



Red Hat Directory Server 8.2 Schema Reference

reference for entry-related attributes and object classes
Edition 8.2.1

Landmann

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Abstract

This is a reference document for entry-related attributes, object classes, and special schema elements.

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Preface

Welcome to the *Red Hat Directory Server Schema Reference*. Red Hat Directory Server is a powerful and scalable distributed directory server application that uses the Lightweight Directory Access Protocol (LDAP) standard. Directory Server creates centralized and distributed data repositories for use with an intranet, extranet, and Internet applications. Integrating Directory Server into a computing infrastructure smooths interactions and services for customers, clients, and employees.

The Directory Server Schema Reference describes most of the common object classes and attributes defined by standard Directory Server schema. This reference is intended for system administrators who manage and maintain Red Hat Directory Server and define the directory schema.

1. Purpose and Contents

The schema reference covers information about attributes and object classes used by entries in the Directory Server:

- An overview of some of the basic concepts of the directory schema, including lists and descriptions of default schema files, and descriptions of object classes, attributes, object identifiers (OIDs), schema checking, and extending server schema.
- Alphabetical lists of the standard attributes, with definitions of their use, OIDs, and attribute syntax.
- Alphabetical lists of the standard object classes with descriptions of the object class, OIDs, and lists of required and allowed attributes. (The defined attributes for the object classes do not include the required and allowed attributes which are inherited from any superior object classes.)
- Directory Server's operational attributes and special attributes and object classes used by the server as part of its configuration, to perform tasks, or to manage databases.

This guide is intended as a reference for schema elements that are used to describe directory entries, like users, groups, and equipment, and some schema elements that are used to organize data in the directory, like views and roles.

However, this schema reference does not cover core schema used to configure the Directory Server itself. The directory service is also configured as directory entries within the **cn=config** subtree. For descriptions of those attributes, see the *Configuration, Command, and File Reference*.

2. Prerequisite Reading

This guide is a reference covering the standard schema and the standard object classes and attributes. However, this guide does not describe how to design, customize or maintain the schema, nor does it give any information on replication. Those concepts are described in the *Deployment Guide*. Read that book before continuing with this manual.

Preliminary planning for your schema needs depends on deciding how to represent the data which will be stored in the directory and the kinds of identities — different people, equipment, and facilities — which will be represented. Choose predefined schema elements to meet as many of the data needs as possible. These predefined schema elements are listed in this guide. After fully utilizing the standard schema, then begin planning how to extend the schema.

3. Examples and Formatting

Each of the examples used in this guide, such as file locations and commands, have certain defined conventions.

3.1. Command and File Examples

All of the examples for Red Hat Directory Server commands, file locations, and other usage are given for Red Hat Enterprise Linux 5 (64-bit) systems. Be certain to use the appropriate commands and files for your platform.

Example 1. Example Command

To start the Red Hat Directory Server:

```
service dirsrv start
```

3.2. Tool Locations

The tools for Red Hat Directory Server are located in the `/usr/bin` and the `/usr/sbin` directories. These tools can be run from any location without specifying the tool location.

3.3. LDAP Locations

There is an important consideration with the Red Hat Directory Server tools. The LDAP tools referenced in this guide are Mozilla LDAP, installed with Red Hat Directory Server in the `/usr/lib64/mozldap` directory on Red Hat Enterprise Linux 5 (64-bit) (or `/usr/lib/mozldap` for Red Hat Enterprise Linux 5 (32-bit) systems).

However, Red Hat Enterprise Linux systems also include LDAP tools from OpenLDAP in the `/usr/bin` directory. It is possible to use the OpenLDAP commands as shown in the examples, but you must use the `-x` argument to disable SASL, which OpenLDAP tools use by default.

3.4. Text Formatting and Styles

Certain words are represented in different fonts, styles, and weights. Different character formatting is used to indicate the function or purpose of the phrase being highlighted.

Formatting Style	Purpose
Monospace font	Monospace is used for commands, package names, files and directory paths, and any text displayed in a prompt.
<div>Monospace with a background</div>	This type of formatting is used for anything entered or returned in a command prompt.
<i>Italicized text</i>	Any text which is italicized is a variable, such as <i>instance_name</i> or <i>hostname</i> . Occasionally, this is also used to emphasize a new term or other phrase.
Bolded text	Most phrases which are in bold are application names, such as Cygwin , or are fields or options in a user interface, such as a User Name Here : field or Save button.

Other formatting styles draw attention to important text.

**NOTE**

A note provides additional information that can help illustrate the behavior of the system or provide more detail for a specific issue.

**IMPORTANT**

Important information is necessary, but possibly unexpected, such as a configuration change that will not persist after a reboot.

**WARNING**

A warning indicates potential data loss, as may happen when tuning hardware for maximum performance.

4. Additional Reading

The *Directory Server Administrator's Guide* describes how to set up, configure, and administer Red Hat Directory Server and its contents. This manual does not describe many of the basic directory and architectural concepts that you need to deploy, install, and administer a directory service successfully. Those concepts are contained in the *Red Hat Directory Server Deployment Guide*. You should read that book before continuing with this manual.

When you are familiar with Directory Server concepts and have done some preliminary planning for your directory service, install the Directory Server. The instructions for installing the various Directory Server components are contained in the *Red Hat Directory Server Installation Guide*. Many of the scripts and commands used to install and administer the Directory Server are explained in detail in the *Red Hat Directory Server Configuration, Command, and File Reference*.

Also, *Managing Servers with Red Hat Console* contains general background information on how to use the Red Hat Console. You should read and understand the concepts in that book before you attempt to administer Directory Server.

The document set for Directory Server contains the following guides:

- ▶ *Red Hat Directory Server Release Notes* contain important information on new features, fixed bugs, known issues and workarounds, and other important deployment information for this specific version of Directory Server.
- ▶ *Red Hat Directory Server Deployment Guide* provides an overview for planning a deployment of the Directory Server.
- ▶ *Red Hat Directory Server Administrator's Guide* contains procedures for the day-to-day maintenance of the directory service. Includes information on configuring server-side plug-ins.
- ▶ *Red Hat Directory Server Configuration, Command, and File Reference* provides reference information on the command-line scripts, configuration attributes, and log files shipped with Directory Server.
- ▶ *Red Hat Directory Server Installation Guide* contains procedures for installing your Directory Server as well as procedures for migrating from a previous installation of Directory Server.

- *Red Hat Directory Server Schema Reference* provides reference information about the Directory Server schema.
- *Red Hat Directory Server Plug-in Programmer's Guide* describes how to write server plug-ins in order to customize and extend the capabilities of Directory Server.
- *Using Red Hat Console* gives an overview of the primary user interface and how it interacts with the Directory Server and Admin Server, as well as how to perform basic management tasks through the main Console window.
- *Using the Admin Server* describes the different tasks and tools associated with the Admin Server and how to use the Admin Server with the Configuration and User Directory Server instances.

For the latest information about Directory Server, including current release notes, complete product documentation, technical notes, and deployment information, see the Red Hat Directory Server documentation site at <http://www.redhat.com/docs/manuals/dir-server/>.

5. Giving Feedback

If there is any error in this *Schema Reference* or there is any way to improve the documentation, please let us know. Bugs can be filed against the documentation for Red Hat Directory Server through Bugzilla, <http://bugzilla.redhat.com/bugzilla>. Make the bug report as specific as possible, so we can be more effective in correcting any issues:

1. Select the Red Hat Directory Server product.
2. Set the component to **Doc - schema-reference**.
3. Set the version number to 8.2.
4. For errors, give the page number (for the PDF) or URL (for the HTML), and give a succinct description of the problem, such as incorrect procedure or typo.
For enhancements, put in what information needs to be added and why.
5. Give a clear title for the bug. For example, "**Incorrect command example for setup script options**" is better than "**Bad example**".

We appreciate receiving any feedback — requests for new sections, corrections, improvements, enhancements, even new ways of delivering the documentation or new styles of docs. You are welcome to contact Red Hat Content Services directly at docs@redhat.com.

6. Documentation History

Revision 8.2.1-1.400	2013-10-31	Rüdiger Landmann
Rebuild with publican 4.0.0		
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Chapter 1. About Directory Server Schema

This chapter provides an overview of some of the basic concepts of the directory schema and lists the files in which the schema is described. It describes object classes, attributes, and object identifiers (OIDs) and briefly discusses extending server schema and schema checking.

1.1. Schema Definitions

The directory schema is a set of rules that defines how data can be stored in the directory. Directory information is stored discrete entries, and each entry is comprised of a set of attributes and their values. The kind of identity being described in the entry is defined in the entry's object classes. An object class specifies the kind of object the entry describes through the defined set of attributes for the object class.

Basically, the schema files are lists of the kinds of entries that can be create (the *object classes*) and the ways that those entries can be described (the *attributes*). The schema *defines* what the object classes and attributes are. The schema also defines the format that the attribute values contain (the attribute's *syntax*) and whether there can only be a single instance of that attribute.

Additional schema files can be added to the Directory Server configuration and loaded in the server, so the schema is customizable and can be extended as desired.

For more detailed information about object classes, attributes, and how the Directory Server uses the schema, see the *Deployment Guide*.



CAUTION

The Directory Server fails to start if the schema definitions contain too few or too many characters. Use exactly one space in those places where the LDAP standards allow the use of zero or many spaces; for example, the place between the NAME keyword and the name of an attribute type.

1.1.1. Object Classes

In LDAP, an object class defines the set of attributes that can be used to define an entry. The LDAP standard provides object classes for many common types of entries, such as people (**person** and **inetOrgPerson**), groups (**groupOfUniqueNames**), locations (**locality**), organizations and divisions (**organization** and **organizationalUnit**), and equipment (**device**).

In a schema file, an object class is identified by the **objectClasses** line, then followed by its OID, name, a description, its direct superior object class (an object class which is required to be used in conjunction with the object class and which shares its attributes with this object class), and the list of required (**MUST**) and allowed (**MAY**) attributes.

This is shown in [Example 1.1, “person Object Class Schema Entry”](#).

Example 1.1. person Object Class Schema Entry

```
objectClasses: ( 2.5.6.6 NAME 'person' DESC 'Standard LDAP objectclass' SUP top
MUST ( sn $ cn ) MAY ( description $ seeAlso $ telephoneNumber $ userPassword )
X-ORIGIN 'RFC 2256' )
```

1.1.1.1. Required and Allowed Attributes

Every object class defines a number of required attributes and of allowed attributes. Required attributes must be present in entries using the specified object class, while allowed attributes are permissible and available for the entry to use, but are not required for the entry to be valid.

As in [Example 1.1, “person Object Class Schema Entry”](#), the **person** object class requires the **cn**, **sn**, and **objectClass** attributes and allows the **description**, **seeAlso**, **telephoneNumber**, and **userPassword** attributes.



NOTE

All entries require the **objectClass** attribute, which lists the object classes assigned to the entry.

1.1.1.2. Object Class Inheritance

An entry can have more than one object class. For example, the entry for a person is defined by the **person** object class, but the same person may also be described by attributes in the **inetOrgPerson** and **organizationalPerson** object classes.

Additionally, object classes can be hierarchical. An object class can inherit attributes from another class, in addition to its own required and allowed attributes. The second object class is the *superior* object class of the first.

The server's object class structure determines the list of required and allowed attributes for a particular entry. For example, a user's entry has to have the **inetOrgPerson** object class. In that case, the entry must also include the superior object class for **inetOrgPerson**, **organizationalPerson**, and the superior object class for **organizationalPerson**, which is **person**:

```
objectClass: top
objectClass: person
objectClass: organizationalPerson
objectClass: inetOrgPerson
```

When the **inetOrgPerson** object class is assigned to an entry, the entry automatically inherits the required and allowed attributes from the superior object classes.

1.1.2. Attributes

Directory entries are composed of attributes and their values. These pairs are called *attribute-value assertions* or AVAs. Any piece of information in the directory is associated with a descriptive attribute. For instance, the **cn** attribute is used to store a person's full name, such as **cn: John Smith**.

Additional attributes can supply additional information about John Smith:

```
givenname: John
surname: Smith
mail: jsmith@example.com
```

In a schema file, an attribute is identified by the **attributetypes** line, then followed by its OID, name, a description, syntax (allowed format for its value), optionally whether the attribute is single- or multi-valued, and where the attribute is defined.

This is shown in [Example 1.2, “description Attribute Schema Entry”](#).

Example 1.2. description Attribute Schema Entry

```
attributetypes: ( 2.5.4.13 NAME 'description' DESC 'Standard LDAP attribute type'  
SYNTAX 1.3.6.1.4.1.1466.115.121.1.15 X-ORIGIN 'RFC 2256' )
```

Some attributes can be abbreviated. These abbreviations are listed as part of the attribute definition:

```
attributetypes: ( 2.5.4.3 NAME ( 'cn' 'commonName' ) ...
```

1.1.2.1. Directory Server Attribute Syntaxes

The attribute's syntax defines the format of the values which the attribute allows; as with other schema elements, the syntax is defined for an attribute using the syntax's OID in the schema file entry. In the Directory Server Console, the syntax is referenced by its friendly name.

The Directory Server uses the attribute's syntax to perform sorting and pattern matching on entries.

For more information about LDAP attribute syntaxes, see [RFC 4517](#).

Table 1.1. Supported LDAP Attribute Syntaxes

Name	OID	Definition
Binary	1.3.6.1.4.1.1466.115.121.1.5	<i>Deprecated. Use Octet string instead.</i>
Bit String	1.3.6.1.4.1.1466.115.121.1.6	For values which are bitstrings, such as '0101111101'B .
Boolean	1.3.6.1.4.1.1466.115.121.1.7	For attributes with only two allowed values, TRUE or FALSE.
Country String	1.3.6.1.4.1.1466.115.121.1.11	For values which are limited to exactly two printable string characters; for example, US for the United States.
DN	1.3.6.1.4.1.1466.115.121.1.12	For values which are distinguished names (DNs).
Delivery Method	1.3.6.1.4.1.1466.115.121.1.14	For values which are contained a preferred method of delivering information or contacting an entity. The different values are separated by a dollar sign (\$). For example: <div>telephone \$ physical</div>
Directory String	1.3.6.1.4.1.1466.115.121.1.15	For values which are valid UTF-8 strings. These values are not necessarily case-insensitive. Both case-sensitive and case-insensitive matching rules are available for Directory String and related syntaxes.
Enhanced Guide	1.3.6.1.4.1.1466.115.121.1.21	For values which contain complex search parameters based on attributes and filters.
Facsimile	1.3.6.1.4.1.1466.115.121.1.22	For values which contain fax numbers.
Fax	1.3.6.1.4.1.1466.115.121.1.23	For values which contain the images of transmitted faxes.
Generalized Time	1.3.6.1.4.1.1466.115.121.1.24	For values which are encoded as printable strings. The time zone must be specified. It is strongly recommended to use GMT time.
Guide	1.3.6.1.4.1.1466.115.121.1.25	<i>Obsolete.</i> For values which contain complex search parameters based on attributes and filters.
IA5 String	1.3.6.1.4.1.1466.115.121.1.26	For values which are valid strings. These values are not necessarily case-insensitive.

		Both case-sensitive and case-insensitive matching rules are available for IA5 String and related syntaxes.
Integer	1.3.6.1.4.1.1466.115.121.1.27	For values which are whole numbers.
JPEG	1.3.6.1.4.1.1466.115.121.1.28	For values which contain image data.
Name and Optional UID	1.3.6.1.4.1.1466.115.121.1.34	For values which contain a combination value of a DN and (optional) unique ID.
Numeric String	1.3.6.1.4.1.1466.115.121.1.36	For values which contain a string of both numerals and spaces.
OctetString	1.3.6.1.4.1.1466.115.121.1.40	For values which are binary; this replaces the binary syntax.
OID	1.3.6.1.4.1.1466.115.121.1.37	For values which contain an object identifier (OID).
Postal Address	1.3.6.1.4.1.1466.115.121.1.41	<p>For values which are encoded in the format postal-address = dstring * (" \$" dstring). For example:</p> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin: 10px auto; width: fit-content;"> 1234 Main St.\$Raleigh, NC 12345\$USA </div> <p>Each <i>dstring</i> component is encoded as a DirectoryString value. Backslashes and dollar characters, if they occur, are quoted, so that they will not be mistaken for line delimiters. Many servers limit the postal address to 6 lines of up to thirty characters.</p>
PrintableString	1.3.6.1.4.1.1466.115.121.1.58	For values which contain strings containing alphabetic, numeral, and select punctuation characters (as defined in RFC 4517).
Space-Insensitive String	2.16.840.1.113730.3.7.1	For values which contain space-insensitive strings.
TelephoneNumber	1.3.6.1.4.1.1466.115.121.1.50	For values which are in the form of telephone numbers. It is recommended to use telephone numbers in international form.
Teletex Terminal Identifier	1.3.6.1.4.1.1466.115.121.1.51	For values which contain an international telephone number.
Telex Number	1.3.6.1.4.1.1466.115.121.1.52	For values which contain a telex number, country code, and answerback code of a telex

URI	terminal. For values in the form of a URL, introduced by a string such as http:// , https:// , ftp:// , ldap:// , and ldaps:// . The URI has the same behavior as IA5 String. See RFC 4517 for more information on this syntax.
-----	---

1.1.2.2. Single- and Multi-Valued Attributes

By default, most attributes are multi-valued. This means that an entry can contain the same attribute multiple times, with different values. For example:

```
dn: uid=jsmith,ou=marketing,ou=people,dc=example,dc=com
ou: marketing
ou: people
```

The **cn**, **tel**, and **objectclass** attributes, for example, all can have more than one value. Attributes that are single-valued — that is, only one instance of the attribute can be specified — are specified in the schema as only allowing a single value. For example, **uidNumber** can only have one possible value, so its schema entry has the term **SINGLE-VALUE**. If the attribute is multi-valued, there is no value expression.

1.2. Default Directory Server Schema Files

Template schema definitions for Directory Server are stored in the **/etc/dirsrv/schema** directory. These default schema files are used to generate the schema files for new Directory Server instances. Each server instance has its own instance-specific schema directory in **/etc/dirsrv/slaped-instance_name/schema** (**/etc/opt/dirsrv/slaped-instance_name/schema** on HP-UX). The schema files in the instance directory are used only by that instance.

To modify the directory schema, create new attributes and new object classes in the instance-specific schema directory. Because the default schema is used for creating new instances and each individual instance has its own schema files, it is possible to have slightly different schema for each instance, matching the use of each instance.

Any custom attributes added using the Directory Server Console or LDAP commands are stored in the **99user.ldif** file; other custom schema files can be added to the **/etc/dirsrv/slaped-instance_name/schema** directory for each instance. Do not make any modifications with the standard files that come with Red Hat Directory Server.

For more information about how the Directory Server stores information and suggestions for planning directory schema, see the *Deployment Guide*.

Table 1.2. Schema Files

Schema File	Purpose
00core.ldif	Recommended core schema from the X.500 and LDAP standards (RFCs). This schema is used by the Directory Server itself for the instance configuration and to start the server instance.
01core389.ldif	Recommended core schema from the X.500 and LDAP standards (RFCs). This schema is used by the Directory Server itself for the instance configuration and to start the server instance.
02common.ldif	Standard-related schema from RFC 2256, LDAPv3, and standard schema defined by Directory Server which is used to configure entries.
05rfc2927.ldif	Schema from RFC 2927, "MIME Directory Profile for LDAP Schema."
05rfc4523.ldif	Schema definitions for X.509 certificates.
05rfc4524.ldif	Cosine LDAP/X.500 schema.
06inetorgperson.ldif	inetorgperson schema elements from RFC 2798, RFC 2079, and part of RFC 1274.
10rfc2307.ldif	Schema from RFC 2307, "An Approach for Using LDAP as a Network Information Service."
20subscriber.ldif	Common schema element for Directory Server-Nortel subscriber interoperability.
25java-object.ldif	Schema from RFC 2713, "Schema for Representing Java Objects in an LDAP Directory."
28pilot.ldif	Schema from the pilot RFCs, especially RFC 1274, that are no longer recommended for use in new deployments.
30ns-common.ldif	Common schema.
50ns-admin.ldif	Schemas used by the Admin Server.
50ns-certificate.ldif	Schemas used by Red Hat Certificate System.
50ns-directory.ldif	Schema used by legacy Directory Server 4.x servers.
50ns-mail.ldif	Schema for mail servers.
50ns-value.ldif	Schema for value items in Directory Server.
50ns-web.ldif	Schema for web servers.
60autofs.ldif	Object classes for automount configuration; this is one of several schema files used for NIS servers.
60eduperson.ldif	Schema elements for education-related people and organization entries.
60mozilla.ldif	Schema elements for Mozilla-related user profiles.
60nss-ldap.ldif	Schema elements for GSS-API service names.
60pam-plugin.ldif	Schema elements for integrating directory services with PAM modules.

60pureftpd.ldif	Schema elements for defining FTP user accounts.
60rfc2739.ldif	Schema elements for calendars and vCard properties.
60rfc3712.ldif	Schema elements for configuring printers.
60sabayon.ldif	Schema elements for defining sabayon user entries.
60sudo.ldif	Schema elements for defining sudo users and roles.
60trust.ldif	Schema elements for defining trust relationships for NSS or PAM.
99user.ldif	Custom schema elements added through the Directory Server Console.

1.3. Object Identifiers (OIDs)

All schema elements have object identifiers (OIDs) assigned to them, including attributes and object classes. An OID is a sequence of integers, usually written as a dot-separated string. All custom attributes and classes must conform to the X.500 and LDAP standards.



CAUTION

If an OID is not specified for a schema element, Directory Server automatically uses *ObjectClass_name-oid* and *attribute_name-oid*. However, using text OIDs instead of numeric OIDs can lead to problems with clients, server interoperability, and server behavior, assigning a numeric OID is strongly recommended.

OIDs can be built on. The base OID is a root number which is used for every schema element for an organization, and then schema elements can be incremented from there. For example, a base OID could be **1**. The company then uses **1.1** for attributes, so every new attribute has an OID of **1.1.x**. It uses **1.2** for object classes, so every new object class has an OID of **1.2.x**.

For Directory Server-defined schema elements, the base OIDs are as follows:

- » The Netscape base OID is **2.16.840.1.113730**.
- » The Directory Server base OID is **2.16.840.1.113730.3**.
- » All Netscape-defined attributes have the base OID **2.16.840.1.113370.3.1**.
- » All Netscape-defined object classes have the base OID **2.16.840.1.113730.3.2**.

For more information about OIDs or to request a prefix, go to the Internet Assigned Number Authority (IANA) website at <http://www.iana.org/>.

1.4. Extending the Schema

The Directory Server schema includes hundreds of object classes and attributes that can be used to meet most of directory requirements. This schema can be extended with new object classes and attributes that meet evolving requirements for the directory service in the enterprise by creating custom schema files.

When adding new attributes to the schema, a new object class should be created to contain them.

