Document:
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Comments to:
nmi-support@nsf-middleware.org

EduOrg Object Class Specification (200210)

EduOrg (200210), an object class for representing institutions of higher education, includes two basic sets of attributes. The attributes defined specifically for the purposes of higher education are listed first. All these attribute names are prefaced with eduOrg. The eduOrg auxiliary object class contains all of them as "MAY" attributes. Cn (commonName) is also included in the list of eduOrg attributes for convenience:

```
( 1.3.6.1.4.1.5923.1.2.2
    NAME 'eduOrg'
    AUXILIARY
    MAY (eduOrgHomePageURI $ eduOrgIdentityAuthNPolicyURI $
        eduOrgLegalName $ eduOrgSuperiorURI $ eduOrgWhitePagesURI $
        cn)
```

The second set is a selection of relevant attributes from the organization object class defined in X.521 (2001). These attributes are listed alphabetically in the second section of this document. The purpose of listing them is primarily as a convenience to enterprise directory designers, although in some cases, notes will clarify some aspect of meaning or usage beyond what can be found in the original standards document. LDIF to add this object class and its attributes is available off the eduPerson page at:
http://www.educause.edu/eduperson/

This version of eduOrg is appropriate for adoption in production enterprise directory service environments. All comments should be directed to nmi-support@nsf-middleware.org.

An organization entry should take the X.521 (2001) organization object class as its structural object class. EduOrg attributes would be brought in as appropriate from the auxiliary eduOrg object class. The attribute set for organization is defined as follows:

       o (Organization Name, required}

       Optional attributes include:
       description
       localeAttributeSet
       postalAttributeSet
       telecommunicationsAttributeSet
       businessCategory
       seeAlso
       searchGuide
       userPassword

Since at an institutional level there will likely be only one or at most a few organization objects in the directory, the general recommendation is not to bother indexing any of the eduOrg attributes. We advise that this information should be located and retrieved from your directory by performing an LDAP search for all objects with objectclass=eduOrg, possibly in combination with other search criteria. That search should further specify those eduOrg (or other) attributes whose values you wish returned.

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1. eduOrgHomePageURI (defined in eduOrg);

    OID: 1.3.6.1.4.1.5923.1.2.1.2*;   # of values:* multi

    RFC 2252 definition
       (1.3.6.1.4.1.5923.1.2.1.2
          NAME ' eduOrgHomePageURI'
          DESC 'eduOrg per Internet2 and EDUCAUSE'
          EQUALITY caseExactIA5Match
          SYNTAX '1.3.6.1.4.1.1466.115.121.1.15')

Definition
    The URL for the organization's top level home page.

Permissible values (if controlled)

Notes
    Most useful in a search by name of institutions in a directory of directories. Among other things, a way to remove the guesswork around the institution's second-level domain name: www.????.edu.

Example applications for which this attribute would be useful
    directory of directories, white pages

Example (LDIF Fragment)
    eduOrgHomePageURI: http://www.nd.edu

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2. eduOrgIdentityAuthNPolicyURI (defined in eduOrg);

OID: 1.3.6.1.4.1.5923.1.2.1.3*;   # of values:* multi

RFC 2252 definition
    (1.3.6.1.4.1.5923.1.2.1.3
        NAME ' eduOrgIdentityAuthNPolicyURI'
        DESC 'eduOrg per Internet2 and EDUCAUSE'
        EQUALITY caseExactIA5Match
        SYNTAX '1.3.6.1.4.1.1466.115.121.1.15')

Definition
    A URI pointing to the location of the organization's policy regarding identification and authentication (the issuance and use of digital credentials). Most often a URL, but with appropriate resolution mechanisms in place, could be a URN.

Permissible values (if controlled)

Notes
    Primarily useful as a pointer to information relevant to judgement of risks in participating in inter-institutional resource sharing arrangements.

