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Information technology — Open Systems Interconnection — The Directory —

Part 6: Selected attribute types

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

Partie 6: Types d'attributs sélectionnés

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Contents

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 9594-6 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. Annexes B and C are for information only.

Introduction

0.1 This part of ISO/IEC 9594, together with the other parts of ISO/IEC 9594, 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 a number of attribute types which may be found useful across a range of applications of the Directory. One particular use for many of the attributes defined herein is in the formation of names, particularly for the classes of object defined in ISO/IEC 9594-7. This part also defines a number of standard attribute syntaxes.

0.4 Annex A, which is part of ISO/IEC 9594, provides the ASN.1 notation for the complete module which defines the attributes and attribute syntaxes.

0.5 Annex B, which is not part of ISO/IEC 9594, provides an alphabetical index of attribute types, for easy reference.

Information technology — Open Systems Interconnection — The Directory —

Part 6: Selected attribute types

SECTION 1: GENERAL

1 Scope

1.1 This part of ISO/IEC 9594 defines a number of attribute types which may be found useful across a range of applications of the Directory.

1.2 Attribute types (and attribute syntaxes) fall into three categories, as described in 1.2.1 through 1.2.3.

1.2.1 Some attribute types (syntaxes) are used by a wide variety of applications or are understood and/or used by the Directory itself.

Note - It is recommended that an attribute type (syntax) defined in this document be used, in preference to the generation of a new one, whenever it is appropriate for the application.

1.2.2 Some attribute types (syntaxes) are internationally-standardized, but are application-specific. These are defined in the standards associated with the application concerned.

1.2.3 Any administrative authority can define its own attribute types (syntaxes) for any purpose. These are not internationally standardized, and are available to others beyond the administrative authority which created them only by bilateral agreement.

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 3166 :1988, *Codes for the representation of names of countries.*

ISO/IEC 8824:1990, *Information Technology — Open Systems Interconnection — Specification of Abstract Syntax Notation One (ASN.1).*

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

ISO/IEC 9594-7:1990, *Information Technology — Open Systems Interconnection — The Directory — Part 7: Selected Object Classes.*

CCITT Recommendation E.123, *Notation for National and International Telephone numbers*

CCITT Recommendation E.123, *Notation for National and International Telephone numbers*

CCITT Recommendation E.164, *Numbering plan for the ISDN era*

CCITT Recommendation F.1, *Operational provisions for the international public telegram service*

CCITT Recommendation F.200, *Teletex service*

CCITT Recommendation F.401, *Message handling services: Naming and addressing for public message handling services*

CCITT Recommendation T.30, *Procedures for document facsimile transmission in the general switched telephone network*

CCITT Recommendation T.61, *Character repertoire and coded character sets for the international teletex service*

CCITT Recommendation T.62, *Control procedures for teletex and Group 4 facsimile services*

CCITT Recommendation X.121, *International numbering plan for public data networks.*

3 Definitions

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

a) attribute type;

b) attribute syntax;

c) object class.

4 Notation

Attribute types and attribute syntaxes are defined in this document by the use of special notation, defined as ASN.1 macros in ISO/IEC 9594-2. There are two such macros, ATTRIBUTE and ATTRIBUTE-SYNTAX.

Two 'generic' object identifiers (attributeType and attributeSyntax) are used in defining the object identifiers being allocated to attribute types and attribute syntaxes respectively. Their definitions can be found in Annex B of ISO/IEC 9594-2.

Examples of the use of the attribute types are described using an informal notation, where attribute type and value pairs are represented by an acronym for the attribute type, followed by an equals sign ("="), followed by the example value for the attribute.

SECTION 2: SELECTED ATTRIBUTE TYPES

5 Definition of Selected Attribute Types

This part of ISO/IEC 9594 defines a number of attribute types which may be found useful across a range of applications of the Directory.

5.1 System Attribute Types

These attribute types are concerned with information about objects known to the Directory.

5.1.1 Object Class

The *Object Class* attribute type, which is known to the Directory, is specified, except for the allocation of an object identifier, in ISO/IEC 9594-2.

```
objectClass ObjectClass ::= {attributeType 0}
```

5.1.2 Aliased Object Name

This attribute type is defined, except for the allocation of an object identifier, in ISO/IEC 9594-2.

```
aliasedObjectName AliasedObjectName
        ::= {attributeType 1}
```

5.1.3 Knowledge Information

The *Knowledge Information* attribute type specifies a human-readable accumulated description of knowledge mastered by a specific DSA.

```
knowledgeInformation ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX caseIgnoreStringSyntax
        ::= {attributeType 2}
```

5.2 Labelling Attribute Types

These attributes type are concerned with information about objects which has been explicitly associated with the objects by a labelling process.

