 10161.
7. Nature of Defect: When the requester moves to the returned state after receiving a CHK APDU, it is possible to invoke the Lost service. The responder in the checked-in state cannot receive the LOST APDU and will treat it as a protocol error.
8. Solution Proposed by the Source:

Allow the responder to receive the LOST APDU while in the checked-in state.

In Figure 10 of ISO 10160, add “42**” to the self transition in the CHECKED-IN state.

In Table A-7, change the cells defined by the state CHECKED-IN and the events LST and LST repeat to the following:

LSTind
CHECKED-IN
9. Secretariat's Response: Approved by ISO

DEFECT REPORT

1. Report Number: 010
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Error
6. References in Document: Clause 8.2.7, p. 48.
7. Nature of Defect: In the third paragraph, it is stated that for simple transactions, the comparison with the protocol variable CURRENT-PARTNER-ID is done with the “responder-id” field of all incoming APDUs. This is not true for the FORWARD-NOTIFICATION APDU.
8. Solution Proposed by the Source:
In the 3rd paragraph, add to the end of the sentence beginning with “In a simple transaction, ...”: “, except in the case of the FORWARD-NOTIFICATION APDU where the comparison is with the “intermediary-id” field.
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 011
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat:
April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Editorial
6. References in Document: Clause 9.1.1, Line 53
7. Nature of Defect: The ASN.1 specification for **supply-medium-info-type** currently does not include a size constraint. The constraint is specified only in the comment on lines 54 and 55.

8. Solution Proposed by the Source:
change the specification to:
supply-medium-info-type [13] IMPLICIT SEQUENCE
SIZE (1..7) OF Supply-Medium-Info-Type OPTIONAL
9. Secretariat's Response: Approved by ISO

DEFECT REPORT

1. Report Number: 012
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat:
April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Error
6. References in Document: Table A-4
7. Nature of Defect: Inconsistency with Table A-5a
8. Solution Proposed by the Source:
In table A-4, change the cell defined by state PENDING and
event "CAR-" to:

CARind-
PENDING
9. Secretariat's Response: Approved by ISO

DEFECT REPORT

1. Report Number: 013
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Error
6. References in Document: Table A-9, Intermediary Responder
7. Nature of Defect: The transition in state SHIPPED for event CAN (repeated) is defined in the state diagram of the service definition, but is missing in this table.
8. Solution Proposed by the Source:

In table A-9, change the cell defined by state SHIPPED and event "CAN (repeated)" to:

CANind
SHIPPED
9. Secretariat's Response: Approved by ISO

DEFECT REPORT

1. Report Number: 014
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Clarification
6. References in Document: Clause B.3, 2nd last paragraph.
7. Nature of Defect: This paragraph states:
“Where an ASN.1 data type is mapped to a sequence of EDIFACT segments, the order of the segments is important. Otherwise, the order of segments is not significant.”

Since all APDUs are defined as SEQUENCE types, the order of segments in the EDIFACT encoded APDUs is always significant. The second sentence is therefore unnecessary and confusing.
8. Solution Proposed by the Source:
Replace the referenced paragraph with the following text:
“ASN.1 data types, including the APDUs that are defined as SEQUENCE datatypes, are mapped to a sequence of EDIFACT segments. The order of the segments is important.”
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 015
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Clarification
6. References in Document: Clause 7.5.1, System-id
7. Nature of Defect: The last paragraph of this clause states:
“The requester must use the same value of System-id throughout an ILL-transaction. The same applies to the other parties involved in the transaction.”

