# Attribute Definitions For Individual Data

## Version 1.1.0

## 10 February 2006

# 1   Introduction

These schema definitions are intended to facilitate information exchange among European, and possibly international, academic and research institutions.

In its current version, the SCHAC schemas are not oriented to any particular technology. They define a set of attributes to describe individuals in the academic and research institutions. An appropriate LDAP profile is included as an appendix of this document. An XML profile will be defined in other document.

These definitions assume that other attributes describing individuals are already available and properly coded, according with the following standards:

- The **eduPerson** schema v. 200312, as defined at http://www.educause.edu/eduperson/

- The **person** schema, as defined by X.521 (2001)

- The **organizationalPerson** schema, as defined by X.521 (2001)

- The **inetOrgPerson** schema, as defined by RFC 2798

# 2   Attribute Meta-Information And Notation

For all attributes, the following metadata is defined:

| Name | A label used to identify and distinguish one attribute from another |
|---|---|
| Description | A short description of the attribute |
| Format | The syntax for the representation of the attribute's values |
| # of values | ● Single        Only one value is permitted for describing a given individual<br>● Multi        An indefinite number of values can be used |
| References | Additional information used to clarify some properties of attributes like format, description or # of values |
| Examples | Example of values used within the attribute |

# 3   Attribute Classification

The attributes considered in this document are designed to contain information specifically about people.  It is helpful to consider this information within broad categories.  The ten categories used in this document have been collected from the NMI LocalDomainPerson survey and discussions with the International Schema Archives (Feb, 2004).  The categories are:

- Personal Characteristics

- Contact / Local Information

- Student Information

- Employee Information

- Linkage Identifiers / Foreign Keys

- Entry Metadata / Administration Information

- Security Attributes and Keys

- Confidentiality / Attribute Release (Visibility)

- Authorization, Entitlements

- Group-related Attributes

A detailed description of these categories can found in  the document: *Higher-Education Person: A Comparative Analysis of Collaborative Public LDAP Person Object Classes in Higher-Education* <draft-internet2-mace-dir-higher-ed-person-analysis-06.htm>, <http://middleware.internet2.edu/dir/docs/draft-internet2-mace-dir-higher-ed-person-analysis-latest.htm>

# 4 Attributes Defined By SCHAC

## 4.1 Personal Characteristics

Personal characteristics describe the individual person represented by the entry.

### 4.1.1 schacMotherTongue

| Name | **schacMotherTongue** |
|---|---|
| Description | Is the language a person learns first. Correspondingly, the person is called a native speaker of the language. Usually a child learns the basics of their first language from their family. |
| Format | See RFC 3066 Tags for the Identification of Languages |
| # of values | Single |
| References | ● **ISO 639** - Language Codes<br><br>● **RFC 2798** - Definition of the inetOrgPerson LDAP Object Class<br><br>● **RFC 3066** - Tags for the Identification of Languages |
| Examples | schacMotherTongue = fr<br>schacMotherTongue = es-ES |

### 4.1.2 schacGender

| Name | **schacGender** |
|---|---|
| Description | The state of being male or female. The gender attribute specifies the legal gender of the subject it is associated with.<br><br>"Either of the two groups that people, animals and plants are divided into according to their function of producing young" (Oxford Advanced Learner's Dictionary) |
| Format | • 0 Not known<br>• 1 Male<br>• 2 Female<br>• 9 Not specified |
| # of values | Single |
| References | ● **RFC 2985** - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.6, B.3.10<br><br>● **ISO 5218** - Information interchange -- Representation of human sexes.<br>The standard ISO 5218 defines the representation of the human sexes by a numeric digital code. It was created by the Data Management and Interchange Technical Committee and proposed in November 1976 |
| Examples | schacGender = 2 |

