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SERIES X: DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS

OSI networking and system aspects – Naming, Addressing and Registration

Use of registration agents to register names subordinate to country names in the X.660 RH-name-tree

ITU-T Recommendation X.670

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ITU-T Recommendation X.670

Use of registration agents to register names subordinate to country names in the X.660 RH-name-tree

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) Originator/Recipient addresses, and one for registration of organization names for use in (X.500) Directory distinguished names.

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 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.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

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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ITU-T Recommendation X.670

Use of registration agents to register names subordinate to country names in the X.660 RH-name-tree

1   Scope

This Recommendation specifies requirements for the operation of registration agents operating on behalf of organizations to register the same organization name with multiple Registration Authorities operating on behalf of different countries to register the same name subordinate to several country names.

The requirements specified in this Recommendation apply to any arcs in the registration-hierarchical-name-tree below which national Registration Authorities (Registration Authorities operating on behalf of a country) 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   Normative references

The following ITU-T 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; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

2.1   Identical Recommendations | International Standards

–   ITU-T Recommendation X.500 (2001) | ISO/IEC 9594-1:2001, *Information technology – Open Systems Interconnection – The Directory: Overview of concepts, models and services*.

–   ITU-T Recommendation X.501 (2001) | ISO/IEC 9594-2:2001, *Information technology – Open Systems Interconnection – The Directory: Models*.

–   ITU-T Recommendation X.660 (2004) | ISO/IEC 9834-1:2004, *Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: General procedures*.

–   ITU-T Recommendation X.666 (2004) | ISO/IEC 9834-7:2004, *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.680 (2002) | ISO/IEC 8824-1:2002, *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 (1999), *Message handling system and service overview*.

ISO/IEC 10021-1:2003, *Information technology – Message Handling Systems (MHS) – Part 1: System and service overview*.

3 Definitions

This Recommendation defines the following terms.

3.1 Registration terms

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

a) administrative role;

b) Registration Authority;

c) registration-hierarchical-name-tree (RH-name-tree).

3.2 International name terms

This Recommendation uses the following term defined in ITU-T Rec. X.666 | ISO/IEC 9834-7:

– international organization.

3.3 ASN.1 terms

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

a) NumericString;

b) object;

c) object identifier;

d) PrintableString.

3.4 Directory terms

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

a) directory name;

b) relative distinguished name.

3.5 Message Handling Systems terms

This Recommendation uses the following terms defined in ITU-T Rec. F.400/X.400 and ISO/IEC 10021-1:

a) Administration Management Domain (ADMD);

b) multinational PRMD;

c) originator/recipient address (O/R Address);

d) Private Management Domain (PRMD).

3.6 Additional definitions

3.6.1 registration agent: An agent (which may be a software agent), acting on behalf of an international organization, that attempts to register a name for that international organization with each of the Registration Authorities of several countries.

4 Abbreviations

This Recommendation uses the following abbreviations:

ADMD   Administration Management Domain

ASN.1   Abstract Syntax Notation One

EDI   Electronic Data Interchange

MD   Management Domain (PRMD or ADMD)

MHS   Message Handling System

PRMD   Private Management Domain

5 General

5.1 ITU-T 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.

5.2 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 ITU-T Rec. X.666 | ISO/IEC 9834-7. If successfully registered, the registered name may be used without specifying the country name.

5.3 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.

5.4 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 systems or for general purpose naming.

5.5 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 addresses (X.400 addresses), trading partner names for EDI applications, and organization names for relative distinguished names (X.500 names).

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

6 Registration agent

6.1 A registration agent operates on behalf of international organizations to register the same organization name with multiple countries.

6.2 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.

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

7 Registration of organization names

7.1 General

7.1.1 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.

7.1.2 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.

7.1.3 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., ITU-T Rec. X.501 | ISO/IEC 9594-2 for directory names), profiles or country-specific documents.

7.1.4 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.

7.1.5 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.

7.1.6 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.

7.1.7 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.

7.2 Registration process

7.2.1 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 it 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.

7.2.2   If the application does not contain the information, specified in 7.1.7, the application shall be rejected indicating the reason for the rejection.

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

7.2.4   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 two 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.

7.2.5   The registration agent may notify the applying international organization that applied for registration as soon as confirmation or rejection 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.

