



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**X.511**

**Corrigendum 1**  
(03/2000)

SERIES X: DATA NETWORKS AND OPEN SYSTEM  
COMMUNICATIONS

Directory

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Information technology – Open Systems  
Interconnection – The Directory: Abstract service  
definition

**Technical Corrigendum 1**

ITU-T Recommendation X.511 – Technical  
Corrigendum 1

(Formerly CCITT Recommendation)

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**INTERNATIONAL STANDARD ISO/IEC 9594-3  
ITU-T RECOMMENDATION X.511**

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –  
THE DIRECTORY: ABSTRACT SERVICE DEFINITION**

**TECHNICAL CORRIGENDUM 1**

**Source**

Corrigendum 1 to ITU-T Recommendation X.511 (1997) was prepared by ITU-T Study Group 7 (1997-2000) and approved on 31 March 2000. An identical text is also published as Technical Corrigendum 1 to ISO/IEC 9594-3:1998.

## FOREWORD

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

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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

## ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –  
THE DIRECTORY: ABSTRACT SERVICE DEFINITION

## TECHNICAL CORRIGENDUM 1

1) **Resolution to defect report 9594/166****Subclause 7.11.1.1 Alias dereferencing**

*Change the second to last sentence of the first paragraph as follows:*

If the DSA chains the request to another DSA and receives back a referral from it, then the access controls shall be applied to the referral if the targetObject in the referral is the same as in the chained request.

2) **Resolution to defect report 9594/179****Annex B, Figure B.4**

*In the flow chart "Return of DN" add under the question "alias name available?/No" an additional question:*

"Read operation?"

*with the following outputs :*

Yes: Name Error

No: *go to next question:* entry corresponds to (base) object of DAP operation?

**Annex B, Figure B.5**

*In the flow chart "Read Operation" change on the right part the text of the last step of handling "selection empty = yes"*

*from:*

"return **Read** result"

*to:*

"return **Read** result or **nameError**"

3) **Resolution to defect report 9594/188****Subclause 11.1.5 Add operation decision points for basic-access-control**

*Reword NOTE 2 to read as follows:*

"The *Add* permission must be provided as prescriptiveACI when attempting to add an entry, and as prescriptiveACI, or subentryACI, when attempting to add a subentry."

#### 4) Resolution to defect report 9594/202

##### Subclause 7.10 Security Parameters

Replace the paragraph describing **CertificationPath** with the following:

The **CertificationPath** component is a sequence containing the signer's user certificate, and, optionally, a sequence of one or more certification authority (CA) certificates. (See clause 8 in ITU-T Rec. X.509 | ISO/IEC 9594-8). The user certificate is used to bind the signer's public key and distinguished name, and may be used to verify the signature on a request argument, response, or error. This parameter shall be present and contain the signer's user certificate if the request argument, response, or error is signed. Additional certificates may be present and may be used to determine if the signer's user certificate is valid. Additional certificates are not required if the recipient shares the same certification authority as the signer. If the recipient requires a certification path for validation, and an acceptable parameter is not present, whether the recipient rejects the signature, or attempts to determine a certification path, is a local matter.

Replace the paragraph describing **time** with the following:

The **time** is the intended expiry time for the validity of the request, response, or error. It is used in conjunction with the random number to enable the detection of replay attacks.

Replace the 1st paragraph in the paragraph describing **random** with the following:

The **random** value is a number that should be different for each request, response, or error. It is used in conjunction with the time parameter to enable the detection of replay attacks. If sequence integrity is required then the random argument may be used to carry a sequence integrity number as follows:

#### 5) Resolution to defect report 9594/206

##### Subclause 10.1.3 List results

In the second to last paragraph, change the first part of the first sentence "When a DUA has requested a protection request of signed, the **uncorrelatedListInfo** parameter..." as follows:

"When the DUA has requested a protection request of signed, or if the Directory for other reasons are not able to correlate information, the **uncorrelatedListInfo** parameter..."

#### 6) Resolution to defect report 9594/217

##### Subclause 7.10 Security parameters

Replace syntax for **operationCode** in **SecurityParameters** as follows:

**operationCode** [6] Code OPTIONAL

**Code** should be imported from:

**Remote-Operations-Information-Objects**

{joint-iso-ccitt remote-operations(4) informationObjects(5) version1(0)}

In the paragraph describing **operationCode** delete "object identifier". Also, at the end of the same paragraph, change:

"or results"

to:

"results or errors".

Add to the **SecurityParameters** syntax:

**errorCode** [9] Code OPTIONAL

and add the following description:

The **errorCode** is used to secure the error code where an error is returned in response to an operation.

## 7) Resolution to defect report 9594/211

### Subclause 7.10

Change **UTCTime** to **Time**:

Insert the following after the ASN.1 definition of **ProtectionRequest**:

```
Time ::= CHOICE {
    utcTime          UTCTime,
    generalizedTime  GeneralizedTime }
```

Insert the following after the last paragraph of 7.10:

If the syntax of **Time** has been chosen as the **UTCTime** type, the value of the two-digit year field shall be rationalized into a four-digit year value as follows:

- If the 2-digit value is 00 through 49 inclusive, the value shall have 2000 added to it.
- If the 2-digit value is 50 through 99 inclusive, the value shall have 1900 added to it.

NOTE – **GeneralizedTime** shall be used if the negotiated version is **v2** or greater. The use of **GeneralizedTime** when **v1** has been negotiated may prevent interworking with implementations unaware of the possibility of choosing either **UTCTime** or **GeneralizedTime**. It is the responsibility of those specifying the domains in which this Directory Specification will be used, e.g. profiling groups, as to when the **GeneralizedTime** may be used. In no case shall **UTCTime** be used for representing dates beyond 2049.

### Subclause 8.1.1

Change the value of **validity** in the ASN.1 type **SimpleCredentials** to:

```
Validity [1] SET {
    validityPeriod CHOICE {
        COMPONENTS OF ValidityPeriodUTC, -- UTC when v1
        COMPONENTS OF ValidityPeriodGT }, -- GT when > v1
    random1 [2] BIT STRING OPTIONAL,
    random2 [3] BIT STRING OPTIONAL}
```

Insert the following after the ASN.1 type **SimpleCredentials** to:

```
ValidityPeriodUTC ::= SET {
    time1 [0] UTCTime OPTIONAL,
    time2 [1] UTCTime OPTIONAL }
ValidityPeriodGT ::= SET {
    time1 [0] GeneralizedTime OPTIONAL,
    time2 [1] GeneralizedTime OPTIONAL }
```

### Subclause 8.1.2

Insert the following after the second paragraph.

Note 1 – **ValidityPeriodGT** shall be used if the negotiated version is **v2** or greater. The use of **ValidityPeriodGT** when **v1** has been negotiated may prevent interworking with implementations unaware of the possibility of choosing either **ValidityPeriodUTC** or **ValidityPeriodGT**. It is the responsibility of those specifying the domains in which this Directory Specification will be used, e.g. profiling groups, as to when the **ValidityPeriodGT** may be used. In no case shall **ValidityPeriodUTC** be used for representing dates beyond 2049.

Change the value of **time** in the ASN.1 type **Token** to:

```
time [2] Time,
```

Also make the ASN.1 changes to Annex A.





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