### 4.1.3  schacDateOfBirth

| Name | **schacDateOfBirth** |
|---|---|
| Description | The date of birth for the subject it is associated with |
| Format | Numeric value YYYYMMDD, using 4 digits for year, 2 digits for month and 2 digits for day as described in RFC 3339 'Date and Time on the Internet: Timestamps' as reference using the  'full-date' format from paragraph 5.6 but without the dashes. |
| # of values | Single |
| References | ● **RFC 2985** - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.4, B.3.8 <br><br> ● **RFC 3339** - Date and Time on the Internet: Timestamps. <br>'Date and Time on the Internet: Timestamps' as reference using the  'full-date' format from paragraph 5.6 but without the dashes <br><br> ● **ISO 8601** - Data elements and interchange formats - Information interchange - Representation of dates and times |
| Examples | schacDateOfBirth = 19660412 |

### 4.1.4  schacPlaceOfBirth

| Name | **schacPlaceOfBirth** |
|---|---|
| Description | The schacPlaceOfBirth attribute specifies the place of birth for the subject it is associated with. |
| Format | Free string |
| # of values | Single |
| References | ● **RFC 2985** - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.5, B.3.9 |
| Examples | schacPlaceOfBirth = Algeciras, Spain |

### 4.1.5  schacCountryOfCitizenship

| Name | **schacCountryOfCitizenship** |
|---|---|
| Description | The schacCountryOfCitizenship attribute specifies the (claimed) countries of citizenship for the subject it is associated with. |
| Format | Two-letter country acronym in accordance with ISO 3166. |
| # of values | Multi |
| References | ● **RFC 2985** - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.7, B.3.11 <br><br> ● **ISO 3166** - Codes for the representation of names of countries and their subdivisions |
| Examples | schacCountryOfCitizenship = es |

### 4.1.6 schacSn1

| Name | **schacSn1** |
|---|---|
| Description | First surname of a person ("the surname" in international terms). |
| | schacSn1 would contain whatever values the described person thinks they should contain. Splitting shall be done by humans. That means that, when filling a SCHAC-based description that allows the use of schacSn1 and schacSn2, the  administrators must ask for 1st surname and 2nd surname (if applicable) as well as they do for givenName, surname, etc. |
| Format | Free string |
| # of values | Multi |
| Examples | In Spain, if *sn = Lopez de la Moraleda y de Las Altas Alcurnias* and that person uses *Lopez de la Moraleda* as the first component of the surname we can write: |
| | schacSn1 = Lopez de la Moraleda |
| | In Poland, if *sn = Gorecka-Wolniewicz* and we decide to use the national convention for the sn attribute, we can write: |
| | schacSn1 = Wolniewicz |

### 4.1.7 schacSn2

| Name | **schacSn2** |
|---|---|
| Description | Second surname of a person (how this is assigned is a local matter). |
| | schacSn2 would contain whatever values the described person thinks they should contain. Splitting shall be done by humans. That means that, when filling a SCHAC-based description that allows the use of schacSn1 and schacSn2, the administrators must ask for 1st surname and 2nd surname (if applicable) as well as they do for givenName, surname, etc. |
| Format | Free string |
| # of values | Multi |
| Examples | In Spain, if *sn = Lopez de la Moraleda y de Las Altas Alcurnias* and that person uses *de Las Altas Alcurnias* as the second component of the surname we can write: |
| | schacSn2 = de Las Altas Alcurnias |
| | In Poland, if *sn = Gorecka-Wolniewicz* and we decide to use the national convention for the sn attribute, we can write: |
| | schacSn2 = Gorecka |

### 4.1.8 schacPersonalTitle

| Name | **schacPersonalTitle** |
|---|---|
| Description | The Personal Title attribute type specifies a personal title or salutation for a person. Examples of personal titles are "Ms", "Dr", "Prof", "Rev", "Sr". |
| Format | Free format string |
| # of values | Single |
| References | ● **RFC1274** - The COSINE and Internet X.500 Schema personal title Sections 9.3.30 |
| Examples | schacPersonalTitle = Prof |

## 4.2  Contact / Location Information

Higher education's established history of openness and collaboration gives rise to the use of institutional directories as a primary means of locating and contacting potential collaborators and other persons-of-interest at peer institutions.

