INTERNATIONAL STANDARD ISO/IEC 9579-1:1993
TECHNICAL CORRIGENDUM 1

Published 1995-12-01
Corrected and reprinted 1996-07-01

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION
INTERNATIONAL ELECTROTECHNICAL COMMISSION • МЕЖДУНАРОДНАЯ ЭЛЕКТРОТЕХНИЧЕСКАЯ КОМИССИЯ • COMMISSION ELECTROTECHNIQUE INTERNATIONALE

Information technology — Open Systems Interconnection — Remote Database Access —

Part 1:
Generic Model, Service and Protocol

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Interconnexion de systèmes ouverts (OSI) — Accès aux bases de données à distance —

Partie 1: Modèle, service et protocole

RECTIFICATIF TECHNIQUE 1

Technical corrigendum 1 to International Standard ISO/IEC 9579-1:1993 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Contents

In the table of contents, replace the entries for 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.5, 1.3.6, 1.3.7, 1.3.8, 1.3.9, 1.3.10, and 1.3.11 with the following:

"1.3.1 Basic Reference Model (ISO 7498)
1.3.2 Reference Model - Part 3: Naming and Addressing (ISO 7498-3)
1.3.3 Service Conventions (ISO TR 8509)
1.3.4 Service Definition for the Association Control Service Element (ISO 8649)
1.3.5 Connection Oriented Presentation Service Definition (ISO 8822)
1.3.6 Specification of Abstract Syntax Notation One (ASN.1) (ISO/IEC 8824)
1.3.7 Application Layer Structure (ISO/IEC 9545)
1.3.8 Remote Database Access - Part 1: Generic Model, Service, and Protocol (ISO/IEC 9579-1)
1.3.9 Commitment, Concurrency, and Recovery (ISO/IEC 9804)
1.3.10 Distributed Transaction Processing (ISO/IEC 10026-1)
1.3.11 Reference Model of Data Management (ISO/IEC 10032)"

Renumber 1.3.11.1 through 1.3.11.16 as 1.3.8.1 through 1.3.8.16 and position under 1.3.8 in the contents list.

UDC 681.3.621.39 **Ref. No. ISO/IEC 9579-1:1993/Cor.1:1995(E)**

Descriptors: data processing, information interchange, network interconnection, open systems interconnection, factual data bases, access, models, protocols.

1.3 Definitions

Reorder the subclauses of 1.3 and modify the titles of these subclauses as follows:

"1.3.1 Basic Reference Model (ISO 7498)
1.3.2 Reference Model - Part 3: Naming and Addressing (ISO 7498-3)
1.3.3 Service Conventions (ISO TR 8509)
1.3.4 Service Definition for the Association Control Service Element (ISO 8649)
1.3.5 Connection Oriented Presentation Service Definition (ISO 8822)
1.3.6 Specification of Abstract Syntax Notation One (ASN.1) (ISO/IEC 8824)
1.3.7 Application Layer Structure (ISO/IEC 9545)
1.3.8 Remote Database Access - Part 1: Generic Model, Service, and Protocol (ISO/IEC 9579-1)
1.3.9 Commitment, Concurrency, and Recovery (ISO/IEC 9804)
1.3.10 Distributed Transaction Processing (ISO/IEC 10026-1)
1.3.11 Reference Model of Data Management (ISO/IEC 10032)"

Renumber 1.3.11.1 through 1.3.11.16 as 1.3.8.1 through 1.3.8.16.

1.3.1 Basic Reference Model

In the first paragraph of 1.3.1 on page 4, delete item f) and reletter the remaining item as necessary.

1.5.2 Service parameter description

In the definition of "S" on page 10, change "two" to "one".

3.1.1.1.1 R-Initialize service

Modify the description of the dialogueIDSuffix parameter to read:

"An identifier that is unique within the scope of the application-entity-invocation (identified by the dialogueIDClientInvocation parameter) of the RDA client that is requesting initialization of the RDA dialogue."

On page 21, move note 3 so that it follows the description of the "controlAuthenticationData" Result parameter, delete the first sentence of the relocated note, and modify the second sentence to read:

"The mechanism for passing authentication data between RDA clients is beyond the scope of RDA."

Renumber the notes in 3.1.1.1.1 accordingly.

3.1.5.1.1 R-ExecuteDBL service

In the definition of dataResourceHandle on page 42, modify the second sentence to read:

"This parameter identifies a particular data resource among the set of open data resources."

3.1.5.2.1 R-DefineDBL service

In the definition of dataResourceHandle on page 45, modify the second sentence to read:

"This parameter identifies a particular data resource among the set of open data resources."