Adding a new attribute to an existing object class can compromise the Directory Server's compatibility with existing LDAP clients that rely on the standard LDAP schema and may cause difficulties when upgrading the server.

For more information about extending server schema, see the *Deployment Guide*.

1.5. Schema Checking

Schema checking means that the Directory Server checks every entry when it is created, modified, or in a database imported using LDIF to make sure that it complies with the schema definitions in the schema files. Schema checking verifies three things:

- Object classes and attributes used in the entry are defined in the directory schema.
- Attributes required for an object class are contained in the entry.
- Only attributes allowed by the object class are contained in the entry.

You should run Directory Server with schema checking turned on. For information on enabling schema checking, see the *Administrator's Guide*.

1.6. Syntax Validation

Syntax validation means that the Directory Server checks that the value of an attribute matches the required syntax for that attribute. For example, syntax validation will confirm that a new **telephoneNumber** attribute actually has a valid telephone number for its value.

With its basic configuration, syntax validation (like schema checking) will check any directory modification to make sure the attribute value matches the required syntax and will reject any modifications that violate the syntax. Optionally, syntax validation can be configured to log warning messages about syntax violations, and either reject the change or allow the modification process to succeed.

All syntaxes are validated against [RFC 4514](#), except for DN's. By default, DN's are validated against [RFC 1779](#) or [RFC 2253](#), which are less strict than [RFC 4514](#). Strict validation for DN's has to be explicitly configured.

This feature checks all attribute syntaxes listed in [Table 1.1, "Supported LDAP Attribute Syntaxes"](#), with the exception of binary syntaxes (which cannot be verified) and non-standard syntaxes, which do not have a defined required format. The *unvalidated* syntaxes are as follows:

- Fax (binary)
- OctetString (binary)
- JPEG (binary)
- Binary (non-standard)
- Space Insensitive String (non-standard)
- URI (non-standard)

When syntax validation is enabled, *new* attribute values are checked whenever an attribute is added or modified to an entry. (This does not include *replication* changes, since the syntax would have been checked on the supplier server.) It is also possible to check *existing* attribute values for syntax violations by running the **syntax-validation.pl** script.

For information on options for syntax validation, see the *Administrator's Guide*.

Chapter 2. Directory Server Attribute Reference

This chapter contains reference information about Red Hat Directory Server (Directory Server) attributes. The attributes are listed in alphabetical order with their definition, syntax, and OID.

This chapter contains information about attributes that describe directory entries, like users, groups, and equipment. This intent — describing directory data — also covers some schema elements that are used to organize data in the directory, like views and roles.

However, this attribute reference does not cover core schema used to configure the Directory Server itself. The directory service is also configured as directory entries within the **cn=config** subtree. For descriptions of those configuration attributes, see the *Configuration, Command, and File Reference*.

2.1. abstract

The **abstract** attribute contains an abstract for a document entry.

OID	0.9.2342.19200300.102.1.9
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.2. accessTo

This attribute defines what specific hosts or servers a user is allowed to access.

OID	5.3.6.1.1.1.1.1
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	nss_ldap/pam_ldap

2.3. administratorContactInfo

This attribute contains the contact information for the LDAP or server administrator.

OID	2.16.840.1.113730.3.1.74
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.4. adminRole

This attribute contains the role assigned to the user identified in the entry.

OID	2.16.840.1.113730.3.1.601
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape Administration Services

2.5. adminUrl

This attribute contains the URL of the Admin Server.

OID	2.16.840.1.113730.3.1.75
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.6. aliasedObjectName

The ***aliasedObjectName*** attribute is used by the Directory Server to identify alias entries. This attribute contains the DN (distinguished name) for the entry for which this entry is the alias. For example:

```
aliasedObjectName: uid=jdoe,ou=people,dc=example,dc=com
```

OID	2.5.4.1
Syntax	DN
Multi- or Single-Valued	Single-valued
Defined in	RFC 2256

2.7. associatedDomain

The ***associatedDomain*** attribute contains the DNS domain associated with the entry in the directory tree. For example, the entry with the distinguished name **c=US,o=Example Corporation** has the associated domain of **EC.US**. These domains should be represented in RFC 822 order.

```
associatedDomain:US
```

OID	0.9.2342.19200300.100.1.37
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.8. associatedName

The ***associatedName*** identifies an organizational directory tree entry associated with a DNS domain. For example:

```
associatedName: c=us
```

OID	0.9.2342.19200300.100.1.38
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.9. attributeTypes

This attribute is used in a schema file to identify an attribute defined within the subschema.

OID	2.5.21.5
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

2.10. audio

The **audio** attribute contains a sound file using a binary format. This attribute uses a **u-law** encoded sound data. For example:

```
audio:: AAAAAA==
```

OID	0.9.2342.19200300.100.1.55
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.11. authorCn

The **authorCn** attribute contains the common name of the document's author. For example:

```
authorCn: John Smith
```

OID	0.9.2342.19200300.102.1.11
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.12. authorityRevocationList

The **authorityRevocationList** attribute contains a list of revoked CA certificates. This attribute should be requested and stored in a binary format, like **authorityRevocationList;binary**. For example:

```
authorityrevocationlist;binary:: AAAAAA==
```

OID	2.5.4.38
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.13. authorSn

The **authorSn** attribute contains the last name or family name of the author of a document entry. For example:

authorSn: Smith

OID	0.9.2342.19200300.102.1.12
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.14. automountInformation

This attribute contains information used by the autofs automounter.



NOTE

The **automountInformation** attribute is defined in **60autofs.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **60autofs.ldif** file and copy the **10rfc2307bis.ldif** file from the `/usr/share/dirsrv/data` directory to the `/etc/dirsrv/slapd-instance_name/schema` directory.

OID	1.3.6.1.1.1.1.33
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.15. bootFile

This attribute contains the boot image file name.



NOTE

The **bootFile** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the `/usr/share/dirsrv/data` directory to the `/etc/dirsrv/slapd-instance_name/schema` directory.

OID	1.3.6.1.1.1.1.24
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2307

2.16. bootParameter

This attribute contains the value for `rpc.bootparamd`.

**NOTE**

The ***bootParameter*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.23
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2307

2.17. buildingName

The ***buildingName*** attribute contains the building name associated with the entry. For example:

```
buildingName: 14
```

OID	0.9.2342.19200300.100.1.48
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.18. businessCategory

The ***businessCategory*** attribute identifies the type of business in which the entry is engaged. The attribute value should be a broad generalization, such as a corporate division level. For example:

```
businessCategory: Engineering
```

OID	2.5.4.15
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.19. c (countryName)

The ***countryName***, or ***c***, attribute contains the two-character country code to represent the country names. The country codes are defined by the ISO. For example:

```
countryName: GB
c: US
```

OID	2.5.4.6
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued

Defined in	RFC 2256
------------	--------------------------

2.20. cACertificate

The **cACertificate** attribute contains a CA certificate. The attribute should be requested and stored in binary format, such as **cACertificate;binary**. For example:

```
cACertificate;binary:: AAAAAA==
```

OID	2.5.4.37
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.21. carLicense

The **carLicense** attribute contains an entry's automobile license plate number. For example:

```
carLicense: 6ABC246
```

OID	2.16.840.1.113730.3.1.1
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2798

2.22. certificateRevocationList

The **certificateRevocationList** attribute contains a list of revoked user certificates. The attribute value is to be requested and stored in binary form, as **certificateACertificate;binary**. For example:

```
certificateRevocationList;binary:: AAAAAA==
```

OID	2.5.4.39
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.23. cn (commonName)

The **commonName** attribute contains the name of an entry. For user entries, the **cn** attribute is typically the person's full name. For example:

```
commonName: John Smith
cn: Bill Anderson
```

With the **LDAPReplica** or **LDAPServerobject** object classes, the **cn** attribute value has the following format:

```
cn: replicater.example.com:17430/dc%3Dexample%2Cdc%3com
```

OID	2.5.4.3
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.24. co (friendlyCountryName)

The **friendlyCountryName** attribute contains a country name; this can be any string. Often, the **country** is used with the ISO-designated two-letter country code, while the **co** attribute contains a readable country name. For example:

```
friendlyCountryName: Ireland
co: Ireland
```

OID	0.9.2342.19200300.100.1.43
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.25. cosAttribute

The **cosAttribute** contains the name of the attribute for which to generate a value for the CoS. There can be more than one **cosAttribute** value specified. This attribute is used by all types of CoS definition entries.

OID	2.16.840.1.113730.3.1.550
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.26. cosIndirectSpecifier

The **cosIndirectSpecifier** specifies the attribute values used by an indirect CoS to identify the template entry.

OID	2.16.840.1.113730.3.1.577
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

2.27. cosPriority

The **cosPriority** attribute specifies which template provides the attribute value when CoS templates compete to provide an attribute value. This attribute represents the global priority of a template. A priority of zero is the highest priority.

OID	2.16.840.1.113730.3.1.569
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

2.28. cosSpecifier

The **cosSpecifier** attribute contains the attribute value used by a classic CoS, which, along with the template entry's DN, identifies the template entry.

OID	2.16.840.1.113730.3.1.551
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

2.29. cosTargetTree

The **cosTargetTree** attribute defines the subtrees to which the CoS schema applies. The values for this attribute for the schema and for multiple CoS schema may overlap their target trees arbitrarily.

OID	2.16.840.1.113730.3.1.552
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

2.30. cosTemplateDn

The **cosTemplateDn** attribute contains the DN of the template entry which contains a list of the shared attribute values. Changes to the template entry attribute values are automatically applied to all the entries within the scope of the CoS. A single CoS might have more than one template entry associated with it.

OID	2.16.840.1.113730.3.1.553
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

2.31. crossCertificatePair

The value for the **crossCertificatePair** attribute must be requested and stored in binary format, such as **certificateCertificateRepair;binary**. For example:

```
crossCertificatePair;binary:: AAAAAA==
```

OID	2.5.4.40
Syntax	Binary
Multi- or Single-Valued	Multi-valued

Defined in	RFC 2256
------------	--------------------------

2.32. dc (domainComponent)

The **dc** attribute contains one component of a domain name. For example:

```
dc: example
domainComponent: example
```

OID	0.9.2342.19200300.100.1.25
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 2247

2.33. deltaRevocationList

The **deltaRevocationList** attribute contains a certificate revocation list (CRL). The attribute value is requested and stored in binary format, such as **deltaRevocationList;binary**.

OID	2.5.4.53
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.34. departmentNumber

The **departmentNumber** attribute contains an entry's department number. For example:

```
departmentNumber: 2604
```

OID	2.16.840.1.113730.3.1.2
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2798

2.35. description

The **description** attribute provides a human-readable description for an entry. For **person** or **organization** object classes, this can be used for the entry's role or work assignment. For example:

```
description: Quality control inspector for the ME2873 product line.
```

OID	2.5.4.13
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.36. destinationIndicator

The **destinationIndicator** attribute contains the city and country associated with the entry. This attribute was once required to provide public telegram service and is generally used in conjunction with the **registeredAddress** attribute. For example:

```
destinationIndicator: Stow, Ohio, USA
```

OID	2.5.4.27
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.37. displayName

The **displayName** attributes contains the preferred name of a person to use when displaying that person's entry. This is especially useful for showing the preferred name for an entry in a one-line summary list. Since other attribute types, such as **cn**, are multi-valued, they can not be used to display a preferred name. For example:

```
displayName: John Smith
```

OID	2.16.840.1.113730.3.1.241
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 2798

2.38. dITRedirect

The **dITRedirect** attribute indicates that the object described by one entry now has a newer entry in the directory tree. This attribute may be used when an individual's place of work changes, and the individual acquires a new organizational DN.

```
dITRedirect: cn=jsmith,dc=example,dc=com
```

OID	0.9.2342.19200300.100.1.54
Syntax	DN
Defined in	RFC 1274

2.39. dmdName

The **dmdName** attribute value specifies a directory management domain (DMD), the administrative authority that operates the Directory Server.

OID	2.5.4.54
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 2256

2.40. dn (distinguishedName)

The **dn** attribute contains an entry's distinguished name. For example:

```
dn: uid=Barbara Jensen,ou=Quality Control,dc=example,dc=com
```

OID	2.5.4.49
Syntax	DN
Defined in	RFC 2256

2.41. dNSRecord

The **dNSRecord** attribute contains DNS resource records, including type A (Address), type MX (Mail Exchange), type NS (Name Server), and type SOA (Start of Authority) resource records. For example:

```
dNSRecord: IN NS ns.uu.net
```

OID	0.9.2342.19200300.100.1.26
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Internet Directory Pilot

2.42. documentAuthor

The **documentAuthor** attribute contains the DN of the author of a document entry. For example:

```
documentAuthor: uid=Barbara Jensen,ou=People,dc=example,dc=com
```

OID	0.9.2342.19200300.100.1.14
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.43. documentIdentifier

The **documentIdentifier** attribute contains a unique identifier for a document. For example:

```
documentIdentifier: L3204REV1
```

OID	0.9.2342.19200300.100.1.11
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.44. documentLocation

The **documentLocation** attribute contains the location of the original version of a document. For

example:

```
documentLocation: Department Library
```

OID	0.9.2342.19200300.100.1.15
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.45. documentPublisher

The ***documentPublisher*** attribute contains the person or organization who published a document. For example:

```
documentPublisher: Southeastern Publishing
```

OID	0.9.2342.19200300.100.1.56
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

2.46. documentStore

The ***documentStore*** attribute contains information on where the document is stored.

OID	0.9.2342.19200300.102.1.10
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.47. documentTitle

The ***documentTitle*** attribute contains a document's title. For example:

```
documentTitle: Red Hat Directory Server Administrator Guide
```

OID	0.9.2342.19200300.100.1.12
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.48. documentVersion

The ***documentVersion*** attribute contains the current version number for the document. For example:

```
documentVersion: 1.1
```


OID	0.9.2342.19200300.100.1.13
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.49. drink (favouriteDrink)

The ***favouriteDrink*** attribute contains a person's favorite beverage. This can be shortened to ***drink***. For example:

```
favouriteDrink: iced tea
drink: cranberry juice
```

OID	0.9.2342.19200300.100.1.5
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.50. dSAQuality

The ***dSAQuality*** attribute contains the rating of the directory system agents' (DSA) quality. This attribute allows a DSA manager to indicate the expected level of availability of the DSA. For example:

```
dSAQuality: high
```

OID	0.9.2342.19200300.100.1.49
Syntax	Directory-String
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

2.51. employeeNumber

The ***employeeNumber*** attribute contains the employee number for the person. For example:

```
employeeNumber: 3441
```

OID	2.16.840.1.113730.3.1.3
Syntax	Directory-String
Multi- or Single-Valued	Single-valued
Defined in	RFC 2798

2.52. employeeType

The ***employeeType*** attribute contains the employment type for the person. For example:

```
employeeType: Full time
```

OID	2.16.840.1.113730.3.1.4
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2798

2.53. enhancedSearchGuide

The **enhancedSearchGuide** attribute contains information used by an X.500 client to construct search filters. For example:

```
enhancedSearchGuide: (uid=bjensen)
```

OID	2.5.4.47
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2798

2.54. fax (facsimileTelephoneNumber)

The **facsimileTelephoneNumber** attribute contains the entry's facsimile number; this attribute can be abbreviated as **fax**. For example:

```
facsimileTelephoneNumber: +1 415 555 1212
fax: +1 415 555 1212
```

OID	2.5.4.23
Syntax	TelephoneNumber
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.55. gecos

The **gecos** attribute is used to determine the GECOS field for the user. This is comparable to the **cn** attribute, although using a **gecos** attribute allows additional information to be embedded in the GECOS field aside from the common name. This field is also useful if the common name stored in the directory is not the user's full name.

```
gecos: John Smith
```



NOTE

The **gecos** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.2
-----	-----------------

Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.56. generationQualifier

The **generationQualifier** attribute contains the generation qualifier for a person's name, which is usually appended as a suffix to the name. For example:

```
generationQualifier:III
```

OID	2.5.4.44
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.57. gidNumber

The **gidNumber** attribute contains a unique numeric identifier for a group entry or to identify the group for a user entry. This is analogous to the group number in Unix.

```
gidNumber: 100
```



NOTE

The **gidNumber** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.1
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.58. givenName

The **givenName** attribute contains an entry's given name, which is usually the first name. For example:

```
givenName: Rachel
```

OID	2.5.4.42
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.59. homeDirectory

The **homeDirectory** attribute contains the path to the user's home directory.

```
homeDirectory: /home/jsmith
```



NOTE

The **homeDirectory** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.3
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.60. homePhone

The **homePhone** attribute contains the entry's residential phone number. For example:

```
homePhone: 415-555-1234
```



NOTE

Although RFC 1274 defines both **homeTelephoneNumber** and **homePhone** as names for the residential phone number attribute, Directory Server only implements the **homePhone** name.

OID	0.9.2342.19200300.100.1.20
Syntax	TelephoneNumber
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.61. homePostalAddress

The **homePostalAddress** attribute contains an entry's home mailing address. Since this attribute generally spans multiple lines, each line break has to be represented by a dollar sign (\$). To represent an actual dollar sign (\$) or backslash (\) in the attribute value, use the escaped hex values **\24** and **\5c**, respectively. For example:

```
homePostalAddress: 1234 Ridgeway Drive$Santa Clara, CA$99555
```

To represent the following string:

The dollar (\$) value can be found in the c:\cost file.

The entry value is:

The dollar (\24) value can be found\$in the c:\c5cost file.

OID	0.9.2342.19200300.100.1.39
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.62. host

The **host** contains the hostname of a computer. For example:

host: labcontroller01

OID	0.9.2342.19200300.100.1.9
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.63. houseIdentifier

The **houseIdentifier** contains an identifier for a specific building at a location. For example:

houseIdentifier: B105

OID	2.5.4.51
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.64. inetDomainBaseDN

This attribute identifies the base DN of user subtree for a DNS domain.

OID	2.16.840.1.113730.3.1.690
Syntax	DN
Multi- or Single-Valued	Single-valued
Defined in	Subscriber interoperability

2.65. inetDomainStatus

This attribute shows the current status of the domain. A domain has a status of **active**, **inactive**, or **deleted**.

OID	2.16.840.1.113730.3.1.691
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Subscriber interoperability

2.66. inetSubscriberAccountld

This attribute contains the a unique attribute used to link the user entry for the subscriber to a billing system.

OID	2.16.840.1.113730.3.1.694
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Subscriber interoperability

2.67. inetSubscriberChallenge

The ***inetSubscriberChallenge*** attribute contains some kind of question or prompt, the challenge phrase, which is used to confirm the identity of the user in the ***subscriberIdentity*** attribute. This attribute is used in conjunction with the ***inetSubscriberResponse*** attribute, which contains the response to the challenge.

OID	2.16.840.1.113730.3.1.695
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	Subscriber interoperability

2.68. inetSubscriberResponse

The ***inetSubscriberResponse*** attribute contains the answer to the challenge question in the ***inetSubscriberChallenge*** attribute to verify the user in the ***subscriberIdentity*** attribute.

OID	2.16.840.1.113730.3.1.696
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Subscriber interoperability

2.69. inetUserHttpURL

This attribute contains the web addresses associated with the user.

OID	2.16.840.1.113730.3.1.693
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Subscriber interoperability

2.70. inetUserStatus

This attribute shows the current status of the user (subscriber). A user has a status of **active**, **inactive**, or **deleted**.

OID	2.16.840.1.113730.3.1.692
Syntax	DirectoryString
Multi- or Single-Valued	Single-Valued
Defined in	Subscriber interoperability

2.71. info

The **info** attribute contains any general information about an object. Avoid using this attribute for specific information and rely instead on specific, possibly custom, attribute types. For example:

```
info: not valid
```

OID	0.9.2342.19200300.100.1.4
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.72. initials

The **initials** contains a person's initials; this does not contain the entry's surname. For example:

```
initials: BAJ
```

Directory Server and Active Directory handle the **initials** attribute differently. The Directory Server allows a practically unlimited number of characters, while Active Directory has a restriction of six characters. If an entry is synced with a Windows peer and the value of the **initials** attribute is longer than six characters, then the value is automatically truncated to six characters when it is synchronized. There is no information written to the error log to indicate that synchronization changed the attribute value, either.

OID	2.5.4.43
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.73. installationTimeStamp

This contains the time that the server instance was installed.

OID	2.16.840.1.113730.3.1.73
Syntax	DirectoryString
Multi- or Single-Valued	Multi-Valued
Defined in	Netscape Administration Services

2.74. internationalISDNNumber

The ***internationalISDNNumber*** attribute contains the ISDN number of a document entry. This attribute uses the internationally recognized format for ISDN addresses given in CCITT Rec. E. 164.

OID	2.5.4.25
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.75. ipHostNumber

This contains the IP address for a server.



NOTE

The ***ipHostNumber*** attribute is defined in ***10rfc2307.ldif*** in the Directory Server. To use the updated RFC 2307 schema, remove the ***10rfc2307.ldif*** file and copy the ***10rfc2307bis.ldif*** file from the `/usr/share/dirsrv/data` directory to the `/etc/dirsrv/slapd-instance_name/schema` directory.

OID	1.3.6.1.1.1.1.19
Syntax	DirectoryString
Multi- or Single-Valued	Multi-Valued
Defined in	RFC 2307

2.76. ipNetmaskNumber

This contains the IP netmask for the server.



NOTE

The ***ipHostNumber*** attribute is defined in ***10rfc2307.ldif*** in the Directory Server. To use the updated RFC 2307 schema, remove the ***10rfc2307.ldif*** file and copy the ***10rfc2307bis.ldif*** file from the `/usr/share/dirsrv/data` directory to the `/etc/dirsrv/slapd-instance_name/schema` directory.

OID	2.16.840.1.113730.3.1.73
Syntax	DirectoryString
Multi- or Single-Valued	Multi-Valued
Defined in	RFC 2307

2.77. ipNetworkNumber

This identifies the IP network.

**NOTE**

The ***ipNetworkNumber*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.20
Syntax	DirectoryString
Multi- or Single-Valued	Single-Valued
Defined in	RFC 2307

2.78. ipProtocolNumber

This attribute identifies the IP protocol version number.

**NOTE**

The ***ipProtocolNumber*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.17
Syntax	Integer
Multi- or Single-Valued	Single-Valued
Defined in	RFC 2307

2.79. ipServicePort

This attribute gives the port used by the IP service.

**NOTE**

The ***ipServicePort*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.15
Syntax	Integer
Multi- or Single-Valued	Single-Valued
Defined in	RFC 2307

2.80. ipServiceProtocol

This identifies the protocol used by the IP service.



NOTE

The ***ipServiceProtocol*** attribute is defined in ***10rfc2307.ldif*** in the Directory Server. To use the updated RFC 2307 schema, remove the ***10rfc2307.ldif*** file and copy the ***10rfc2307bis.ldif*** file from the ***/usr/share/dirsrv/data*** directory to the ***/etc/dirsrv/slapd-instance_name/schema*** directory.