### 4.2.1  schacHomeOrganization

| Name | **schacHomeOrganization** |
| --- | --- |
| Description | Specifies a person´s home organization using the domain name of the organization |
| Format | Domain name acording to RFC 1035 |
| # of values | Single |
| References | ● **RFC 1035** - Domain names - implementation and specification |
| Examples | schacHomeOrganization = tut.fi |

### 4.2.2  schacHomeOrganizationType

| Name | **schacHomeOrganizationType** |
| --- | --- |
| Description | Type of a Home Organization |
| Format | urn:SCHACPREFIX:homeOrgType:<country-code>:<string><br>● The <country-code> must be a valid two-letter ISO 3166 country code identifier.<br>● <string> from a nationally controlled vocabulary |
| # of values | Single |
| References | ● **ISO 3166** - Codes for the representation of names of countries and their subdivisions |
| Examples | schacHomeOrganizationType = urn:SCHACPREFIX:homeOrgType:ch:vho<br>schacHomeOrganizationType = urn:SCHACPREFIX:homeOrgType:es:opi |

### 4.2.3  schacCountryOfResidence

| Name | **schacCountryOfResidence** |
| --- | --- |
| Description | The schacCountryOfResidence attribute specifies the (claimed) country of residence for the subject is associated with. |
| Format | Two-letter country acronym in accordance with ISO 3166 country code identifier. |
| # of values | Multi |
| References | ● **RFC 2985** - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.8, B.3.12<br>● **ISO 3166** - Codes for the representation of names of countries and their subdivisions |
| Examples | schacCountryOfResidence = es |

### 4.2.4 schacUserPresenceID

| Name | schacUserPresenceID |
|---|---|
| Description | To store a set of values related to network presence protocols |
| Format | urn:SCHACPREFIX:presence:<NSS> <br><br> ●   <NSS> is a Namespace Specific String as defined in RFC 2141 |
| # of values | Multi |
| References | ●   **RFC 2141** - URN Syntax |
| Examples | schacUserPresenceID = <br>   urn:SCHACPREFIX:presence:xmpp:pepe@im.univx.es <br> schacUserPresenceID = <br>   urn:SCHACPREFIX:presence:sip:pepe@myweb.com <br> schacUserPresenceID = <br>   urn:SCHACPREFIX:presence:sip:+34-95-505-6600@univx.es;transport=TCP;user=phone <br> schacUserPresenceID = <br>   urn:SCHACPREFIX:presence:h323:pepe@myweb.fi:808;pars |

## 4.3   Student Information

Student information includes attributes that have relevance to the student role, such as curriculum, major, and degree.

No attributes defined.

## 4.4   Employee Information

Employee information includes attributes that have relevance to the employee role, such as position, office hours, and job title

### 4.4.1 schacPersonalPosition

| Name | schacPersonalPosition |
|---|---|
| Description | The Personal Position attribute type specifies a personal position inside an institution |
| Format | urn:SCHACPREFIX:position:<iNSS> <br><br> ●   <iNSS> is a Namespace Specific String as defined in RFC 2141 but case insenstitive |
| # of values | Multi |
| References | ●   **RFC 2141** - URN Syntax <br><br> ●   **RFC 2256** - A Summary of the X.500(96) User Schema for use with LDAPv3. <br><br>   Section: 5.13 title <br><br>   This attribute contains the title, such as "Vice President", of a person in their organizational context. The "personalTitle" attribute would be used for a person's title independent of their job function. |
| Examples | schacPersonalPosition = urn:SCHACPREFIX:position:umk.pl:programmer |

## 4.5 Linkage Identifiers / Foreign Keys

Linkage attributes are those identifiers used to link a directory entry with records in external data stores or other directory entries. The use of linkage identifiers can obviate the need to synchronize data elements between systems of record and the enterprise directory. Linkage attributes are also used in the implementation of metadirectory services.