Example applications for which this attribute would be useful
    Shibboleth

Example (LDIF Fragment)
    eduOrgIdentficationAuthNPolicyURI: http://www.uchicago.edu/security/IA-Policy.html

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3. eduOrgLegalName (defined in eduOrg);

OID: 1.3.6.1.4.1.5923.1.2.1.4*;   # of values:* multi

RFC 2252 definition
    (1.3.6.1.4.1.5923.1.2.1.4
        NAME ' eduOrgLegalName'
        DESC 'eduOrg per Internet2 and EDUCAUSE'
        EQUALITY caseIgnoreMatch
        SYNTAX '1.3.6.1.4.1.1466.115.121.1.15')

Definition
> The organization's legal corporate name.

Permissible values (if controlled)

Notes
> The organization's legal corporate name. Directory implementers should check with the institution's legal counsel to determine the proper value for this attribute.

Example applications for which this attribute would be useful
> directory of directories, white pages

Example (LDIF Fragment)
> eduOrgLegalName: Georgia Institute of Technology

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4. eduOrgSuperiorURI (defined in eduOrg);

OID: 1.3.6.1.4.1.5923.1.2.1.5*;   # of values:* multi

RFC 2252 definition
> (1.3.6.1.4.1.5923.1.2.1.5
> NAME ' eduOrgSuperiorURI'
> DESC 'eduOrg per Internet2 and EDUCAUSE'
> EQUALITY caseExactIA5Match
> SYNTAX '1.3.6.1.4.1.1466.115.121.1.15')

Definition
> LDAP URL for the organization object one level superior to this entry.

Permissible values (if controlled)

Notes
> For a state university campus, for example, this is likely to be the entry for the state system administration organization in the system-level enterprise directory.

Example applications for which this attribute would be useful
> white pages

Example (LDIF Fragment)
> eduOrgSuperiorURI:
> ldap://dirsvc.uwsa.edu/o=University%20of%20Wisconsin%20System,dc=uwsa,dc=edu

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5. eduOrgWhitePagesURI (defined in eduOrg);

OID: 1.3.6.1.4.1.5923.1.2.1.6*;   # of values:* multi

RFC 2252 definition
    (1.3.6.1.4.1.5923.1.2.1.6
        NAME ' eduOrgWhitePagesURI'
        DESC 'eduOrg per Internet2 and EDUCAUSE'
        EQUALITY caseExactIA5Match
        SYNTAX '1.3.6.1.4.1.1466.115.121.1.15')

Definition
    The URL of the open white pages directory service for the university, predominantly LDAP these days.

Permissible values (if controlled)

Notes

Example applications for which this attribute would be useful
    directory of directories, white pages

Example (LDIF Fragment)
    eduOrgWhitePagesURI: ldap://wpage1.uwrf.edu

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6. cn (commonName, defined in X.520 (2001));

OID: 2.5.4.3*;   # of values:* multi

Definition
    Common name.

Permissible values (if controlled)

Notes
    X.520 (2001) "commonName." Name or names by which this organization is commonly known.

Example applications for which this attribute would be useful
    all

Example (LDIF Fragment)
    cn: Georgia Tech

The following attributes are defined as part of the "organization" object class defined in X.521 (2001). The attributes themselves are defined in X.520 (2001). Additional notes on these attributes can be found in the eduPerson (200210) documentation.

7. description (defined in organization);

OID: 2.5.4.13*;   # of values:* multi

Definition
Open-ended; whatever the person or the directory manager puts here. According to RFC 2256, "This attribute contains a human-readable description of the object."

Permissible values (if controlled)

Notes
Can be anything.

Example applications for which this attribute would be useful
directory of directories, white pages

Example (LDIF Fragment)
description: Your Harvard on the Ripple River

8. facsimileTelephoneNumber (defined in organization);

OID: 2.5.4.23*;   # of values:* multi

Definition
A fax number for the directory entry. Attribute values should follow the agreed format for international telephone numbers: i.e., "+44 71 123 4567."

Permissible values (if controlled)

Notes
A fax number for the directory entry.

Example applications for which this attribute would be useful
directory of directories, white pages

Example (LDIF Fragment)
facsimileTelephoneNumber: +44 71 123 4567

9. l (localityName, defined in organization);

OID: 2.5.4.7*; # of values:* multi

Definition
locality name.