OID	1.3.6.1.1.1.1.16
Syntax	DirectoryString
Multi- or Single-Valued	Multi-Valued
Defined in	RFC 2307

2.81. janetMailbox

The ***janetMailbox*** contains a JANET email address, usually for users located in the United Kingdom who do not use RFC 822 email address. Entries with this attribute must also contain the ***rfc822Mailbox*** attribute.

OID	0.9.2342.19200300.100.1.46
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.82. jpegPhoto

The ***jpegPhoto*** attribute contains a JPEG photo, a binary value. For example:

```
jpegPhoto:: AAAAAA==
```

OID	0.9.2342.19200300.100.1.60
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2798

2.83. keyWords

The ***keyWord*** attribute contains keywords associated with the entry. For example:

```
keyWords: directory LDAP X.500
```

OID	0.9.2342.19200300.102.1.7
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued

Defined in	Internet White Pages Pilot
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2.84. knowledgeInformation

This attribute is no longer used.

OID	2.5.4.2
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.85. l (localityName)

The **localityName**, or **l**, attribute contains the county, city, or other geographical designation associated with the entry. For example:

```
localityName: Santa Clara
l: Santa Clara
```

OID	2.5.4.7
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.86. labeledURI

The **labeledURI** contains a Uniform Resource Identifier (URI) which is related, in some way, to the entry. Values placed in the attribute should consist of a URI (currently only URLs are supported), optionally followed by one or more space characters and a label.

```
labeledURI: http://home.example.com
labeledURI: http://home.example.com Example website
```

OID	1.3.6.1.4.1.250.1.57
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2709

2.87. lastModifiedBy

The **lastModifiedBy** attribute contains the distinguished name (DN) of the user who last edited the entry. For example:

```
lastModifiedby: cn=Barbara Jensen,ou=Engineering,dc=example,dc=com
```

OID	0.9.2342.19200300.100.1.24
Syntax	DN
Multi- or Single-Valued	Multi-valued

Defined in	RFC 1274
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2.88. lastModifiedTime

The ***lastModifiedTime*** attribute contains the time, in UTC format, an entry was last modified. For example:

```
lastModifiedTime: Thursday, 22-Sep-93 14:15:00 GMT
```

OID	0.9.2342.19200300.100.1.23
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.89. loginShell

The ***loginShell*** attribute contains the path to a script that is launched automatically when a user logs into the domain.

```
loginShell: c:\scripts\jsmith.bat
```



NOTE

The ***loginShell*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.4
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.90. macAddress

This attribute gives the MAC address for a server or piece of equipment.



NOTE

The ***macAddress*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.22
Syntax	DirectoryString

Multi- or Single-Valued	Multi-valued
Defined in	RFC 2307

2.91. mail

The **mail** attribute contains a user's primary email address. This attribute value is retrieved and displayed by whitepage applications. For example:

```
mail: jsmith@example.com
```

OID	0.9.2342.19200300.100.1.3
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

2.92. mailAccessDomain

This attribute lists the domain which a user can use to access the messaging server.

OID	2.16.840.1.113730.3.1.12
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.93. mailAlternateAddress

The **mailAlternateAddress** attribute contains additional email addresses for a user. This attribute does not reflect the default or primary email address; that email address is set by the **mail** attribute.

For example:

```
mailAlternateAddress: jsmith@example.com
mailAlternateAddress: smith1701@alt.com
```

OID	2.16.840.1.113730.3.1.13
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.94. mailAutoReplyMode

This attribute sets whether automatic replies are enabled for the messaging server.

OID	2.16.840.1.113730.3.1.14
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.95. mailAutoReplyText

This attribute stores the text to used in an auto-reply email.

OID	2.16.840.1.113730.3.1.15
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.96. mailDeliveryOption

This attribute defines the mail delivery mechanism to use for the mail user.

OID	2.16.840.1.113730.3.1.16
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.97. mailEnhancedUniqueMember

This attribute contains the DN of a unique member of a mail group.

OID	2.16.840.1.113730.3.1.31
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.98. mailForwardingAddress

This attribute contains an email address to which to forward a user's email.

OID	2.16.840.1.113730.3.1.17
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.99. mailHost

The **mailHost** attribute contains the hostname of a mail server. For example:

```
mailHost: mail.example.com
```

OID	2.16.840.1.113730.3.1.18
Syntax	DirectyString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.100. mailMessageStore

This identifies the locaiton of a user's email box.

OID	2.16.840.1.113730.3.1.19
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.101. mailPreferenceOption

The *mailPreferenceOption* defines whether a user should be included on a mailing list, both electronic and physical. There are three options.

0	Does not appear in mailing lists.
1	Add to any mailing lists.
2	Added only to mailing lists which the provider views as relevant to the user interest.

If the attribute is absent, then the default is to assume that the user is not included on any mailing list. This attribute should be interpreted by anyone using the directory to derive mailing lists and its value respected. For example:

```
mailPreferenceOption: 0
```

OID	0.9.2342.19200300.100.1.47
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

2.102. mailProgramDeliveryInfo

This attribute contains any commands to use for programmed mail delivery.

OID	2.16.840.1.113730.3.1.20
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.103. mailQuota

This attribute sets the amoung of disk space allowed for a user's mail box.

OID	2.16.840.1.113730.3.1.21
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.104. mailRoutingAddress

This attribute contains the routing address to use when forwarding the emails received by the user to another messaging server.

OID	2.16.840.1.113730.3.1.24
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.105. manager

The **manager** contains the distinguished name (DN) of the manager for the person. For example:

```
manager: cn=Bill Andersen,ou=Quality Control,dc=example,dc=com
```

OID	0.9.2342.19200300.100.1.10
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.106. member

The **member** attribute contains the distinguished names (DNs) of each member of a group. For example:

```
member: cn=John Smith,dc=example,dc=com
```

OID	2.5.4.31
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.107. memberCertificateDescription

This attribute is a multi-valued attribute where each value is a description, a pattern, or a filter matching the subject DN of a certificate, usually a certificate used for SSL client authentication.

memberCertificateDescription matches any certificate that contains a subject DN with the same attribute-value assertions (AVAs) as the description. The description may contain multiple **ou** AVAs. A matching DN must contain those same **ou** AVAs, in the same order, although it may be interspersed with other AVAs, including other **ou** AVAs. For any other attribute type (not **ou**), there should be at most one AVA of that type in the description. If there are several, all but the last are ignored.

A matching DN must contain that same AVA but no other AVA of the same type nearer the root (later, syntactically).

AVAs are considered the same if they contain the same attribute description (case-insensitive comparison) and the same attribute value (case-insensitive comparison, leading and trailing whitespace ignored, and consecutive whitespace characters treated as a single space).

To be considered a member of a group with the following **memberCertificateDescription** value, a certificate needs to include **ou=x**, **ou=A**, and **dc=example**, but not **dc=company**.


```
memberCertificateDescription: {ou=x,ou=A,dc=company,dc=example}
```

To match the group's requirements, a certificate's subject DN's must contain the same **ou** attribute types in the same order as defined in the **memberCertificateDescription** attribute.

OID	2.16.840.1.113730.3.1.199
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.108. memberNisNetgroup

This attribute merges the attribute values of another netgroup into the current one by listing the name of the merging netgroup.



NOTE

The **memberNisNetgroup** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.13
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2307

2.109. memberOf

This attribute contains the name of a group to which the user is a member.

memberOf is the default attribute generated by the MemberOf Plug-in on the user entry of a group member. This attribute is automatically synchronized to the listed **member** attributes in a group entry, so that displaying group membership for entries is managed by Directory Server.



NOTE

This attribute is only synchronized between group entries and the corresponding members' user entries if the MemberOf Plug-in is enabled and is configured to use this attribute.

OID	1.2.840.113556.1.2.102
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Delegated Administrator

2.110. memberUid

The **memberUid** attribute contains the login name of the member of a group; this can be different than the DN identified in the **member** attribute.

```
memberUID: jsmith
```



NOTE

The **memberUID** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.12
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.111. memberURL

This attribute identifies a URL associated with each member of a group. Any type of labeled URL can be used.

```
memberURL: ldap://cn=jsmith,ou=people,dc=example,dc=com
```

OID	2.16.840.1.113730.3.1.198
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.112. mgrpAddHeader

This attribute contains information about the header in the messages.

OID	2.16.840.1.113730.3.1.781
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.113. mgrpAllowedBroadcaster

This attribute sets whether to allow the user to send broadcast messages.

OID	2.16.840.1.113730.3.1.22
Syntax	IA5String
Multi- or Single-Valued	Multi-valued

Defined in	Netscape Messaging Server
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2.114. mgrpAllowedDomain

This attribute sets the domains for the mail group.

OID	2.16.840.1.113730.3.1.23
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.115. mgrpApprovePassword

This attribute sets whether a user must approve a password used to access their email.

OID	mgrpApprovePassword-oid
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	Netscape Messaging Server

2.116. mgrpBroadcasterPolicy

This attribute defines the policy for broadcasting emails.

OID	2.16.840.1.113730.3.1.788
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.117. mgrpDeliverTo

This attribute contains information about the delivery destination for email.

OID	2.16.840.1.113730.3.1.25
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.118. mgrpErrorsTo

This attribute contains information about where to deliver error messages for the messaging server.

OID	2.16.840.1.113730.3.1.26
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	Netscape Messaging Server

2.119. mgrpModerator

This attribute contains the contact name for the mailing list moderator.

OID	2.16.840.1.113730.3.1.33
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.120. mgrpMsgMaxSize

This attribute sets the maximum size allowed for email messages.

OID	2.16.840.1.113730.3.1.32
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape Messaging Server

2.121. mgrpMsgRejectAction

This attribute defines what actions the messaging server should take for rejected messages.

OID	2.16.840.1.113730.3.1.28
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.122. mgrpMsgRejectText

This attribute sets the text to use for rejection notifications.

OID	2.16.840.1.113730.3.1.29
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.123. mgrpNoDuplicateChecks

This attribute defines whether the messaging server checks for duplicate emails.

OID	2.16.840.1.113730.3.1.789
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape Messaging Server

2.124. mgrpRemoveHeader

This attribute sets whether the header is removed in reply messages.

OID	2.16.840.1.113730.3.1.801
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.125. mgrpRFC822MailMember

This attribute identifies the member of a mail group.

OID	2.16.840.1.113730.3.1.30
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.126. mobile

The *mobile*, or *mobileTelephoneNumber*, contains the entry's mobile or cellular phone number. For example:

```
mobileTelephoneNumber: 415-555-4321
```

OID	0.9.2342.19200300.100.1.41
Syntax	TelephoneNumber
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.127. mozillaCustom1

This attribute is used by Mozilla Thunderbird to manage a shared address book.

OID	1.3.6.1.4.1.13769.4.1
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.128. mozillaCustom2

This attribute is used by Mozilla Thunderbird to manage a shared address book.

OID	1.3.6.1.4.1.13769.4.2
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.129. mozillaCustom3

This attribute is used by Mozilla Thunderbird to manage a shared address book.

OID	1.3.6.1.4.1.13769.4.3
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.130. mozillaCustom4

This attribute is used by Mozilla Thunderbird to manage a shared address book.

OID	1.3.6.1.4.1.13769.4.4
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.131. mozillaHomeCountryName

This attribute sets the country used by Mozilla Thunderbird in a shared address book.

OID	1.3.6.1.4.1.13769.3.6
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.132. mozillaHomeLocalityName

This attribute sets the city used by Mozilla Thunderbird in a shared address book.

OID	1.3.6.1.4.1.13769.3.3
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.133. mozillaHomePostalCode

This attribute sets the postal code used by Mozilla Thunderbird in a shared address book.

OID	1.3.6.1.4.1.13769.3.5
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.134. mozillaHomeState

This attribute sets the state or province used by Mozilla Thunderbird in a shared address book.

OID	1.3.6.1.4.1.13769.3.4
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Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.135. mozillaHomeStreet

This attribute sets the street address used by Mozilla Thunderbird in a shared address book.

OID	1.3.6.1.4.1.13769.3.1
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.136. mozillaHomeStreet2

This attribute contains the second line of a street address used by Mozilla Thunderbird in a shared address book.

OID	1.3.6.1.4.1.13769.3.2
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.137. mozillaHomeUrl

This attribute contains a URL used by Mozilla Thunderbird in a shared address book.

OID	1.3.6.1.4.1.13769.3.7
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.138. mozillaNickname (xmozillanickname)

This attribute contains a nickname used by Mozilla Thunderbird for a shared address book.

OID	1.3.6.1.4.1.13769.2.1
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Mozilla Address Book

2.139. mozillaSecondEmail (xmozillasecondemail)

This attribute contains an alternate or secondary email address for an entry in a shared address book for Mozilla Thunderbird.

OID	1.3.6.1.4.1.13769.2.2
-----	-----------------------

Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.140. mozillaUseHtmlMail (xmozillausehtmlmail)

This attribute sets an email type preference for an entry in a shared address book in Mozilla Thunderbird.

OID	1.3.6.1.4.1.13769.2.3
Syntax	Boolean
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.141. mozillaWorkStreet2

This attribute contains a street address for a workplace or office for an entry in Mozilla Thunderbird's shared address book.

OID	1.3.6.1.4.1.13769.3.8
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.142. mozillaWorkUrl

This attribute contains a URL for a work site in an entry in a shared address book in Mozilla Thunderbird.

OID	1.3.6.1.4.1.13769.3.9
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Mozilla Address Book

2.143. multiLineDescription

This attribute contains a description of an entry which spans multiple lines in the LDIF file.

OID	1.3.6.1.4.1.250.1.2
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.144. name

The **name** attribute identifies the attribute supertype which can be used to form string attribute types for naming.

It is unlikely that values of this type will occur in an entry. LDAP server implementations that do not support attribute subtyping do not need to recognize this attribute in requests. Client implementations should not assume that LDAP servers are capable of performing attribute subtyping.

OID	2.5.4.41
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.145. netscapeReversiblePassword

This attribute contains the password for HTTP Digest/MD5 authentication.

OID	2.16.840.1.113730.3.1.812
Syntax	OctetString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Web Server

2.146. NisMapEntry

This attribute contains the information for a NIS map to be used by Network Information Services.



NOTE

This attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.27
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.147. nisMapName

This attribute contains the name of a mapping used by a NIS server.

OID	1.3.6.1.1.1.1.26
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2307

2.148. nisNetgroupTriple

This attribute contains information on a netgroup used by a NIS server.

**NOTE**

This attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.14
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2307

2.149. nsAccessLog

This entry identifies the access log used by a server.

OID	nsAccessLog-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.150. nsAdminAccessAddresses

This attribute contains the IP address of the Admin Server used by the instance.

OID	nsAdminAccessAddresses-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.151. nsAdminAccessHosts

This attribute contains the hostname of the Admin Server.

OID	nsAdminAccessHosts-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.152. nsAdminAccountInfo

This attribute contains other information about the Admin Server account.

OID	nsAdminAccountInfo-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued

Defined in	Netscape Administration Services
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2.153. nsAdminCacheLifetime

This sets the length of time to store the cache used by the Directory Server.

OID	nsAdminCacheLifetime-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.154. nsAdminCgiWaitPid

This attribute defines the wait time for Admin Server CGI process IDs.

OID	nsAdminCgiWaitPid-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.155. nsAdminDomainName

This attribute contains the name of the administration domain containing the Directory Server instance.

OID	nsAdminDomainName-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.156. nsAdminEnableEnduser

This attribute sets whether to allow end user access to admin services.

OID	nsAdminEnableEnduser-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.157. nsAdminEndUserHTMLIndex

This attribute sets whether to allow end users to access the HTML index of admin services.

OID	nsAdminEndUserHTMLIndex-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.158. nsAdminGroupName

This attribute gives the name of the admin guide.

OID	nsAdminGroupName-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.159. nsAdminOneACLDDir

This attribute gives the directory path to the directory containing access control lists for the Admin Server.

OID	nsAdminOneACLDDir-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.160. nsAdminSIEDN

This attribute contains the DN of the server instance entry (SIE) for the Admin Server.

OID	nsAdminSIEDN-oid
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.161. nsAdminUsers

This attribute gives the path and name of the file which contains the information for the Admin Server admin user.

OID	nsAdminUsers-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.162. nsAlMid

This attribute contains the AOL Instant Messaging user ID for the user.

OID	2.16.840.1.113730.3.2.300
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.163. nsBaseDN

This contains the base DN used in the Directory Server's server instance definition entry.

OID	nsBaseDN-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.164. nsBindDN

This attribute contains the bind DN defined in the Directory Server SIE.

OID	nsBindDN-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.165. nsBindPassword

This attribute contains the password used by the bind DN defined in *nsBindDN*.

OID	nsBindPassword-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.166. nsBuildNumber

This defines, in the Directory Server SIE, the build number of the server instance.

OID	nsBuildNumber-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.167. nsBuildSecurity

This defines, in the Directory Server SIE, the build security level.

OID	nsBuildSecurity-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.168. nsCertConfig

This attribute defines the configuration for the Red Hat Certificate System.

OID	nsCertConfig-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Certificate System

2.169. nsCertfile

This attribute contains the directory location of a certificate file.

OID	nsCertfile-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.170. nsClassname

OID	nsClassname-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.171. nsConfigRoot

This attribute contains the root DN of the configuration directory.

OID	nsConfigRoot-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.172. nscpAIMScreenname

This attribute gives the AIM screenname of a user.

OID	1.3.6.1.4.1.13769.2.4
Syntax	TelephoneNumberString
Multi- or Single-Valued	Multi-valued
Defined in	Mozilla Address Book

2.173. nsDefaultAcceptLanguage

This attribute contains the language codes which are accepted for HTML clients.

OID	nsDefaultAcceptLanguage-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued

Defined in	RFC 2256
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2.174. nsDefaultObjectClass

This attribute stores object class information in a container entry.

OID	nsDefaultObjectClass-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.175. nsDeleteclassname

OID	nsDeleteclassname-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.176. nsDirectoryFailoverList

This attribute contains a list of Directory Servers to use for failover.

OID	nsDirectoryFailoverList-oid
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.177. nsDirectoryInfoRef

This attribute refers to a DN of an entry with information about the server.

OID	nsDirectoryInfoRef-oid
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.178. nsDirectoryURL

This attribute contains the Directory Server URL.

OID	nsDirectoryURL-oid
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.179. nsDisplayName

This attribute contains a display name.

OID	nsDisplayName-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.180. nsErrorLog

This attribute identifies the error log used by the server.

OID	nsErrorLog-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.181. nsExecRef

This attribute contains the path or location of an executable which can be used to perform server tasks.

OID	nsExecRef-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.182. nsExpirationDate

This attribute contains the expiration date of an application.

OID	nsExpirationDate-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.183. nsGroupRDNComponent

This attribute defines the attribute to use for the RDN of a group entry.

OID	nsGroupRDNComponent-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.184. nsHardwarePlatform

This attribute indicates the hardware on which the server is running. The value of this attribute is the same as the output from **uname -m**. For example:

nsHardwarePlatform:i686

OID	nsHardwarePlatform-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.185. nsHelpRef

This attribute contains a reference to an online help file.

OID	nsHelpRef-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.186. nsHostLocation

This attribute contains information about the server host.

OID	nsHostLocation-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.187. nsICQid

This attribute contains an ICQ ID for the user.

OID	2.16.840.1.113730.3.1.2014
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.188. nsInstalledLocation

This attribute contains the installation directory for Directory Servers which are version 7.1 or older.

OID	nsInstalledLocation-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.189. nsJarfilename

This attribute gives the jar file name used by the Console.

OID	nsJarfilename-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.190. nsKeyfile

This attribute contains the path to the key file used by the security module.

OID	nsKeyfile-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.191. nsLdapSchemaVersion

This gives the version number of the LDAP directory schema.

OID	nsLdapSchemaVersion-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.192. nsLicensedFor

The **nsLicensedFor** attribute identifies the server the user is licensed to use. Admin Server expects each **nsLicenseUser** entry to contain zero or more instances of this attribute. Valid keywords for this attribute include the following:

- **slapd** for a licensed Directory Server client.
- **mail** for a licensed mail server client.
- **news** for a licensed news server client.
- **cal** for a licensed calendar server client.

For example:

```
nsLicensedFor: slapd
```

OID	2.16.840.1.113730.3.1.36
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Admin Server

2.193. nsLicenseEndTime

Reserved for future use.

OID	2.16.840.1.113730.3.1.38
-----	--------------------------

Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Admin Server

2.194. nsLicenseStartTime

Reserved for future use.

OID	2.16.840.1.113730.3.1.37
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Admin Server

2.195. nsLogSuppress

This attribute sets whether to suppress server logging.

OID	nsLogSuppress-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.196. nsmsgDisallowAccess

This attribute defines access to a messaging server.

OID	nsmsgDisallowAccess-oid
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.197. nsmsgNumMsgQuota

This attribute sets a quota for the number of messages which will be kept by the messaging server.

OID	nsmsgNumMsgQuota-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.198. nsMSNid

This attribute contains the MSN instant messaging ID for the user.

OID	2.16.840.1.113730.3.1.2016
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued

Defined in	Directory Server
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2.199. nsNickName

This attribute gives a nickname for an application.

OID	nsNickName-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.200. nsNYR

OID	nsNYR-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Administration Services

2.201. nsOsVersion

This attribute contains the version number of the operating system for the host on which the server is running.

OID	nsOsVersion-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.202. nsPidLog

OID	nsPidLog-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.203. nsPreference

This attribute stores the Console preference settings.

OID	nsPreference-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.204. nsProductName

This contains the name of the product, such as Red Hat Directory Server or Admin Server.

OID	nsProductName-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.205. nsProductVersion

This contains the version number of the Directory Server or Admin Server.

OID	nsProductVersion-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.206. nsRevisionNumber

This attribute contains the revision number of the Directory Server or Admin Server.

OID	nsRevisionNumber-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.207. nsSecureServerPort

This attribute contains the SSL port for the Directory Server.



NOTE

This attribute does not *configure* the SSL port for the Directory Server. This is configured in ***nsslapd-secureport*** configuration attribute in the Directory Server's ***dse.ldif*** file. Configuration attributes are described in the *Configuration, Command, and File Reference*.

OID	nsSecureServerPort-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.208. nsSerialNumber

This attribute contains a serial number or tracking number assigned to a specific server application, such as Red Hat Directory Server or Admin Server.

OID	nsSerialNumber-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued

Defined in	Netscape
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2.209. nsServerAddress

This attribute contains the IP address of the server host on which the Directory Server is running.

OID	nsServerAddress-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.210. nsServerCreationClassname

This attribute gives the class name to use when creating a server.

OID	nsServerCreationClassname-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.211. nsServerID

This contains the server's instance name. For example:

```
nsServerID: slapd-example
```

OID	nsServerID-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.212. nsServerMigrationClassname

This attribute contains the name of the class to use when migrating a server.

OID	nsServerMigrationClassname-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.213. nsServerPort

This attribute contains the standard LDAP port for the Directory Server.