### 4.5.1 schacPersonalUniqueCode

| Name | schacPersonalUniqueCode |
|---|---|
| Description | Specifies a "uni que code" for the subject it is associated with. <br><br> Its value does not necessarily correspond to any identifier outside the scope of the directories using this schema. <br><br> This might be Student number, Employee number,... |
| Format | urn:SCHACPREFIX:publicUniqueID:<country-code>:<iNSS> <br><br> ● <iNSS> is a Namespace Specific String as defined in RFC 2141 but case insensitive <br><br> ● The <country-code> must be a valid two-letter ISO 3166 country code identifier. |
| # of values | Multi |
| References | ● **ISO 3166** - Codes for the representation of names of countries and their subdivisions <br><br> ● **HEP rev 06** - Nov 21, 2005 (6.5.2 Student System Identification Code) <br> http://middleware.internet2.edu/dir/docs/ <br> /draft-internet2-mace-dir-higher-ed-person-analysis-latest.htm |
| Examples | schacPersonalUniqueCode = <br>  urn:SCHACPREFIX:publicUniqueID:fi:tut.fi:student:165934 <br> schacPersonalUniqueCode = <br>  urn:SCHACPREFIX:publicUniqueID:es:uma:estudiante:a3b123c12 <br> schacPersonalUniqueCode = <br>  urn:SCHACPREFIX:publicUniqueID:se:LIN:87654321 |

### 4.5.2 schacPersonalUniqueID

| Name | schacPersonalUniqueID |
|---|---|
| Description | Specifies a "legal unique identifier" for the subject it is associated with. <br> This might be DNI in Spain, FIC in Finland, NIN in Sweden,... |
| Format | urn:SCHACPREFIX:uniqueID:<country-code>:<idType>:<idValue> <br><br> ● The <country-code> must be a valid two-letter ISO 3166 country code identifier. <br><br> ● <idType>. Acceptable values must be declared per each country code. <br><br> ● <idValue> |
| # of values | Multi |
| References | ● **ISO 3166** - Codes for the representation of names of countries and their subdivisions |
| Examples | schacPersonalUniqueID = urn:SCHACPREFIX:uniqueID:es:NIF:31241312L <br> schacPersonalUniqueID = urn:SCHACPREFIX:uniqueID:fi:FIC:260667-123F <br> schacPersonalUniqueID = urn:SCHACPREFIX:uniqueID:se:NIN:12345678 |

### 4.5.3 schacUUID

| Name | schacUUID |
|---|---|
| Description | Specifies a "universally unique identifier" for an entity representing a person. |
| Format | <UUID><br><br>● <UUID>. A UUID is essentially a 16-byte number and in its canonical form a UUID may look like this: f81d4fae-7dec-11d0-a765-00a0c91e6bf6. UUID generation requires no central registration process |
| # of values | Single |
| References | ● **<draft-zeilenga-ldap-uuid-06.txt>** - The LDAP entryUUID operational attribute |
| Examples | schacUUID = f81d4fae-7dec-11d0-a765-00a0c91e6bf6 |

## 4.6 Entry Metadata / Administration Information

Entry metadata attributes are used to contain information about the entry itself, often its status, birth, and death. Such attributes can be critical to metadirectory processing. While the object classes discussed here were designed to accommodate person entries, metadata attributes can also be useful with non-person entry types such as groups. In such cases the metadata attributes may be best defined in an auxiliary object class independent of the person object class.

### 4.6.1 schacExpiryDate

| Name | schacExpiryDate |
|---|---|
| Description | The date from which the set of data is to be considered invalid (specifically, in what refers to rights and entitlements) |
| Format | Values MUST be expressed Greenwich Mean Time (Zulu) and MUST include seconds (i.e., times are YYYYMMDDhhmmssZ), even where the number of seconds is zero. GeneralizedTime values MUST NOT include fractional seconds. |
| # of values | Single |
| References | ● **RFC 2630** - Cryptographic Message Syntax. Section 11.3<br><br>● **RFC 2985** - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.4, B.3.8<br><br>● **RFC 3339** - Date and Time on the Internet: Timestamps.<br>'Date and Time on the Internet: Timestamps' as reference using the 'full-date' format from paragraph 5.6 but without the dashes<br><br>● **ISO 8601** - Data elements and interchange formats - Information interchange - Representation of dates and times |
| Examples | schacExpiryDate = 20051231125959Z |

## 4.7   Security Attributes and Keys

Security attributes are used to assist in authentication-related activities such as password self-reset. Security attributes that contain sensitive data such as passwords should be carefully protected, highly restricted, and probably encrypted using a one-way hash algorithm such as MD5 or SHA1 so that in the event that the directory server is compromised in an attack the attribute values are not useful to an attacker.

