



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

X.670

(10/96)

SERIES X: DATA NETWORKS AND OPEN SYSTEM
COMMUNICATION

OSI networking and system aspects – Naming,
Addressing and Registration

**Procedures for registration agents
operating on behalf of organizations
to register organization names subordinate
to country names**

ITU-T Recommendation X.670

(Previously CCITT Recommendation)

ITU-T X-SERIES RECOMMENDATIONS
DATA NETWORKS AND OPEN SYSTEM COMMUNICATION

PUBLIC DATA NETWORKS	X.1–X.199
Services and facilities	X.1–X.19
Interfaces	X.20–X.49
Transmission, signalling and switching	X.50–X.89
Network aspects	X.90–X.149
Maintenance	X.150–X.179
Administrative arrangements	X.180–X.199
OPEN SYSTEM INTERCONNECTION	X.200–X.299
Model and notation	X.200–X.209
Service definitions	X.210–X.219
Connection-mode protocol specifications	X.220–X.229
Connectionless-mode protocol specifications	X.230–X.239
PICS proformas	X.240–X.259
Protocol Identification	X.260–X.269
Security Protocols	X.270–X.279
Layer Managed Objects	X.280–X.289
Conformance testing	X.290–X.299
INTERWORKING BETWEEN NETWORKS	X.300–X.399
General	X.300–X.349
Satellite data transmission systems	X.350–X.399
MESSAGE HANDLING SYSTEMS	X.400–X.499
DIRECTORY	X.500–X.599
OSI NETWORKING AND SYSTEM ASPECTS	X.600–X.699
Networking	X.600–X.629
Efficiency	X.630–X.649
Naming, Addressing and Registration	X.650–X.679
Abstract Syntax Notation One (ASN.1)	X.680–X.699
OSI MANAGEMENT	X.700–X.799
Systems Management framework and architecture	X.700–X.709
Management Communication Service and Protocol	X.710–X.719
Structure of Management Information	X.720–X.729
Management functions	X.730–X.799
SECURITY	X.800–X.849
OSI APPLICATIONS	X.850–X.899
Commitment, Concurrency and Recovery	X.850–X.859
Transaction processing	X.860–X.879
Remote operations	X.880–X.899
OPEN DISTRIBUTED PROCESSING	X.900–X.999

For further details, please refer to ITU-T List of Recommendations.

FOREWORD

The ITU-T (Telecommunication Standardization Sector) is a permanent organ of the International Telecommunication Union (ITU). The 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 their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, March 1-12, 1993).

ITU-T Recommendation X.670 was prepared by ITU-T Study Group 7 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 5th of October 1996.

NOTE

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

© ITU 1997

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the ITU.

CONTENTS

		<i>Page</i>
1	Scope.....	1
2	References.....	1
	2.1 Identical Recommendations International Standards.....	1
	2.2 Paired Recommendations International Standards equivalent in technical content.....	1
	2.3 Addition references.....	1
3	Definitions.....	2
4	Abbreviations.....	2
5	General.....	3
6	Registration agent.....	3
7	Registration of organization names.....	3
	7.8 Registration process.....	4
Annex A	– Operating Procedures for the registration agent of MHS.....	5
	Management Domain Names for use in O/R Address (X.400 Addresses) Subordinate to country names.....	5
	A.1 Purpose.....	5
	A.2 ITU and ISO requirements.....	5
	A.3 Use of ADMD names.....	5
	A.4 Use of PRMD names.....	6
	A.5 Registration process.....	6
	A.6 Registration application content.....	6
Annex B	– Operation Procedures for registration agent of Organization Names for use in Directory Distinguished Names subordinate to country names.....	6
	B.1 Purpose.....	6
	B.2 ITU-T and ISO requirements.....	7
	B.3 Use of organization names.....	7
	B.4 Registration process.....	7
	B.5 Registration application content.....	7

SUMMARY

This Recommendation specifies procedures for a registration agent that operates on behalf of international organizations to register organization names subordinate to country names. This Recommendation includes two annexes, one for registration of management domain names for use in (X.400) O/R addresses, and one for registration of organization names for use in (X.500) Directory distinguished names.