**NOTE**

This attribute does not *configure* the standard port for the Directory Server. This is configured in ***nsslapd-port*** configuration attribute in the Directory Server's ***dse.ldif*** file. Configuration attributes are described in the *Configuration, Command, and File Reference*.

OID	nsServerPort-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.214. nsServerSecurity

This shows whether the Directory Server requires a secure (SSL/TLS) connection.

OID	nsServerSecurity-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.215. nsSNMPContact

This attribute contains the contact information provided by the SNMP.

OID	2.16.840.1.113730.3.1.235
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.216. nsSNMPDescription

This contains a description of the SNMP service.

OID	2.16.840.1.113730.3.1.236
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.217. nsSNMPEnabled

This attribute shows whether SNMP is enabled for the server.

OID	2.16.840.1.113730.3.1.232
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.218. nsSNMPLocation

This attribute shows the location provided by the SNMP service.

OID	2.16.840.1.113730.3.1.234
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.219. nsSNMPMasterHost

This attribute shows the hostname for the SNMP master agent.

OID	2.16.840.1.113730.3.1.237
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.220. nsSNMPMasterPort

This attribute shows the port number for the SNMP subagent.

OID	2.16.840.1.113730.3.1.238
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.221. nsSNMPOrganization

This attribute contains the organization information provided by SNMP.

OID	2.16.840.1.113730.3.1.233
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.222. nsSSL2

This attribute shows whether SSL version 2 is allowed for the server. SSLv2 has been obsoleted.

OID	nsSSL2-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.223. nsSSL2Ciphers

This attribute contains the list of allowed SSLv2 ciphers. SSLv2 has been obsoleted.

OID	nsSSL2Ciphers-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.224. nsSSL3

This attribute indicates whether SSL version 3 is enabled.

OID	nsSSL3-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.225. nsSSL3Ciphers

This attribute contains the list of allowed SSL3 ciphers.

OID	nsSSL3Ciphers-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.226. nsSSL3SessionTimeout

This attribute shows the SSLv3 cipher session timeout period.

OID	nsSSL3SessionTimeout-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.227. nsSSLActivation

This attribute shows whether an SSL cipher family is enabled.

OID	nsSSLActivation-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.228. nsSSLClientAuth

This attribute shows how the Directory Server enforces client authentication. There are three possible values:

- **require**, which means all clients must use client authentication (this means the Directory Server Console cannot be used to manage the instance, since it does not support client authentication)
- **allow**, which means the Directory Server accepts client authentication
- **disallow**, which means the Directory Server does not accept client authentication

OID	nsSSLClientAuth-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.229. nsSSLPersonalitySSL

This attribute contains the certificate name to use for SSL.

OID	nsSSLPersonalitySSL-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.230. nsSSLSessionTimeout

This attribute sets how long an SSL session is active before it times out.

OID	nsSSLSessionTimeout-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.231. nsSSLSupportedCiphers

This attribute contains the supported ciphers for the server.

OID	nsSSLSupportedCiphers-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.232. nsSSLToken

This attribute contains the name of the token used by the server.

OID	nsSSLToken-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.233. nsSuiteSpotUser

This attribute has been obsoleted.

This attribute identifies the Unix user who installed the server.

OID	nsSuiteSpotUser-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.234. nsTaskLabel

OID	nsTaskLabel-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.235. nsUniqueAttribute

This sets a unique attribute for the server preferences.

OID	nsUniqueAttribute-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.236. nsUserIDFormat

This attribute sets the format to use to generate the **uid** attribute from the **givenname** and **sn** attributes.

OID	nsUserIDFormat-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.237. nsUserRDNComponent

This attribute sets the attribute type to set the RDN for user entries.

OID	nsUserRDNComponent-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.238. nsValueBin

OID	2.16.840.1.113730.3.1.247
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Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.239. nsValueCES

OID	2.16.840.1.113730.3.1.244
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.240. nsValueCIS

OID	2.16.840.1.113730.3.1.243
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.241. nsValueDefault

OID	2.16.840.1.113730.3.1.250
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.242. nsValueDescription

OID	2.16.840.1.113730.3.1.252
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.243. nsValueDN

OID	2.16.840.1.113730.3.1.248
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.244. nsValueFlags

OID	2.16.840.1.113730.3.1.251
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.245. nsValueHelpURL

OID	2.16.840.1.113730.3.1.254
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.246. nsValueInt

OID	2.16.840.1.113730.3.1.246
Syntax	Integer
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.247. nsValueSyntax

OID	2.16.840.1.113730.3.1.253
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.248. nsValueTel

OID	2.16.840.1.113730.3.1.245
Syntax	TElephoneString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.249. nsValueType

OID	2.16.840.1.113730.3.1.249
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape servers — value item

2.250. nsVendor

This contains the name of the server vendor.

OID	nsVendor-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape

2.251. nsViewConfiguration

This attribute stores the view configuration used by Console.

OID	nsViewConfiguration-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.252. nsViewFilter

This attribute sets the attribute-value pair which is used to identify entries belonging to the view.

OID	2.16.840.1.113730.3.1.3023
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.253. nsWellKnownJarfiles

OID	nsWellKnownJarfiles-oid
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.254. nswmExtendedUserPrefs

This attribute is used to store user preferences for accounts in a messaging server.

OID	2.16.840.1.113730.3.1.520
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.255. nsYIMid

This attribute contains the Yahoo instant messaging username for the user.

OID	2.16.840.1.113730.3.1.2015
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

2.256. ntGroupAttributes

This attribute points to a binary file which contains information about the group. For example:

```
ntGroupAttributes:: IyEvYm1uL2tzaAoKIwojIGRlZmF1bHQgdmFsdWUKIwpIPSJgaG9zdG5hb
```

OID	2.16.840.1.113730.3.1.536
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.257. ntGroupCreateNewGroup

The **ntGroupCreateNewGroup** attribute is used by Windows Sync to determine whether the Directory Server should create new group entry when a new group is created on a Windows server. **true** creates the new entry; **false** ignores the Windows entry.

OID	2.16.840.1.113730.3.1.45
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.258. ntGroupDeleteGroup

The **ntGroupDeleteGroup** attribute is used by Windows Sync to determine whether the Directory Server should delete a group entry when the group is deleted on a Windows sync peer server. **true** means the account is deleted; **false** ignores the deletion.

OID	2.16.840.1.113730.3.1.46
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.259. ntGroupDomainId

The **ntGroupDomainId** attribute contains the domain ID string for a group.

ntGroupDomainId: DS HR Group

OID	2.16.840.1.113730.3.1.44
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.260. ntGroupId

The **ntGroupId** attribute points to a binary file which identifies the group. For example:

ntGroupId: IOUnHNjjRgghghREgfvItrGHYyTYhjIOhTYtyHJuSDwOopKLhjGbnGFtr

OID	2.16.840.1.113730.3.1.110
Syntax	Binary
Multi- or Single-Valued	Single-valued

Defined in	Netscape NT Synchronization
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2.261. ntGroupType

In Active Directory, there are two major types of groups: security and distribution. Security groups are most similar to groups in Directory Server, since security groups can have policies configured for access controls, resource restrictions, and other permissions. Distribution groups are for mailing distribution. These are further broken down into global and local groups. The Directory Server *ntGroupType* supports all four group types:

The *ntGroupType* attribute identifies the type of Windows group. The valid values are as follows:

- **-21483646** for global/security
- **-21483644** for domain local/security
- **2** for global/distribution
- **4** for domain local/distribution

This value is set automatically when the Windows groups are synchronized. To determine the type of group, you must manually configure it when the group gets created. By default, Directory Server groups do not have this attribute and are synchronized as global/security groups.

ntGroupType: -21483646

OID	2.16.840.1.113730.3.1.47
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.262. ntUniqueId

The *ntUniqueID* attribute contains a generated number used for internal server identification and operation. For example:

ntUniqueId: 352562404224a44ab040df02e4ef500b

OID	2.16.840.1.113730.3.1.111
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.263. ntUserAcctExpires

This attribute indicates when the entry's Windows account will expire. This value is stored as a string in GMT format. For example:

ntUserAcctExpires: 20081015203415

OID	2.16.840.1.113730.3.1.528
Syntax	DirectoryString

Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.264. ntUserAuthFlags

This attribute contains authorization flags set for the Windows account.

OID	2.16.840.1.113730.3.1.60
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.265. ntUserBadPwCount

This attribute sets the number of bad password failures are allowed before an account is locked.

OID	2.16.840.1.113730.3.1.531
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.266. ntUserCodePage

The **ntUserCodePage** attribute contains the code page for the user's language of choice. For example:

```
ntUserCodePage: AAAAAA==
```

OID	2.16.840.1.113730.3.1.533
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.267. ntUserComment

This attribute contains a text description or note about the user entry.

OID	2.16.840.1.113730.3.1.522
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.268. ntUserCountryCode

This attribute contains the two-character country code for the country where the user is located.

OID	2.16.840.1.113730.3.1.532
Syntax	DirectoryString

Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.269. ntUserCreateNewAccount

The **ntUserCreateNewAccount** attribute is used by Windows Sync to determine whether the Directory Server should create a new user entry when a new user is created on a Windows server. **true** creates the new entry; **false** ignores the Windows entry.

OID	2.16.840.1.113730.3.1.42
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.270. ntUserDeleteAccount

The **ntUserDeleteAccount** attribute IS Used by Windows Sync to determin whether a Directory Server entry will be automatically deleted when the user is deleted from the Windows sync peer server. **true** means the user entry is deleted; **false** ignores the deletion.

OID	2.16.840.1.113730.3.1.43
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.271. ntUserDomainId

The **ntUserDomainID** attribute contains the Windows domain login ID. For example:

```
ntUserDomainId: jsmith
```

OID	2.16.840.1.113730.3.1.41
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.272. ntUserFlags

This attribute contains additional flags set for the Windows account.

OID	2.16.840.1.113730.3.1.523
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.273. ntUserHomeDir

The ***ntUserHomeDir*** attribute contains an ASCII string representing the Windows user's home directory. This attribute can be null. For example:

```
ntUserHomeDir: c:\jsmith
```

OID	2.16.840.1.113730.3.1.521
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.274. ntUserHomeDirDrive

This attribute contains information about the drive on which the user's home directory is stored.

OID	2.16.840.1.113730.3.1.535
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.275. ntUserLastLogoff

The ***ntUserLastLogoff*** attribute contains the time of the last logoff. This value is stored as a string in GMT format.

If security logging is turned on, then this attribute is updated on synchronization only if some other aspect of the user's entry has changed.

```
ntUserLastLogoff: 20101015203415Z
```

OID	2.16.840.1.113730.3.1.527
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.276. ntUserLastLogon

The ***ntUserLastLogon*** attribute contains the time that the user last logged into the Windows domain. This value is stored as a string in GMT format. If security logging is turned on, then this attribute is updated on synchronization only if some other aspect of the user's entry has changed.

```
ntUserLastLogon: 20101015203415Z
```

OID	2.16.840.1.113730.3.1.526
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.277. ntUserLogonHours

The **ntUserLogonHours** attribute contains the time periods that a user is allowed to log onto the Active Directory domain. This attribute corresponds to the **LogonHours** attribute in Active Directory.

OID	2.16.840.1.113730.3.1.530
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.278. ntUserLogonServer

The **ntUserLogonServer** attribute defines the Active Directory server to which the user's logon request is forwarded.

OID	2.16.840.1.113730.3.1.65
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.279. ntUserMaxStorage

The **ntUserMaxStorage** attribute contains the maximum amount of disk space available for the user.

```
ntUserMaxStorage: 4294967295
```

OID	2.16.840.1.113730.3.1.529
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.280. ntUserNumLogons

This attribute shows the number of successful logons to the Active Directory domain for the user.

OID	2.16.840.1.113730.3.1.64
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.281. ntUserParms

The **ntUserParms** attribute contains a Unicode string reserved for use by applications.

OID	2.16.840.1.113730.3.1.62
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.282. ntUserPasswordExpired

This attribute shows whether the password for the Active Directory account has expired.

OID	2.16.840.1.113730.3.1.68
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.283. ntUserPrimaryGroupId

The **ntUserPrimaryGroupId** attribute contains the group ID of the primary group to which the user belongs.

OID	2.16.840.1.113730.3.1.534
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.284. ntUserPriv

This attribute shows the type of privileges allowed for the user.

OID	2.16.840.1.113730.3.1.59
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.285. ntUserProfile

The **ntUserProfile** attribute contains the path to a user's profile. For example:

```
ntUserProfile: c:\jsmith\profile.txt
```

OID	2.16.840.1.113730.3.1.67
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.286. ntUserScriptPath

The **ntUserScriptPath** attribute contains the path to an ASCII script used by the user to log into the domain.

```
ntUserScriptPath: c:\jstorm\lscript.bat
```

OID	2.16.840.1.113730.3.1.524
-----	---------------------------

Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.287. ntUserUniqueId

The **ntUserUniqueId** attribute contains a unique numeric ID for the Windows user.

OID	2.16.840.1.113730.3.1.66
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.288. ntUserUnitsPerWeek

The **ntUserUnitsPerWeek** attribute contains the total amount of time that the user has spent logged into the Active Directory domain.

OID	2.16.840.1.113730.3.1.63
Syntax	Binary
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.289. ntUserUsrComment

The **ntUserUsrComment** attribute contains additional comments about the user.

OID	2.16.840.1.113730.3.1.61
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.290. ntUserWorkstations

The **ntUsersWorkstations** attribute contains a list of names, in ASCII strings, of work stations which the user is allowed to log in to. There can be up to eight work stations listed, separated by commas. Specify **null** to permit users to log on from any workstation. For example:

```
ntUserWorkstations: firefly
```

OID	2.16.840.1.113730.3.1.525
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape NT Synchronization

2.291. o (organizationName)

The ***organizationName***, or ***o***, attribute contains the organization name. For example:

```
organizationName: Example Corporation
o: Example Corporation
```

OID	2.5.4.10
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.292. objectClass

The ***objectClass*** attribute identifies the object classes used for an entry. For example:

```
objectClass: person
```

OID	2.5.4.0
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.293. objectClasses

This attribute is used in a schema file to identify an object class allowed by the subschema definition.

OID	2.5.21.6
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

2.294. obsoletedByDocument

The ***obsoletedByDocument*** attribute contains the distinguished name of a document which obsoletes the current document entry.

OID	0.9.2342.19200300.102.1.4
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.295. obsoletesDocument

The ***obsoletesDocument*** attribute contains the distinguished name of a documented which is obsoleted by the current document entry.

OID	0.9.2342.19200300.102.1.3
Syntax	DN
Multi- or Single-Valued	Multi-valued

Defined in

Internet White Pages Pilot

2.296. *oncRpcNumber*

The ***oncRpcNumber*** attribute contains part of the RPC map and stores the RPC number for UNIX RPCs.



NOTE

The ***oncRpcNumber*** attribute is defined in ***10rfc2307.ldif*** in the Directory Server. To use the updated RFC 2307 schema, remove the ***10rfc2307.ldif*** file and copy the ***10rfc2307bis.ldif*** file from the `/usr/share/dirsrv/data` directory to the `/etc/dirsrv/slapd-instance_name/schema` directory.

OID	1.3.6.1.1.1.1.18
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.297. *organizationalStatus*

The ***organizationalStatus*** identifies the person's category within an organization.

```
organizationalStatus: researcher
```

OID	0.9.2342.19200300.100.1.45
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.298. *otherMailbox*

The ***otherMailbox*** attribute contains values for email types other than X.400 and RFC 822.

```
otherMailbox: internet $ jsmith@example.com
```

OID	0.9.2342.19200300.100.1.22
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.299. *ou* (*organizationalUnitName*)

The ***organizationalUnitName***, or ***ou***, contains the name of an organizational division or a subtree within the directory hierarchy.


```
organizationalUnitName: Marketing
ou: Marketing
```

OID	2.5.4.11
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.300. owner

The **owner** attribute contains the DN of the person responsible for an entry. For example:

```
owner: cn=John Smith,ou=people,dc=example,dc=com
```

OID	2.5.4.32
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.301. pager

The **pager***TelephoneNumber*, or **pager**, attribute contains a person's pager phone number.

```
pagerTelephoneNumber: 415-555-6789
pager: 415-555-6789
```

OID	0.9.2342.19200300.100.1.42
Syntax	TelephoneNumber
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.302. parentOrganization

The **parentOrganization** attribute identifies the parent organization of an organization or organizational unit.

OID	1.3.6.1.4.1.1466.101.120.41
Syntax	DN
Multi- or Single-Valued	Single-valued
Defined in	Netscape

2.303. personalSignature

The **personalSignature** attribute contains the entry's signature file, in binary format.

```
personalSignature:: AAAAAA==
```

OID	0.9.2342.19200300.100.153
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.304. personalTitle

The **personalTitle** attribute contains a person's honorific, such as **Ms.**, **Dr.**, **Prof.**, and **Rev.**

```
personalTitle: Mr.
```

OID	0.9.2342.19200300.100.140
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.305. photo

The **photo** attribute contains a photo file, in a binary format.

```
photo:: AAAAAA==
```

OID	0.9.2342.19200300.100.17
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.306. physicalDeliveryOfficeName

The **physicalDeliveryOfficeName** contains the city or town in which a physical postal delivery office is located.

```
physicalDeliveryOfficeName: Raleigh
```

OID	2.5.4.19
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.307. postalAddress

The **postalAddress** attribute identifies the entry's mailing address. This field is intended to include multiple lines. When represented in LDIF format, each line should be separated by a dollar sign (\$).

To represent an actual dollar sign (\$) or backslash (\) within the entry text, use the escaped hex values `\24` and `\5c` respectively. For example, to represent the string:

The dollar (\$) value can be found in the c:\cost file.

provide the string:

The dollar (\24) value can be found\$in the c:\5ccost file.

OID	2.5.4.16
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.308. postalCode

The **postalCode** contains the zip code for an entry located within the United States.

postalCode: 44224

OID	2.5.4.17
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.309. postOfficeBox

The **postOfficeBox** attribute contains the postal address number or post office box number for an entry's physical mailing address.

postOfficeBox: 1234

OID	2.5.4.18
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.310. preferredDeliveryMethod

The **preferredDeliveryMethod** contains an entry's preferred contact or delivery method. For example:

preferredDeliveryMethod: telephone

OID	2.5.4.28
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.311. preferredLanguage

The ***preferredLanguage*** attribute contains a person's preferred written or spoken language. The value should conform to the syntax for HTTP Accept-Language header values.

OID	2.16.840.1.113730.3.1.39
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 2798

2.312. preferredLocale

A *locale* identifies language-specific information about how users of a specific region, culture, or custom expect data to be presented, including how data of a given language is interpreted and how data is to be sorted. Directory Server supports three locales for American English, Japanese, and German.

The ***preferredLocale*** attribute sets which locale is preferred by a user.

OID	1.3.6.1.4.1.1466.101.120.42
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape

2.313. preferredTimeZone

The ***preferredTimeZone*** attribute sets the time zone to use for the user entry.

OID	1.3.6.1.4.1.1466.101.120.43
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Netscape

2.314. presentationAddress

The ***presentationAddress*** attribute contains the OSI presentation address for an entry. This attribute includes the OSI Network Address and up to three selectors, one each for use by the transport, session, and presentation entities. For example:

```
presentationAddress: TELEX+00726322+RFC-1006+02+130.59.2.1
```

OID	2.5.4.29
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	RFC 2256

2.315. protocolInformation

The ***protocolInformation*** attribute, used together with the ***presentationAddress*** attribute, provides additional information about the OSO network service.

OID	2.5.4.48
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.316. ref

The **ref** attribute is used to support LDAPv3 smart referrals. The value of this attribute is an LDAP URL:

```
ldap: host_name:port_number/subtree_dn
```

The port number is optional.

For example:

```
ref: ldap://server.example.com:389/ou=People,dc=example,dc=com
```

OID	2.16.840.1.113730.3.1.34
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	LDAPv3 Referrals Internet Draft

2.317. registeredAddress

This attribute contains a postal address for receiving telegrams or expedited documents. The recipient's signature is usually required on delivery.

OID	2.5.4.26
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.318. roleOccupant

This attribute contains the distinguished name of the person acting in the role defined in the **organizationalRole** entry.

```
roleOccupant: uid=bjensen,dc=example,dc=com
```

OID	2.5.4.33
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.319. roomNumber

This attribute specifies the room number of an object. The **cn** attribute should be used for naming room

objects.

```
roomNumber : 230
```

OID	0.9.2342.19200300.100.1.6
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.320. searchGuide

The **searchGuide** attribute specifies information for suggested search criteria when using the entry as the base object in the directory tree for a search operation. When constructing search filters, use the **enhancedSearchGuide** attribute instead.

OID	2.5.4.14
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.321. secretary

The **secretary** attribute identifies an entry's secretary or administrative assistant.

```
secretary: cn=John Smith,dc=example,dc=com
```

OID	0.9.2342.19200300.100.1.21
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.322. seeAlso

The **seeAlso** attribute identifies another Directory Server entry that may contain information related to this entry.

```
seeAlso: cn=Quality Control Inspectors,ou=manufacturing,dc=example,dc=com
```

OID	2.5.4.34
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.323. serialNumber

The **serialNumber** attribute contains the serial number of a device.

serialNumber: 555-1234-AZ

OID	2.5.4.5
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.324. serverHostName

The **serverHostName** attribute contains the hostname of the server on which the Directory Server is running.

OID	2.16.840.1.113730.3.1.76
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Red Hat Administration Services

2.325. serverProductName

The **serverProductName** attribute contains the name of the server product.

OID	2.16.840.1.113730.3.1.71
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Red Hat Administration Services

2.326. serverRoot

This attribute is obsolete.

This attribute shows the installation directory (server root) of Directory Servers version 7.1 or older.

OID	2.16.840.1.113730.3.1.70
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Administration Services

2.327. serverVersionNumber

The **serverVersionNumber** attribute contains the server version number.

OID	2.16.840.1.113730.3.1.72
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Red Hat Administration Services

2.328. shadowExpire

The **shadowExpire** attribute contains the date that the shadow account expires. The format of the date is in the number days since EPOCH, in UTC. To calculate this on the system, run a command like the following, using **-d** for the current date and **-u** to specify UTC:

```
$ echo `date -u -d 20100108 +%s` /24/60/60 |bc
14617
```

The result (14617 in the example) is then the value of **shadowExpire**.

```
shadowExpire: 14617
```



NOTE

The **shadowExpire** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.10
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.329. shadowFlag

The **shadowFlag** attribute identifies what area in the shadow map stores the flag values.

```
shadowFlag: 150
```



NOTE

The **shadowFlag** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.11
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.330. shadowInactive

The **shadowInactive** attribute sets how long, in days, the shadow account can be inactive.

shadowInactive: 15

**NOTE**

The **shadowInactive** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.9
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.331. shadowLastChange

The **shadowLastChange** attribute contains the time and date of the last modification to the shadow account.

shadowLastChange: 201003180130

**NOTE**

The **shadowLastChange** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.5
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.332. shadowMax

The **shadowMax** attribute Sets the maximum number of days that a shadow password is valid.

shadowMax: 10

**NOTE**

The ***shadowMax*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.7
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.333. shadowMin

The ***shadowMin*** attribute sets the minimum number of days that must pass between changing the shadow password.

```
shadowMin: 3
```

**NOTE**

The ***shadowMin*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.6
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.334. shadowWarning

The ***shadowWarning*** attribute sets how many days in advance of password expiration to send a warning to the user.

```
shadowWarning: 2
```

**NOTE**

The ***shadowWarning*** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

OID	1.3.6.1.1.1.1.8
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.335. singleLevelQuality

The ***singleLevelQuality*** specifies the purported data quality at the level immediately below in the directory tree.