5.2.1 Common Name

The *Common Name* attribute type specifies an identifier of an object. A Common Name is not a directory name; it is a (possibly ambiguous) name by which the object is commonly known in some limited scope (such as an organization) and conforms to the naming conventions of the country or culture with which it is associated.

An attribute value for common name is a string chosen either by the person or organization it describes or the organization responsible for the object it describes for devices and application entities. For example, a typical name of a person in an English-speaking country comprises a personal title (e.g., Mr, Ms, Dr, Professor, Sir, Lord), a first name, middle name(s), last name, generational qualifier (if any, e.g., Jr.) and decorations and awards (if any, e.g., QC).

Examples:

CN = "Mr Robin Lachlan McLeod BSc(Hons) CEng MIEE"

CN = "Divisional Coordination Committee"

CN = "High Speed Modem"

Any variants should be associated with the named object as separate and alternative attribute values.

Other common variants should also be admitted, e.g., use of a middle name as a preferred first name; use of 'Bill' in place of 'William', etc.

```
commonName ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-common-name))
        ::= {attributeType 3}
```

5.2.2 Surname

The *Surname* attribute type specifies the linguistic construct which normally is inherited by an individual from the individual's parent or assumed by marriage, and by which the individual is commonly known.

An attribute value for Surname is a string, e.g., "McLeod".

```
surname ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-surname))
        ::= {attributeType  4}
```

5.2.3 Serial Number

The *Serial Number* attribute type specifies an identifier, the serial number of a device.

An attribute value for Serial Number is a printable string.

```
serialNumber ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                printableStringSyntax
                        (SIZE(1..ub-serial-number))
        ::= {attributeType 5}
```

5.3 Geographical Attribute Types

These attribute types are concerned with geographical positions or regions with which objects are associated.

5.3.1 Country Name

The *Country Name* attribute type specifies a country. When used as a component of a directory name, it identifies the country in which the named object is physically located or with which it is associated in some other important way.

An attribute value for country name is a string chosen from ISO 3166.

```
countryName ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                PrintableString (SIZE (2)) -- IS 3166 codes only

        MATCHES FOR EQUALITY
        SINGLE VALUE
        ::= {attributeType 6}
```

The matching rule for values of this type is the same as that for caseIgnoreStringSyntax.

5.3.2 Locality Name

The *Locality Name* attribute type specifies a locality. When used as a component of a directory name, it identifies a geographical area or locality in which the named object is physically located or with which it is associated in some other important way.

An attribute value for Locality Name is a string, e.g., L = "Edinburgh".

```
localityName ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-locality-name))
        ::= {attributeType 7}
```

5.3.3 State or Province Name

The *State or Province Name* attribute type specifies a state or province. When used as a component of a directory name, it identifies a geographical subdivision in which the named object is physically located or with which it is associated in some other important way.

An attribute value for State or Province Name is a string, e.g., S = "Ohio".

```
stateOrProvinceName ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-state-name))
        ::= {attributeType  8}
```

5.3.4 Street Address

The *Street Address* attribute type specifies a site for the local distribution and physical delivery in a postal address, i.e., the street name, place, avenue, and the house number. When used as a component of a directory name, it identifies the street address at which the named object is located or with which it is associated in some other important way.

An attribute value for Street Address is a string, e.g., "Arnulfstraße 60".

```
streetAddress ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-street-address))
        ::= {attributeType  9}
```

5.4 Organizational Attribute Types

These attribute types are concerned with organizations and can be used to describe objects in terms of organizations with which they are associated.

5.4.1 OrganizationName

The *OrganizationName* attribute type specifies an organization. When used as a component of a directory name it identifies an organization with which the named object is affiliated.

An attribute value for OrganizationName is a string chosen by the organization (e.g., O = "Scottish Telecommunications plc"). Any variants should be

associated with the named Organization as separate and alternative attribute values.

```
organizationName ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-organization-name))
        ::= {attributeType 10}
```

5.4.2 Organizational Unit Name

The *Organizational Unit Name* attribute type specifies an organizational unit. When used as a component of a directory name it identifies an organizational unit with which the named object is affiliated.

