



INTERNATIONAL TELECOMMUNICATION UNION

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

# X.742

**Corrigendum 2**  
(02/2000)

SERIES X: DATA NETWORKS AND OPEN SYSTEM  
COMMUNICATIONS

OSI management – Management functions and ODMA  
functions

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Information technology – Open Systems  
Interconnection – Systems management:  
Usage metering function for accounting purposes  
**Technical Corrigendum 2**

ITU-T Recommendation X.742 – Corrigendum 2

(Formerly CCITT Recommendation)

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**INTERNATIONAL STANDARD 10164-10**  
**ITU-T RECOMMENDATION X.742**

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –  
SYSTEMS MANAGEMENT: USAGE METERING FUNCTION  
FOR ACCOUNTING PURPOSES**

**TECHNICAL CORRIGENDUM 2**

**Summary**

This Recommendation | International Standard (1995) specifies a model and management information for the acquisition of information by a managing system of resource usage information. The information may be used as part of a charging and billing process; however, charging and billing is outside the scope of this Recommendation | International Standard.

This Technical Corrigendum 2 revises the text to include ASN.1:1997 in 2.1, 2.2 and 13.1.

**Source**

Corrigendum 2 to ITU-T Recommendation X.742 was prepared by ITU-T Study Group 4 (1997-2000) and approved on 4 February 2000. An identical text is also published as Technical Corrigendum 2 to ISO/IEC 10164-10.

## FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

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.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSC 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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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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## INTERNATIONAL STANDARD

## ITU-T RECOMMENDATION

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –  
SYSTEMS MANAGEMENT: USAGE METERING FUNCTION  
FOR ACCOUNTING PURPOSES**

**TECHNICAL CORRIGENDUM 2**

**1) Subclause 2.1**

*Insert the following references alphanumerically:*

- ITU-T Recommendation X.680 (1997) | ISO/IEC 8824-1:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation.*
- ITU-T Recommendation X.681 (1997) | ISO/IEC 8824-2:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Information object specification.*
- ITU-T Recommendation X.682 (1997) | ISO/IEC 8824-3:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Constraint specification.*
- ITU-T Recommendation X.690 (1997) | ISO/IEC 8825-1:1998, *Information technology – ASN.1 encoding rules: Specification of Basic encoding rules (BER), Canonical Encoding Rules (CER) and Distinguished encoding rules (DER).*
- ITU-T Recommendation X.710 (1997) | ISO/IEC 9595:1998, *Information technology – Open Systems Interconnection – Common management information service.*

**2) Subclause 2.2**

*Remove the following paired references:*

- CCITT Recommendation X.208 (1988), *Specification of Abstract Syntax Notation One (ASN.1).*  
ISO/IEC 8824:1990, *Information technology – Open Systems Interconnection – Specification of Abstract Syntax Notation One (ASN.1).*
- CCITT Recommendation X.209 (1990), *Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).*  
ISO/IEC 8825:1990, *Information technology – Open Systems Interconnection – Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).*
- CCITT Recommendation X.710 (1991), *Common management information service definition for CCITT applications.*  
ISO/IEC 9595:1991, *Information technology – Open Systems Interconnection – Common management information service definition.*
- CCITT Recommendation X.711 (1991), *Common management information protocol specification for CCITT applications.*  
ISO/IEC 9596-1:1991, *Information technology – Open Systems Interconnection – Common management information protocol specification.*

**3) Subclause 13.1**

*Replace "CCITT Rec. X.209 | ISO/IEC 8825" with "ITU-T Rec. X.690 | ISO/IEC 8825-1".*

**4) Subclause A.9: UsageMeteringFunction abstract syntax**

a) *In the IMPORTS FROM Attribute-ASN1Module, insert the following before ControlStatus:*

**"DMI-TYPE-IDENTIFIER,"**

b) *Replace the production for AuditInfo with the following ASN.1 production:*

**"UMF-AUDIT ::= DMI-TYPE-IDENTIFIER**

**AuditInfo ::= SEQUENCE {  
    service UMF-AUDIT.&id ({AuditInfoSet}),  
    auditDetails UMF-AUDIT.&Value ({AuditInfoSet} {@.service}) }  
AuditInfoSet UMF-AUDIT ::= {...}  
"**

c) *Replace the production for ServiceSpecificId with the following ASN.1 production:*

**"UMF-SERVICE ::= DMI-TYPE-IDENTIFIER**

**ServiceSpecificId ::= SEQUENCE {  
    service UMF-SERVICE.&id ({ServiceSpecificSet}),  
    serviceSpecificId UMF-SERVICE.&Value ({ServiceSpecificSet} {@.service}) }  
ServiceSpecificSet UMF-SERVICE ::= {...}  
"**

**5) Subclause A.9: UsageMeteringDataInfo abstract syntax**

a) *Insert the following before EXPORTS:*

**"IMPORTS  
    DMI-TYPE-IDENTIFIER FROM Attribute-ASN1Module  
    { joint-iso-itu-t ms(9) smi(3) part2(2) asn1Module(2) 1 };"**

b) *Replace the production for UsageInfo with the following ASN.1 production:*

**"UMF-USAGE ::= DMI-TYPE-IDENTIFIER**

**UsageInfo ::= SEQUENCE {  
    serviceType UMF-USAGE.&id ({UsageInfoSet}),  
    usageData UMF-USAGE.&Value ({UsageInfoSet} {@.serviceType}) }  
UsageInfoSet UMF-USAGE ::= {...}  
"**

c) *Remove "ServiceType ::= OBJECT IDENTIFIER".*

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