

User Management: How can I extend the default LDAP schema?

Such an extension should only be done if user management is no longer being done by Bright Cluster Manager, but, for example, by an external LDAP server.

The following three-step process can extend the default OpenLdap schema that is on Bright Cluster Manager, typically in order to match the schema present on the external LDAP server.

1. Write a local schema file with the extensions

Create a new file `/cm/local/apps/openldap/etc/schema/local.schema` with the new ldap schema additions. Eg, here it is three new attributes, and one auxiliary class for users:

```
attributetype ( 1.1.2.1.1 NAME 'ABHPCCloudProvider'
```

```
DESC 'AB HPC Cloud Provider'
```

```
EQUALITY caseIgnoreMatch
```

```
SUBSTR caseIgnoreSubstringsMatch
```

```
SYNTAX 1.3.6.1.4.1.1466.115.121.1.15 )
```

```
# SYNTAX = string
```

```
attributetype ( 1.1.2.1.2 NAME 'ABMidPlus'
```

```
DESC 'AB Mid Plus'
```

```
SYNTAX 1.3.6.1.4.1.1466.115.121.1.27 )
```

```
# SYNTAX = integer
```

User Management: How can I extend the default LDAP schema?

```
attributetype ( 1.1.2.1.3 NAME 'AthenaNeedsHomeDir'  
  
DESC 'Athena needs home directory'  
  
SYNTAX 1.3.6.1.4.1.1466.115.121.1.7 )  
  
# SYNTAX = boolean  
  
objectclass ( 1.1.2.2.1 NAME 'ABAthenaUser'  
  
DESC 'Athena user'  
  
SUP top AUXILIARY  
  
MAY ( ABHPCCloudProvider $ ABMidPlus $ AthenaNeedsHomeDir ) )
```

(For a full documentation of LDAP schema see:
<http://www.openldap.org/doc/admin24/schema.html#Extending%20Schema>)

2. Import the new schema in the LDAP configuration

Add the following line in /cm/local/apps/openldap/etc/slapd.conf to extend the schema:

```
include /cm/local/apps/openldap/etc/schema/local.schema
```

Restart LDAP to implement the addition:

```
[root@master01 ~]# /etc/init.d/ldap restart
```

```
Stopping slapd: [ OK ]
```

User Management: How can I extend the default LDAP schema?

Checking configuration files for slapd: config file testing succeeded [OK]

Starting slapd: [OK]

3. Apply the new attributes to existing users

```
[root@master01 ~]# ldapmodify -v -w $LDAP_PASSWORD -D cn=root,dc=cm,dc=cluster -h 127.0.0.1
```

```
ldap_initialize( ldap://127.0.0.1 )
```

```
dn: uid=chumley,dc=cm,dc=cluster
```

```
changetype: modify
```

```
add: objectClass
```

```
objectClass: ABATHenaUser
```

```
-
```

```
add objectClass:
```

```
ABATHenaUser
```

```
modifying entry "uid=chumley,dc=cm,dc=cluster"
```

```
modify complete
```

```
dn: uid=chumley,dc=cm,dc=cluster
```

```
changetype: modify
```

```
add: ABHPCCloudProvider
```

```
ABHPCCloudProvider: BrightComputing
```

```
- add: ABMidPlus
```

```
ABMidPlus: 0
```

User Management: How can I extend the default LDAP schema?

- add: AthenaNeedsHomeDir

AthenaNeedsHomeDir: 1

-

add ABHPCCloudProvider:

BrightComputing

add ABMidPlus:

0

add AthenaNeedsHomeDir:

1

modifying entry "uid=chumley,dc=cm,dc=cluster"

modify complete

Unique solution ID: #1082

Author: Frank Furter

Last update: 2015-09-19 01:58