No attributes defined.

## 4.8   Confidentiality / Attribute Release (Visibility)

Confidentiality attributes are commonly used to indicate whether an entry is visible publicly, visible only to affiliates of the institution, or not visible at all.  In some cases only specific attributes, such as phone, address, and email address, are restricted, in other cases all attributes are restricted.

### 4.8.1  schacUserPrivateAttribute

| Name | **schacUserPrivateAttribute** |
|---|---|
| Description | Used to model privacy requirements, as expressed by the user and/or the organizational policies. The values are intended to be attribute type names and applies to the attribute and any subtypes of it for a given entity. |
| | In what respects to data exchange, it applies to the expression of privacy requirements. |
| | This attribute can also have specific operational semantics (one has already been applied to LDAP servers: see references below), that will be defined in a separate document. |
| Format | An attribute type identifier. |
| | Operational semantics may imply specific values as wildcards. |
| # of values | Multi |
| References | ● http://www.rediris.es/ldap/doc/irisUserPrivateAttribute/ /tnc2005-irisUserPrivateAttribute.pdf |
| Examples | ● Attributes mail and telephoneNumber are considered private<br>schacUserPrivateAttribute = mail<br>schacUserPrivateAttribute = telephoneNumber |

## 4.9   Authorization, Entitlements

Authorization for services is generally implemented in LDAP directories either through the use of entry attributes or group memberships.  (For information regarding LDAP groups please see the MACE Best Practices for Directory Groups document at <http://middleware.internet2.edu/dir/groups>).

Applications such as Shibboleth (see <http://shibboleth.internet2.edu>) can make use of entitlement attributes in an entry to provide authorization information to requesting services

### 4.9.1 schacUserStatus

| Name | **schacUserStatus** |
|---|---|
| Description | Used to store a set of status of a person as user of services |
| Format | urn:SCHACPREFIX:status:<iNSS><br><br>● <iNSS> is a Namespace Specific String as defined in RFC 2141 but case insensitive |
| # of values | Multi |
| References | ● **RFC 2141** - URN Syntax |
| Examples | ● To store different user activity states at University of Málaga (uma.es):<br><br>schacUserStaus = urn:SCHACPREFIX:status:uma.es:affiliation:expired<br>schacUserStaus = urn:SCHACPREFIX:status:uma.es:sendMail:expired<br>schacUserStaus = urn:SCHACPREFIX:status:uma.es:getMail:active<br><br>● A parameter in the URN can be used to represent the temporal validity of the satus:<br><br>schacUserStatus = urn:SCHACPREFIX:status:ujl.si:webmail:active?ttl=20060531 |

## 4.10 Group-related Attributes

Directory groups are often used to provide authorization to entries and attributes, as well as to restrict or provide access to services. There are benefits to having group memberships described in members' entries as well as in a group entry. Because not all DSA's provide this functionality (Microsoft Active Directory and Novell eDirectory do) local attributes are often defined to meet organizational needs. For a complete treatment of issues concerning LDAP groups please see the MACE Best Practices for Directory Groups document at <http://middleware.internet2.edu/dir/groups>

No attributes defined.

# A    Appendices

## A.1    SCHAC LDAP SChema

Definitions of the object class and attribute types specified in this document have been done in accordance with RFC 2252, in an attempt to ease integration with LDAP-accessible Directory systems. Lines have been folded in some cases to improve   readability.