OID	0.9.2342.19200300.100.1.50
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

2.336. sn (surname)

The ***surname***, or ***sn***, attribute contains an entry's *surname*, also called a last name or family name.

```
surname: Jensen
sn: Jensen
```

OID	2.5.4.4
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.337. st (stateOrProvinceName)

The ***stateOrProvinceName***, or ***st***, attributes contains the entry's state or province.

```
stateOrProvinceName: California
st: California
```

OID	2.5.4.8
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.338. street

The ***streetAddress***, or ***street***, attribute contains an entry's street name and residential address.

```
streetAddress: 1234 Ridgeway Drive
street: 1234 Ridgeway Drive
```

OID	2.5.4.9
-----	---------

Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.339. subject

The **subject** attribute contains information about the subject matter of the document entry.

```
subject: employee option grants
```

OID	0.9.2342.19200300.102.1.8
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.340. subtreeMaximumQuality

The **subtreeMaximumQuality** attribute specifies the purported maximum data quality for a directory subtree.

OID	0.9.2342.19200300.100.1.52
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

2.341. subtreeMinimumQuality

The **subtreeMinimumQuality** specifies the purported minimum data quality for a directory subtree.

OID	0.9.2342.19200300.100.1.51
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

2.342. supportedAlgorithms

The **supportedAlgorithms** attribute contains algorithms which are requested and stored in a binary form, such as **supportedAlgorithms;binary**.

```
supportedAlgorithms:: AAAAAA==
```

OID	2.5.4.52
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.343. supportedApplicationContext

This attribute contains the identifiers of OSI application contexts.

OID	2.5.4.30
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.344. telephoneNumber

The **telephoneNumber** contains an entry's phone number. For example:

```
telephoneNumber: 415-555-2233
```

OID	2.5.4.20
Syntax	TelephoneNumber
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.345. teletexTerminalIdentifier

The **teletexTerminalIdentifier** attribute contains an entry's teletex terminal identifier. The first printable string in the example is the encoding of the first portion of the teletex terminal identifier to be encoded, and the subsequent 0 or more octetstrings are subsequent portions of the teletex terminal identifier:

```
teletex-id = ttx-term 0*("$" ttx-param)
ttx-term = printablestring
ttx-param = ttx-key ":" ttx-value
ttx-key = "graphic" / "control" / "misc" / "page" / "private"
ttx-value = octetstring
```

OID	2.5.4.22
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.346. telexNumber

This attribute defines the telex number of the entry. The format of the telex number is as follows:

```
actual-number "$" country "$" answerback
```

- *actual-number* is the syntactic representation of the number portion of the telex number being encoded.
- *country* is the TELEX country code.
- *answerback* is the answerback code of a TELEX terminal.

OID	2.5.4.21
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.347. textEncodedORAddress

The ***textEncodedORAddress*** attribute defines the text-encoded Originator/Recipient (X.400) address of the entry as defined in [RFC 987](#).

```
textEncodedORAddress: /S=doe/OU=eng/O=example/ADMD=telemail/C=us/
```

OID	0.9.2342.19200300.100.1.2
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.348. title

The ***title*** attribute contains a person's title within the organization.

```
title: Senior QC Inspector
```

OID	2.5.4.12
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.349. ttl (TimeToLive)

The ***timeToLive***, or ***ttl***, attribute contains the time, in seconds, that cached information about an entry should be considered valid. Once the specified time has elapsed, the information is considered out of date. A value of zero (0) indicates that the entry should not be cached.

```
timeToLive: 120
ttl: 120
```

OID	1.3.6.1.4.250.1.60
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	LDAP Caching Internet Draft

2.350. uid (userID)

The **userID**, more commonly **uid**, attribute contains the entry's unique username.

```
userid: jsmith
uid: jsmith
```

OID	0.9.2342.19200300.100.1.1
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.351. uidNumber

The **uidNumber** attribute contains a unique numeric identifier for a user entry. This is analogous to the user number in Unix.

```
uidNumber: 120
```



NOTE

The **uidNumber** attribute is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the `/usr/share/dirsrv/data` directory to the `/etc/dirsrv/slapd-instance_name/schema` directory.

OID	1.3.6.1.1.1.1.0
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	RFC 2307

2.352. uniqueIdentifier

This attribute identifies a specific item used to distinguish between two entries when a distinguished name has been reused. This attribute is intended to detect any instance of a reference to a distinguished name that has been deleted. This attribute is assigned by the server.

```
uniqueIdentifier:: AAAAAA==
```

OID	0.9.2342.19200300.100.1.44
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 1274

2.353. uniqueMember

The **uniqueMember** attribute identifies a group of names associated with an entry where each name was given a **uniqueIdentifier** to ensure its uniqueness. A value for the **uniqueMember** attribute is a DN followed by the **uniqueIdentifier**.

OID	2.5.4.50
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.354. updatedByDocument

The ***updatedByDocument*** attribute contains the distinguished name of a document that is an updated version of the document entry.

OID	0.9.2342.19200300.102.1.6
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.355. updatesDocument

The ***updatesDocument*** attribute contains the distinguished name of a document for which this document is an updated version.

OID	0.9.2342.19200300.102.1.5
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Internet White Pages Pilot

2.356. userCertificate

This attribute is stored and requested in the binary form, as **`userCertificate;binary`**.

```
userCertificate;binary:: AAAAAA==
```

OID	2.5.4.36
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.357. userClass

This attribute specifies a category of computer user. The semantics of this attribute are arbitrary. The ***organizationalStatus*** attribute makes no distinction between computer users and other types of users and may be more applicable.

```
userClass: intern
```

OID	0.9.2342.19200300.100.1.8
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued

Defined in

[RFC 1274](#)

2.358. userPassword

This attribute identifies the entry's password and encryption method in the format *{encryption method}encrypted password*. For example:

```
userPassword: {sha}FTSLQhxXpA05
```

Transferring cleartext passwords is strongly discouraged where the underlying transport service cannot guarantee confidentiality. Transferring in cleartext may result in disclosure of the password to unauthorized parties.

OID	2.5.4.35
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.359. userPKCS12

This attribute provides a format for the exchange of personal identity information. The attribute is stored and requested in binary form, as **userPKCS12;binary**. The attribute values are PFX PDUs stored as binary data.

OID	2.16.840.1.113730.3.1.216
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2798

2.360. userSMIMECertificate

The **userSMIMECertificate** attribute contains certificates which can be used by mail clients for S/MIME. This attribute requests and stores data in a binary format. For example:

```
userSMIMECertificate;binary:: AAAAAA==
```

OID	2.16.840.1.113730.3.1.40
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2798

2.361. vacationEndDate

This attribute shows the ending date of the user's vacation period.

OID	2.16.840.1.113730.3.1.708
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued

Defined in	Netscape Messaging Server
------------	---------------------------

2.362. vacationStartDate

This attribute shows the start date of the user's vacation period.

OID	2.16.840.1.113730.3.1.707
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Netscape Messaging Server

2.363. x121Address

The **x121Address** attribute contains a user's X.121 address.

OID	2.5.4.24
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

2.364. x500UniqueIdentifier

Reserved for future use. An X.500 identifier is a binary method of identification useful for differentiating objects when a distinguished name has been reused.

```
x500UniqueIdentifier:: AAAAAA==
```

OID	2.5.4.45
Syntax	Binary
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2256

Chapter 3. Directory Server Object Class Reference

This chapter contains an alphabetical list of the object classes accepted by the default schema. It gives a definition of each object class and lists its required and allowed attributes. The object classes listed in this chapter are available to support entry information in the Red Hat Directory Server (Directory Server). Object classes that are used by the Directory Server for internal operations are not documented in this *Schema Guide*; instead, refer to the *Red Hat Directory Server Configuration, Command, and File Reference*. Replication and synchronization object classes are listed in [Chapter 4, Operational Attributes and Object Classes](#).

The required attributes listed for an object class must be present in the entry when that object class is added to the directory's **ldif** file. If an object class has a superior object class, both of these object classes with all required attributes must be present in the entry. If required attributes are not listed in the **ldif** file, then the server will not restart.



NOTE

The LDAP RFCs and X.500 standards allow for an object class to have more than one superior object class. This behavior is not currently supported by Directory Server.

This chapter contains information about object classes that describe directory entries, like users, groups, and equipment. This intent — describing directory data — also covers some schema elements that are used to organize data in the directory, like views and roles.

However, this object class reference does not cover core schema used to configure the Directory Server itself. The directory service is also configured as directory entries within the **cn=config** subtree. For descriptions of those configuration attributes, see the *Configuration, Command, and File Reference*.

3.1. account

The **account** object class defines entries for computer accounts. This object class is defined in [RFC 1274](#).

Superior Class

top

OID

0.9.2342.19200300.100.4.5

Required Attributes

Attribute	Definition
objectClass	Gives the object classes for the entry.
uid (userID)	Gives the defined account's user ID.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
host	Gives the hostname for the machine on which the

	account resides.
l (localityName)	Gives the city or geographical location of the entry.
o (organizationName)	Gives the organization to which the account belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the account belongs.
seeAlso	Contains a URL to another entry or site with related information.

3.2. alias

The **alias** object class points to other directory entries. This object class is defined in [RFC 2256](#).



NOTE

Aliasing entries is not supported in Red Hat Directory Server.

Superior Class

top

OID

2.5.6.1

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
aliasedObjectName	Gives the distinguished name of the entry for which this entry is an alias.

3.3. bootableDevice

The **bootableDevice** object class points to a device with boot parameters. This object class is defined in [RFC 2307](#).



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.12

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.

Allowed Attributes

Attribute	Definition
bootFile	Gives the boot image file.
bootParameter	Gives the parameters used by the boot process for the device.
description	Gives a text description of the entry.
l (localityName)	Gives the city or geographical location of the entry.
o (organizationName)	Gives the organization to which the device belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the device belongs.
owner	Gives the DN (distinguished name) of the person responsible for the device.
seeAlso	Contains a URL to another entry or site with related information.
serialNumber	Contains the serial number of the device.

3.4. cacheObject

The **cacheObject** is an object that contains the time to live (**ttl**) attribute type. This object class is defined in the LDAP Caching Internet Draft.

Superior Class

top

OID

1.3.6.1.4.1.250.3.18

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.

Allowed Attributes

Attribute	Definition
ttl (TimeToLive)	The time that the object remains (lives) in the

cache.

3.5. cosClassicDefinition

The **cosClassicDefinition** object class defines a class of service template entry using the entry's DN (distinguished name), given in the [cosTemplateDn](#) attribute, and the value of one of the target attributes, specified in the [cosSpecifier](#) attribute.

This object class is defined in [RFC 1274](#).

Superior Class

cosSuperDefinition

OID

2.16.840.1.113730.3.2.100

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cosAttribute	Provides the name of the attribute for which the CoS generates a value. There can be more than one cosAttribute value specified.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
cosSpecifier	Specifies the attribute value used by a classic CoS, which, along with the template entry's DN, identifies the template entry.
cosTemplateDn	Provides the DN of the template entry which is associated with the CoS definition.
description	Gives a text description of the entry.

3.6. cosDefinition

The **cosDefinition** object class defines which class of service is being used; this object class provide compatibility with the DS4.1 CoS Plug-in.

This object class is defined in [RFC 1274](#).

Superior Class

top

OID

2.16.840.1.113730.3.2.84

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
aci	Evaluates what rights are granted or denied when the Directory Server receives an LDAP request from a client.
cn (commonName)	Gives the common name of the entry.
cosAttribute	Provides the name of the attribute for which the CoS generates a value. There can be more than one cosAttribute value specified.
cosSpecifier	Specifies the attribute value used by a classic CoS, which, along with the template entry's DN, identifies the template entry.
cosTargetTree	Defines the subtrees in the directory to which the CoS schema applies.
cosTemplateDn	Provides the DN of the template entry which is associated with the CoS definition.
uid (userID)	Gives the user ID for the entry.

3.7. cosIndirectDefinition

The **cosIndirectDefinition** defines the template entry using the value of one of the target entry's attributes. The attribute of the target entry is specified in the [cosIndirectSpecifier](#) attribute.

This object class is defined by Directory Server.

Superior Class

cosSuperDefinition

OID

2.16.840.1.113730.3.2.102

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cosAttribute	Provides the name of the attribute for which the CoS generates a value. There can be more than one cosAttribute value specified.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
cosIndirectSpecifier	Specifies the attribute value used by an indirect

	CoS to identify the template entry.
description	Gives a text description of the entry.

3.8. cosPointerDefinition

This object class identifies the template entry associated with the CoS definition using the template entry's DN value. The DN of the template entry is specified in the [cosIndirectSpecifier](#) attribute.

This object class is defined by Directory Server.

Superior Class

cosSuperDefinition

OID

2.16.840.1.113730.3.2.101

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cosAttribute	Provides the name of the attribute for which the CoS generates a value. There can be more than one cosAttribute value specified.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
cosTemplateDn	Provides the DN of the template entry which is associated with the CoS definition.
description	Gives a text description of the entry.

3.9. cosSuperDefinition

All CoS definition object classes inherit from the **cosSuperDefinition** object class.

This object class is defined by Directory Server.

Superior Class

LDAPsubentry

OID

2.16.840.1.113730.3.2.99

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cosAttribute	Provides the name of the attribute for which the

CoS generates a value. There can be more than one ***cosAttribute*** value specified.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
description	Gives a text description of the entry.

3.10. cosTemplate

The **cosTemplate** object class contains a list of the shared attribute values for the CoS.

This object class is defined by Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.128

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
cosPriority	Specifies which template provides the attribute value when CoS templates compete to provide an attribute value.

3.11. country

The **country** object class defines entries which represent countries. This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.2

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

c (countryName)

Contains the two-character code representing country names, as defined by ISO, in the directory.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
searchGuide	Specifies information for suggested search criteria when using the entry as the base object in the directory tree for a search.

3.12. dcObject

The **dcObject** object class allows domain components to be defined for an entry. This object class is defined as auxiliary because it is commonly used in combination with another object class, such as **o (organization)**, **ou (organizationalUnit)**, or **l (locality)**.

For example:

```
dn: dc=example,dc=com
objectClass: top
objectClass: organizationalUnit
objectClass: dcObject
dc: example
ou: Example Corporation
```

This object class is defined in [RFC 2247](#).

Superior Class

top

OID

1.3.6.1.4.1.1466.344

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
dc (domainComponent)	Contains one component of a domain name.

3.13. device

The **device** object class stores information about network devices, such as printers, in the directory. This object class is defined in [RFC 2247](#).

Superior Class

top

OID

2.5.6.14

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the device.
cn (commonName)	Gives the common name of the device.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
l (localityName)	Gives the city or geographical location of the entry.
o (organizationName)	Gives the organization to which the device belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the device belongs.
owner	Gives the DN (distinguished name) of the person responsible for the device.
seeAlso	Contains a URL to another entry or site with related information.
serialNumber	Contains the serial number of the device.

3.14. document

The **document** object class defines directory entries that represent documents. [RFC 1247](#).

Superior Class

top

OID

0.9.2342.19200300.100.4.6

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
documentIdentifier	Gives the unique ID for the document.

Allowed Attributes

Attribute	Definition
abstract	Contains the abstract for the document.
audio	Stores a sound file in binary format.
authorCn	Gives the author's common name or given name.
authorSn	Gives the author's surname.
cn (commonName)	Gives the common name of the entry.

description	Gives a text description of the entry.
dITRedirect	Contains the DN (distinguished name) of the entry to use as a redirect for the document entry.
documentAuthor	Contains the DN (distinguished name) of the author.
documentLocation	Gives the location of the original document.
documentPublisher	Identifies the person or organization that published the document.
documentStore	
documentTitle	Contains the title of the document.
documentVersion	Gives the version number of the document.
info	Contains information about the document.
jpegPhoto	Stores a JPG image.
keyWords	Contains keywords related to the document.
l (localityName)	Gives the city or geographical location of the entry.
lastModifiedBy	Gives the DN (distinguished name) of the last user which modified the document entry.
lastModifiedTime	Gives the time of the last modification.
manager	Gives the DN (distinguished name) of the entry's manager.
o (organizationName)	Gives the organization to which the document belongs.
obsoletedByDocument	Gives the DN (distinguished name) of another document entry which <i>obsoletes</i> this document.
obsoletesDocument	Gives the DN (distinguished name) of another document entry which <i>is obsoleted by</i> this document.
ou (organizationalUnitName)	Gives the organizational unit or division to which the document belongs.
photo	Stores a photo of the document in binary format.
seeAlso	Contains a URL to another entry or site with related information.
subject	Describes the subject of the document.
uniqueIdentifier	Distinguishes between two entries when a distinguished name has been reused.
updatedByDocument	Gives the DN (distinguished name) of another document entry which <i>updates</i> this document.
updatesDocument	Gives the DN (distinguished name) of another document entry which <i>is updated by</i> this document.

3.15. documentSeries

The **documentSeries** object class defines an entry that represents a series of documents. This object class is defined in [RFC 1274](#).

top

OID

0.9.2342.19200300.100.4.9

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
l (localityName)	Gives the place where the document series is physically located.
o (organizationName)	Gives the organization to which the document series belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the series belongs.
seeAlso	Contains a URL to another entry or site with related information.
telephoneNumber	Gives the telephone number of the person responsible for the document series.

3.16. domain

The **domain** object class defines directory entries that represent DNS domains. Use the [dc \(domainComponent\)](#) attribute to name entries of this object class.

This object class is also used for Internet domain names, such as **example.com**.

The **domain** object class can only be used for a directory entry which does *not* correspond to an organization, organizational unit, or any other object which has an object class defined for it. object for which an object class has been defined.

This object class is defined in [RFC 2252](#).

Superior Class

top

OID

0.9.2342.19200300.100.4.13

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

dc (domainComponent)	Contains one component of a domain name.
--------------------------------------	--

Allowed Attributes

Attribute	Definition
associatedName	Gives the name of an entry within the organizational directory tree which is associated with a DNS domain.
businessCategory	Gives the type of business in which this domain is engaged.
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Gives the fax number for the domain.
internationalISDNNumber	Gives the ISDN number for the domain.
l (localityName)	Gives the city or geographical location of the entry.
o (organizationName)	Gives the organization to which the entry belongs.
physicalDeliveryOfficeName	Gives a location where physical deliveries can be made.
postOfficeBox	Gives the post office box number for the domain.
postalAddress	Contains the mailing address for the domain.
postalCode	Gives the postal code for the domain, such as the zip code in the United States.
preferredDeliveryMethod	Shows the person's preferred method of contact or message delivery.
registeredAddress	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
searchGuide	Specifies information for suggested search criteria when using the entry as the base object in the directory tree for a search.
seeAlso	Contains a URL to another entry or site with related information.
st (stateOrProvinceName)	Gives the state or province where the domain is located.
street (streetAddress)	Gives the street name and address number for the domain's physical location.
telephoneNumber	Gives the phone number for the domain.
teletexTerminalIdentifier	Gives the ID for a domain's teletex terminal.
telexNumber	Gives the telex number for the domain.
userPassword	Stores the password with which the entry can bind to the directory.
x121Address	Gives the X.121 address for the domain.

3.17. domainRelatedObject

The **domainRelatedObject** object class defines entries that represent DNS or NRS domains which are equivalent to an X.500 domain, such as an organization or organizational unit.

This object class is defined in [RFC 1274](#).

Superior Class

top

OID

0.9.2342.19200300.100.4.17

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
associatedDomain	Specifies a DNS domain associated with an object in the directory tree.

3.18. dSA

The **dSA** object class defines entries that represent DSAs.

This object class is defined in [RFC 1274](#).

Superior Class

top

OID

2.5.6.13

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
presentationAddress	Contains the entry's OSI presentation address.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
knowledgeInformation	
l (localityName)	Gives the city or geographical location of the entry.
o (organizationName)	Gives the organization to which the entry belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which

	the entry belongs.
seeAlso	Contains a URL to another entry or site with related information.
supportedApplicationContext	Contains the identifiers of OSI application contexts.

3.19. extensibleObject

When present in an entry, **extensibleObject** permits the entry to hold optionally any attribute. The allowed attribute list of this class is implicitly the set of all attributes known to the server.

This object class is defined in [RFC 2252](#).

Superior Class

top

OID

1.3.6.1.4.1.1466.101.120.111

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

All attributes known to the server.

3.20. friendlyCountry

The **friendlyCountry** object class defines country entries within the directory. This object class allows more friendly names than the **country** object class.

This object class is defined in [RFC 1274](#).

Superior Class

top

OID

0.9.2342.19200300.100.4.18

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
co (friendlyCountryName)	Stores the human-readable country name.
c (countryName)	Contains the two-character code representing country names, as defined by ISO, in the directory.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
searchGuide	Specifies information for suggested search criteria when using the entry as the base object in the directory tree for a search.

3.21. groupOfCertificates

The **groupOfCertificates** object class describes a set of X.509 certificates. Any certificate that matches one of the [memberCertificateDescription](#) values is considered a member of the group.

Superior Class

top

OID

2.16.840.1.113730.3.2.31

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
businessCategory	Gives the type of business in which the group is engaged.
description	Gives a text description of the entry.
memberCertificateDescription	Contains the values used to determine if a particular certificate is a member of this group.
o (organizationName)	Gives the organization to which the entry belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.
owner	Contains the DN (distinguished name) of the person responsible for the group.
seeAlso	Contains a URL to another entry or site with related information.

3.22. groupOfMailEnhancedUniqueNames

The **groupOfMailEnhancedUniqueNames** object class is used for a mail group which must have unique members. This object class is defined for Netscape Messaging Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.5

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
businessCategory	Gives the type of business in which the group is engaged.
description	Gives a text description of the entry.
mailEnhancedUniqueMember	Contains a unique DN value to identify a member of the mail group.
o (organizationName)	Gives the organization to which the entry belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.
owner	Contains the DN (distinguished name) of the person responsible for the group.
seeAlso	Contains a URL to another entry or site with related information.

3.23. groupOfNames

The **groupOfNames** object class contains entries for a group of names. This object class is defined in [RFC 2256](#).

**NOTE**

The definition for this object class in Directory Server differs from the standard definition. In the standard definition, [member](#) is a required attribute, while in Directory Server it is an allowed attribute. Directory Server, therefore, allows a group to have no members.

