Working Implementation Agreements for Open Systems Interconnection Protocols: Part 19 - Remote Database Access

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Foreword

This part of the Working Implementation Agreements was prepared by the Remote Database Access Special Interest Group (RDA SIG) of the Open Systems Environment Implementors' Workshop (OIW). See Part 1 - Workshop Policies and Procedures in the "Draft Working Implementation Agreements Document" for the workshop charter.

Text in this part has been approved by the Plenary of the Workshop. This part replaces the previously existing part on this subject.

Future changes and additions to this version of these implementation Agreements will be published as change pages. Deleted and replaced text will be shown as strikeout. New and replacement text will be shown as shaded.

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Refer to the Stable Implementation Agreements.

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Refer to the Stable Implementation Agreements.

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Refer to the Stable Implementation Agreements.

6.4 Profiles

The names of RDA profiles are of the form "ARD-abcd". ("ARD" is reserved in ISO/IEC TR 10000-2 for Remote database Access.)

a identifies the RDA specialization:

0 = SQL Specialization

b identifies the capabilities for transaction management:

0 = transactions accessing data resources through a single remote open system (RDA Basic application-context). The type of transaction management provided is one-phase commitment.

1 = transactions spanning more than one open system (the RDA TP application-context). The type of transaction management provided is two-phase commitment.

c identifies the functionality provided; that is, the set of functional units or other major elements of function mandated by the profile. This may differ among the various RDA Specializations. See below for the definition of this element for the SQL Specialization.

d identifies the role:

0 = client role; that is, the ability to initiate RDA requests.

1 = server role; that is, the ability to respond to RDA requests.

(An implementation that provides both roles must specify both profiles.)

For the SQL Specialization, the following functionalities are defined:

ARD-000d = Immediate execution: the capability to immediately execute SQL statements. (The significant function is the RDA Immediate Execution functional unit.)

ARD-001d = Stored execution: the capability to store and later execute SQL statements. (The significant function is the RDA Stored Execution functional unit.)

ARD-002d = Status: the capability to perform status operations on other dialogues. (The significant function is the RDA Status functional unit together with support for the controlServiceDataRequested parameter of the R-Initialize service.)

ARD-003d = Cancel: the capability to perform cancel operations on other dialogues. (The significant function is the RDA Cancel functional unit together with support for the controlServiceDataRequested parameter of the R-Initialize service.)

Profiles for the RDA TP application-context will be defined at a later time.

Refer to the Stable Implementation Agreements for the rules for and descriptions of the RDA profiles.

Annex A (normative)

RDA SIG object identifiers

Refer to the Stable Implementation Agreements.

Annex B (normative)

Protocol Implementation Conformance Statement

No text.

Annex C (informative)

SQLSTATE values for RDA errors

If passed on from the RDA service provider to an SQL Application in the RDA Client, errors returned by the SQL Server in RDA Error Responses are mapped into SQLSTATE values as specified in Table 43, SQLSTATE values for RDA errors.

Table 43 - SQLSTATE values for RDA errors

SQLSTATE VALUE	RDA Service Error Name
HZ001	accessControlViolation
HZ002	badRepetitionCount
HZ003	commandHandleUnknown
HZ004	controlAuthenticationFailure
HZ005	controlServicesNotAllowed
HZ006	dataResourceAlreadyOpen
HZ007	dataResourceHandleNotSpecified
HZ008	dataResourceHandleUnknown
HZ009	dataResourceNameNotSpecified
HZ010	dataResourceNotAvailable
HZ011	dataResourceUnknown
HZ012	dialogueIDUnknown
HZ013	duplicateCommandHandle
HZ014	duplicateDataResourceHandle
HZ015	duplicateDialogueID
HZ016	duplicateOperationID
HZ017	invalidSequence
HZ018	noDataResourceAvailable
HZ019	operationAborted
HZ020	operationCancelled
HZ021	serviceNotNegotiated
HZ022	transactionRolledBack
HZ023	userAuthenticationFailure
HZ024	hostIdentifierError
HZ025	invalidSQLConformanceLevel
HZ026	rDATransactionNotOpen
HZ027	rDATransactionOpen

HZ028	sQLAccessControlViolation
HZ029	sQLDatabaseResourceAlreadyOpen
HZ030	sQLDBLArgumentCountMismatch
HZ031	sQLDBLArgumentTypeMismatch
HZ032	sQLDBLNoCharSet
HZ033	sQLDBLTransactionStatementNotAllowed
HZ034	sQLUsageModeViolation
SQLSTATE VALUE	**ACSE Service Error Name**
HZ200	A-AssociateFailurePermanent
HZ201	A-AssociateFailureTransient
HZ202	A-ReleaseFailure
HZ203	A-AbortFailureServiceUser
HZ204	A-AbortFailureServiceProvider
SQLSTATE VALUE	**TP Service Error Name**
HZ500	BeginDialogueRejectedUser
HZ501	BeginDialogueRejectedProvider
HZ502	UError
HZ503	UAbortRollbackTrue
HZ504	UAbortRollbackFalse
HZ505	PAbortRollbackTrue
HZ506	PAbortRollbackFalse
HZ507	HeuristicMix
HZ508	HeuristicHazard
HZ509	Rollback