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Information technology — Open Systems Interconnection — The Directory —

Part 7:
Selected object classes

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Technologies de l'information — Interconnexion de systèmes ouverts — L'annuaire —

Partie 7: Classes d'objets sélectionnés

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 9594-7 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

ISO/IEC 9594 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — The Directory*:

— *Part 1: Overview of concepts, models and services*

— *Part 2: Models*

— *Part 3: Abstract service definition*

— *Part 4: Procedures for distributed operation*

— *Part 5: Protocol specifications*

— *Part 6: Selected attribute types*

— *Part 7: Selected object classes*

— *Part 8: Authentication framework*

Annex A forms an integral part of this part of ISO/IEC 9594. Annex B is for information only.

Introduction

0.1 This part of ISO/IEC 9594, together with the other parts, has been produced to facilitate the interconnection of information processing systems to provide directory services. The set of all such systems, together with the directory information which they hold, can be viewed as an integrated whole, called the *Directory*. The information held by the Directory, collectively known as the Directory Information Base (DIB), is typically used to facilitate communication between, with or about objects such as application entities, people, terminals and distribution lists.

0.2 The Directory plays a significant role in Open Systems Interconnection, whose aim is to allow, with a minimum of technical agreement outside of the interconnection standards themselves, the interconnection of information processing systems:

- from different manufacturers;

- under different managements;

- of different levels of complexity; and

- of different ages.

0.3 This part of ISO/IEC 9594 defines (in section two) a number of attribute sets and object classes which may be found useful across a range of applications of the Directory.

0.4 Annex A, which is a part of the standard, provides an ASN.1 module containing all of the type and value definitions which appear in this document.

0.5 Annex B, which is not a part of the standard, provides some common naming and structure rules which may or may not be used by Administrative authorities.

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Information technology — Open Systems Interconnection — The Directory —

Part 7:
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SECTION 1: GENERAL

1 Scope

1.1 This part of ISO/IEC 9594 defines a number of selected attribute sets and object classes which may be found useful across a range of applications of the Directory. The definition of an attribute set involves identifying the attributes that it contains, and facilitates the definition of object classes. The definition of an object class involves optionally allocating an Object Identifier to it, and listing a number of attribute types which are relevant to objects of that class. These definitions are used by the administrative authority which is responsible for the management of the Directory information.

1.2 Any Administrative Authority can define its own object classes or subclasses for any purpose.

Notes

1. These definitions may or may not use the notation specified in ISO/IEC 9594-2.

2. It is recommended that an object class defined in this document, or a subclass derived from one, be used in preference to the generation of a new one, whenever the semantics is appropriate for the application.

1.3 Administrative authorities may support some or all the selected object classes, and may also add object classes.

All Administrative authorities shall support the object classes which the directory uses for its own purpose (the top, alias and DSA object classes).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9594. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 9594 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7498:1984, *Information Processing Systems — Open Systems Interconnection — Basic Reference Model.*

ISO/IEC 9594-1:1990, *Information Technology — Open Systems Interconnection — The Directory — Part 1: Overview of Concepts, Models and Services.*

ISO/IEC 9594-2:1990, *Information Technology — Open Systems Interconnection — The Directory — Part 2: Models.*

ISO/IEC 9594-8:1990, *Information Technology — Open Systems Interconnection — The Directory — Part 8: Authentication Framework.*

3 Definitions and Abbreviations

3.1 OSI Reference Model Definitions

This part of ISO/IEC 9594 makes use of the following definition from ISO 7498:

a) application-entity.

b) application-process.

3.2 Directory Model Definitions

This part of ISO/IEC 9594 makes use of the following definitions from ISO/IEC 9594-2:

a) attribute;

b) attribute type;

c) Directory Information Tree (DIT)

d) Directory System Agent (DSA).

e) attribute set

f) entry;

g) name;

h) object class;

i) subclass.

4   Notation

Object classes are defined in this document by the use of special notation, defined as an ASN.1 macro, **OBJECT-CLASS**, in ISO/IEC 9594-2. One 'generic' object identifier (**objectClass**) is used in specifying the object identifiers being allocated to object classes. Its definition can be found in annex B of the same part.

Attributes sets are defined in this document by the use of special notation, defined as an ASN.1 macro, **ATTRIBUTE-SET**, in ISO/IEC 9594-2. One 'generic' object identifier (**attributeSet**) is used in specifying the object identifiers being allocated to attribute set definitions. Its definition can be found in annex B of the same part.