Superior Class

top

OID

2.5.6.9

Required Attributes

Attribute	Definition
-----------	------------

objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
businessCategory	Gives the type of business in which the entry is engaged.
description	Gives a text description of the entry.
member	Contains the DN (distinguished name) of a group member.
o (organizationName)	Gives the organization to which the entry belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.
owner	Contains the DN (distinguished name) of the person responsible for the group.
seeAlso	Contains a URL to another entry or site with related information.

3.24. groupOfUniqueNames

The **groupOfUniqueNames** object class defines a group which contains unique names.



NOTE

The definition for this object class in Directory Server differs from the standard definition. In the standard definition, [uniqueMember](#) is a required attribute, while in Directory Server it is an allowed attribute. Directory Server, therefore, allows a group to have no members.

This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.17

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
-----------	------------

businessCategory	Gives the type of business in which the entry is engaged.
description	Gives a text description of the entry.
o (organizationName)	Gives the organization to which the entry belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.
owner	Contains the DN (distinguished name) of the person responsible for the group.
seeAlso	Contains a URL to another entry or site with related information.
uniqueMember	Contains the DN (distinguished name) of a member of the group; this DN must be unique.

3.25. groupOfURLs

The **groupOfURLs** object class is an auxiliary object class for the **groupOfUniqueNames** and **groupOfNames** object classes. This group consists of a list of labeled URLs.

Superior Class

top

OID

2.16.840.1.113730.3.2.33

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
businessCategory	Gives the type of business in which the group is engaged.
description	Gives a text description of the entry.
memberURL	Contains a URL associated with each member of the group.
o (organizationName)	Gives the organization to which the entry belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.
owner	Contains the DN (distinguished name) of the person responsible for the group.
seeAlso	Contains a URL to another entry or site with related information.

3.26. ieee802Device

The **ieee802Device** object class points to a device with a MAC address. This object class is defined in RFC 2307.



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.11

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
l (localityName)	Gives the city or geographical location of the entry.
macAddress	Gives the MAC address of the device.
o (organizationName)	Gives the organization to which the device belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the device belongs.
owner	Gives the DN (distinguished name) of the person responsible for the device.
seeAlso	Contains a URL to another entry or site with related information.
serialNumber	Contains the serial number of the device.

3.27. inetAdmin

The **inetAdmin** object class is a marker for an administrative group or user. This object class is defined for the Netscape Delegated Administrator.

Superior Class

top

OID

2.16.840.1.113730.3.2.112

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
adminRole	Identifies a role to which the administrative user belongs.
memberOf	Contains a group name to which the administrative user belongs. This is dynamically managed by the MemberOf Plug-in.

3.28. inetDomain

The **inetDomain** object class is a auxiliary class for virtual domain nodes. This object class is defined for the Netscape Delegated Administrator.

Superior Class

top

OID

2.16.840.1.113730.3.2.129

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
inetDomainBaseDN	Defines the base DN of the user subtree for a DNS domain.
inetDomainStatus	Gives the status of the domain. The status can be active, inactive, or deleted.

3.29. inetOrgPerson

The **inetOrgPerson** object class defines entries representing people in an organization's enterprise network. This object class inherits the [cn \(commonName\)](#) and [sn \(surname\)](#) attributes from the **person** object class.

This object class is defined in [RFC 2798](#).

Superior Class

person

OID

2.16.840.1.113730.3.2.2

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
sn (surname)	Gives the person's family name or last name.

Allowed Attributes

Attribute	Definition
audio	Stores a sound file in binary format.
businessCategory	Gives the type of business in which the entry is engaged.
carLicense	Gives the license plate number of the person's vehicle.
departmentNumber	Gives the department for which the person works.
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
displayName	Shows the preferred name of a person to use when displaying entries.
employeeNumber	Contains the person's employee number.
employeeType	Shows the person's type of employment (for example, full time).
fax (facsimileTelephoneNumber)	Contains the person's fax number.
givenname	Contains the person's first name.
homePhone	Gives the person's home phone number.
homePostalAddress	Gives the person's home mailing address.
initials	Gives the person's initials.
internationalISDNNumber	Contains the ISDN number for the entry.
jpegPhoto	Stores a JPG image.
l (localityName)	Gives the city or geographical location of the entry.
labeledURI	Contains a URL which is relevant to the entry.
mail	Contains the person's email address.
manager	Contains the DN (distinguished name) of the direct supervisor of the person entry.
mobile	Gives the person's mobile phone number.

<u>o (organizationName)</u>	Gives the organization to which the entry belongs.
<u>ou (organizationalUnitName)</u>	Gives the organizational unit or division to which the entry belongs.
<u>pager</u>	Gives the person's pager number.
<u>photo</u>	Stores a photo of a person, in binary format.
<u>physicalDeliveryOfficeName</u>	Gives a location where physical deliveries can be made.
<u>postOfficeBox</u>	Gives the post office box number for the entry.
<u>postalAddress</u>	Contains the mailing address for the entry.
<u>postalCode</u>	Gives the postal code for the entry, such as the zip code in the United States.
<u>preferredDeliveryMethod</u>	Shows the person's preferred method of contact or message delivery.
<u>preferredLanguage</u>	Gives the person's preferred written or spoken language.
<u>registeredAddress</u>	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
<u>roomNumber</u>	Gives the room number where the person is located.
<u>secretary</u>	Contains the DN (distinguished name) of the person's secretary or administrative assistant.
<u>seeAlso</u>	Contains a URL to another entry or site with related information.
<u>st (stateOrProvinceName)</u>	Gives the state or province where the entry is located.
<u>street (streetAddress)</u>	Gives the street name and number for the person's physical location.
<u>telephoneNumber</u>	Gives the telephone number for the entry.
<u>teletexTerminalIdentifier</u>	Gives the identifier for the person's teletex terminal.
<u>telexNumber</u>	Gives the telex number associated with the entry.
<u>title</u>	Shows the person's job title.
<u>uid (userID)</u>	Contains the person's user ID (usually his logon ID).
<u>userCertificate</u>	Stores a user's certificate in cleartext (not used).
<u>userPassword</u>	Stores the password with which the entry can bind to the directory.
<u>userSMIMECertificate</u>	Stores the person's certificate in binary form so it can be used by S/MIME clients.
<u>x121Address</u>	Gives the X.121 address for the person.
<u>X500UniqueIdentifier</u>	Reserved for future use.

3.30. inetSubscriber

The **inetSubscriber** object class is used for general user account management. This object class is

defined for the Netscape subscriber interoperability.

Superior Class

top

OID

2.16.840.1.113730.3.2.134

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
inetSubscriberAccountld	Contains a unique attribute linking the subscriber to a billing system.
inetSubscriberChallenge	Contains some kind of question or prompt, the challenge phrase, which is used to confirm the identity of the user.
inetSubscriberResponse	Contains the answer to the challenge question.

3.31. inetUser

The **inetUser** object class is an auxiliary class which must be present in an entry in order to deliver subscriber services. This object class is defined for the Netscape subscriber interoperability.

Superior Class

top

OID

2.16.840.1.113730.3.2.130

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
inetUserHttpURL	Contains web addresses associated with the user.
inetUserStatus	Gives the status of the user. The status can be active, inactive, or deleted.
memberOf	Contains a group name to which the user belongs. This is dynamically managed by the MemberOf Plug-in.

uid (userID)	Contains the person's user ID (usually his login ID).
userPassword	Stores the password with which the user can use to access the user account.

3.32. ipHost

The **ipHost** object class stores IP information about a host. This object class is defined in [RFC 2307](#).



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.6

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.
ipHostNumber	Contains the IP address of the device or host.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
l (localityName)	Gives the city or geographical location of the entry.
manager	Contains the DN (distinguished name) of the maintainer or supervisor of the entry.
o (organizationName)	Gives the organization to which the device belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the device belongs.
owner	Gives the DN (distinguished name) of the person responsible for the device.
seeAlso	Contains a URL to another entry or site with related information.
serialNumber	Contains the serial number of the device.

3.33. ipNetwork

The **ipNetwork** object class stores IP information about a network. This object class is defined in [RFC 2307](#).



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.7

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.
ipNetworkNumber	Contains the IP number for the network.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
l (localityName)	Gives the city or geographical location of the entry.
manager	Contains the DN (distinguished name) of the maintainer or supervisor of the entry.
ipNetmaskNumber	Contains the IP netmask for the network.

3.34. ipProtocol

The **ipProtocol** object class shows the IP protocol version. This object class is defined in [RFC 2307](#).



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.4

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.
ipProtocolNumber	Contains the IP protocol number for the network.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.

3.35. ipService

The **ipService** object class stores information about the IP service. This object class is defined in [RFC 2307](#).



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.3

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.
ipServicePort	Gives the port number used by the IP service.
ipServiceProtocol	Contains the IP protocol number for the service.

Allowed Attributes

Attribute	Definition
-----------	------------

[description](#)

Gives a text description of the entry.

3.36. labeledURIObject

This object class can be added to existing directory objects to allow URI values to be included. Using this object class does not preclude including the [labeledURI](#) attribute type directly in other object classes as appropriate.

This object class is defined in [RFC 2079](#).

Superior Class

top

OID

1.3.6.1.4.1.250.3.15

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
labeledURI	Gives a URI which is relevant to the entry's object.

3.37. locality

The **locality** object class defines entries that represent localities or geographic areas.

This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.3

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
l (localityName)	Gives the city or geographical location of the

	entry.
searchGuide	Specifies information for suggested search criteria when using the entry as the base object in the directory tree for a search.
seeAlso	Contains a URL to another entry or site with related information.
st (stateOrProvinceName)	Gives the state or province associated with the locality.
street (streetAddress)	Gives a street and number associated with the locality.

3.38. mailGroup

The **mailGroup** object class defines the mail attributes for a group. This object is defined in the schema for the Netscape Messaging Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.4

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
mail	Stores email addresses for the group.
mailAlternateAddress	Contains secondary email addresses for the group.
mailHost	Contains the hostname of the mail server.
owner	Contains the DN (distinguished name) of the person responsible for the group.

3.39. mailRecipient

The **mailRecipient** object class defines a mail account for a user. This object is defined in the schema for the Netscape Messaging Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.3

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
mail	Stores email addresses for the group.
mailAccessDomain	Contains the domain from which the user can access the messaging server.
mailAlternateAddress	Contains secondary email addresses for the group.
mailAutoReplyMode	Specifies whether autoreply mode for the account is enabled.
mailAutoReplyText	Contains the text use for automatic reply emails.
mailDeliveryOption	Specifies the mail delivery mechanism to be used for the mail user.
mailForwardingAddress	Specifies the mail delivery mechanism to use for the mail user.
mailHost	Contains the hostname of the mail server.
mailMessageStore	Specifies the location of the user's mail box.
mailProgramDeliveryInfo	Specifies the commands used for programmed mail delivery.
mailQuota	Specifies the disk space allowed for the user's mail box.
mailRoutingAddress	Contains a routing address to use when forwarding the mail from this entry's account to another messaging server.
multiLineDescription	Contains a text description of the entry which spans more than one line.
uid (userID)	Gives the defined account's user ID.
userPassword	Stores the password with which the entry can access the account.

3.40. netscapeCertificateServer

The **netscapeCertificateServer** object class stores information about a Netscape certificate server. This object is defined in the schema for the Netscape Certificate Management System.

Superior Class

top

OID

2.16.840.1.113730.3.2.18

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

3.41. netscapeDirectoryServer

The **netscapeDirectoryServer** object class stores information about a Directory Server instance. This object is defined in the schema for the Netscape Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.23

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

3.42. NetscapeLinkedOrganization

NetscapeLinkedOrganization is an auxiliary object class. This object is defined in the schema for the Netscape server suite.

Superior Class

top

OID

1.3.6.1.4.1.1466.101.120.141

Allowed Attributes

Attribute	Definition
parentOrganization	Identifies the parent organization for the linked organization defined for the server suite.

3.43. netscapeMachineData

The **netscapeMachineData** object class distinguishes between machine data and non-machine data. This object is defined in the schema for the Netscape Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.32

3.44. NetscapePreferences

NetscapePreferences is an auxiliary object class which stores the user preferences. This object is defined by Netscape.

Superior Class

top

OID

1.3.6.1.4.1.1466.101.120.142

Required Attributes

Attribute	Definition
preferredLanguage	Gives the person's preferred written or spoken language.
preferredLocale	Gives the person's preferred locale. A locale setting defines cultural or national settings like date formats and currencies.
preferredTimeZone	Gives the person's preferred time zone.

3.45. netscapeReversiblePasswordObject

netscapeReversiblePasswordObject is an auxiliary object class to store a password. This object is defined in the schema for the Netscape Web Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.154

Allowed Attributes

Attribute	Definition
netscapeReversiblePassword	Contains a password used for HTTP Digest/MD5 authentication.

3.46. netscapeServer

The **netscapeServer** object class contains instance-specific information about a Netscape server and its installation.

Superior Class

top

OID

2.16.840.1.113730.3.2.10

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
administratorContactInfo	Contains the contact information for the server administrator.
adminUrl	Contains the URL for the Admin Server used by the instance.
description	Gives a text description of the entry.
installationTimeStamp	Contains the time that the server instance was installed.
serverHostName	Contains the hostname of the server on which the Directory Server instance is running.
serverProductName	Contains the product name of the server type.
serverRoot	Specifies the top directory where the server product is installed.
serverVersionNumber	Contains the product version number.
userPassword	Stores the password with which the entry can bind to the directory.

3.47. netscapeWebServer

The **netscapeWebServer** object class identifies an installed Netscape Web Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.29

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
nsServerID	Contains the server's name or ID.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.

[nsServerPort](#)

Contains the server's port number.

3.48. newPilotPerson

The **newPilotPerson** object class is a subclass of the **person** to allow additional attributes to be assigned to entries of the **person** object class. This object class inherits the [cn \(commonName\)](#) and [sn \(surname\)](#) attributes from the **person** object class.

This object class is defined in Internet White Pages Pilot.

Superior Class

person

OID

0.9.2342.19200300.100.4.4

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
sn (surname)	Gives the person's family name or last name.

Allowed Attributes

Attribute	Definition
businessCategory	Gives the type of business in which the entry is engaged.
description	Gives a text description of the entry.
drink (favouriteDrink)	Gives the person's favorite drink.
homePhone	Gives the person's home phone number.
homePostalAddress	Gives the person's home mailing address.
janetMailbox	Gives the person's email address; this is primarily for use in Great Britain or organizations which do no use RFC 822 mail addresses.
mail	Contains the person's email address.
mailPreferenceOption	Indicates the user's preference for including his name on mailing lists (electronic or physical).
mobile	Gives the person's mobile phone number.
organizationalStatus	Gives the common job category for a person's function.
otherMailbox	Contains values for electronic mailbox types other than X.400 and RFC 822.
pager	Gives the person's pager number.
personalSignature	Contains the person's signature file.
personalTitle	Gives the person's honorific.
preferredDeliveryMethod	Shows the person's preferred method of contact or message delivery.

roomNumber	Gives the room number where the person is located.
secretary	Contains the DN (distinguished name) of the person's secretary or administrative assistant.
seeAlso	Contains a URL to another entry or site with related information.
telephoneNumber	Gives the telephone number for the entry.
textEncodedORAddress	Contains the person's text-encoded Originator/Recipient (X.400) address.
uid (userID)	Contains the person's user ID (usually his logon ID).
userClass	Describes the type of computer user this entry is.
userPassword	Stores the password with which the entry can bind to the directory.

3.49. nisMap

This object class points to a NIS map.

This object class is defined in [RFC 2307](#), which defines object classes and attributes to use LDAP as a network information service.



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.13

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
nisMapName	Contains the NIS map name.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.

3.50. nisNetgroup

This object class contains a netgroup used within a NIS domain. Adding this object class allows administrators to use netgroups to control login and service authentication in NIS.

This object class is defined in [RFC 2307](#), which defines object classes and attributes to use LDAP as a network information service.



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.8

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
memberNisNetgroup	Merges the attribute values of another netgroup into the current one by listing the name of the merging netgroup.
nisNetgroupTriple	Contains a user name (,bobby,example.com) or a machine name ((shellserver1,example.com)).

3.51. nisObject

This object class contains information about an object in a NIS domain.

This object class is defined in [RFC 2307](#), which defines object classes and attributes to use LDAP as a network information service.

**NOTE**

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.10

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
nisMapEntry	Identifies the NIS map entry.
nisMapName	Contains the name of the NIS map.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.

3.52. nsAdminConfig

This object class stores the configuration parameters for the Admin Server. This object is defined for the Administration Services.

Superior Class

nsConfig

OID

nsAdminConfig-oid

Allowed Attributes

Attribute	Definition
nsAdminAccessAddresses	Identifies the Admin Server IP addresses.
nsAdminAccessHosts	Contains the Admin Server hostname or a list of Admin Server hostnames.
nsAdminCacheLifetime	Notes the length of the cache timeout period.
nsAdminCgiWaitPid	Contains the PID of the CGI process the server is waiting for.

<u>nsAdminEnableEnduser</u>	Sets whether to allow or disallow end user access to the Admin Server web services pages.
<u>nsAdminOneACLDir</u>	Contains the path of the local ACL directory for the Admin Server.
<u>nsAdminUsers</u>	Points to the file which contains the admin user info.

3.53. nsAdminConsoleUser

This object class stores the configuration parameters for the Admin Server. This object is defined for the Administration Services.

Superior Class

top

OID

nsAdminConsoleUser-oid

Required Attributes

Attribute	Definition
<u>objectClass</u>	Gives the object classes assigned to the entry.
<u>cn (commonName)</u>	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
<u>nsPreference</u>	Stores preference information for console settings.

3.54. nsAdminDomain

This object class stores user information to access Admin Console. This object is defined for the Administration Services.

Superior Class

organizationalUnit

OID

nsAdminDomain-oid

Allowed Attributes

Attribute	Definition
<u>nsAdminDomainName</u>	Identifies the administration domain for the servers.

3.55. nsAdminGlobalParameters

This object class stores the configuration parameters for the Admin Server. This object is defined for the Administration Services.

Superior Class

top

OID

nsAdminGlobalParameters-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
nsAdminEndUserHTMLIndex	Sets whether to allow or disallow end-user access to the HTML index pages.
nsNickName	Gives the nickname for the application.

3.56. nsAdminGroup

This object class stores group information for administrator users in the Admin Server. This object is defined for the Administration Services.

Superior Class

top

OID

nsAdminGroup-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
nsAdminGroupName	Contains the name for the admin group.
nsAdminSIEDN	Shows the DN of the server instance entry (SIE) for the Admin Server instance.
nsConfigRoot	Gives the full path to the Admin Server instance's

configuration directory.

3.57. nsAdminObject

This object class contains information about an object used by Admin Server, such as a task. This object is defined for the Administration Services.

Superior Class

top

OID

nsAdminObject-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
nsClassname	Contains the class name associated with the task or resource editor for the Admin Server.
nsJarfilename	Gives the name of the JAR file used by the Admin Server Console to access the object.

3.58. nsAdminResourceEditorExtension

This object class contains an extension used by the Console Resource Editor. This object is defined for the Administration Services.

Superior Class

nsAdminObject

OID

nsAdminResourceEditorExtension-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
nsAdminAccountInfo	Contains information about the Admin Server

account.

[nsDeleteclassname](#)

Contains the name of a class to be deleted.

3.59. nsAdminServer

This object class defines the Admin Server instance. This object is defined for the Administration Services.

Superior Class

top

OID

nsAdminServer-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
nsServerID	Contains the Directory Server ID, such as slapd-example .

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.

3.60. nsAIMpresence

nsAIMpresence is an auxiliary object class which defines the status of an AOL instance messaging account. This object is defined for the Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.300

Allowed Attributes

Attribute	Definition
nsAIMid	Contains the AIM user ID for the entry.
nsAIMStatusGraphic	Contains a pointer to the graphic image which indicates the AIM account's status.
nsAIMStatusText	Contains the text to indicate the AIM account's status.

3.61. nsApplication

nsApplication defines an application or server entry. This is defined by Netscape.

Superior Class

top

OID

nsApplication-oid

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
installationTimeStamp	Contains the time that the server instance was installed.
nsBuildNumber	Contains the build number for the server instance.
nsBuildSecurity	Contains the level of security used to make the build.
nsExpirationDate	Contains the date that the license for the application expires.
nsInstalledLocation	For servers which are version 7.1 or older, shows the installation directory for the server.
nsLdapSchemaVersion	Gives the version of the LDAP schema files used by the Directory Server.
nsNickName	Gives the nickname for the application.
nsProductName	Gives the name of the server product.
nsProductVersion	Shows the version number of the server product.
nsRevisionNumber	Contains the revision number (minor version) for the product.
nsSerialNumber	Gives the serial number assigned to the server product.
nsServerMigrationClassname	Gives the class to use to migrate a server instance.
nsServerCreationClassname	Gives the class to use to create a server instance.
nsVendor	Contains the name of the vendor who designed the server.

3.62. nsCertificateServer

The **nsCertificateServer** object class stores information about a Red Hat Certificate System instance. This object is defined in the schema for the Certificate System.

Superior Class

top

OID

nsCertificateServer-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
nsServerID	Contains the server's name or ID.

Allowed Attributes

Attribute	Definition
nsCertConfig	Contains configuration settings for a Red Hat Certificate System instance.
nsServerPort	Contains the server's port number.
serverHostName	Contains the hostname of the server on which the Directory Server instance is running.

3.63. nsComplexRoleDefinition

Any role that is not a simple role is, by definition, a complex role.

This object class is defined by Directory Server.

Superior Class

nsRoleDefinition

OID

2.16.840.1.113730.3.2.95

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
description	Gives a text description of the entry.

Some entries do not define any specific entity, but they create a defined space within the directory tree as a parent entry for similar or related child entries. These are *container entries*, and they are identified by the **nsContainer** object class.

Superior Class

top

OID

2.16.840.1.113730.3.2.104

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn	Gives the common name of the entry.

3.65. nsCustomView

The **nsCustomView** object class defines information about custom views of the Directory Server data in the Directory Server Console. This is defined for Administration Services.

Superior Class

nsAdminObject

OID

nsCustomView-oid

Allowed Attributes

Attribute	Definition
nsDisplayName	Contains the name of the custom view setting profile.

3.66. nsDefaultObjectClasses

nsDefaultObjectClasses sets default object classes to use when creating a new object of a certain type within the directory. This is defined for Administration Services.

Superior Class

top

OID

nsDefaultObjectClasses-oid

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.

cn (commonName)	Gives the common name of the device.
---------------------------------	--------------------------------------

Allowed Attributes

Attribute	Definition
nsDefaultObjectClass	Contains an object class to assign by default to an object type.

3.67. nsDirectoryInfo

nsDirectoryInfo contains information about a directory instance. This is defined for Administration Services.

Superior Class

top

OID

nsDirectoryInfo-oid

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.

