

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

X.519

Corrigendum 2
(02/2011)

SERIES X: DATA NETWORKS, OPEN SYSTEM
COMMUNICATIONS AND SECURITY

Directory

Information technology – Open Systems
Interconnection – The Directory: Protocol
specifications

Technical Corrigendum 2

Recommendation ITU-T X.519 (2005) – Technical
Corrigendum 2

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**Information technology – Open Systems Interconnection –
The Directory: Protocol specifications**

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History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T X.519	1988-11-25	
2.0	ITU-T X.519	1993-11-16	7
3.0	ITU-T X.519	1997-08-09	7
3.1	ITU-T X.519 (1997) Technical Cor. 1	2000-03-31	7
3.2	ITU-T X.519 (1997) Amend. 1	2000-03-31	7
3.3	ITU-T X.519 (1997) Technical Cor. 2	2001-02-02	7
4.0	ITU-T X.519	2001-02-02	7
4.1	ITU-T X.519 (2001) Cor. 1	2008-05-29	17
5.0	ITU-T X.519	2005-08-29	17
5.1	ITU-T X.519 (2005) Cor. 1	2008-05-29	17
5.2	ITU-T X.519 (2005) Cor. 2	2011-02-13	17
6.0	ITU-T X.519	2008-11-13	17
6.1	ITU-T X.519 (2008) Cor. 1	2011-02-13	17

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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INTERNATIONAL STANDARD
RECOMMENDATION ITU-TInformation technology – Open Systems Interconnection –
The Directory: Protocol specifications

Technical Corrigendum 2

(covering resolution to defect reports 337, 339, 343, 347, and 350)

1) Correction of the defects reported in defect report 337

Update the IdmBindError data type in 9.1 and in Annex D as shown:

```

IdmBindError {IDM-PROTOCOL:Protocols} ::= SEQUENCE {
    protocolID          IDM-PROTOCOL.&id ({Protocols}),
    --errcode            IDM-PROTOCOL.&bind-operation.&Errors.&errorCode OPTIONAL,
    --({Protocols}) --{@protocolID}
    respondingAETitle   [0] GeneralName OPTIONAL,
    aETitleError        ENUMERATED {
        callingAETitleNotAccepted (0),
        calledAETitleNotRecognized (1) } OPTIONAL,
    error               [1] IDM-PROTOCOL.&bind-operation.&Errors.&ParameterType
        ({Protocols} {@protocolID, --@errcode}) }

```

Update the fourth paragraph of the text in 9.1 as shown:

An IdmBbindError PDU is returned in response to an unsuccessful bind request. **protocolID** is the same value sent in the corresponding **bind** PDU. ~~errcode is the code for one of the errors listed against the ERRORS field of the BIND-OPERATION of the identified protocol.~~ **error** is a value for the **PARAMETER** field of the **ERROR** identified by ~~errcode~~. **respondingAETitle** is the name of the remote application entity which sent the IdmBbindError. **aETitleError** is set to **callingAETitleNotAccepted** if a IdmBbind PDU is received and the supplied **callingAETitle** is not acceptable to the called system. **aETitleError** is set to **calledAETitleNotRecognized** if an IdmBbind PDU is received and the remote application entity knows the application entity which is binding, but does not accept the **calledAETitle** sent in the IdmBbind PDU as its own name.

*Update other parts of 9.1 and in addition 9.2 and 9.3 as follows:***bind** PDU to be replaced with **IdmBind** PDU.**bindResult** PDU to be replaced with **IdmBindResult** PDU.**bindError** PDU to be replaced with **IdmBindError**.PDU.**request** PDU to be replaced with **Request** PDU.**result** PDU to be replaced with **IdmResult** PDU.**error** PDU to be replaced with **Error** PDU.**reject** PDU to be replaced with **IdmReject** PDU.**unbind** PDU to be replaced with **Unbind** PDU.