### A.1.1    Object classes

#### A.1.1.1   schacPersonalCharacteristics

```
(
      schacObjectClass:1
      NAME 'schacPersonalCharacteristics'
      DESC 'Personal characteristics describe the individual person
            represented by the entry'
      AUXILIARY
      MAY (
            schacMotherTongue $ schacGender $ schacDateOfBirth $
            schacPlaceOfBirth $ schacCountryOfCitizenship $
            schacSn1 $ schacSn2 $ schacPersonalTitle
      )
)
```

#### A.1.1.2   schacContactLocation

```
(
      schacObjectClass:2
      NAME 'schacContactLocation'
      DESC 'Primary means of locating and contacting potential
            collaborators and other persons-of-interest at peer
            institutions'
      AUXILIARY
      MAY (
            schacHomeOrganization $ schacHomeOrganizationType $
            schacCountryOfResidence $ schacUserPresenceID
      )
)
```

#### A.1.1.3   schacEmployeeInfo

```
(
      schacObjectClass:3
      NAME 'schacEmployeeInfo'
      DESC 'Employee information includes attributes that have
            relevance to the employee role, such as position, office
            hours, and job title'
      AUXILIARY
      MAY (
            schacPersonalPosition
      )
)
```

### A.1.1.4   schacLinkageIdentifiers

```
(
        schacObjectClass:4
        NAME 'schacLinkageIdentifiers'
        DESC 'Used to link a directory entry with records in external
              data stores or other directory entries'
        AUXILIARY
        MAY (
                schacPersonalUniqueCode $ schacPersonalUniqueID $ schacUUID
        )
)
```

### A.1.1.5   schacEntryMetadata

```
(
        schacObjectClass:5
        NAME 'schacEntryMetadata'
        DESC 'Used to contain information about the entry itself, often
              its status, birth, and death'
        AUXILIARY
        MAY (
                schacExpiryDate
        )
)
```

### A.1.1.6   schacEntryConfidentiality

```
(
        schacObjectClass:6
        NAME 'schacEntryConfidentiality'
        DESC 'Used to indicate whether an entry is visible publicly,
              visible only to affiliates of the institution, or not
              visible at all'
        AUXILIARY
        MAY (
                schacUserPrivateAttribute
        )
)
```

### A.1.1.7   schacUserEntitlements

```
(
        schacObjectClass:7
        NAME 'schacUserEntitlements'
        DESC 'Authorization for services'
        AUXILIARY
        MAY (
                schacUserStatus
        )
)
```

### A.1.2    Attribute types

#### A.1.2.1  schacMotherTongue

```
(
      schacAttributeType:1
      NAME 'schacMotherTongue'
      DESC 'RFC 3066 code for prefered language of communication'
      EQUALITY caseExactMatch
      SINGLE-VALUE
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

#### A.1.2.2  schacGender

```
(
      schacAttributeType:2
      NAME 'schacGender'
      DESC 'Representation of human sex (see ISO 5218)'
      EQUALITY integerMatch
      SINGLE-VALUE
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.27
)
```

#### A.1.2.3  schacDateOfBirth

```
(
      schacAttributeType:3
      NAME 'schacDateOfBirth'
      DESC 'Date of birth (format YYYYMMDD, only numeric chars)'
      EQUALITY numericStringMatch
      ORDERING numericStringOrderingMatch
      SUBSTR numericStringSubstringsMatch
      SINGLE-VALUE
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.36
)
```

#### A.1.2.4  schacPlaceOfBirth

```
(
      schacAttributeType:4
      NAME 'schacPlaceOfBirth'
      DESC 'Birth place of a person'
      EQUALITY caseIgnoreMatch
      ORDERING caseIgnoreOrderingMatch
      SUBSTR caseIgnoreSubstringsMatch
      SINGLE-VALUE
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

#### A.1.2.5  schacCountryOfCitizenship

```
(
      schacAttributeType:5
      NAME 'schacCountryOfCitizenship'
      DESC 'Country of citizenship of a person. Format two-letter
            acronym according to ISO 3166'
      EQUALITY caseIgnoreMatch
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.6  schacSn1