7.2.6   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 applicant a rejection notification.

7.2.7   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.

7.2.8   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 (X.400) O/R addresses subordinate to country names

A.1   Purpose

A.1.1   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 addresses (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 ITU-T Rec. X.666 | ISO/IEC 9834-7, Annex A. If successfully registered, the registered name may be using an artificial country code in the O/R address.

A.1.2   These names are used by implementations of Message Handling Systems (MHS) conforming to the ITU-T Rec. X.400 series and ISO/IEC 10021 multi-part standard.

A.1.3   This annex relates the Message Handling Systems (MHS) standards to the Open Systems Interconnection (OSI) registration procedures.

A.2 ITU-T and ISO requirements

A.2.1 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 ASN.1 syntaxes are specified for the ADMD and PRMD name values: `NumericString` and `PrintableString`. For the purpose of this Recommendation, only alphanumeric names containing characters from the `PrintableString` character set will be considered. Compliance with the ITU-T Rec. X.400 series and ISO/IEC 10021 multi-part standard limits the alphanumeric name length to 16 characters.

A.2.2 The registration of an ADMD or PRMD name consisting of `PrintableString` characters that are solely digits and spaces permits the registrant to use an equivalent name consisting of characters from the `NumericString` character set.

A.2.3 Comparison for registration shall be case insensitive.

A.2.4 Multiple consecutive spaces shall be registered as a single space.

A.2.5 Leading and trailing spaces shall not be considered as part of a name value.

A.2.6 The registration agent shall reject applications for name values of a single space or a single zero.

A.2.7 ITU-T Rec. X.660 | ISO/IEC 9834-1 specifies the hierarchical structure within which objects 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

An 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

An 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

A.5.1 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.

A.5.2 To request registration of a management domain name, the international organization shall submit a written request to the registration agent for registration of the management domain name. The content of the application form is described in A.6.

A.5.3 If the applicant desires multiple names, multiple applications shall be submitted.

A.5.4 The application shall include the information specified in A.6. Each application shall be reviewed as specified in this annex.

A.6   Registration application content

The application for registration provided to the registration agent by the international organization shall include the information in 7.1.7 and the following additional information:

a)   requested alphanumeric management domain name value;

b)   intended use of the management domain name (ADMD or PRMD);

c)   statement of the right to use the name value; and

d)   list of countries for which registration is requested.

Annex B

Operating procedures for the registration agent of organization names for use in Directory distinguished names subordinate to country names

B.1   Purpose

B.1.1   The purpose of this annex is to specify operating 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 ITU-T Rec. X.666 | ISO/IEC 9834-7, Annex B. If successfully registered, the registered name may be used without specifying the country name in the X.500 Directory distinguished name.

B.1.2   These names are used by implementations of Directories conforming to the ITU-T Rec. X.500 series | ISO/IEC 9594 multi-part standard.

B.1.3   The procedures set forth in this annex relate the directory system standards to the Open Systems Interconnection (OSI) registration procedures.

B.2   ITU-T and ISO requirements

B.2.1   Organization names are used in several elements of directory services specified in the ITU-T Rec. X.500 series | ISO/IEC 9594 multi-part standard. Several syntaxes are specified for the organization name values, including: **TeletexString**, **PrintableString**, and **UniversalString**. For the purpose of this Recommendation, only alphanumeric names containing characters from the **PrintableString** character set will be considered for organization names. Compliance with ITU-T Rec. X.500 | ISO/IEC 9594-1 limits the alphanumeric names to 64 characters.

B.2.2   Comparison for registration shall be case insensitive.

B.2.3   Multiple consecutive spaces shall be considered as a single space.

B.2.4   Leading and trailing spaces shall not be considered as part of a name value.

B.2.5   ITU-T Rec. X.660 | ISO/IEC 9834-1 specifies the hierarchical structure within which objects 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

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

B.4 Registration process

B.4.1 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.

B.4.2 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.

B.4.3 The application shall include the information as specified in B.5. Each application shall be reviewed as specified in this annex.

B.5 Registration application content

The application for registration provided to the registration agent by the international organization shall include the information in 7.1.7 and the following additional information:

a)   requested alphanumeric international organization name value; and

b)   statement of the right to use the alphanumeric multinational organization name value.

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