2) Correction of the defects reported in defect report 339

Replace in 10.2 and Annex E `directoryBind` with `dsABind`:

```
dsp-ip IDM-PROTOCOL ::= {
  BIND-OPERATION      directorydsABind
  OPERATIONS          { chainedRead | chainedCompare | chainedAbandon
                        | chainedList | chainedSearch
                        | chainedAddEntry | chainedRemoveEntry
                        | chainedModifyEntry | chainedModifyDN }
  ID                  id-idm-dsp }
```

Replace in 10.3 and Annex E `directoryBind` with `dsAShadowBind`:

```
disp-ip IDM-PROTOCOL ::= {
  BIND-OPERATION      directorydsAShadowBind
  OPERATIONS          { requestShadowUpdate
                        | updateShadow
                        | coordinateShadowUpdate }
  ID                  id-idm-disp }
```

Replace in 10.4 and Annex E `directoryBind` with `dsAOperationalBindingManagementBind`:

```
dop-ip IDM-PROTOCOL ::= {
  BIND-OPERATION      directorydsAOperationalBindingManagementBind
  OPERATIONS          { establishOperationalBinding
                        | modifyOperationalBinding
                        | terminateOperationalBinding}
  ID                  id-idm-dop }
```

Update in Annex E the **IMPORTS** clause as follows:

```
-- from ITU-T Rec. X.501 | ISO/IEC 9594-2

    directoryAbstractService, distributedOperations, directoryShadowAbstractService,
id-idm, idMProtocolSpecification, opBindingManagement
    FROM UsefulDefinitions {joint-iso-itu-t ds(5) module(1) usefulDefinitions(0)
5}

    establishOperationalBinding, modifyOperationalBinding, terminateOperationalBinding,
dsAOperationalBindingManagementBind
    FROM OperationalBindingManagement opBindingManagement

-- from ITU-T Rec. X.518 | ISO/IEC 9594-4

    chainedAbandon, chainedAddEntry, chainedCompare, chainedList, chainedModifyDN,
    chainedModifyEntry, chainedRead, chainedRemoveEntry, chainedSearch, dsABind
    FROM DistributedOperations distributedOperations

-- from ITU-T Rec. X.525 | ISO/IEC 9594-9

    coordinateShadowUpdate, requestShadowUpdate, updateShadow, dsAShadowBind
    FROM DirectoryShadowAbstractService directoryShadowAbstractService ;
```

3) Correction of the defects reported in defect report 343

In 13.2.2 item d), change:

root context

to:

root naming context.

And also change:

ITU-T Rec. X.518 | ISO/IEC 9594-4

to:

ITU-T Rec. X.501 | ISO/IEC 9594-2

4) Correction of the defects reported in defect report 347

Replace in 7.6.6.5 and Annex B the current definition of **OsiRej**:

```
OsiRej ::= [4] IMPLICIT SEQUENCE {
  invokeId      InvokeId,
  problem       CHOICE {
    general      [0] GeneralProblem,
    invoke       [1] InvokeProblem,
    returnResult [2] ReturnResultProblem,
    returnError  [3] ReturnErrorProblem } }
```

with:

```
OsiRej ::= [4] IMPLICIT SEQUENCE {
  invokeId      InvokeId,
  problem       CHOICE {
    general      [0] IMPLICIT GeneralProblem,
    invoke       [1] IMPLICIT InvokeProblem,
    returnResult [2] IMPLICIT ReturnResultProblem,
    returnError  [3] IMPLICIT ReturnErrorProblem } }
```

5) Correction of the defects reported in defect report 350

In 9.1 in the **IdmReject** PDU type, add three new reason codes:

```

  mistypedParameterError (10),
  unsupportedIdmVersion   (11),
  unsuitableIdmVersion   (12),
  invalidIdmVersion      (13) } }
```

In 9.4, add at the end:

An **unsupportedIdmVersion** reason code shall be returned if an unknown version is specified in the TCP/IP mapping format (see 9.6). The **invokeID** component shall take the **absent** choice.

An **unsuitableIdmVersion** reason code shall be returned if the DSA receives an **IdmBind** request using a mapping format different from that used in already established application-associations and the DSA chooses not to engage in a different type of communication. The **invokeID** component shall take the **absent** choice.

An **invalidIdmVersion** reason code shall be returned if a version number is different from the one specified when the **IdmBind** request was processed and accepted.

In 9.6, delete the **NOTE** and add in its place:

The version number shall be the same for all IDM-PDUs within an application-association. If a request or response is received violating this rule, the receiver shall return an **IdmReject** with reason code **invalidIdmVersion**. This reject shall be transferred using the version agreed for the application-association.

If the version field indicates an unsupported version, the receiving DSA shall return an **IdmReject** with reason code **unsupportedIdmVersion**. This reject shall be transferred using a version 1 format.

An implementation shall support the version 1 format in the response to an **IdmBind**.

A DSA may also reject an **IdmBind** if existing application-associations are using a version different from the one suggested in the format suggested by the **IdmBind**. In this case, an **IdmReject** with reason code **unsuitableIdmVersion** shall be returned. This reject shall be transferred using the same version as the one used for the request.

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