3.2.1 RDA client sequencing rules

In the last paragraph on page 52, modify the definition of state CN to read:

"CN - Either an R-ExecuteDBL error confirm or an R-InvokeDBL error confirm primitive reporting a transactionRolledBack error parameter was received."

In table 15 on page 53:

1) add the note reference "1)" to the cells formed by events R-Commit cnf in state CC and R-Rollback cnf in state CR.

2) add the note reference "2)" to the cells formed by events R-ExecuteDBL cnf in state CT and R-InvokeDBL cnf in state CT.

3) add the following within the scope of table 15:

"NOTES

1) The resulting state is CN if an R-ExecuteDBL error confirm or an R-InvokeDBL error confirm reported a transactionRolledBack error parameter in states CT, CC or CR. Otherwise, the resulting state is CT.

2) The resulting state is CN if an R-ExecuteDBL error confirm or an R-InvokeDBL error confirm reported a transactionRolledBack error parameter. Otherwise, the resulting state is CT."

3.2.2 RDA server sequencing rules

On page 54, modify the first paragraph to read:

"The RDA Service is asynchronous; that is, the RDA server may receive other indications before it issues the response to a previous indication."

In the last paragraph on page 54, modify the definition of state SN to read:

"SN - Either an R-ExecuteDBL error response or an R-InvokeDBL error response primitive reporting a transactionRolledBack error parameter was issued."

In table 16 on page 55:

1) add the note reference "1)" to the cells formed by events R-Commit rsp in state SC and R-Rollback rsp in state SR.

2) add the note reference "2)" to the cells formed by events R-ExecuteDBL rsp in state ST and R-InvokeDBL rsp in state ST.

3) add the following within the scope of table 16:

"NOTES

1) The resulting state is SN if an R-ExecuteDBL error response or an R-InvokeDBL error response reported a transactionRolledBack error parameter in states ST, SC or SR. Otherwise, the resulting state is ST.

2) The resulting state is SN if an R-ExecuteDBL error response or an R-InvokeDBL error response reported a transactionRolledBack error parameter. Otherwise, the resulting state is ST."

4.1.1.2 RDA dialogue entity

In the first paragraph of 4.1.1.2 on page 60, modifiy the first sentence to read:

"An RDA dialogue entity is created upon issuance of an R-Initialize result response, and exists until the RDA dialogue is terminated."

4.1.1.3 Opened data resource entity

In the first paragraph of 4.1.1.3 on page 61, modify the first two sentences to read:

"An opened data resource entity is created upon issuance of an R-Open result response. An opened data resource entity is deleted by an R-Close result response."

4.1.1.4 Defined DBL entity

In the first paragraph of 4.1.1.4 on page 61, modify the first two sentences to read:

"A defined DBL entity is created upon issuance of an R-DefineDBL result response. A defined DBL entity is deleted independently of opened data resource entities upon issuance of an R-DropDBL result response."

4.1.2.8 Failure of the RDA dialogue

In the first paragraph of 4.1.2.8 on page 65, modify the first bullet to read:

"Recovery actions are performed as appropriate for the application-context (see 5.1.2.2, RDA dialogue failure, for the RDA Basic application-context; see 10.5.17, A(-P)-ABORT indication or A-RELEASE (Result = affirmative) response, of ISO/IEC 10026-3 for the RDA TP application-context); and"

4.1.3.1.1 R-Initialize service

Under "Entity manipulation rules", replace "If an error is not returned" with "If an error response is not returned".

Under "Result rules", replace "If a result is returned" with "If a result response is returned".

Under "Error rules", replace "An error shall be returned" with "An error response shall be returned".

4.1.3.2.1 R-Terminate service

Under "Entity manipulation rules", replace "If an error is not returned" with "If an error response is not returned".

Under "Error rules" in 4.1.3.2.1, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any error rules for this service."

4.1.4.1.1 R-BeginTransaction service

Under "Result rules" in 4.1.4.1.1, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any result rules for this service."

Under "Error rules" in 4.1.4.1.1, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any error rules for this service."

4.1.4.1.2 R-Commit service

Under "Result rules", replace "If a result is returned" with "If a result response is returned".

Under "Error rules" in 4.1.4.1.2, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any error rules for this service."

4.1.4.1.3 R-Rollback service

Under "Result rules" in 4.1.4.1.3, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any result rules for this service."

Under "Error rules" in 4.1.4.1.3, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any error rules for this service."

4.1.5.1.1 R-Cancel service

Under "Result rules", replace "Any R-Cancel result shall be returned" with "Any R-Cancel result response shall be returned".