This rule is ambiguous in that it only mentions values and does not say anything about the components and whether both have to be returned if contained in the initial request message.
8. Solution Proposed by the Source:
The following text is proposed to replace the referenced paragraph:
“The requester and responder shall use a constant value for a system-id throughout an ILL-transaction. Thus, if only a person-or-institution-symbol is assigned initially by the requester, then only a symbol shall be used thereafter and the value of the symbol shall not change. If both a person-and-institution-symbol and a name-of-person-or-institutionare assigned initially by the requester, then both the symbol and the name shall be used thereafter and the values of the symbol and of the name shall not change.”
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 016
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Clarification
6. References in Document: Clause 7.1, Transaction Identification
7. Nature of Defect: In the paragraph beginning with “For a simple two-party ILL-transaction, ...”, it is unclear whether the optional initial-requester-id, if supplied by the requester, must be returned by the responder.
8. Solution Proposed by the Source:

Add the following sentence before the last sentence of this paragraph:

“However, if the initial-requester-id is present in an ILL-REQUEST APDU, then it must be present with the same value in all other messages associated with that ILL-transaction.”
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 017
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Clarification
6. References in Document: Clause 9.2, Definition of ILL-String, line 547
7. Nature of Defect: It is not stated whether values of type ILL-String are allowed to include leading or trailing spaces, or whether a value consisting of only spaces is valid.
8. Solution Proposed by the Source: .
Add the following note to the ASN.1 definition of ILL-String:
"-- may not include leading or trailing spaces
-- may not consist only of space (" ") or non-printing characters"
9. Secretariat's Response: Approved by ISO

DEFECT REPORT

1. Report Number: 018
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: April, 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Error
6. References in Document: Tables A-6 and A-9
7. Nature of Defect: The 5th paragraph on p. 52, clause 8.2.10, states:
“If the responder receives a CONDITIONAL-REPLY with answer YES, then the EXPIRY timer is reset to its original value.”

This is not reflected in the state tables for the responder and intermediary responder.
8. Solution Proposed by the Source:

In tables A-6 and A-9, change the cell defined by the state CONDITIONAL and the event C-REP + to the following:

C-REPind +
reset EXPIRY timer
IN-PROCESS
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 19
2. Source: Canada
- 3 Report Submitted to: TC 46/SC 4/WG 4 Secretariat: February 1994
4. Report Concerning; ISO 10161
- 5 Type of Defect: Minor Technical
6. References in Document: Section 7.4 Expiry Timer
7. Nature of Defect: The wording “The following timer must be maintained by the responder:” is inaccurate and misleading, since there is no conformance requirement on a responder to support the Expiry service (see section 10.1).
8. Solution Proposed by the Source:
 1. Change the wording to:
“The following timer must be maintained by a responder that supports the Expiry service.”
9. Secretariat’s Response: Approved by ISO

DEFECT REPORT

1. Report Number: 020
2. Source of report: Canada
3. Report Submitted to: TC 46/SC 4/WG 4 Secretariat: March 1993
4. Report Concerning: ISO 10161
5. Type of Defect: Omission
6. References in Document: Clause 9.2 Types, line 664 Reason-Unfilled
7. Nature of Defect: A responder should be able to indicate that a request was not filled because the requester specified Expiry and the responder does not support Expiry.
8. Solution Proposed by the Source:
Add a value to the ENUMERATED list as follows:
expiry-not-supported (22)
9. Secretariat's Response: Approved by ISO

DEFECT REPORT

1. Report Number: 021
2. Source of report: Canada
3. Report Submitted to: TC46/SC4/WG4 Secretariat: August 1994
4. Report Concerning: ISO 10161
5. Type of Defect: Clarification/Error
6. References in Document: Clause 8.2.14
7. Nature of Defect: The effect of this clause is to render version negotiation by different implementations of the ILL protocol ineffective, since unsupported values for protocol version are declared by this clause not to be protocol errors. Since an error condition of “protocol version not supported” is defined in the protocol, this would seem to be an unintended effect.
8. Solution Proposed by the Source:

Change the clause to read as follows:

All syntactical errors in received APDUs are considered to be protocol errors except for an unknown value of a known parameter **other than protocol-version. An unknown value of protocol-version does constitute a protocol error. Unknown values of other parameters do not cause a protocol error.**

In addition, the following clarification should be added as a new paragraph to clause 8.2.13:

If a protocol error is reported in response to an initial ILL-Request APDU, the requester may force the transaction to a terminal state such as CANCELLED or NOT-SUPPLIED. Alternatively the requester may re-issue the APDU, possibly in a different version.
9. Secretariat’s Response: Approved by ISO