**PROCEDURES FOR REGISTRATION AGENTS
OPERATING ON BEHALF OF ORGANIZATIONS TO REGISTER
ORGANIZATION NAMES SUBORDINATE TO COUNTRY NAMES**

(Geneva, 1996)

1 Scope

This Recommendation specifies requirements for the operation of registration agents operating on behalf of organizations to register organization names subordinate to country names.

The requirements specified in this Recommendation apply to any arcs in the RH-name-tree below which national registration authorities may exist.

These procedures may be useful for international organizations that need to register the same organization name with multiple countries. With this Recommendation, such an organization may use a registration agent to register a name in multiple countries.

2 References

The following Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision: all users of this Recommendation are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of currently valid ITU-T Recommendations is regularly published.

2.1 Identical Recommendations | International Standards

- ITU-T Recommendation X.500 (1993) | ISO/IEC 9594-1:1995, *Information technology – Open Systems Interconnection – The Directory: Overview of concepts, models and services.*
- ITU-T Recommendation X.501 (1993) | ISO/IEC 9594-2:1995, *Information technology – Open Systems Interconnection – The Directory: Models.*
- CCITT Recommendation X.660 (1992) | ISO/IEC 9834-1:1992, *Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: General procedures.*
- ITU-T Recommendation X.680 (1994) | ISO/IEC 8824-1:1995, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation.*

2.2 Paired Recommendations | International Standards equivalent in technical content

- ITU-T Recommendation F.400/X.400 (1996), *Message handling: System and service overview.*
ISO/IEC 10021-1:1997, *Information technology – Message Handling Systems (MHS) – Part 1: System and Service Overview.*

2.3 Additional references

- ITU-T Recommendation X.666 (1995), *Procedures for registration of international and multinational organization names.*
- ITU-T Recommendation X.671 (1996), *Procedures for the registration authority operating on behalf of countries to register organization names subordinate to country names.*

3 Definitions

3.1 For the purposes of this Recommendation, the following terms used in this Recommendation are incorporated by reference from ITU-T Rec. X.680 | ISO/IEC 8824-1:

- a) object;
- b) object identifier;
- c) Printable-String;
- d) Numeric-String.

3.2 For the purposes of this Recommendation, the following terms used in this Recommendation are incorporated by reference from ITU-T Rec. X.501 | ISO/IEC 9594-2:

- a) directory name;
- b) relative distinguished name.

3.3 For the purposes of this Recommendation, the following terms used in this Recommendation are incorporated by reference from CCITT Rec. X.660 | ISO/IEC 9834-1:

- a) registration-hierarchical-name-tree (RH-name-tree);
- b) registration-hierarchical-name (RH-name);
- c) administrative role.

3.4 For the purpose of this Recommendation, the following terms are used and are defined in ITU-T Rec. F.400/X.400 and ISO/IEC 10021-1:

- a) Administrative Management Domain (ADMD);
- b) Private Management Domain (PRMD);
- c) multinational PRMD;
- d) originator/recipient address (O/R Address).

3.5 For the purposes of this Recommendation, the following terms are used and are defined in Recommendation X.666:

- a) alphanumeric name;
- b) alphanumeric name value (and alphanumeric value);
- c) international organization.

4 Abbreviations

For the purposes of this Recommendation, the following abbreviations apply:

ADMD	Administration Management Domain
ASN.1	Abstract Syntax Notation One
EDI	Electronic Data Interchange
CCITT	International Telegraph and Telephone Consultative Committee
IEC	International Electrotechnical Commission
ITU	International Telecommunication Union
ITU-T	International Telecommunication Union – Telecommunication Standardization Sector
ISO	International Organization for Standardization
JTC 1	Joint Technical Committee 1
MD	Management Domain (PRMD or ADMD)

MHS	Message Handling System
PRMD	Private Management Domain
RDN	Relative Distinguished Name

5 General

5.1 CCITT Rec. X.660 | ISO/IEC 9834-1 defines general procedures for registration that are independent of the object involved. It allows for other Recommendations or International Standards to define procedures that are specific to objects of a particular type.