Under "Error rules", replace "An error shall be returned" with "An error response shall be returned".

4.1.5.2.1 R-Status service

Under "Entity manipulation rules" in 4.1.5.2.1, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any entity manipulation rules for this service."

In the result rules, replace "Any R-Status result shall be returned" with "Any R-Status result response shall be returned".

Under "Result rules", replace "If a result is returned" with "If a result response is returned".

In the table under "Result rules" on page 70, replace the horizontal lines between the "operationStatus", "operationIDUnknown", "awaitingExecution", "executing", "finished", "cancelled" and "aborted" row entries with blank lines.

Under "Error rules", replace "An error shall be returned" with "An error response shall be returned".

4.1.6.1.1 R-Open service

Under "Entity manipulation rules", replace "If an error is not returned" with "If an error response is not returned".

Under "Error rules", replace "An error shall be returned" with "An error response shall be returned".

4.1.6.1.2 R-Close service

Under "Entity manipulation rules", replace "If an error is not returned" with "If an error response is not returned".

Modify the first two items in the first paragraph of 4.1.6.1.2 on page 72 as follows:

Replace "the current RDA dialogue" with "the dialogueID for the current RDA dialogue".

Under "Result rules", replace "If a result is returned" with "If a result response is returned".

In the result rules of 4.1.6.1.2, replace the third sentence of the Constraints column description for dataResourceHandle with the following:

"There shall not exist any instance of this parameter whose value is equal to the dataResourceHandle attribute of an opened data resource entity deleted by this R-Close service."

In the result rules of 4.1.6.1.2, modify the Constraints column description for dataResourceHandleUnknown by deleting the text "deleted by this R-Close service".

In the result rules of 4.1.6.1.2, replace the Constraints column description for specificCloseException with the following:

"This parameter shall be specified only if the dataResourceHandle parameter in the same listOfCloseExceptions item does not specify the dataResourceHandle attribute of an opened data resource entity deleted by this R-Close service."

Under "Error rules" in 4.1.6.1.2, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any error rules for this service."

4.1.7.1.1 R-ExecuteDBL service

Under "Result rules", replace "If a result is returned" with "If a result response is returned".

Under "Error rules", replace "An error shall be returned" with "An error response shall be returned".

4.1.7.2.1 R-DefineDBL service

Under "Entity manipulation rules", replace "If an error is not returned" with "If an error response is not returned".

Under "Error rules", replace "An error shall be returned" with "An error response shall be returned".

4.1.7.2.2 R-InvokeDBL service

Under "Result rules", replace "If a result is returned" with "If a result response is returned".

Under "Error rules", replace "An error shall be returned" with "An error response shall be returned".

In the "Error rules" table, modify the "Predicate" column entry for the "commandHandleUnknown" row to read:

"There does not exist a defined DBL entity whose dialogueID attribute identifies the current RDA dialogue and whose commandHandle attribute equals the commandHandle parameter of the R-InvokeDBL indication primitive."

4.1.7.2.3 R-DropDBL service

Under "Entity manipulation rules", replace "If an error is not returned" with "If an error response is not returned".

Modify the first paragraph under "Entity manipulation rules" in 4.1.7.2.3 on page 76 as follows:

Replace "the current RDA dialogue" with "the dialogueID for the current RDA dialogue".

Under "Result rules", replace "If a result is returned" with "If a result response is returned".

In the result rules of 4.1.7.2.3, add the following sentence after the second sentence in the Constraints description for commandHandle:

"There shall not exist any instance of this parameter whose value is equal to the commandHandle attribute of a defined DBL entity deleted by this R-DropDBL service."

In the result rules of 4.1.7.2.3, modify the last sentence in the Constraints description for commandHandle as follows:

(1) Prefix the sentence with "If the listOfCommandHandle was specified on the R-DropDBL indication primitive,".

(2) Change "There" to "there".

In the result rules of 4.1.7.2.3, modify the Constraints column description for commandHandleUnknown by deleting the text "deleted by this R-DropDBL service".

In the result rules of 4.1.7.2.3, replace the Constraints column description for specificDropDBLException with the following:

"This parameter shall be specified only if the commandHandle parameter in the same listOfDropDBLExceptions item does not specify the commandHandle attribute of a defined DBL entity deleted by this R-DropDBL service."

Under "Error rules" in 4.1.7.2.3, modify the first paragraph to read:

"This part of ISO/IEC 9579 does not specify any error rules for this service."

4.2.4.5 Outgoing actions

Modify the heading of table 21 to read "Table 21: Outgoing actions (Part 1 of 2)".

Modify the heading of table 22 to read "Table 22: Outgoing actions (Part 2 of 2)".

