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SERIES X: DATA NETWORKS, OPEN SYSTEM
COMMUNICATIONS AND SECURITY

OSI networking and system aspects – Naming,
Addressing and Registration

Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: Joint ISO and ITU-T registration of international organizations

ITU-T Recommendation X.666

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**Information technology – Open Systems Interconnection – Procedures for the operation
of OSI Registration Authorities: Joint ISO and ITU-T registration
of international organizations**

Summary

ITU-T Recommendation X.666 | ISO/IEC 9834-7 specifies procedures for Registration Authorities that are responsible for the assignment to international organizations of names that are globally unambiguous in the context of Originator/Recipient addresses, Directory names and the International Object Identifier tree.

Source

ITU-T Recommendation X.666 was approved on 29 August 2008 by ITU-T Study Group 17 (2005-2008) under ITU-T ITU-T Recommendation A.8 procedure. An identical text is also published as ISO/IEC 9834-7.

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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

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As of the date of approval of this Recommendation, ITU [had/had not] received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

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**INTERNATIONAL STANDARD
ITU-T RECOMMENDATION**

**Information technology – Open Systems Interconnection – Procedures for the operation
of OSI Registration Authorities: Joint ISO and ITU-T registration
of international organizations**

1 Scope

This Recommendation | International Standard specifies procedures for Registration Authorities that are responsible for the assignment to international organizations of names that are globally unambiguous in the context of:

- a) O/R addresses, as defined in ITU-T Rec. X.402 | ISO/IEC 10021-2;
- b) Directory names, as defined in ITU-T Rec. X.501 | ISO/IEC 9594-2;
- c) The joint international organizations arc (see 3.6.6) of the International Object Identifier tree, as defined in ITU-T Rec. X.660 | ISO/IEC 9834-1.

2 Nor ITU-T Recommendation native references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

- ITU-T Recommendation X.402 (1999) | ISO/IEC 10021-2:2003, *Information technology – Message Handling Systems (MHS) – Overall architecture.*
- ITU-T Recommendation X.500 (2008) | ISO/IEC 9594-1:2008, *Information technology – Open Systems Interconnection – The Directory: Overview of concepts, models and services.*
- ITU-T Recommendation X.501 (2008) | ISO/IEC 9594-2:2008, *Information technology – Open Systems Interconnection – The Directory: Models.*
- ITU-T Recommendation X.520 (2008) | ISO/IEC 9594-6:2008, *Information technology – Open Systems Interconnection – The Directory: Selected attribute types.*
- ITU-T Recommendation X.660 (2008) | ISO/IEC 9834-1:2008, *Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: General procedures and top arcs of the International Object Identifier tree.*
- ITU-T Recommendation X.680 (2008) | ISO/IEC 8824-1:2008, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation.*

3 Definitions

For the purposes of this Recommendation | International Standard, the following definitions apply.

3.1 ASN.1 terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.680 | ISO/IEC 8824-1:

- a) **NumericString;**
- b) **PrintableString;**
- c) **TeletexString.**

3.2 Directory terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.501 | ISO/IEC 9594-2:

- a) Directory Information Tree;
- b) Directory System Agent;
- c) directory name;
- d) relative distinguished name.

3.3 Directory attribute terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.520 | ISO/IEC 9594-6:

- a) Country Name;
- b) Organization Name.

3.4 Registration terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.660 | ISO/IEC 9834-1:

- a) object identifier;
- b) OID internationalized resource reference;
- c) primary integer value;
- d) registration;
- e) Registration Authority;
- f) registration procedures;
- g) secondary identifier;
- h) sponsoring authority;
- i) Unicode label;
- j) long arc.

3.5 Message Handling System terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.402 | ISO/IEC 10021-2:

- a) administration-domain-name;
- b) country-name;
- c) management domain;
- d) O/R address;
- e) private-domain-name;
- f) standard attribute.

3.6 Additional definitions

3.6.1 arc identifications: The totality of the names assigned to an arc of the Internationalized Object Identifier tree.

NOTE – These consist (except for long arcs) of a single unambiguous primary integer (defining an integer-valued Unicode label), zero or more unambiguous non-integer Unicode labels and zero or more (possibly ambiguous) secondary identifiers.

3.6.2 international ADMD name: An ADMD which can be used in the formation of O/R addresses which contain a country name standard attribute value identifying the Registration Authority operating under the provisions of this Recommendation | International Standard.

3.6.3 international name: A name that is globally unambiguous in some context.

3.6.4 international PRMD name: A PRMD name which can be used in the formation of O/R addresses which contain a country name standard attribute value identifying the Registration Authority operating under the provisions of this Recommendation | International Standard, and an ADMD name attribute value of a single space.

3.6.5 international organization name: An Organization Name value which can be used in an RDN that, without qualification by a Country Name RDN, is the directory name of the entry for the organization concerned.

3.6.6 joint international organization arc: An arc beneath the node of the International Object Identifier tree identified by the ASN.1 object identifier value {`joint-iso-itu-t international-organizations (23)`} and the ASN.1 OID internationalized resource identifier values `"/Joint-ISO-ITU-T/International-Organizations"` and `"/International-Organizations"`.

4 Abbreviations

For the purposes of this Recommendation | International Standard, the following abbreviations apply:

ADMD	Administration Management Domain
ASN.1	Abstract Syntax Notation One
DIT	Directory Information Tree
DSA	Directory System Agent
ITO	International Treaty Organization
MD	Management Domain
MHS	Message Handling System
MTS	Message Transfer System
O/R	Originator/Recipient
PRMD	Private Management Domain
PRMD name	private-domain-name
RDN	Relative Distinguished Name

5 General

5.1 ITU-T Rec. X.660 | ISO/IEC 9834-1 defines procedures that are generally applicable to the registration of objects. It allows for other Recommendations | International Standards to define procedures for registration of specific objects.

5.2 This Recommendation | International Standard defines procedures for registration that assigns international names to organizations, where the term "international name" denotes a name that is globally unambiguous within a specific context. This Recommendation | International Standard covers three kinds of international names:

- international ADMD and PRMD names for use in O/R addresses as defined in ITU-T Rec. X.402 | ISO/IEC 10021-2;
- international organization names for use in directory names as defined in ITU-T Rec. X.501 | ISO/IEC 9594-2;
- arc identifications for joint international organization arcs.

5.3 A separate Registration Authority is responsible for the assignment of each kind of international name and there is only one Registration Authority for each kind of international name. The same entity may act as more than one of the authorities.

5.4 An organization that requires the assignment of equivalent name values for different kinds of name must make appropriate registration requests to each of the separate Registration Authorities.

6 Operation of Registration Authorities

6.1 The general operation of Registration Authorities is defined in ITU-T Rec. X.660 | ISO/IEC 9834-1, 8.2. Specific procedures for each kind of international name are defined in the annexes to this Recommendation | International Standard as follows:

- procedures for the assignment of international MD names are defined in Annex A;