Allowed Attributes

Attribute	Definition
nsBindDN	Contains the bind DN defined for the server in its server instance entry.
nsBindPassword	Contains the password for the bind identity in the SIE.
nsDirectoryFailoverList	Contains a list of URLs of other Directory Server instances to use for failover support if the instance in nsDirectoryURL is unavailable.
nsDirectoryInfoRef	Contains a reference to a distinguished name (DN) in the directory.
nsDirectoryURL	Contains a URL to access the Directory Server instance.

3.68. nsDirectoryServer

nsDirectoryServer is the defining object class for a Directory Server instance. This is defined for the Directory Server.

Superior Class

top

OID

nsDirectoryServer-oid

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
nsServerID	Contains the server's name or ID.

Allowed Attributes

Attribute	Definition
nsBaseDN	Contains the base DN for the server instance.
nsBindDN	Contains the bind DN defined for the server in its server instance entry.
nsBindPassword	Contains the password for the bind identity in the SIE.
nsSecureServerPort	Contains the server's SSL/TLS port number.
nsServerPort	Contains the server's port number.
serverHostName	Contains the hostname of the server on which the Directory Server instance is running.

3.69. nsEncryptionConfig

The **nsEncryptionConfig** object class stores the configuration information for allowed encryption options, such as protocols and cipher suites. This is defined in the Administrative Services.

Superior Class

top

OID

nsEncryptionConfig-oid

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.

Allowed Attributes

Attribute	Definition
nsCertfile	Contains the directory path and filename of a certificate file.
nsKeyFile	Contains the location to the key file used by the security module.
nsSSL2	Sets whether SSL version 2 is enabled for the server.
nsSSL2Ciphers	Contains a list of all ciphers available to be used

	with SSLv2.
nsSSL3	Sets whether SSL version 3 is enabled for the server.
nsSSL3Ciphers	Contains a list of all ciphers available to be used with SSLv3.
nsSSL3SessionTimeout	Sets the timeout period for an SSLv3 cipher session.
nsSSLClientAuth	Sets how the server handles client authentication. There are three possible values: allow, disallow, or require.
nsSSLSessionTimeout	Sets the timeout period for a cipher session.
nsSSLSupportedCiphers	Contains a list of all ciphers available to be used with secure connections to the server.

3.70. nsEncryptionModule

The **nsEncryptionModule** object class stores the encryption module information. This is defined in the Administrative Services.

Superior Class

top

OID

nsEncryptionModule-oid

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the device.

Allowed Attributes

Attribute	Definition
nsSSLActivation	Sets whether to enable a cipher family.
nsSSLPersonalitySSL	Contains the name of the certificate used by the server for SSL.
nsSSLToken	Identifies the security token used by the server.

3.71. nsFilteredRoleDefinition

The **nsFilteredRoleDefinition** object class defines how entries are assigned to the role, depending upon the attributes contained by each entry.

This object class is defined in Directory Server.

Superior Class

nsComplexRoleDefinition

OID

2.16.840.1.113730.3.2.97

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
nsRoleFilter	Specifies the filter used to identify entries in the filtered role.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
description	Gives a text description of the entry.

3.72. nsGlobalParameters

The **nsGlobalParameters** object class contains global preference settings.

This object class is defined in Administrative Services.

Superior Class

top

OID

nsGlobalParameters-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
nsGroupRDNComponent	Defines the default attribute type used in the RDN of the group entry.
nsUniqueAttribute	Defines a unique attribute in the preferences.
nsUserIDFormat	Sets the format to generate the user ID from the givenname and sn attributes.
nsUserRDNComponent	Sets the attribute type to use as the naming component in the user DN.
nsNYR	Not used.
nsWellKnownJarfiles	Not used.

3.73. nsHost

The **nsHost** object class stores information about the server host.

This object class is defined in Administrative Services.

Superior Class

top

OID

nsHost-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
l (localityName)	Gives the city or geographical location of the entry.
nsHardwarePlatform	Identifies the hardware platform for the host on which the Directory Server instance is running. This is the same information as running uname -m .
nsHostLocation	Gives the location of the server host.
nsOsVersion	Contains the operating system version of the server host.
serverHostName	Contains the hostname of the server on which the Directory Server instance is running.

3.74. nsICQpresence

nsICQpresence is an auxiliary object class which defines the status of an ICQ messaging account.

This object is defined for the Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.301

Allowed Attributes

Attribute	Definition
nsICQid	Contains the ICQ user ID for the entry.

nsICQStatusGraphic	Contains a pointer to the graphic image which indicates the ICQ account's status.
nsICQStatusText	Contains the text to indicate the ICQ account's status.

3.75. nsLicenseUser

The **nsLicenseUser** object class tracks licenses for servers that are licensed on a per-client basis. **nsLicenseUser** is intended to be used with the **inetOrgPerson** object class. You can manage the contents of this object class through the **Users and Groups** area of the Admin Server.

This object class is defined in the Admin Server schema.

Superior Class

top

OID

2.16.840.1.113730.3.2.7

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
nsLicensedFor	Identifies the server that the user is licensed to use.
nsLicenseEndTime	Reserved for future use.
nsLicenseStartTime	Reserved for future use.

3.76. nsManagedRoleDefinition

The **nsManagedRoleDefinition** object class specifies the member assignments of a role to an explicit, enumerated list of members.

This object class is defined in Directory Server.

Superior Class

nsComplexRoleDefinition

OID

2.16.840.1.113730.3.2.96

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
description	Gives a text description of the entry.

3.77. nsMessagingServerUser

nsICQpresence is an auxiliary object class that describes a messaging server user. This object class is defined for Netscape Messaging Server.

Superior Class

top

OID

2.16.840.113730.3.2.37

Required Attributes

Attribute	Definition
objectClass	Gives the object classes for the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
mailAccessDomain	Contains the domain from which the user can access the messaging server.
mailAlternateAddress	Contains secondary email addresses for the group.
mailAutoReplyMode	Specifies whether autoreply mode for the account is enabled.
mailAutoReplyText	Contains the text use for automatic reply emails.
mailDeliveryOption	Specifies the mail delivery mechanism to be used for the mail user.
mailForwardingAddress	Specifies the mail delivery mechanism to use for the mail user.
mailMessageStore	Specifies the location of the user's mail box.
mailProgramDeliveryInfo	Specifies the commands used for programmed mail delivery.
mailQuota	Specifies the disk space allowed for the user's mail box.
nsmgDisallowAccess	Sets limits on the mail protocols available to the user.
nsmgNumMsgQuota	Specifies the number of messages allowed for the user's mail box.
nswmExtendedUserPrefs	Stores the extended preferences for the user.

vacationEndDate	Contains the end date for a vacation period.
vacationStartDate	Contains the start date for a vacation period.

3.78. nsMSNpresence

nsMSNpresence is an auxiliary object class which defines the status of an MSN instance messaging account. This object is defined for the Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.303

Allowed Attributes

Attribute	Definition
nsMSNid	Contains the MSN user ID for the entry.
nsMSNStatusGraphic	Contains a pointer to the graphic image which indicates the MSN account's status.
nsMSNStatusText	Contains the text to indicate the MSN account's status.

3.79. nsNestedRoleDefinition

The **nsNestedRoleDefinition** object class specifies one or more roles, of any type, are included as members within the role.

This object class is defined in Directory Server.

Superior Class

nsComplexRoleDefinition

OID

2.16.840.1.113730.3.2.98

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
nsroledn	Specifies the roles assigned to an entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
description	Gives a text description of the entry.

3.80. nsResourceRef

The **nsNestedRoleDefinition** object class configures a resource reference.

This object class is defined in the Administration Services.

Superior Class

top

OID

nsResourceRef-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
seeAlso	Contains a URL to another entry or site with related information.

3.81. nsRoleDefinition

All role definition object classes inherit from the **nsRoleDefinition** object class.

This object class is defined by Directory Server.

Superior Class

LDAPsubentry

OID

2.16.840.1.113730.3.2.93

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
description	Gives a text description of the entry.

3.82. nsSimpleRoleDefinition

Roles containing this object class are called simple roles because they have a deliberately limited flexibility, which makes it easy to:

- Enumerate the members of a role.
- Determine whether a given entry possesses a particular role.
- Enumerate all the roles possessed by a given entry.
- Assign a particular role to a given entry.
- Remove a particular role from a given entry.

This object class is defined by Directory Server.

Superior Class

nsRoleDefinition

OID

2.16.840.1.113730.3.2.94

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
description	Gives a text description of the entry.

3.83. nsSNMP

This object class defines the configuration for the SNMP plug-in object used by the Directory Server.

This object class is defined in Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.41

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
nsSNMPEnabled	Sets whether SNMP is enabled for the Directory Server instance.

Allowed Attributes

Attribute	Definition
nsSNMPContact	Contains the contact information provided by the SNMP agent.
nsSNMPDescription	Contains a text description of the SNMP setup.
nsSNMPLocation	Contains the location information or configuration for the SNMP agent.
nsSNMPMasterHost	Contains the hostname for the server where the SNMP master agent is located.
nsSNMPMasterPort	Contains the port to access the SNMP subagent.
nsSNMPName	Contains the name of the SNMP agent.
nsSNMPOrganization	Contains the organization name or information provided by the SNMP service.

3.84. nsTask

This object class defines the configuration for tasks performed by the Directory Server.

This object class is defined for the Administrative Services.

Superior Class

top

OID

nsTask-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
nsExecRef	Contains a reference to the program which will perform the task.
nsHelpRef	Contains a reference to an online (HTML) help file associated with the task window.
nsLogSuppress	Sets whether to suppress logging for the task.
nsTaskLabel	Contains a label associated with the task in the Console.

3.85. nsTaskGroup

This object class defines the information for a group of tasks in the Console.

This object class is defined for the Administrative Services.

Superior Class

top

OID

nsTaskGroup-oid

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
nsTaskLabel	Contains a label associated with the task in the Console.

3.86. nsTopologyCustomView

This object class configures the topology views used for the profile in the Console.

This object class is defined for the Administrative Services.

Superior Class

nsCustomView

OID

nsTopologyCustomView-oid

Required Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
nsViewConfiguration	Contains the view configuration to use in the Console.

3.87. nsTopologyPlugin

This object class configures the topology plug-in used to set views in the Console.

This object class is defined for the Administrative Services.

Superior Class

nsAdminObject

OID

nsTopologyPlugin-oid

3.88. nsValueItem

This object class defines a value item object configuration, which is used to specify information that is dependent on the value type of an entry. A value item relates to the allowed attribute value syntax for an entry attribute, such as binary or case-sensitive string.

This object class is defined in Netscape Servers - Value Item.

Superior Class

top

OID

2.16.840.1.113730.3.2.45

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
nsValueBin	Contains information or operations related to the binary value type.
nsValueCES	Contains information or operations related to the case-exact string (CES) value type.
nsValueCIS	Contains information or operations related to the case-insensitive (CIS) value type.
nsValueDefault	Sets the default value type to use for an attribute or configuration parameter.
nsValueDescription	Gives a text description of the value item setting.
nsValueDN	Contains information or operations related to the DN value type.
nsValueFlags	Sets flags for the value item object.
nsValueHelpURL	Contains a reference to an online (HTML) help file associated with the value item object.
nsValueInt	Contains information or operations related to the integer value type.
nsValueSyntax	Defines the syntax to use for the value item object.
nsValueTel	Contains information or operations related to the telephone string value type.
nsValueType	Sets which value type to apply.

3.89. nsView

This object class is used for a view entry in the directory tree.

This object class is defined in Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.304

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
nsViewFilter	Identifies the filter used by the view plugin.

3.90. nsYIMpresence

nsYIMpresence is an auxiliary object class which defines the status of a Yahoo instance messaging account. This object is defined for the Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.302

Allowed Attributes

Attribute	Definition
nsYIMid	Contains the Yahoo user ID for the entry.
nsYIMStatusGraphic	Contains a pointer to the graphic image which indicates the Yahoo account's status.
nsYIMStatusText	Contains the text to indicate the Yahoo account's status.

3.91. ntGroup

The **ntGroup** object class holds data for a group entry stored in a Windows Active Directory server. Several Directory Server attributes correspond directly to or are mapped to match Windows group

attributes. When you create a new group in the Directory Server that is to be synchronized with a Windows server group, Directory Server attributes are assigned to the Windows entry. These attributes may then be added, modified, or deleted in the entry through either directory service.

This object class is defined in Netscape NT Synchronization.

Superior Class

top

OID

2.16.840.1.113730.3.2.9

Required Object Classes

Object Class	Definition
mailGroup	Allows the mail attribute to be synchronized between Windows and Directory Server groups.

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
ntUserDomainId	Contains the Windows domain login ID for the group account.

Allowed Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry; this corresponds to the Windows name field.
description	Gives a text description of the entry; corresponds to the Windows comment field.
l (localityName)	Gives the city or geographical location of the entry.
member	Specifies the members of the group.
ntGroupCreateNewGroup	Specifies whether a Windows account should be created when an entry is created in the Directory Server.
ntGroupDeleteGroup	Specifies whether a Windows account should be deleted when an entry is deleted in the Directory Server.
ntGroupDomainID	Gives the domain ID string for the group.
ntGroupType	Defines what kind of Windows domain group the entry is.
ntUniqueid	Contains a generated ID number used by the server for operations and identification.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.
seeAlso	Contains a URL to another entry or site with

related information.

3.92. ntUser

The **ntUser** entry holds data for a user entry stored in a Windows Active Directory server. Several Directory Server attributes correspond directly to or are mapped to match Windows user account fields. When you create a new person entry in the Directory Server that is to be synchronized with a Windows server, Directory Server attributes are assigned to Windows user account fields. These attributes may then be added, modified, or deleted in the entry through either directory service.

This object class is defined in Netscape NT Synchronization.

Superior Class

top

OID

2.16.840.1.113730.3.2.8

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry; this corresponds to the Windows name field.
ntUserDomainId	Contains the Windows domain login ID for the user account.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry; corresponds to the Windows comment field.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Gives the fax number for the user.
givenname	Contains the person's first name.
homePhone	Gives the person's home phone number.
homePostalAddress	Gives the person's home mailing address.
initials	Gives the person's initials.
l (localityName)	Gives the city or geographical location of the entry.
mail	Contains the person's email address.
manager	Contains the DN (distinguished name) of the direct supervisor of the person entry.
mobile	Gives the person's mobile phone number.
ntUserAcctExpires	Identifies when the user's Windows account will expire.

<u>ntUserCodePage</u>	Gives the user's code page.
<u>ntUserCreateNewAccount</u>	Specifies whether a Windows account should be created when this entry is created in the Directory Server.
<u>ntUserDeleteAccount</u>	Specifies whether a Windows account should be deleted when this entry is deleted in the Directory Server.
<u>ntUserHomeDir</u>	Gives the path to the user's home directory.
<u>ntUserLastLogoff</u>	Gives the time of the user's last logoff from the Windows server.
<u>ntUserLastLogon</u>	Gives the time of the user's last logon to the Windows server.
<u>ntUserMaxStorage</u>	Shows the maximum disk space available to the user in the Windows server.
<u>ntUserParms</u>	Contains a Unicode string reserved for use by applications.
<u>ntUserProfile</u>	Contains the path to the user's Windows profile.
<u>ntUserScriptPath</u>	Contains the path to the user's Windows login script.
<u>ntUserWorkstations</u>	Contains a list of Windows workstations from which the user is allowed to log into the Windows domain.
<u>o (organizationName)</u>	Gives the organization to which the entry belongs.
<u>ou (organizationalUnitName)</u>	Gives the organizational unit or division to which the entry belongs.
<u>pager</u>	Gives the person's pager number.
<u>postalAddress</u>	Contains the mailing address for the entry.
<u>postalCode</u>	Gives the postal code for the entry, such as the zip code in the United States.
<u>postOfficeBox</u>	Gives the post office box number for the entry.
<u>registeredAddress</u>	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
<u>seeAlso</u>	Contains a URL to another entry or site with related information.
<u>sn (surname)</u>	Gives the person's family name or last name.
<u>st (stateOrProvinceName)</u>	Gives the state or province where the person is located.
<u>street (streetAddress)</u>	Gives the street name and address number for the person's physical location.
<u>telephoneNumber</u>	Gives the telephone number for the entry.
<u>teletexTerminalIdentifier</u>	Gives the identifier for the person's teletex terminal.
<u>telexNumber</u>	Gives the telex number associated with the entry.
<u>title</u>	Shows the person's job title.
<u>userCertificate</u>	Stores a user's certificate in cleartext (not used).

[x121Address](#)

Gives the X.121 address for the entry.

3.93. oncRpc

The **oncRpc** object class defines an abstraction of an Open Network Computing Remote Procedure Call (ONC RPC). This object class is defined in [RFC 2307](#).



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.5

Required Attributes

Attribute	Definition
objectClass	Defines the object classes for the entry.
cn (commonName)	Gives the common name of the entry.
oncRpcNumber	Contains part of the RPC map and stores the RPC number for UNIX RPCs.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.

3.94. organization

The **organization** attributes defines entries that represent organizations. An organization is generally assumed to be a large, relatively static grouping within a larger corporation or enterprise.

This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.4

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
o (organizationName)	Gives the organization to which the entry belongs.

Allowed Attributes

Attribute	Definition
businessCategory	Gives the type of business in which the entry is engaged.
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Contains the fax number for the entry.
internationalISDNNumber	Contains the ISDN number for the entry.
l (localityName)	Gives the city or geographical location of the entry.
physicalDeliveryOfficeName	Gives a location where physical deliveries can be made.
postalAddress	Contains the mailing address for the entry.
postalCode	Gives the postal code for the entry, such as the zip code in the United States.
postOfficeBox	Gives the post office box number for the entry.
preferredDeliveryMethod	Shows the preferred method of contact or message delivery for the entry.
registeredAddress	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
searchGuide	Specifies information for suggested search criteria when using the entry as the base object in the directory tree for a search.
seeAlso	Contains a URL to another entry or site with related information.
st (stateOrProvinceName)	Gives the state or province where the person is located.
street (streetAddress)	Gives the street name and number for the person's physical location.
telephoneNumber	Gives the telephone number of the person responsible for the organization.
teletexTerminalIdentifier	Gives the ID for an entry's teletex terminal.
telexNumber	Gives the telex number associated with the entry.
userPassword	Gives the password with which the entry can bind to the directory.
x121Address	Gives the X.121 address for the entry.

3.95. organizationalPerson

The **organizationalPerson** object class defines entries for people employed or affiliated with the organization. This object class inherits the [cn \(commonName\)](#) and [sn \(surname\)](#) attributes from the **person** object class.

This object class is defined in [RFC 2256](#).

Superior Class

person

OID

2.5.6.7

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
sn (surname)	Gives the person's family name or last name.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Contains the fax number for the entry.
internationalISDNNumber	Contains the ISDN number for the entry.
l (localityName)	Gives the city or geographical location of the entry.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.
physicalDeliveryOfficeName	Gives a location where physical deliveries can be made.
postalAddress	Contains the mailing address for the entry.
postalCode	Gives the postal code for the entry, such as the zip code in the United States.
postOfficeBox	Gives the post office box number for the entry.
preferredDeliveryMethod	Shows the person's preferred method of contact or message delivery.
registeredAddress	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
seeAlso	Contains a URL to another entry or site with related information.
st (stateOrProvinceName)	Gives the state or province where the person is located.

street (streetAddress)	Gives the street name and number for the person's physical location.
telephoneNumber	Gives the telephone number for the entry.
teletexTerminalIdentifier	Gives the ID for an entry's teletex terminal.
telexNumber	Gives the telex number associated with the entry.
title	Shows the person's job title.
userPassword	Stores the password with which the entry can bind to the directory.
x121Address	Gives the X.121 address for the entry.

3.96. organizationalRole

The **organizationalRole** object class is used to define entries for roles held by people within an organization.

This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.8

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Contains the fax number for the entry.
internationalISDNNumber	Contains the ISDN number for the entry.
l (localityName)	Gives the city or geographical location of the entry.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.
physicalDeliveryOfficeName	Gives a location where physical deliveries can be made.
postalAddress	Contains the mailing address for the entry.
postalCode	Gives the postal code for the entry, such as the zip code in the United States.
postOfficeBox	Gives the post office box number for the entry.

preferredDeliveryMethod	Shows the role's preferred method of contact or message delivery.
registeredAddress	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
roleOccupant	Contains the DN (distinguished name) of the person in the role.
seeAlso	Contains a URL to another entry or site with related information.
st (stateOrProvinceName)	Gives the state or province where the entry is located.
street (streetAddress)	Gives the street name and number for the role's physical location.
telephoneNumber	Gives the telephone number for the entry.
teletexTerminalIdentifier	Gives the ID for an entry's teletex terminal.
telexNumber	Gives the telex number associated with the entry.
x121Address	Gives the X.121 address for the entry.

3.97. organizationalUnit

The **organizationalUnit** object class defines entries that represent *organizational units*, generally understood to be a relatively static grouping within a larger organization.

This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.5

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.

Allowed Attributes

Attribute	Definition
businessCategory	Gives the type of business in which the entry is engaged.
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Contains the fax number for the entry.

internationalISDNNumber	Contains the ISDN number for the entry.
l (localityName)	Gives the city or geographical location of the entry.
physicalDeliveryOfficeName	Gives a location where physical deliveries can be made.
postalAddress	Contains the mailing address for the entry.
postalCode	Gives the postal code for the entry, such as the zip code in the United States.
postOfficeBox	Gives the post office box number for the entry.
preferredDeliveryMethod	Gives the preferred method of being contacted.
registeredAddress	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
searchGuide	Specifies information for suggested search criteria when using the entry as the base object in the directory tree for a search.
seeAlso	Contains a URL to another entry or site with related information.
st (stateOrProvinceName)	Gives the state or province where the person is located.
street (streetAddress)	Gives the street name and number for the role's physical location.
telephoneNumber	Gives the telephone number for the entry.
teletexTerminalIdentifier	Gives the ID for an entry's teletex terminal.
telexNumber	Gives the telex number associated with the entry.
userPassword	Stores the password with which the entry can bind to the directory.
x121Address	Gives the X.121 address for the entry.

3.98. person

The **person** object class represents entries for generic people. This is the base object class for the **organizationalPerson** object class.

This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.6

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
sn (surname)	Gives the person's family name or last name.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
seeAlso	Contains a URL to another entry or site with related information.
telephoneNumber	Gives the telephone number for the entry.
userPassword	Stores the password with which the entry can bind to the directory.

3.99. pilotObject

The **pilotObject** is a subclass to allow additional attributes to be assigned to entries of all other object classes.

This object class is defined in [RFC 1274](#).

Superior Class

top

OID

0.9.2342.19200300.100.4.3

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
audio	Stores a sound file in a binary format.
dITRedirect	Contains the DN (distinguished name) of the entry to use as a redirect for the entry.
info	Contains information about the entry.
jpegPhoto	Stores a JPG image.
lastModifiedBy	Gives the DN (distinguished name) of the last user which modified the document entry.
lastModifiedTime	Gives the time the object was most recently modified.
manager	Gives the DN (distinguished name) of the entry's manager.
photo	Stores a photo of the document in binary format.
uniqueIdentifier	Distinguishes between two entries when a distinguished name has been reused.