The designated organizational unit is understood to be part of an organization designated by an OrganizationName attribute. It follows that if an Organizational Unit Name attribute is used in a directory name, it must be associated with an OrganizationName attribute.

An attribute value for Organizational Unit Name is a string chosen by the organization of which it is part (e.g., OU = "Technology Division"). Note that the commonly used abbreviation "TD" would be a separate and alternative attribute value.

Examples:

O = "Scottel", OU = "TD"

```
organizationalUnitName ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-organizational-unit-name))
        ::= {attributeType 11}
```

5.4.3 Title

The *Title* attribute type specifies the designated position or function of the object within an organization.

An attribute value for Title is a string.

Example:

T = "Manager, Distributed Applications"

```
title ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-title))
        ::= {attributeType 12}
```

5.5 Explanatory Attribute Types

These attribute types are concerned with explanations (e.g., in a natural language) of something about an object.

5.5.1 Description

The *Description* attribute type specifies text which describes the associated object.

For example, the object "Standards Interest" might have the associated description "distribution list for exchange of information about intra-company standards development".

An attribute value for Description is a string.

```
description ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-description))
        ::= {attributeType 13}
```

5.5.2 Search Guide

The *Search Guide* attribute type specifies information of suggested search criteria which may be included in some entries expected to be a convenient base-object for the search operation, e.g., country or organization.

Search criteria consist of an optional identifier for the type of object sought and combinations of attribute types and logical operators to be used in the construction of a filter. It is possible to specify for each search criteria item the matching level, e.g., approximate match.

The Search Guide attribute may recur to reflect the various types of requests, e.g., search for a Residential Person or an Organizational Person, which may be fulfilled from the given base-object where the Search Guide is read.


```
searchGuide ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                Guide
        ::= {attributeType 14}

Guide  ::=      SET {
                objectClass     [0]  OBJECT-CLASS OPTIONAL,
                criteria        [1]  CRITERIA }

Criteria        ::=     CHOICE {
                type    [0]     CriteriaItem,
                and     [1]     SET OF Criteria,
                or      [2]     SET OF Criteria,
                not     [3]     Criteria}

CriteriaItem  ::= CHOICE {
                        equality        [0]     AttributeType,
                        substrings      [1]     AttributeType,
                greaterOrEqual          [2]     AttributeType,
                        lessOrEqual     [3]     AttributeType,
                approximateMatch        [4]     AttributeType}
```

Example:

The following is a potential value of the Search Guide attribute that could be stored in entries of object class Locality to indicate how entries of object class Residential Person might be found:

```
residential-person-guide Guide      ::=
        objectClass residentialPerson,
        criteria and {
                type  substrings commonName,
                type  substrings  streetAddress}}
```

The construction of a filter from this value of Guide is straightforward.

Step (1) produces the intermediate Filter value

```
intermediate-filter     Filter  ::=
        and {
                item  substrings {
                        type  commonName,
                        strings  {any T61String "Dubois" } },
                         - - value supplied for commonName - -
                item  substrings {
                        type  streetAddress,
                        strings  {any  T61String  "Hugo"} } }
                         - - value supplied for streetAddress - -
```

Step (2) produces a filter for matching Residential Person entries in the subtree:

```
residential-person-filter       Filter          ::=
        and {
                item  equality {
                        objectClass,
                        OBJECT-CLASS  residentialPerson },
                intermediateFilter  }
```

5.5.3 Business Category

The *Business Category* attribute type specifies information concerning the occupation of some common objects, e.g., people. For example, this attribute provides the facility to interrogate the Directory about people sharing the same occupation.


```
businessCategory ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-business-category))
        ::= {attributeType 15}
```

5.6 Postal Addressing Attribute Types

These attribute types are concerned with information required for physical postal delivery to an object.

5.6.1 Postal Address

The *Postal Address* attribute type specifies the address information required for the physical delivery of postal messages by the postal authority to the named object.