An international Organization that needs to register the same organization name with multiple countries, may apply directly to each country, or submit a single application to a registration agent, defined in this Recommendation, that will act on behalf of the International Organization to register the requested name with each of the countries indicated by the International Organization. Once a name is successfully registered with multiple countries, the organization name may be used subordinate to each of these country names.

NOTE – An International Organization may try to register a name as an International Organization name, as specified in Recommendation X.666. If successfully registered, the registered name may be used without specifying the country name.

This Recommendation specifies procedures for the registration agent that operates on behalf of International Organizations to register various types of organization names. Names registered by a registration agent according to these procedures, can only be used within the context of a country name. The terms organization name, ADMD name, and PRMD name are used in this Recommendation in this context.

5.2 This Recommendation is used by a registration agent that operates as a part of a registration process to register unambiguous organization name values as required for specific naming system or for general purpose naming.

The following are examples of types of names for International Organizations for which the provided procedures could be useful: Administration Management Domain (ADMD) names and Private Management Domain (PRMD) names for O/R address (X.400 addresses), trading partner names for EDI applications, and organization names for relative distinguished name (X.500 names).

5.3 This Recommendation can be used to register alphanumeric and numeric values.

6 Registration agent

A registration agent operates on behalf of International Organizations to register the same organization name with multiple countries. The international organization may request the registration agent to register an organization name with all countries (that established a national registration authority) or with specific countries indicated in the International Organization's application to the registration agent.

A registration agent may charge a reasonable fee for the service provided.

7 Registration of organization names

7.1 This clause specifies general procedures for the operation of the registration agent. The structure of the registration-hierarchical-name-tree (RH-name-tree) subordinate to a country name is a national decision and is outside the scope of this Recommendation. The registration agent that operates according to the procedures specified in this Recommendation performs an administrative role.

7.2 Applications are submitted to the registration agent by international organizations. The registration agent will then approach the national registration authorities in each country specified by the international organizations and attempt to register the name with each one.

7.3 This Recommendation does not specify or limit the format of names that can be registered for international organizations. Any limitation or conventions that do apply will be specified in the specifications for that name form (e.g., Rec. X.501 for directory names), profiles or country specific documents.

7.4 The process by which a national registration authority concludes whether to confirm or deny the use of the requested name value is outside the scope of this Recommendation. Reference may be made to Recommendation X.671 which specifies registration procedures for registration authority that operates on behalf of countries to register organization names subordinate to country names.

7.5 If a national registration authority confirms the use of the requested name value, this registered organization name value can be used subordinate to that country name, for the use specified for the arc under which the name value is registered.

7.6 A request to a national registration authority sent by the registration agent to register a particular name value, on behalf of an International Organization, shall include the following information.

- a) specification and purpose of the arc for which the alphanumeric name value is requested to be registered;
- b) the alphanumeric name value that is requested to be registered;
- c) the date by which a response is requested; and
- d) the identity of the organization requesting the registration.

7.7 The registration agents shall request the following information from the applying organization:

- a) the identity of the requesting organization;
- b) contact information;
- c) target date for response;
- d) cut off date after which a response is no longer useful;
- e) specification and purpose of the arc for which the alphanumeric name value is requested to be registered;
- f) the alphanumeric name value that is requested to be registered;
- g) the country or countries in which registration is requested to be attempted.