Permissible values (if controlled)

Notes
According to RFC 2256, "This attribute contains the name of a locality, such as a city, county or other geographic region."

X.520 (2001) reads: "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."

Example applications for which this attribute would be useful
directory of directories, white pages

Example (LDIF Fragment)
l: Buffalo

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10. o (organizationName, defined in organization);

OID: 2.5.4.10*; # of values:* multi

Definition
Standard name of the top-level organization (institution).

Permissible values (if controlled)

Notes
Standard name of the top-level organization (institution).

Example applications for which this attribute would be useful
directory of directories, white pages

Example (LDIF Fragment)
o: St. Cloud State College

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11. postalAddress (defined in organization);

OID: 2.5.4.16*;   # of values:* multi

Definition
   Main campus address.

Permissible values (if controlled)

Notes
   Main office address.   X.520 (2001) reads: "The Postal Address attribute type specifies the address information required for the physical postal delivery to an object."

Example applications for which this attribute would be useful
   directory of directories, white pages

Example (LDIF Fragment)
   postalAddress: P.O. Box 333$Whoville, WH 99999

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12. postalCode (defined in organization);

OID: 2.5.4.17*;   # of values:* multi

Definition
   Follow X.520 (2001): "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." Zip code in USA, postal code for other countries.

Permissible values (if controlled)

Notes
   ZIP code in USA, postal code for other countries.

Example applications for which this attribute would be useful
   directory of directories, white pages

Example (LDIF Fragment)
   postalCode: 54321

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13. postOfficeBox (defined in organization);

OID: 2.5.4.18*;   # of values:* multi

Definition
   Follow X.520 (2001): "The Post Office Box attribute type specifies the Postal Office Box by
   which the object will receive physical postal delivery. If present, the attribute value is part of
   the object's postal address."

Permissible values (if controlled)

Example applications for which this attribute would be useful
   directory of directories, white pages

Example (LDIF Fragment)
   postOfficeBox: 109260

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14. seeAlso (defined in organization);

OID: 2.5.4.34*;   # of values:* multi

Definition
   Identifies (by DN) another directory server entry that may contain information related to this
   entry.

Permissible values (if controlled)

Notes
   The distinguished name of another directory entry

   According to X.520 (2001), "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."

Example applications for which this attribute would be useful
   directory of directories, white pages

Example (LDIF Fragment)
   seeAlso: cn=Chancellor, o=University of Technology, dc=utech, dc=ac, dc=uk

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15. st (defined in organization);

OID: 2.5.4.8*;   # of values:* multi

Definition
   Abbreviation for state name.

Format: Standard U.S. postal service two-letter code.

Permissible values (if controlled)
U.S. Postal Service set of two-letter state name abbreviations.

Notes
State or province name.

According to RFC 2256, "This attribute contains the full name of a state or province (stateOrProvinceName)."

While RFC 2256 specifies use of the "full name," it is customary to use the U.S. Postal Service set of two-letter state name abbreviations for states in the U.S.

Example applications for which this attribute would be useful
directory of directories, white pages

Example (LDIF Fragment)
st: IL

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16. street (defined in organization);

OID: 2.5.4.9;   *# of values:* multi

Definition
Street address of the primary campus offices.

Permissible values (if controlled)

Notes
According to RFC 2256, "This attribute contains the physical address of the object to which the entry corresponds, such as an address for package delivery (streetAddress)."

Example applications for which this attribute would be useful
directory of directories, white pages

Example (LDIF Fragment)
street: 303 Mulberry St.

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17. telephoneNumber (defined in organization);

OID: 2.5.4.20*;   # of values:* multi

Definition
> Main campus phone number. Attribute values should follow the agreed format for international telephone numbers: i.e., "+44 71 123 4567."

Permissible values (if controlled)

Notes
> First point of contact phone number, "switchboard" number.

Example applications for which this attribute would be useful
> directory of directories, white pages

Example (LDIF Fragment)
> telephoneNumber: +1 212 555 1234

Acknowledgments