An attribute value for Postal Address will be typically composed of selected attributes from the MHS Unformatted Postal O/R Address version 1 according to CCITT Recommendation F.401 and limited to 6 lines of 30 characters each, including a Postal Country Name. Normally the information contained in such an address could include an addressee's name, street address, city, state or province, postal code and possibly a Post Office Box number depending on the specific requirements of the named object.

```
postalAddress ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX PostalAddress
        MATCHES FOR EQUALITY
        ::= {attributeType 16}

PostalAddress ::= SEQUENCE SIZE(1..ub-postal-line) OF
        CHOICE {
                T61String (SIZE(1..ub-postal-string)),
                PrintableString (SIZE(1..ub-postal-string))}
```

The matching rule for values of this type is the same as that for caseIgnoreListSyntax.

5.6.2 Postal Code

The *Postal Code* attribute type specifies the postal code of the named object. If this attribute value is present it will be part of the object's postal address.

An attribute value for Postal Code is a string.

```
postalCode ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-postal-code))
        ::= {attributeType 17}
```

5.6.3 Post Office Box

The *Post Office Box* attribute type specifies the Post Office Box by which the object will receive physical postal delivery. If present, the attribute value is part of the object's postal address.

```
postOfficeBox ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-post-office-box))
        ::= {attributeType  18}
```

5.6.4 Physical Delivery Office Name

The Physical Delivery Office Name attribute type specifies the name of the city, village, etc. where a physical delivery office is situated.

An attribute value for Physical Delivery Office Name is a string.

```
physicalDeliveryOfficeName ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                caseIgnoreStringSyntax
                        (SIZE(1..ub-physical-office-name))
        ::= {attributeType  19}
```

5.7 Telecommunications Addressing Attribute Types

These attribute types are concerned with addressing information needed to communicate with the object using telecommunication means.

5.7.1 Telephone Number

The *Telephone Number* attribute type specifies a telephone number associated with an object.

An attribute value for Telephone Number is a string that complies with the internationally agreed format for showing international telephone numbers, CCITT Recommendation E.123 (e.g., "+ 44 582 10101").

```
telephoneNumber ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                telephoneNumberSyntax
        ::= {attributeType 20}
```

5.7.2 Telex Number

The *Telex Number* attribute type specifies the telex number, country code, and answerback code of a telex terminal associated with an object.

```
telexNumber ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX TelexNumber     ::=
{attributeType 21}

TelexNumber ::= SEQUENCE {
        telexNumber   PrintableString
                (SIZE(1..ub-telex-number)),
        countryCode   PrintableString,
                (SIZE(1..ub-country-code)),
        answerback    PrintableString
                (SIZE(1..ub-answerback))}
```

5.7.3 Teletex Terminal Identifier

The *Teletex Terminal Identifier* attribute type specifies the Teletex terminal identifier (and, optionally, parameters) for a teletex terminal associated with an object.

An attribute value for Teletex Terminal Identifier is a string which complies with CCITT Recommendation F.200 and an optional set whose components are according to CCITT Recommendation T.62.

```
teletexTerminalIdentifier ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                TeletexTerminalIdentifier
        ::= {attributeType 22}

TeletexTerminalIdentifier ::= SEQUENCE {
        teletexTerminal PrintableString
                (SIZE(1..ub-teletex-terminal-id)),
        parameters TeletexNonBasicParameters
                 OPTIONAL}
```

5.7.4 Facsimile Telephone Number

The Facsimile Telephone Number attribute type specifies a telephone number for a facsimile terminal (and optionally its parameters) associated with an object.

An attribute value for the facsimile telephone number is a string that complies with the internationally agreed format for showing international telephone numbers, CCITT Recommendation E.123 (e.g., "+81 3 347 7418") and an optional bit string (formatted according to CCITT Recommendation T.30).

```
facsimileTelephoneNumber ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                FacsimileTelephoneNumber
        ::= {attributeType 23}

FacsimileTelephoneNumber::= SEQUENCE {
        telephoneNumber PrintableString
                (SIZE(1.. ub-telephone-number)),
        parameters G3FacsimileNonBasicParameters
                OPTIONAL}
```

5.7.5 X.121 Address

The *X.121 Address* attribute type specifies an address as defined by CCITT Recommendation X.121 associated with an object.

```
x121Address ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                NumericString
                        (SIZE(1 .. ub-x121-address))
        MATCHES FOR EQUALITY SUBSTRINGS
        ::= {attributeType 24}
```

The matching rules for values of this type are the same as those for numericStringSyntax.