7.8 Registration process

For the application for registration to be processed by the registration agent, the application shall contain a signed statement asserting the applicant's right to the name, because an alphanumeric name value may have meaning outside the registration process. If the statement is missing, the application shall be rejected specifying the absence of the signed statement as the reason for rejection. The use of such a statement, while may be helpful, for example, for a national registration authority challenge process, is outside the scope of these procedures. In the context of registration with the registration agent, this statement is collected for recording purposes only.

If the application does not contain the information, specified in 7.6, the application shall be rejected indicating the reason for the rejection.

If the application contains the required information, the application will be processed for submission with all the countries specified by the applying international organization.

The registration agent may batch several applications for registration and submit the requests for confirmation to the pertinent registration authorities. The registration agent shall not delay the beginning of the registration process for more than 2 months for any application submitted to the registration agent. Review of the application will be completed within 10 working days from the receipt of the application, to the extent practical.

The registration agent may notify the applying International Organization that applied for registration as soon as confirmation or rejections responses from the national registration authorities are obtained by the registration agent. It is not required to delay such a notification until all responses from all the national registration authorities have been gathered.

An application is unprocessable if there is an error in the requested name value of the application. The unprocessable application is rejected by sending to the application a rejection notification.

The registration processing period may be different for each country. The beginning and final dates of the review period for each country shall be maintained by the registration agent and the applicant shall be notified as to the expected dates by which each country may provide its response.

The registration agent shall convey the results of the registration process within 10 days of receiving the results from each country.

Annex A

Operating Procedures for the registration agent of MHS

Management Domain Names for use in O/R Address (X.400 Addresses) Subordinate to country names

A.1 Purpose

The purpose of this annex is to specify operation procedures for the registration agent of Administration Management Domain (ADMD) alphanumeric names and Private Management Domain (PRMD) alphanumeric names for O/R address (X.400 addresses) that are subordinate to specific country names.

NOTE – An international organization may try to register an ADMD or PRMD name as an international name, as specified in Annex A/X.666. If successfully registered, the registered name may be using artificial country code in the O/R address.

These names are used by implementations of message handling system conforming to the International Telecommunication Union – Telecommunication Standardization Sector (ITU-T) X.400-Series Recommendations and the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 10021 Standard.

This annex relates the Message Handling Systems (MHS) standards with the Open Systems Interconnection (OSI) registration procedures.

A.2 ITU and ISO requirements

Management Domain names are used in several elements of MHS protocols specified in ITU-T Rec. F.400/X.400 and ISO/IEC 10021-1. Two syntaxes are specified for the ADMD and PRMD name values: Numeric String and Printable String. For the purpose of this Recommendation, only alphanumeric names containing characters from the Printable String character set will be considered. Compliance with X.400-Series Recommendations limits the alphanumeric name length to 16 characters.

The registration of ADMD and PRMD name consisting of Printable String characters also provides the registrant with the privilege to use an equivalent name consisting of characters from the Numeric String character set.

NOTE – Printable String syntax consisting solely of digits and spaces have equivalent characters in the Numeric String character set.

Comparison for registration will be case insensitive.

Multiple consecutive spaces will be registered as a single space.

Leading and trailing spaces shall not be considered as part of a name value.

The registration agent shall reject applications for name values of a single space or a single zero.

CCITT Rec. X.660 | ISO/IEC 9834-1 specifies the hierarchical structure within which objects in the OSI environment are registered. In this structure, the registration agent applies to register management domain names on behalf of International Organizations. These names can be used only in the context of the pertinent country name.

A.3 Use of ADMD names

Alphanumeric name value registered successfully by the registration agent with a particular country can be used as an ADMD name value subordinate to that country in an O/R address.

A.4 Use of PRMD names

Alphanumeric name value registered successfully by the registration agent with a particular country can be used as a PRMD name value subordinate to that country in O/R addresses. It may also be valid subordinate to a specific ADMD name value.

A.5 Registration process

This subclause specifies the procedures for processing requests to register management domain names. These procedures are designed to assure openness and due process in the registration of management domain names with multiple countries.