SECTION 2: SELECTED OBJECT CLASSES

5   Definition of Useful Attribute Sets

5.1   Telecommunication Attribute Set

This set of attributes is used to define those which are commonly used for business communications.

```
telecommunicationAttributeSet ATTRIBUTE-SET
        CONTAINS {
                facsimileTelephoneNumber,
                internationalISDNNumber,
                telephoneNumber,
                teletexTerminalIdentifier,
                telexNumber,
                preferredDeliveryMethod,
                destinationIndicator,
                registeredAddress,
                x121Address}
                ::= {attributeSet 0}
```

5.2   Postal Attribute Set

This set of attributes is used to define those which are directly associated with postal delivery.

```
postalAttributeSet ATTRIBUTE-SET
        CONTAINS {
                physicalDeliveryOfficeName,
                postalAddress,
                postalCode,
                postOfficeBox,
                streetAddress}
                ::= {attributeSet 1}
```

5.3   Locale Attribute Set

This set of attributes is used to define those which are commonly used for search purposes to indicate the locale of an object.

```
localeAttributeSet ATTRIBUTE-SET
        CONTAINS {
                localityName,
                stateOrProvinceName,
                streetAddress}
                ::= {attributeSet 2}
```

5.4   Organizational Attribute Set

This set of attributes is used to define the attributes that an organization or organizational unit may typically possess.

```
organizationalAttributeSet ATTRIBUTE-SET
        CONTAINS {
                description,
                localeAttributeSet,
                postalAttributeSet,
                telecommunicationAttributeSet,
                businessCategory,
                seeAlso,
                searchGuide,
                userPassword}
                ::= {attributeSet 3}
```

6   Definition of Selected Object Classes

6.1   Top

The *top* object class, of which every other object class is a subclass, is defined, except for the allocation of an object identifier, in ISO/IEC 9594-2

```
        top     Top     ::=     {objectClass 0}
```

6.2   Alias

The *alias* object class, from which classes for alias entries may be derived, is defined, except for the allocation of an object identifier, in ISO/IEC 9594-2

```
        alias   Alias   ::=     {objectClass 1}
```

6.3   Country

A *Country* object class is used to define country entries in the DIT.

```
country OBJECT-CLASS
    SUBCLASS OF top
    MUST CONTAIN {
        countryName}
    MAY CONTAIN {
        description,
        searchGuide}
    ::= {objectClass 2}
```

6.4 Locality

The *Locality* object class is used to define locality in the DIT.

```
locality OBJECT-CLASS
    SUBCLASS OF top
    MAY CONTAIN {
        description,
        localityName,
        stateOrProvinceName,
        searchGuide,
        seeAlso,
        streetAddress}
    ::= {objectClass 3}
```

At least one of Locality Name or State or Province Name must be present.

6.5 Organization

The *Organization* object class is used to define organization entries in the DIT.

```
organization OBJECT-CLASS
    SUBCLASS OF top
    MUST CONTAIN {
        organizationName}
    MAY CONTAIN {
        organizationalAttributeSet}
    ::= {objectClass 4}
```

6.6 Organizational Unit

The *Organizational Unit* object class is used to define entries representing subdivisions of organizations.

```
organizationalUnit OBJECT-CLASS
    SUBCLASS OF top
    MUST CONTAIN {
        organizationalUnitName}
    MAY CONTAIN {
        organizationalAttributeSet}
    ::= {objectClass 5}
```

6.7 Person

The *Person* object class is used to define entries representing people generically.

```
person OBJECT-CLASS
    SUBCLASS OF top
    MUST CONTAIN {
        commonName,
        surname}
    MAY CONTAIN {
        description,
        seeAlso,
        telephoneNumber,
        userPassword}
    ::= {objectClass 6}
```

6.8 Organizational Person

The *Organizational Person* object class is used to define entries representing people employed by, or in some other important way associated with, an organization.

```
organizationalPerson OBJECT-CLASS
    SUBCLASS OF person
    MAY CONTAIN {
        localeAttributeSet,
        organizationalUnitName,
        postalAttributeSet,
        telecommunicationAttributeSet,
        title}
    ::= {objectClass 7}
```

6.9 Organizational Role

The *Organizational Role* object class is used to define entries representing an organizational role, i.e., a position or role within an organization. An organizational role is normally considered to be filled by a particular organizational person. Over its lifetime, however, an organizational role may be filled by a number of different organizational people in succession. In general, an organizational role may be filled by a person or a non-human entity.

```
organizationalRole OBJECT-CLASS
    SUBCLASS OF top
    MUST CONTAIN {
        commonName}
    MAY CONTAIN {
        description,
        localeAttributeSet,
        organizationalUnitName,
        postalAttributeSet,
        preferredDeliveryMethod,
        roleOccupant,
        seeAlso,
        telecommunicationAttributeSet}
    ::= {objectClass 8}
```

6.10 Group of Names

The *Group Of Names* object class is used to define entries representing an unordered set of names which represent individual objects or other groups of names. The membership of a group is static; that is, it is explicitly modified by administrative action, rather than dynamically determined each time the group is referred to.

The membership of a group can be reduced to a set of individual object's names by replacing each group with its

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