5.7.6 International ISDN Number

The *International ISDN Number* attribute type specifies an International ISDN Number associated with an object.

An attribute value for International ISDN Number is a string which complies with the internationally agreed format for ISDN addresses given in CCITT Recommendation E.164.

```
internationalISDNNumber ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                NumericString
                 (SIZE(1 .. ub-international-isdn-number))
        ::= {attributeType 25}
```

The matching rule for values of this type is the same as that for numericStringSyntax.

5.7.7 Registered Address

The Registered Address attribute type specifies a mnemonic for an address associated with an object at a particular city location. The mnemonic is registered in the country in which the city is located and is used in the provision of the Public Telegram Service (according to Recommendation F.1).

```
registeredAddress ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX PostalAddress
        ::= {attributeType  26}
```

5.7.8 Destination Indicator

The *Destination Indicator* attribute type specifies (according to Recommendations F.1 and F.31) the country and city associated with the object (the addressee) needed to provide the Public Telegram Service.

An attribute value for Destination Indicator is a string.

```
destinationIndicator ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                PrintableString
                        (SIZE(1.. ub-destination-indicator))
        -- alphabetical characters only
        MATCHES FOR EQUALITY SUBSTRINGS
        ::= {attributeType 27}
```

The matching rules for values of this type are the same as those for caseIgnoreStringSyntax.

5.8 Preferences Attribute Types

These attribute types are concerned with the preferences of an object.

5.8.1 Preferred Delivery Method

The *Preferred Delivery Method* attribute type specifies the object's priority order regarding the method to be used for communicating with it.

```
preferredDeliveryMethod ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                SEQUENCE OF INTEGER {
                        any-delivery-method     (0),
                        mhs-delivery            (1),
                        physical-delivery       (2),
                        telex-delivery          (3),
                        teletex-delivery        (4),
                        g3-facsimile-delivery   (5),
                        g4-facsimile-delivery   (6),
                        ia5-terminal-delivery   (7),
                        videotex-delivery       (8),
                        telephone-delivery      (9) }
        SINGLE VALUE
        ::= {attributeType 28}
```

5.9 OSI Application Attribute Types

These attribute types are concerned with information regarding objects in the OSI Application Layer.

5.9.1 Presentation Address

The *Presentation Address* attribute type specifies a presentation address associated with an object representing an OSI application entity.

An attribute value for Presentation Address is a presentation address as defined in ISO 7498.

```
presentationAddress ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                PresentationAddress
        MATCHES FOR EQUALITY
        SINGLE VALUE
        ::= {attributeType 29}

PresentationAddress ::= SEQUENCE {
        pSelector       [0]     OCTET STRING OPTIONAL,
        sSelector       [1]     OCTET STRING OPTIONAL,
        tSelector       [2]     OCTET STRING OPTIONAL,
        nAddresses      [3]     SET SIZE (1...MAX) OF
                                        OCTET STRING}
```

The matching rule for values of this type is that a presented Presentation Address matches a stored one if and only if the selectors are equal and the presented **nAddresses** is a subset of the stored one.

5.9.2 Supported Application Context

The *Supported Application Context* attribute type specifies the object identifier(s) of application context(s) that the object (an OSI application entity) supports.

```
supportedApplicationContext ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                objectIdentifierSyntax
        ::= {attributeType  30}
```

5.10 Relational Attribute Types

These attribute types are concerned with information regarding the objects which are related to a particular object in certain ways.

5.10.1 Member

The *Member* attribute type specifies a group of names associated with the object.

An attribute value for Member is a distinguished name.

```
member ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                distinguishedNameSyntax
        ::= {attributeType 31}
```

5.10.2 Owner

The *Owner* attribute type specifies the name of some object which has some responsibility for the associated object.

An attribute value for Owner is a distinguished name (which could represent a group of names) and can recur.

```
owner ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                distinguishedNameSyntax
        ::= {attributeType 32}
```

5.10.3 Role Occupant

The *Role Occupant* attribute type specifies the name of an object which fulfills an organizational role.

An attribute value for Role Occupant is a distinguished name.

```
roleOccupant ATTRIBUTE
        WITH ATTRIBUTE-SYNTAX
                distinguishedNameSyntax
        ::= {attributeType 33}
```

5.10.4 See Also

The *See Also* attribute type specifies names of other Directory objects which may be other aspects (in some sense) of the same real world object.