To request registration of management domain name the International Organization shall submit a written request to the registration agent for registration of a management domain name. The content of the application form is described in A.6.

If the applicant desires multiple names, multiple applications must be submitted.

The application shall include the information as specified in A.6. Each application shall be reviewed as specified in this subclause.

A.6 Registration application content

The application for registration provided to the registration agent by the international organization shall include the information in 7.6 and the following additional information:

- 1) requested alphanumeric management domain name value;
- 2) intended use of the management domain name (ADMD or PRMD);
- 3) statement to the right of the alphanumeric MD name value (see A.5.2.1); and
- 4) list of countries for which registration is requested.

Annex B

Operation Procedures for registration agent of Organization Names for use in Directory Distinguished Names subordinate to country names

B.1 Purpose

The purpose of this annex is to specify operation procedures for the registration agent of organization alphanumeric names for use in X.500 directory distinguished names subordinate to specific country names.

NOTE – An International Organization may try to register a name as an international name, as specified in Annex B/X.666. If successfully registered, the registered name may be used without specifying the country name in the X.500 directory distinguished name.

These names are used by implementations of directories conforming to the International Telegraph Union – Telecommunication Sector (ITU-T) X.500-Series Recommendations and the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 9594 Standard.

The procedures set forth in this annex relate the directory system standards with the Open Systems Interconnection (OSI) registration procedures.

B.2 ITU-T and ISO requirements

Organization names are used in several elements of directory services specified in CCITT Rec. 500 | ISO/IEC 9594. Three syntaxes are specified for the organization name values: teletexString, printableString, and universalString. For the purpose of this Recommendation, only alphanumeric names containing characters from the Printable String character set will be considered for organization names. Compliance with Recommendation X.500 limits the alphanumeric names to 64 characters.

Comparison for registration will be case insensitive.

Multiple consecutive spaces will be considered as a single space.

Leading and trailing spaces shall not be considered as part of a name value.

CCITT Rec. X.660 | ISO/IEC 9834-1 specifies the hierarchical structure within which objects in the OSI environment are registered. In this structure, names registered under these procedures can be used only as subordinate to a specific country name.

B.3 Use of organization names

Alphanumeric name value registered successfully by the registration agent with a particular country can be used as organization name value subordinate to that country in X.500 distinguished name.

B.4 Registration process

This subclause specifies the procedures for processing requests to register organization names subordinate to country names. These procedures are designed to assure openness and due process in the registration of international organization names.

To request registration of an organization name, the international organization shall submit a written request to the registration agent for registration of the organization name. The content of the application form is described in B.5.

The application shall include the information as specified in B.5. Each application shall be reviewed as specified in this subclause.

B.5 Registration application content

The application shall include the following information:

- 1) requested alphanumeric international organization name value; and
- 2) statement to the right of the alphanumeric Multinational organization name value (see B.4).

ITU-T RECOMMENDATIONS SERIES

- Series A Organization of the work of the ITU-T
- Series B Means of expression: definitions, symbols, classification
- Series C General telecommunication statistics
- Series D General tariff principles
- Series E Overall network operation, telephone service, service operation and human factors
- Series F Non-telephone telecommunication services
- Series G Transmission systems and media, digital systems and networks
- Series H Audiovisual and multimedia systems
- Series I Integrated services digital network
- Series J Transmission of television, sound programme and other multimedia signals
- Series K Protection against interference
- Series L Construction, installation and protection of cables and other elements of outside plant
- Series M Maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
- Series N Maintenance: international sound programme and television transmission circuits
- Series O Specifications of measuring equipment
- Series P Telephone transmission quality, telephone installations, local line networks
- Series Q Switching and signalling
- Series R Telegraph transmission
- Series S Telegraph services terminal equipment
- Series T Terminals for telematic services
- Series U Telegraph switching
- Series V Data communication over the telephone network
- Series X Data networks and open system communication**
- Series Z Programming languages