```
(
      schacAttributeType:6
      NAME 'schacSn1'
      DESC 'First surname of a person'
      EQUALITY caseIgnoreMatch
      ORDERING caseIgnoreOrderingMatch
      SUBSTR caseIgnoreSubstringsMatch
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.7  schacSn2

```
(
      schacAttributeType:7
      NAME 'schacSn2'
      DESC 'Second surname of a person'
      EQUALITY caseIgnoreMatch
      ORDERING caseIgnoreOrderingMatch
      SUBSTR caseIgnoreSubstringsMatch
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.8  schacPersonalTitle

```
(
      schacAttributeType:8
      NAME 'schacPersonalTitle'
      DESC 'RFC1274: personal title'
      EQUALITY caseIgnoreMatch
      SUBSTR caseIgnoreSubstringsMatch
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.9  schacHomeOrganization

```
(
      schacAttributeType:9
      NAME 'schacHomeOrganization'
      DESC 'Domain name of the home organization'
      EQUALITY caseIgnoreMatch
      SUBSTR caseIgnoreSubstringsMatch
      SINGLE-VALUE
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.26
)
```

### A.1.2.10 schacHomeOrganizationType

```
(
      schacAttributeType:10
      NAME 'schacHomeOrganizationType'
      DESC 'Type of the home organization'
      EQUALITY caseIgnoreMatch
      SINGLE-VALUE
      SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.11 schacCountryOfResidence

```
(
        schacAttributeType:11
        NAME 'schacCountryOfResidence'
        DESC 'Country of citizenship of a person. Format two-letter
            acronym according to ISO 3166'
        EQUALITY caseIgnoreMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.12 schacUserPresenceID

```
(
        schacAttributeType:12
        NAME 'schacUserPresenceID'
        DESC 'Used to store a set of values related to the network
            presence'
        EQUALITY caseExactMatch
        SUBSTR caseExactSubstringsMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.13 schacPersonalPosition

```
(
        schacAttributeType:13
        NAME 'schacPersonalPosition'
        DESC 'Position inside an institution'
        EQUALITY caseIgnoreMatch
        SUBSTR caseIgnoreSubstringsMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.14 schacPersonalUniqueCode

```
(
        schacAttributeType:14
        NAME 'schacPersonalUniqueCode'
        DESC 'Unique code for the subject'
        EQUALITY caseIgnoreMatch
        ORDERING caseIgnoreOrderingMatch
        SUBSTR caseIgnoreSubstringsMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.15 schacPersonalUniqueID

```
(
        schacAttributeType:15
        NAME 'schacPersonalUniqueID'
        DESC 'Unique code for the subject'
        EQUALITY caseExactMatch
        ORDERING caseExactOrderingMatch
        SUBSTR caseExactSubstringsMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```

### A.1.2.16 schacUUID

```
(
        schacAttributeType:16
        NAME 'schacUUID'
        DESC 'UUID for the entity'
        EQUALITY uuidMatch
        ORDERING uuidOrderingMatch
        SYNTAX {uuid-IANA-ASSIGNED-OID.1}
)
```

### A.1.2.17 schacExpiryDate

```
(
        schacAttributeType:17
        NAME 'schacExpiryDate'
        DESC 'Date from which the set of data is to be considered
              invalid (format YYYYMMDDhhmmssZ)'
        EQUALITY generalizedTimeMatch
        ORDERING generalizedTimeOrderingMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.24
)
```

### A.1.2.18 schacUserPrivateAttribute

```
(
        schacAttributeType:18
        NAME 'schacUserPrivateAttribute'
        DESC 'Set of denied access attributes'
        EQUALITY caseIgnoreIA5Match
        SUBSTR caseIgnoreIA5SubstringsMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.26
)
```

### A.1.2.19 schacUserStatus

```
(
        schacAttributeType:19
        NAME 'schacUserStatus'
        DESC 'Used to store a set of status of a person as user of
              services'
        EQUALITY caseIgnoreMatch
        SUBSTR caseIgnoreSubstringsMatch
        SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
)
```