4.2.4.6 Predicates

In table 23, modify the Meaning when true column of the predicate TRB to read:

"During the current RDA transaction, the RDA server sent an RC error response APDU with a transactionRolledBack error field or the RDA client received an RC error response APDU with a transactionRolledBack error field."

4.2.4.7.3 Values of diagnosticInformation for invalidSequence error

Modify the first paragraph on page 94 to read:

"Table 32 specifies the value of the diagnosticInformation field for each situation in which the invalidSequence field is included in an RC error response APDU."

Modify the sentence directly below table 32 to read:

"Values of diagnosticInformation field:"

4.3 Application-protocol-data-units

On page 103, in the ASN.1 for R-ExecuteDBL-Request, change "dblArguments" to "dBLArguments".

On page 105, in the ASN.1 for R-InvokeDBL-Request, change "dblArguments" to "dBLArguments".

On page 109, remove the term "OPTIONAL" from the specification of the diagnosticInformation field.

5.1.5 State transition diagrams

On page 116, modify the note to read:

"Unless otherwise indicated, state transitions caused by RDA Service errors are not illustrated in these figures."

In figure 5 on page 117, change "R-EXECUTE req/(OK) cnf" to "R-EXECUTE req/cnf".

In figure 5, modify the label "RDA Transaction Rolled Back" to read: "RDA transaction rollback pending".

In figure 5, replace "R-EXECUTE (RolledBack) cnf" with "R-EXECUTE (transactionRolledBack) cnf".

In figure 5:

- Change "Inactive" to "inactive".
- Change "RDA Dialogue Initialization Pending" to "RDA dialogue initialization pending".
- Change "RDA Dialogue Termination Pending" to "RDA dialogue termination pending".
- Change "RDA Transaction Not Open" to "RDA transaction not open".
- Change "RDA Transaction Open" to "RDA transaction open".
- Change "RDA Transaction Terminating" to "RDA transaction terminating".

In figure 6 on page 118, change "R-EXECUTE ind/(OK) rsp" to "R-EXECUTE ind/rsp".

In figure 6, modify the label "RDA Transaction Rolled Back" to read: "RDA transaction rollback pending".

In figure 6, replace "R-EXECUTE (RolledBack) rsp" with "R-EXECUTE (transactionRolledBack) rsp".

In figure 6:

- Change "Inactive" to "inactive".
- Change "RDA Dialogue Initialization Pending" to "RDA dialogue initialization pending".
- Change "RDA Dialogue Termination Pending" to "RDA dialogue termination pending".
- Change "RDA Transaction Not Open" to "RDA transaction not open".
- Change "RDA Transaction Open" to "RDA transaction open".
- Change "RDA Transaction Terminating" to "RDA transaction terminating".

5.2.4.4.5 RDA with TP Commit and Chained Transactions functional units

In item 1 of rule 4.5.1.1, change "R-Initialize confirm" to "R-Initialize result confirm".

In rule 4.5.1.1, remove item 2 from the list and renumber the remaining items.

In rule 4.5.1.1, add the following new item 4 to the list of items:

"4. TR-ROLLBACK indication: RDATransactionTerminating".

In item 1 of rule 4.5.2.1, change "R-Initialize response" to "R-Initialize result response".

5.2.4.4.6 RDA with TP Commit and Unchained Transactions functional units

In item 1 of rule 4.6.1.1, change "R-Initialize confirm" to "R-Initialize result confirm".

In item 2 of rule 4.6.1.1, change "R-Initialize confirm" to "R-Initialize result confirm".

In rule 4.6.1.1, remove item 4 from the list and renumber the remaining items.

In rule 4.6.1.1, add the following new item 8 to the list of items:

"8. TP-ROLLBACK indication: RDATransactionTerminating".

In item 1 of rule 4.6.2.1, change "R-Initialize response" to "R-Initialize result response".

In item 2 of rule 4.6.2.1, change "R-Initialize response" to "R-Initialize result response".

5.2.5 State transition diagrams

Add the following note at the bottom of page 126 in 5.2.5:

"NOTE - State transitions caused by RDA service errors are not illustrated in these figures."

Add the following text as the second paragraph of 5.2.5:

"Within the RDA TP application-context, when the RDA dialogue is in the Inactive state, there is no TP dialogue established and the RDA PM is in state I; when the RDA dialogue is Active, an underlying TP dialogue is established, and the RDA client PM is in state CA and the RDA server PM is in state SA. The state names within the boxes of figures 7 through 10 identify TP node states, as defined in 8.7.3 of ISO/IEC 10026-1."