3.100. pilotOrganization

The **pilotOrganization** object class is a subclass used to add attributes to **organization** and **organizationalUnit** object class entries.

This object class is defined in [RFC 1274](#).

Superior Class

top

OID

0.9.2342.19200300.100.4.20

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
o (organizationName)	Gives the organization to which the entry belongs.
ou (organizationalUnitName)	Gives the organizational unit or division to which the entry belongs.

Allowed Attributes

Attribute	Definition
buildingName	Gives the name of the building where the entry is located.
businessCategory	Gives the type of business in which the entry is engaged.
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Contains the fax number for the entry.
internationalISDNNumber	Contains the ISDN number for the entry.
l (localityName)	Gives the city or geographical location of the entry.
physicalDeliveryOfficeName	Gives a location where physical deliveries can be made.
postalAddress	Contains the mailing address for the entry.
postalCode	Gives the postal code for the entry, such as the zip code in the United States.
postOfficeBox	Gives the post office box number for the entry.
preferredDeliveryMethod	Gives the preferred method of being contacted.
registeredAddress	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
searchGuide	Specifies information for suggested search criteria when using the entry as the base object in

	the directory tree for a search.
seeAlso	Contains a URL to another entry or site with related information.
st (stateOrProvinceName)	Gives the state or province where the person is located.
street (streetAddress)	Gives the street name and address number for the person's physical location.
telephoneNumber	Gives the telephone number for the entry.
teletexTerminalIdentifier	Gives the ID for an entry's teletex terminal.
telexNumber	Gives the telex number associated with the entry.
userPassword	Stores the password with which the entry can bind to the directory.
x121Address	Gives the X.121 address for the entry.

3.101. pkiCA

The **pkiCA** auxiliary object class contains required or available certificates that are configured for a certificate authority. This object class is defined in [RFC 4523](#), which defines object classes and attributes for LDAP to use to manage X.509 certificates and related certificate services.

Superior Class

top

OID

2.5.6.22

Allowed Attributes

Attribute	Definition
authorityRevocationList	Contains a list of revoked CA certificates.
cACertificate	Contains a CA certificate.
certificateRevocationList	Contains a list of certificates that have been revoked.
crossCertificatePair	Contains a pair of certificates that are used to cross-certify a pair of CAs in a FBCA-style bridge CA configuration.

3.102. pkiUser

The **pkiUser** auxiliary object class contains required certificates for a user or client that connects to a certificate authority or element in the public key infrastructure. This object class is defined in [RFC 4523](#), which defines object classes and attributes for LDAP to use to manage X.509 certificates and related certificate services.

Superior Class

top

OID

2.5.6.21

Allowed Attributes

Attribute	Definition
userCertificate	Stores a user's certificate, usually in binary form.

3.103. posixAccount

The **posixAccount** object class defines network accounts which use POSIX attributes. This object class is defined in [RFC 2307](#), which defines object classes and attributes to use LDAP as a network information service.

**NOTE**

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.0

Required Attributes

Attribute	Definition
cn (commonName)	Gives the common name of the entry.
gidNumber	Contains a unique numeric identifier for a group entry or to identify the group for a user entry, analogous to the group number in Unix.
homeDirectory	Contains the path to the user's home directory.
objectClass	Gives the object classes assigned to the entry.
uid (userID)	Gives the defined account's user ID.
uidNumber	Contains a unique numeric identifier for a user entry, analogous to the user number in Unix.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
gecos	Used to determine the GECOS field for the user; this is based on a common name, with additional information embedded.
loginShell	Contains the path to a script that is launched

userPassword	automatically when a user logs into the domain.
	Stores the password with which the entry can bind to the directory.

3.104. posixGroup

The **posixGroup** object class defines a group of network accounts which use POSIX attributes. This object class is defined in [RFC 2307](#), which defines object classes and attributes to use LDAP as a network information service.

Superior Class

top

OID

1.3.6.1.1.1.2.2

Required Attributes

Attribute	Definition
gidNumber	Contains the path to a script that is launched automatically when a user logs into the domain.
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
memberUid	Gives the login name of the group member; this possibly may not be the same as the member's DN.
userPassword	Contains the login name of the member of a group.

3.105. referral

The **referral** object class defines an object which supports LDAPv3 smart referrals. This object class is defined in LDAPv3 referrals Internet Draft.

Superior Class

top

OID

2.16.840.1.113730.3.2.6

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
ref	Contains information for an LDAPv3 smart referral.

3.106. residentialPerson

The **residentialPerson** object class manages a person's residential information.

This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.10

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.
l (localityName)	Gives the city or geographical location of the entry.
sn (surname)	Gives the person's family name or last name.

Allowed Attributes

Attribute	Definition
businessCategory	Gives the type of business in which the entry is engaged.
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Contains the fax number for the entry.
internationalISDNNumber	Contains the ISDN number for the entry.
physicalDeliveryOfficeName	Gives a location where physical deliveries can be made.
postalAddress	Contains the mailing address for the entry.
postalCode	Gives the postal code for the entry, such as the zip code in the United States.
postOfficeBox	Gives the post office box number for the entry.
preferredDeliveryMethod	Shows the person's preferred method of contact or message delivery.
registeredAddress	Gives a postal address suitable to receive expedited documents when the recipient must

	verify delivery.
seeAlso	Contains a URL to another entry or site with related information.
st (stateOrProvinceName)	Gives the state or province where the person is located.
street (streetAddress)	Gives the street name and address number for the person's physical location.
telephoneNumber	Gives the telephone number for the entry.
teletexTerminalIdentifier	Gives the ID for an entry's teletex terminal.
telexNumber	Gives the telex number associated with the entry.
userPassword	Stores the password with which the entry can bind to the directory.
x121Address	Gives the X.121 address for the entry.

3.107. RFC822LocalPart

The **RFC822LocalPart** object class defines entries that represent the local part of RFC 822 mail addresses. The directory treats this part of an RFC822 address as a domain.

This object class is defined by the Internet Directory Pilot.

Superior Class

domain

OID

0.9.2342.19200300.100.4.14

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
dc (domainComponent)	Contains one component of a domain name.

Allowed Attributes

Attribute	Definition
associatedName	Gives the name of an entry within the organizational directory tree which is associated with a DNS domain.
businessCategory	Gives the type of business in which the entry is engaged.
cn (commonName)	Gives the common name of the entry.
description	Gives a text description of the entry.
destinationIndicator	Gives the country and city associated with the entry; this was once required to provide public telegram service.
fax (facsimileTelephoneNumber)	Contains the fax number for the entry.
internationalISDNNumber	Contains the ISDN number for the entry.

l (localityName)	Gives the city or geographical location of the entry.
o (organizationName)	Gives the organization to which the account belongs.
physicalDeliveryOfficeName	Gives a location where physical deliveries can be made.
postalAddress	Contains the mailing address for the entry.
postalCode	Gives the postal code for the entry, such as the zip code in the United States.
postOfficeBox	Gives the post office box number for the entry.
preferredDeliveryMethod	Shows the person's preferred method of contact or message delivery.
registeredAddress	Gives a postal address suitable to receive expedited documents when the recipient must verify delivery.
searchGuide	Specifies information for suggested search criteria when using the entry as the base object in the directory tree for a search.
seeAlso	Contains a URL to another entry or site with related information.
sn (surname)	Gives the person's family name or last name.
st (stateOrProvinceName)	Gives the state or province where the person is located.
street (streetAddress)	Gives the street name and address number for the person's physical location.
telephoneNumber	Gives the telephone number for the entry.
teletexTerminalIdentifier	Gives the identifier for the person's teletex terminal.
telexNumber	Gives the telex number associated with the entry.
userPassword	Stores the password with which the entry can bind to the directory.
x121Address	Gives the X.121 address for the entry.

3.108. room

The **room** object class stores information in the directory about rooms.

Superior Class

top

OID

0.9.2342.19200300.100.4.7

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
cn (commonName)	Gives the common name of the entry.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the room.
roomNumber	Contains the room's number.
seeAlso	Contains a URL to another entry or site with related information.
telephoneNumber	Gives the telephone number for the entry.

3.109. shadowAccount

The **shadowAccount** object class allows the LDAP directory to be used as a shadow password service. Shadow password services relocate the password files on a host to a shadow file with tightly restricted access.

This object class is defined in [RFC 2307](#), which defines object classes and attributes to use LDAP as a network information service.



NOTE

This object class is defined in **10rfc2307.ldif** in the Directory Server. To use the updated RFC 2307 schema, remove the **10rfc2307.ldif** file and copy the **10rfc2307bis.ldif** file from the **/usr/share/dirsrv/data** directory to the **/etc/dirsrv/slapd-*instance_name*/schema** directory.

Superior Class

top

OID

1.3.6.1.1.1.2.1

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.
uid (userID)	Gives the defined account's user ID.

Allowed Attributes

Attribute	Definition
description	Gives a text description of the entry.
shadowExpire	Contains the date that the shadow account expires.
shadowFlag	Identifies what area in the shadow map stores the flag values.
shadowInactive	Sets how long the shadow account can be

	inactive.
<u>shadowLastChange</u>	Contains the time and date of the last modification to the shadow account.
<u>shadowMax</u>	Sets the maximum number of days that a shadow password is valid.
<u>shadowMin</u>	Sets the minimum number of days that must pass between changing the shadow password.
<u>shadowWarning</u>	Sets how many days in advance of password expiration to send a warning to the user.
<u>userPassword</u>	Stores the password with which the entry can bind to the directory.

3.110. simpleSecurityObject

The **simpleSecurityObject** object class allow an entry to contain the **userPassword** attribute when an entry's principal object classes do not allow a password attribute. Reserved for future use.

This object class is defined in [RFC 1274](#).

Superior Class

top

OID

0.9.2342.19200300.100.4.19

Required Attributes

Attribute	Definition
<u>objectClass</u>	Gives the object classes assigned to the entry.
<u>userPassword</u>	Stores the password with which the entry can bind to the directory.

3.111. strongAuthenticationUser

The **strongAuthenticationUser** object class stores a user's certificate in the directory.

This object class is defined in [RFC 2256](#).

Superior Class

top

OID

2.5.6.15

Required Attributes

Attribute	Definition
<u>objectClass</u>	Gives the object classes assigned to the entry.
<u>userCertificate</u>	Stores a user's certificate, usually in binary form.

Chapter 4. Operational Attributes and Object Classes

Operational attributes are attributes used to perform directory operations and are available for every entry in the directory, regardless of whether they are defined for the object class of the entry. Operational attributes are only returned in an **ldapsearch** operation if specifically requested.

Operational attributes are created and managed by Directory Server on entries, such as the time the entry is created or modified and the creator's name. These attributes can be set on any entry, regardless of other attributes or object classes on the entry.

This chapter contains information about attributes object classes that are operational. However, this reference does not cover core schema used to configure the Directory Server itself. The directory service is also configured as directory entries within the **cn=config** subtree. For descriptions of those configuration attributes, see the *Configuration, Command, and File Reference*.

4.1. accountUnlockTime

This refers to the amount of time that must pass after an account lockout before the user can bind to the directory again.

OID	2.16.840.1.113730.3.1.95
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

4.2. aci

This attribute is used by the Directory Server to evaluate what rights are granted or denied when it receives an LDAP request from a client.

OID	2.16.840.1.113730.3.1.55
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

4.3. altServer

The values of this attribute are URLs of other servers which may be contacted when this server becomes unavailable. If the server does not know of any other servers which could be used, this attribute is absent. This information can be cached in case the preferred LDAP server later becomes unavailable.

OID	1.3.6.1.4.1.1466.101.120.6
Syntax	IA5String
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

4.4. copiedFrom

This attribute is used by a read-only replica to recognize a master data source. Contains a reference to

the server that holds the master data. This attribute is only used for legacy replication. It is not used for multi-master replication.

OID	2.16.840.1.113730.3.1.613
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.5. copyingFrom

This attribute is used by a read-only replica to recognize a master data source while replication is in progress. Contains a reference to the server that holds the master data. This attribute is only used for legacy replication. It is not used for multi-master replication.

OID	2.16.840.1.113730.3.1.614
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.6. createTimestamp

This attribute contains the date and time that the entry was initially created.

OID	2.5.18.1
Syntax	GeneralizedTime
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

4.7. creatorsName

This attribute contains the name of the user which created the entry.

OID	2.5.18.3
Syntax	DN
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

4.8. dITContentRules

This attribute defines the DIT content rules which are in force within a subschema. Each value defines one DIT content rule. Each value is tagged by the object identifier of the structural object class to which it pertains.

OID	2.5.21.2
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

4.9. dITStructureRules

This attribute defines the DIT structure rules which are in force within a subschema. Each value defines one DIT structure rule.

OID	2.5.21.1
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

4.10. entryusn

When the USN Plug-in is enabled, the server automatically assigns an *update sequence number* to entries every time a write operation (add, modify, modrdn, or delete) is performed. The USN is stored in the **entryusn** operational attribute on the entry; the **entryusn**, then, shows the number for the most recent change on any entry.



NOTE

The **entryusn** attribute increments only with operations performed by LDAP clients. It does not count internal operations.

A similar entry, **lastusn**, is kept in the root DSE entry, which shows the most recently-assigned USN per database.

OID	2.16.840.1.113730.3.1.606
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.11. hasSubordinates

This attribute indicates whether the entry has subordinate entries.

OID	1.3.6.1.4.1.1466.115.121.1.7
Syntax	Boolean
Multi- or Single-Valued	Single-valued
Defined in	numSubordinates Internet Draft

4.12. ldapSubEntry

These entries hold operational data. This object class is defined in the LDAP Subentry Internet Draft.

Superior Class

top

OID

2.16.840.1.113719.2.142.6.1.1

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
cn (commonName)	Specifies the common name of the entry.

4.13. ldapSyntaxes

This attribute identifies the syntaxes implemented, with each value corresponding to one syntax.

OID	1.3.6.1.4.1.1466.101.120.16
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

4.14. matchingRules

This attribute defines the matching rules used within a subschema. Each value defines one matching rule.

OID	2.5.21.4
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

4.15. matchingRuleUse

This attribute indicates the attribute types to which a matching rule applies in a subschema.

OID	2.5.21.8
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

4.16. modifyTimestamp

This attribute contains the date and time that the entry was most recently modified.

OID	2.5.18.2
Syntax	GeneralizedTime
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

4.17. modifiersName

This attribute contains the name of the user which last modified the entry.

OID	2.5.18.4
Syntax	DN
Multi- or Single-Valued	Single-valued
Defined in	RFC 1274

4.18. nameForms

This attribute defines the name forms used in a subschema. Each value defines one name form.

OID	2.5.21.7
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	RFC 2252

4.19. nsAccountLock

This attribute shows whether the account is active or inactive.

OID	2.16.840.1.113730.3.1.610
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

4.20. nsAIMStatusGraphic

This attribute contains a path pointing to the graphic which illustrates the AIM user status.

OID	2.16.840.1.113730.3.1.2018
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.21. nsAIMStatusText

This attribute contains the text which indicates the current AIM user status.

OID	2.16.840.1.113730.3.1.2017
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.22. nsBackendSuffix

This contains the suffix used by the backend.

OID	2.16.840.1.113730.3.1.803
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

4.23. nscpEntryDN

This attribute contains the (former) entry DN for a tombstone entry.

OID	2.16.840.1.113730.3.1.545
Syntax	DN
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.24. nsDS5ReplConflict

This attribute is included on entries that have a change conflict that cannot be resolved automatically by the synchronization or replication process. The value of the ***nsDS5ReplConflict*** contains information about which entries are in conflict, usually by referring to them by their ***nsUniqueID*** for both current entries and tombstone entries.

OID	2.16.840.1.113730.3.1.973
Syntax	DirectoryString
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

4.25. nsICQStatusGraphic

This attribute contains a path pointing to the graphic which illustrates the ICQ user status.

OID	2.16.840.1.113730.3.1.2022
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.26. nsICQStatusText

This attribute contains the text for the current ICQ user status.

OID	2.16.840.1.113730.3.1.2021
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.27. nsIdleTimeout

This attribute identifies the binder-based connection idle timeout period, in seconds.

OID	2.16.840.1.113730.3.1.573
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.28. nsLookThroughLimit

This attribute sets the maximum number of entries for that user through which the server is allowed to look during a search operation. This attribute is configured in the server itself and applied to a user when he initiates a search.

OID	2.16.840.1.113730.3.1.570
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.29. nsParentUniqueId

For tombstone (deleted) entries stored in replication, the **nsParentUniqueId** attribute contains the DN or entry ID for the parent of the original entry.

OID	2.16.840.1.113730.3.1.544
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.30. nsRole

This attribute is a computed attribute that is not stored with the entry itself. It identifies to which roles an entry belongs.

OID	2.16.840.1.113730.3.1.574
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

4.31. nsRoleDn

This attribute contains the distinguished name of all roles that apply to an entry. Membership of a managed role is granted upon an entry by adding the role's DN to the entry's **nsRoleDN** attribute. For example:

```

dn: cn=staff,ou=employees,dc=example,dc=com
objectclass: LDAPsubentry
objectclass: nsRoleDefinition
objectclass: nsSimpleRoleDefinition
objectclass: nsManagedRoleDefinition

dn: cn=userA,ou=users,ou=employees,dc=example,dc=com
objectclass: top
objectclass: person
sn: uA
userpassword: secret
nsroledn: cn=staff,ou=employees,dc=example,dc=com

```

A nested role specifies containment of one or more roles of any type. In that case, ***nsRoleDN*** defines the DN of the contained roles. For example:

```

dn: cn=everybody,ou=employees,dc=example,dc=com
objectclass: LDAPsubentry
objectclass: nsRoleDefinition
objectclass: nsComplexRoleDefinition
objectclass: nsNestedRoleDefinition
nsroledn: cn=manager,ou=employees,dc=example,dc=com
nsroledn: cn=staff,ou=employees,dc=example,dc=com

```

OID	2.16.840.1.113730.3.1.575
Syntax	DN
Multi- or Single-Valued	Multi-valued
Defined in	Directory Server

4.32. nsRoleFilter

This attribute sets the filter identifies entries which belong to the role.

OID	2.16.840.1.113730.3.1.576
Syntax	IA5String
Multi- or Single-Valued	Single-valued
Defined in	RFC 2252

4.33. nsSchemaCSN

This attribute is one of the subschema DSE attribute types.

OID	2.5.21.82.16.840.1.113730.3.1.804
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.34. nsSizeLimit

This attribute shows the default size limit for a database or database link in bytes.

OID	2.16.840.1.113730.3.1.571
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.35. nsTimeLimit

This attribute shows the default search time limit for a database or database link.

OID	2.16.840.1.113730.3.1.572
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.36. nsTombstone (Object Class)

Tombstone entries are entries which have been deleted from Directory Server. For replication and restore operations, these deleted entries are saved so that they can be resurrected and replaced if necessary. Each tombstone entry has the **nsTombstone** object class, automatically.

This object class is defined in Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.113

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

Allowed Attributes

Attribute	Definition
nsParentUniqueid	Identifies the unique ID of the parent entry of the original entry.
nscpEntryDN	Identifies the original entry DN in a tombstone entry.

4.37. nsUniqueid

This attribute identifies or assigns a unique ID to a server entry.

OID	2.16.840.1.113730.3.1.542
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued

Defined in	Directory Server
------------	------------------

4.38. nsYIMStatusGraphic

This attribute contains a path pointing to the graphic which illustrates the Yahoo IM user status.

OID	2.16.840.1.113730.3.1.2020
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.39. nsYIMStatusText

This attribute contains the text for the current Yahoo IM user status.

OID	2.16.840.1.113730.3.1.2019
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.40. numSubordinates

This attribute indicates how many immediate subordinates an entry has. For example, **numSubordinates=0** in a leaf entry.

OID	1.3.1.1.4.1.453.16.2.103
Syntax	Integer
Multi- or Single-Valued	Single-valued
Defined in	numSubordinates Internet Draft

4.41. passwordGraceUserTime

This attribute counts the number of attempts the user has made with the expired password.

OID	2.16.840.1.113730.3.1.998
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.42. passwordRetryCount

This attribute counts the number of consecutive failed attempts at entering the correct password.

OID	2.16.840.1.113730.3.1.93
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.43. pwdpolycysubentry

This attribute value points to the entry DN of the new password policy.

OID	2.16.840.1.113730.3.1.997
Syntax	DirectoryString
Multi- or Single-Valued	Single-valued
Defined in	Directory Server

4.44. subschemaSubentry

This attribute contains the DN of an entry that contains schema information. For example:

```
subschemaSubentry: cn=schema
```

OID	2.5.18.10
Syntax	DN
Multi- or Single-Valued	Single-valued
Defined in	RFC 2252

4.45. glue (Object Class)

The **glue** object class defines an entry in a special state: resurrected due to a replication conflict.

This object class is defined by Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.30

Required Attributes

Attribute	Definition
objectClass	Gives the object classes assigned to the entry.

4.46. passwordObject (Object Class)

This object class is used for entries which store password information for a user in the directory.

This object class is defined in Directory Server.

Superior Class

top

OID

2.16.840.1.113730.3.2.12

Required Attributes

objectClass	Defines the object classes for the entry.
-----------------------------	---

Allowed Attributes

accountUnlockTime	Refers to the amount of time that must pass after an account lockout before the user can bind to the directory again.
passwordAllowChangeTime	Specifies the length of time that must pass before users are allowed to change their passwords.
passwordExpirationTime	Specifies the length of time that passes before the user's password expires.
passwordExpWarned	Indicates that a password expiration warning has been sent to the user.
passwordGraceUserTime	Specifies the number of login attempts that are allowed to a user after the password has expired.
passwordHistory	Contains the history of the user's previous passwords.
passwordRetryCount	Counts the number of consecutive failed attempts at entering the correct password.
pwdpolicysubentry	Points to the entry DN of the new password policy.
retryCountResetTime	Specifies the length of time that passes before the <i>passwordRetryCount</i> attribute is reset.

4.47. subschema (Object Class)

This identifies an auxiliary object class subentry which administers the subschema for the subschema administrative area. It holds the operational attributes representing the policy parameters which express the subschema.

This object class is defined in RFC 2252.

Superior Class

top

OID

2.5.20.1

Required Attributes

objectClass	Defines the object classes for the entry.
-----------------------------	---

Allowed Attributes

attributeTypes	Attribute types used within a subschema.
dITContentRules	Defines the DIT content rules which are in force within a subschema.

dIT StructureRules	Defines the DIT structure rules which are in force within a subschema.
matchingRuleUse	Indicates the attribute types to which a matching rule applies in a subschema.
matchingRules	Defines the matching rules used within a subschema.
nameForms	Defines the name forms used in a subschema.
objectClasses	Defines the object classes used in a subschema.

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